THE COMPETITIVE STATUS OF MAJOR SUPPLY REGIONS FOR FALL HARVESTED FRESH WHITE OR IRISH POTATOES IN SELECTED MARKETS

Report to the President on
Investigation No. 332-140
Under Section 332 of the
Tariff Act of 1930

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PREFACE

The Commission instituted the present investigation on April 1, 1982, following receipt of letters of request therefor on Feruary 5 and March 15, 1982, from Ambassador William E. Brock, the United States Trade Representative (USTR). The investigation was conducted under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332 (g)) for the purpose of gathering and presenting information on the competitive status of major supply regions for fall-harvested fresh white or Irish potatoes in selected markets. 1/ The USTR requested that the Commission study in particular the competitive conditions affecting the potato industry of the State of Maine and the Northeastern market. He further asked that the Commission indicate the relative importance of the various factors which effect the comparative competitive position of Maine producers vis-a-vis producers in other States or marketing regions of the United States and Canada.

Public notice of the investigation and hearing was given by posting copies of the notice at the Office of the Secretary, U.S. International Trade Commission, Washington, D.C., and by publishing the notice in the Federal Register of April 7, 1982 (47 F.R. 14978). Public notice of an additional hearing for the investigation was issued on May 18, 1982, and published in the Federal Register of May 26, 1982 (47 F.R. 23047). Public hearings in connection with this investigation were held on June 24, 1982, in Boise, Idaho, and on June 30, 1982, in Bangor, Maine. 2/

This report discusses the United States and Canadian fall-harvested potato situation on a national and regional basis. Emphasis is placed on the Northeastern U.S. region, because it is here that imported potatoes from Canada compete most directly with the domestic product.

1/ See app. A for the USTR's requests and the Commission's notice of investigation in the Federal Register.

2/ A list of witnesses appearing at the hearings and a bibliography are presented in app. B.

i

C O N T E N T S

Contents

Contents

Figures

Tables

Contents

Contents

Contents

Contents

Executive Summary

Potatoes are grown commercially throughout the United States. Fall-harvested potato production, which represents the bulk of U.S. production, is concentrated in the Western, North Central, and Northeastern regions of the United States. Fall-harvested potatoes are used primarily for processing and as tablestock and seed potatoes. Tablestock and seed sales constitute the bulk of potatoes shipped in the fresh state; most processing potatoes move from field or storage to a processing line near the location where the potatoes are grown and do not enter fresh-trade channels.

There has been a long-term shift from tablestock to processing, and in the period covering crop years 1976/77 to 1980/81 about 60 percent of the annual potato crop sold for human food was used for processing and 40 percent was used for tablestock. The quantity of potatoes for both uses declined in the period. Tablestock usage declined each year, from 123 million hundredweight in 1976/77 to 97 million hundredweight in 1980/81. Potatoes used for processing declined irregularly from 175 million hundredweight in 1976/77 to 153 million hundredweight in 1980/81.

The information presented in this report was obtained from fieldwork, questionnaires, public hearings, private individuals and organizations, and State, Provincial, and Federal government sources in the United States and Canada. A list of written submissions, statements presented at the hearings held in Boise, Idaho, and Bangor, Maine, and other sources of information are presented in appendix B.

The principal allegations made by the U.S. producers are as follows:

1. The potato-growing industry in the Northeastern United States and, in particular, Maine, is being injured as a result of an increasing volume of imports from Canada.

2. Sales of Canadian potatoes in Northeastern U.S. markets are being made at less than the cost of production, thereby depressing and suppressing the price received by domestic potato growers and forcing domestic growers to sell at less than the cost of production.

3. Canadian potato exports, particularly those from New Brunswick and Prince Edward Island, are aided by grants, loans, and other benefits in the form of subsidies and other assistance provided by the Canadian Federal Government and the Provincial governments of New Brunswick and Prince Edward Island.

4. Potatoes imported as certified seed potatoes have in fact been sold and used domestically as tablestock potatoes, and have resulted in the displacement of domestic tablestock potatoes and reduced prices.

5. In recent years, the value of the Canadian dollar has been substantially below that of the U.S. dollar (falling 14 percent during 1976-81), allowing Canadian potatoes to sell for less in U.S. dollars and thus putting downward pressure on the price of domestically grown potatoes.

Representatives of Canadian producers countered as follows:

1. The increase in imports from Canada in 1980/81 was due principally to a dramatic drop in U.S. production of 40 million hundredweight from 1979/80 and at no time have imports taken more than a de minimis 1.4 percent of the total U.S. potato market.

2. Maine potato growers have been experiencing a gradual but persistent erosion of their traditional Northeastern U.S. market over the past 16 years; however, the loss of market share is not due to imports from Canada, but to inroads made by Western producers of russet potatoes because Maine producers have ignored the change in consumer preference and have continued to produce mainly the round white varieties.

3. The Canadian grade standards are considered superior to those of Maine, resulting in a higher quality potato.

4. Government assistance is provided to potato producers in the United States as well as in Canada, and most of the Canadian programs directed to assisting and improving production and export assistance in the marketing of potatoes are confined to offshore markets.

5. The Canadian exporter does not know whether his shipments of seed potatoes will actually be used for seed purposes, and he has no control over their ultimate disposition. In addition, diversion of seed potatoes for use as tablestock is common to both Canada and the United States.

6. Exchange rates have had some effect on trade, but the United States and Canada have generally allowed the exchange rate to fluctuate in accordance with the relative strengths and weaknesses of their economies.

The findings of the Commission study are highlighted below.

1. The U.S. market

- o Apparent U.S. consumption of potatoes during all seasons and for all uses declined from 1976/77 to 1980/81, reflecting an apparent consumer shift away from potatoes to alternate food supplies.

Apparent U.S. consumption declined from 321 million hundredweight in crop year 1976/77 to 275 million hundredweight in 1980/81, or by 14 percent. U.S. consumption of fall-harvested potatoes, which represents 87 percent of total consumption of potatoes harvested in all seasons, declined 13 percent in the period, from 276 million hundredweight to 241 million hundredweight.

Estimated data show that this decline was reflected in the consumption of fall-harvested potatoes for tablestock and seed usage in all three fall-harvested U.S. market areas. Consumption in the Northeast, the largest market, dropped from 33 million hundredweight in 1976/77 to 30 million

The majority of the imports enter the United States through four customs districts, three of which are in the Northeastern region. One, Portland, Maine, accounted for over 75 percent of the imports of certified seed potatoes and from 45 to 60 percent of the potatoes other than certified seed.

- o Data on farm employment and financial information on potato farming collected by the Commission in connection with the investigation represent only a small portion of U.S. potato growers due to limited questionnaire response.

The approximately 130 growers for which returns were tabulated from responses to the Commission's questionnaire accounted for less than 2 percent of total U.S. potato acreage; over 76 percent of these responses were from the Northeastern region, and about 60 percent were located in Maine.

Not all of the returns responded to every question. The limited employment data provided (40 returns) indicate that the average potato grower employed three full-time workers during 1976-81 period. Growers in the Northeast averaged two full-time workers, reflecting smaller acreage under cultivation compared with the North Central region, which had eight full-time employees.

The total number of hours worked by full-time employees engaged in potato production averaged 5,500 per farm per year in the period. In the Northeast, full-time employees worked an average of 3,500 hours or 1,750 hours per year per employee, and full-time employees on North Central farms worked an average of 18,000 hours, or 1,750 hours per year per employee.

On the average, potato production was not profitable in 3 of the 6 years covered (100 returns). It was profitable in 1976 and 1977, unprofitable from 1978 to 1980, and profitable again in 1981. Potatoes accounted for about 70 percent of the total sales of a farm.

The original cost of total farm assets of respondents rose from $16.0 million in 1976 to $23.6 million in 1981, representing an increase of 48 percent compared with an increase of 53 percent in book value.

2. The Canadian market

- o Canadian consumption of potatoes also declined in 1976-80.

Apparent consumption of potatoes in Canada totaled 44 million hundredweight in 1981, representing a decrease of about 4 percent from the 1976 level. Canadian consumption was equivalent to about 16 percent of U.S. consumption in 1981. Current statistics were not available regarding Canadian per capita consumption.

Montreal, Toronto, and Quebec City are the most important markets for Canadian potatoes, accounting for 60 percent of total shipments in 1979/80.

- o Acreage and production of fall-harvested potatoes in Canada increased during 1976-81.

Both the acreage and production of fall potatoes increased modestly over the period, from 264,000 acres and 52 million hundredweight in 1976 to 267,000 acres and 56 million hundredweight in 1981, or by about 1 percent and 9 percent, respectively.

Eastern Canada accounted for 62 percent of total acreage planted and 66 percent of production in 1981. The major type of potato produced in Canada is the round white. Prince Edward Island and New Brunswick are the leading producing areas in Canada. The majority of the New Brunswick production is used locally, largely for processing; the bulk of production from Prince Edward Island is not used locally but is shipped to other areas, including the United States, for tablestock and seed use. Nevertheless, according to questionnaire responses, New Brunswick was the principal supplier of Canadian potatoes to the United States during 1976-81.

- o In the period 1976-81, Canada's exports equaled about 10 percent of domestic production.

In 1976, Canadian exports totaled 5.2 million hundredweight and rose irregularly to 5.9 million hundredweight in 1981. Eastern Canada accounted for 88 percent of Canadian exports to all markets and 79 percent of Canadian exports to the United States in 1981. About 54 percent of the exports from Canada are seed potatoes. The United States is the chief market for both seed potatoes and fresh potatoes other than seed potatoes.

- o Canadian potato imports declined during 1976-81.

Canadian imports of seed and fresh potatoes declined irregularly from 4.4 to 3.6 million hundredweight over the period. Fresh potatoes are the most important type of import, accounting for 96 percent of potato imports in 1981. The United States is the supplier of virtually all imports of potatoes into Canada.

3. A comparison of competitive factors in the United States and Canada

- o The United States and Canada have various Federal, State, or Provincial and local programs that directly or indirectly assist or promote potato production and marketing.

Two U.S. programs for potato producers are (1) the Potato Diversion Program, which allows Federal payments to farmers to direct potatoes to livestock feed or starch in surplus production years, and (2) the various potato marketing orders. There are currently five active orders (and one inactive order) which obligate commodity handlers to (1) "self-regulate" to control quality of size, grade, and product maturity and (2) promote market-support activities. About 69 percent of fall-harvested tablestock potato production is covered by these active orders, which are all in the Western region.

hundredweight in 1980/81; that in the North Central region, from 25 million to 21 million hundredweight; and that in the West, from 18 million to 15 million hundredweight.

These declines partially reflect the long-term lessening of demand for fresh potatoes which has been underway for many years. In 1960-64, the average annual per capita consumption of fresh potatoes was 80 pounds. During 1976-80 the average was 52 pounds, representing a decline of 35 percent from the earlier level. The decline has been moderated somewhat by the increased average annual per capita consumption of potatoes for all uses, which rose from 110 pounds in 1960-64 to 117 pounds in 1976-80.

- o In spite of an all-time high in 1978/79, U.S. production of fall-harvested potatoes declined from 1976/77 to 1980/81.

Except for the record year 1978/79, when fall-harvested potato production hit 325 million hundredweight, U.S. production declined over the period, from 308 million hundredweight in 1976/77 to 266 million hundredweight in 1980/81, or by 18 percent from the record high and 14 percent from the 1976/77 level. The lower production level in 1980/81 resulted from a combination of factors such as less acreage planted and harvested, reflecting lower prices paid to the farmer since the mid-1970's, and lower yield per acre because of adverse climate conditions.

The Western region, while remaining the principal U.S. producer of fall-harvested potatoes from 1976/77 to 1981/82, represented a declining share of total U.S. production. Potato production in the region ranged from a high of 207 million hundredweight in 1978/79 to a low of 170 million hundredweight in 1980/81. Production in 1981/82 amounted to 180 million hundredweight, or 62 percent of total U.S. production, compared with 65 percent in 1976/77.

The North Central area was the only major producing area to increase its share of U.S. production, which rose from 19 percent in 1976/77 to 22 percent in 1981/82. Potato production in the area ranged from 52 million to 71 million hundredweight over the period.

The production of fall-harvested potatoes in the Northeastern region declined irregularly from 51 million hundredweight in 1976/77 to 46 million hundredweight in 1981/82, representing a decrease of 9 percent. Its share of the total U.S. production was 17 percent in 1976/77, fell to 14 percent in 1978/79, and rose to 16 percent in 1979/80, where it has remained. Maine's production, while declining by 3 percent in the period, ranged from 25 million to 28 million hundredweight, and represented 9 percent of annual U.S. production in each year during the period.

Of the total U.S. crop, about 80 percent was sold for use as human food; the remainder was accounted for in seed use, livestock feed, industrial uses, and shrinkage and loss.

While the percentage of potatoes utilized for tablestock remained relatively constant over the period, the absolute quantity of such potatoes declined each year, from 123 million to 97 million hundredweight. Similarly, while the percentage remained relatively unchanged, the quantity of potatoes

xv

processed declined irregularly from 175 million to 153 million hundredweight over the period.

o The United States generally has a positive trade balance in potatoes.

The United States is usually a net exporter of fresh potatoes. However, in recent years the United States has experienced a trade deficit (in crop year 1980/81 the value of exports was $32 million, while the value of imports was $34 million). In the period 1976-81, annual exports of potatoes ranged from 13.6 million hundredweight (1976) to 2.0 million hundredweight (1980). In 1981, exports totaled 2.8 million hundredweight, valued at $37.0 million. A drought in Europe in 1975 and 1976 resulted in shortfalls in two successive European crops, which led to unusually large exports in those years.

Canada is the principal market for exports of U.S. fresh potatoes, most of which are tablestock. Most U.S. exports to Canada originate in the Southern and Western production regions of the United States (95 percent in 1977-79), and are shipped primarily during the months of May, June, and July, when Canada's own supplies are at their lowest level. U.S. producers in the North Central and Northeastern regions supply only a fraction of U.S. potato exports. The bulk of U.S. exports are distributed in Western and Central Canada.

o Imports of fresh potatoes increased steadily during 1976-81.

Imports of fresh potatoes from Canada, the supplier of virtually all imports, rose from 532,000 hundredweight, valued at $3.3 million, in 1976 to 3.9 million hundredweight, valued at $32.3 million, in 1981. The majority of the imports are of the round white variety, similar to the potatoes produced primarily in the Northeastern region of the United States.

The United States has a tariff-rate quota of 114 million pounds for certified seed potatoes and 45 million pounds for potatoes other than certified seed potatoes for each 12-month period beginning September 15 in any year. Official statistics indicate that during the first 3 to 4 months of the quota years beginning in 1979-81, most imported potatoes entered under the tariff provision for underquota potatoes other than certified seed potatoes (item 137.25 of the Tariff Schedules of the United States (TSUS)). By this time imports filled the quota of 45 million pounds. Subsequent imports usually entered as certified seed potatoes within quota (TSUS item 137.20) or as potatoes other than certified seed potatoes over quota (TSUS item 137.28). However, the certified seed quota of 114 million pounds was not close to being filled in the years under study except for 1980/81 and the current 1981/82 quota year.

Potatoes imported under the tariff provisions for certified seed potatoes are not required to be used as seed potatoes for planting in the United States. The only requirement is that they be "certified by a responsible officer or agency of a foreign government in accordance with official rules and regulations to have been grown and approved especially for use as seed," and must be "in containers marked with the foreign government's official certified seed potato tags."

The diversion program was used for the 1978 and 1979 crops. With respect to the 1978 crop, there were purchases of 11.8 million hundredweight, valued at $22.4 million, for the entire United States. In 1979, only potatoes from Maine were eligible for the program, with 0.5 million hundredweight, valued at $1.1 million, diverted. Thus, diversion program expenditures averaged $5 million annually during 1976-80.

Canada has a range of Federal and Provincial support programs available to potato producers. During 1976-80, major expenditures on various government programs to assist the potato farmer averaged $8 million annually; most were production-oriented programs. There were also low-interest Federal loans for advance payment of crops in storage or Provincial loans from the New Brunswick Farm Adjustment Act, which together are estimated at about $5 million annually.

In addition, the Canadian government offers freight-rate assistance to points within Canada to industries in certain Provinces, including the two major potato producing Provinces of New Brunswick and Prince Edward Island. There is a quasi-governmental export promotion program to fund the development of offshore markets for seed potatoes. A Provincial program also exists which reportedly includes direct payments to exporters on their sales of seed potatoes. The United States has officially complained that this effort violates the spirit of Canada's obligations under the General Agreement on Tariffs and Trade.

- o The depreciation of the Canadian dollar compared with the U.S. dollar improved the competitive position of the Canadian potato in the U.S. market.

From 1976 to 1981, the value of the Canadian dollar fell 14 percent in relation to the U.S. dollar. While the inflation rate in Canada was a little higher than in the United States, it did not offset the exchange-rate gains by Canada. It is doubtful that the depreciation was the primary reason for increased U.S. potato imports from Canada. In 1974 and 1975, for example, U.S. potato imports from Canada were at a high level despite a relatively strong Canadian dollar. However, a stronger U.S. dollar can decrease the production costs of the Canadian farmer relative to the U.S. farmer if inputs are purchased from Canadian sources. Some Canadian growers purchase part of their equipment and supplies from the same U.S. sources used by U.S. potato producers. In such cases, the exchange-rate change will not lead to a competitive advantage for Canadian growers relative to U.S. growers because U.S. dollar costs to both remain unchanged.

- o The channels of distribution for U.S. and Canadian potatoes for tablestock sales in the United States are virtually identical, and there is no competitive advantage for one over the other.

Potato shippers and brokers are important factors in the system for distributing potatoes to the final consumer. U.S. potatoes are often packed and shipped for a number of growers by centralized packing plants and then sold to terminal markets and retail chains. Canadian packers perform a similar service for Canadian growers.

Shippers and shipping-point brokers in potato production areas, regardless of location, keep in daily contact with buyers in terminal markets or other wholesale distribution centers when they have potatoes for sale. A sale is based on a verbal description of the product and on the price. Repeat sales typically are predicated upon the successful experience of the preceding sale. Shippers and dealers in all fall-harvested-potato areas in the United States and Canada store a significant share of their production in late fall for sales that will be spread out until the following year, usually ending in June when storage stocks are depleted. For example, about 67 percent of 1981 U.S. production was in storage on December 1, 1981.

With respect to shipments from Canadian producing areas, a sales transaction involves the additional steps of processing entry papers through U.S. customs, and the potatoes are examined at the border entry point by customs officials, and the duty is collected.

- Costs and methods of transportation have an impact on the competitive position of U.S. potatoes from various U.S. regional suppliers, but they do not seem to have a significant impact on the competitive position of Canadian potatoes in the U.S. market.

Potato shippers in different parts of the United States and Canada encounter appreciable differences in costs of transportation to various destinations. The mode of transportation affects the cost, and the mode selected is largely determined by the distance to be traveled to market. Generally, the longer the distance, the lower the cost of rail relative to the cost of trucking; thus, the longer the distance to be traveled, the more likely the shipment is to go by rail. The time it takes to ship by truck and rail also affects the choice of mode. Shippers may prefer to use trucks because shipping by truck is usually faster. Because the railroad system serving Maine is fragmented into many different carriers, rail service for Maine shippers is particularly slow, so these shippers rely totally on trucks.

Transportation costs are a significant part of the price of potatoes and influence whether potatoes from one U.S. region can compete with potatoes from other U.S. regions. In large part this accounts for the measured interregional movements of potatoes. The exception is the Western russet potato, which is a premium-quality potato demanded by certain consumers.

Costs of transportation from Canada are an important part of imports' costs. However, these costs do not seem to significantly affect competition between exports from Canada and U.S. producers. Most Canadian potatoes are marketed in the Northeast, and transportation costs of Canadian shippers are similar to the costs of shippers in Maine, the largest producing area in the Northeast. For example, shippers in Prince Edward Island have higher costs of shipping to U.S. destinations than shippers in Maine, while those in New Brunswick have shipping costs equal to or slightly lower than those of shippers in Maine.

- o Average costs of production for potato producers in the United States are not significantly different from those in Canada.

Available data relating to costs of production in 1980 for the major U.S. fall production areas shows an average (nationwide) cost of $3.27 per hundredweight. Major cost components were interest expense (26 percent), fertilizer (16 percent), chemicals (13 percent), seed (11 percent), and depreciation (11 percent). The reported average of costs of production for Canadian (Prince Edward Island) producers were Can$4.30 per hundredweight, or U.S.$3.68. Major cost components for producers in Prince Edward Island include hired labor (15 percent,) fertilizer and lime (15 percent), and depreciation (13 percent). Interest expense was a more important cost component in the United States, and labor was more important in Canada.

Of the U.S. fall production areas, Maine's total expenses per hundredweight were second highest in 1980 at $3.43, compared with $5.44 for Long Island, $3.40 for Idaho, $3.37 for Wisconsin, $2.99 for North Dakota, $2.57 for Washington, and $2.38 for Oregon. The most important components of total expenses in Maine were fertilizer (21 percent), interest (17 percent), and labor (14 percent). Labor costs were a more important expense component in Maine than in any other domestic production area, and seed and chemicals were more important in areas other than Maine.

Average costs of production for producers in Prince Edward Island in 1980 were higher than those in all but one domestic production area (Long Island) and very close to Maine's 1980 cost of production of $3.43 per hundredweight. Fertilizer and interest expenses were more important components of total cost in Maine, and depreciation and labor were more important in Prince Edward Island.

- o Price information collected for the investigation seems to indicate that there is no competitive advantage for Canadian potatoes in the U.S. market based on wholesale price.

Because the bulk of Canadian potato imports are sold in the Northeast, the price analysis is limited to that area.

At the wholesale level, Canadian round white potatoes sell for a price 10 to 20 percent higher than that for Maine round white potatoes in New York City, and are 15 to 25 percent higher in Boston. For example, the 1981 crop of Canadian potatoes sold for an average $4.75 per 50-pound bag in New York City and for an average $4.25 in Boston. The 1981 crop of Maine potatoes sold for an average $4.00 in New York City and for an average $3.50 in Boston.

The difference in wholesale prices is due in part to the difference in the sizes of potatoes that are sold. Canadian potatoes are between 2-1/4 inches and 3-1/2 inches in diameter, whereas Maine potatoes are only required to be at least 1-7/8 inches in diameter. The stricter packaging requirements for Canadian potatoes provide consumers with potatoes that tend to be larger and of a more uniform size than Maine potatoes.

Data on U.S. retail prices are not separately available for Canadian and U.S. round white potatoes.

4. Competitive factors in the Northeastern market

o While the Northeastern region remains the largest market of the fall-harvested regions, declining consumption intensifies the competitive pressures for major suppliers.

Consumption of fresh fall-harvested potatoes in the Northeastern region apparently declined from 33 million to 30 million hundredweight from 1976/77 to 1980/81, but still accounted for 27 percent of U.S. consumption of such potatoes, more than in the North Central or Western Regions.

o In recent years, as Northeastern producers have marketed an increased share of their potato shipments within the region, such shipments have accounted for a smaller part of that market because an increased share of the market is being supplied by producers outside the region.

During the period 1977/78 to 1980/81, the share of the Northeastern fresh fall-harvested potato shipments that were marketed in the Northeastern region increased from 69 percent to 76 percent, based on unloads in major markets. However, the total of all reported unloads in the Northeastern market declined from 9.9 million hundredweight in 1977/78 to 9.7 million hundredweight in 1980/81, and the share of such unloads in that region accounted for by Northeastern suppliers declined from 55 percent in 1977/78 to 49 percent in 1980/81. Conversely, suppliers from outside the region accounted for 45 percent of the total in 1977/78 and 51 percent in 1980/81. The principal outside region supplying the Northeastern market is the Western region, which provides somewhat more than one-third of the total Northeastern supply; the North Central region and Canada supply much smaller quantities than the Western region. However, both the North Central region and Canada substantially increased their share of the Northeastern market from 1977/78 to 1980/81 (North Central, from 6 percent to 8 percent; Canada, from 3 percent to 6 percent).

o The majority of the imports of potatoes other than certified seed that enter Northeastern U.S. markets are round white potatoes of a type that competes directly with most of the production of the Northeastern region.

During 1976/77 to 1980/81, round white potatoes accounted for 65 to 91 percent of U.S. imports of potatoes, according to responses to the Commission questionnaire. In 1980/81, farmers in the three principal producing States of the Northeastern United States (Maine, New York, and Pennsylvania) planted between 66 and 100 percent of their total potato acreage in round white potatoes, and marketed about 76 percent of their potato shipments within their own region. Most of the imports are also marketed in the Northeastern region, according to questionnaire responses by importers. The majority of these potato imports enter the United States during the period October-June, months when the vast majority of Northeastern-produced potatoes are also marketed.

- Because consumer preference for russet potatoes is strong and the demand for russets in Northeastern tablestock markets is believed to be increasing, the competition experienced by shippers of Maine round white potatoes has intensified.

The demand for russet potatoes is strong because they are the primary type used for processing, especially frozen potato products, and also the primary type preferred for baking by many consumers. Production in the Western region is virtually all russet potatoes, and accounts for nearly two-thirds of the U.S. production of all fall-harvested potatoes; the abundant supplies of russet potatoes in the Western region make it possible for that region to ship only the highest quality russets to Northeastern tablestock markets. As a percentage of the Northeastern region market, Western potatoes showed an upward trend during the period, with market share ranging from 36 percent to 43 percent. The strong demand for russets is also evidenced by the higher prices paid for them.

- An indicated above, both the United States and Canada have various government programs which relate directly and indirectly to potato production; however, no information on government programs compiled for this investigation seems to unequivocally demonstrate a significant competitive advantage in the Northeastern region for either country's potato producers.

- As indicated earlier, changes in the U.S.-Canadian currency exchange rates over recent years enhanced the competitiveness of Canadian potatoes in the U.S. market since to 1976 to some extent.

- As indicated above, the costs and methods of transporting potatoes to the Northeastern market differ among major U.S. supply sources and with Canada; however these differences do not appear to have a significant impact on the competitive position of potatoes from Canada in the Northeastern markets.

Although transportation costs to the Northeastern market for potato shippers in the various production regions of the United States and Canada are appreciably different, the differences tend to be negated by other competitive factors. Even though Canadian producers may incur higher costs for shipping to the Northeastern market, Canadian potatoes are still competitive with those produced in Maine because of apparent consumer preferences for the closely graded Canadian potatoes, which appear to offset the transportation cost advantage (if any) of the Maine producers.

- As indicated earlier, the average cost of production of potatoes in Maine is competitive in the Northeastern market with other major producing areas in the United States and Canada.

Data relating to costs of production for 1980 in the major fall production areas shipping to Northeastern markets reveal that Maine's costs were clearly competitive with those in other areas.

- o As indicated above, Canadian round white potatoes do not undersell Maine round white potatoes at the wholesale level in the major Northeastern markets.

Canadian potatoes sell for higher average prices at wholesale in New York City and Boston than do Maine potatoes, because they tend to be larger and of a more uniform size than the Maine potatoes.

- o Maine potatoes are generally not graded or packaged to the extent that potatoes from other major producing areas are.

While Maine shippers can and do ship tablestock potatoes of the highest quality, grade, and packaging to Northeastern markets, their output, industrywide, is not uniform owing in part to the voluntary nature of the grading system used in Maine. Some of Maine's potatoes meet resistance at the wholesale and retail consumer levels owing to quality, according to statements by industry sources. Nearly all production areas in the Western region for tablestock potatoes operate under Federal marketing orders whereby inspection for grade for out-of-State shipment is required (there are four separate marketing orders in the Western region). Canada requires that tablestock potatoes for export be graded, and Canada No. 1 grade calls for a majority of the potatoes in the package to be greater than 2-1/4 inches in size, versus the U.S. No. 1 grade requirement of 1-7/8 inches. Production areas in the Northeast other than Maine also operate under a voluntary grading system for tablestock potatoes.

- o The relatively large number of shippers in the Northeastern United States, including Maine, is a competitive disadvantage with other major shipping areas.

The larger the number of shipping units from a region to a given market, the keener is the competition. The number of State-licensed potato dealers in Maine (including grower-shippers) in 1979 was 135. These dealers each handled an average of 233 loads during the season, a relatively small amount. In contrast, 59 dealers in Idaho each handled an average of 611 loads. Of the Maine dealers, eight handled nearly half the shipments, and the remaining half was spread out among 127 licensed dealers.

- o As indicated above, it is possible in some cases for importers to use the underquota tariff provisions for seed potatoes to bypass higher duty rates for other potatoes.

During 1977/78 to 1981/82, the tariff-rate quota on imports of fresh potatoes, other than certified seed (mostly tablestock potatoes), was filled each quota year. Additional imports then entered either at the underquota rate for certified seed or at the higher rate in the overquota provision for potatoes other than seed. Meanwhile, the underquota provision for certified seed potatoes (at the lower rate of duty) was not filled in any year during 1977/78 to 1979/80. Nevertheless, imports of underquota certified seed potatoes averaged slightly more than one-third of all imports.

DESCRIPTION AND USES

Description

The potato (botanically known as Solanum tuberosum, L.) is a member of the Solanaceae, or nightshade, family of plants. It is closely related to the tomato, eggplant, and pepper. The potato is a succulent, nonwoody, annual plant which under favorable conditions blossoms and develops underground tubers at the ends of horizontal underground stems. The tuber is an enlarged portion of the underground stem and stores surplus carbohydrates not used by the plant for growth, fruiting, or other life processes.

Potato tubers are of many sizes, shapes, and colors. However, only the white-fleshed types of white or Irish potatoes are popular in the United States. 1/ Formation of tubers normally occurs about 6 weeks after planting and when the plant is in the early bud stage. Tuberization occurs in response to conditions favoring storage of surplus carbohydrates. The tuber is a stem and contains parts common to woody and herbaceous stems, including dormant buds in groups of three to five, accompanied by a leaf scar called the "eyebrow." This scar, together with its group of dormant buds, constitutes the "eye." The majority of the eyes are on the upper surface of the tuber, since they have a tendency to develop in the direction of light.

The potato is a temperate zone plant. It likes cool weather and yields best in world regions with cool summers. Potatoes grow best in light, porous, fairly acidic, well-drained, well-aerated soil; however, they are very hardy and adaptable, and are grown from below sea level to altitudes of 14,000 feet and from the Arctic circle to the Strait of Magellan. The period of growth from planting to maturity ranges from about 80 to 150 days, depending on the variety.

Varieties are numerous, and plant breeders are constantly developing new varieties with higher yields, improved disease resistance, and better market qualities. Besides being classified by variety, potatoes are also classified by type, such as long or round; and by the color of the skin, such as white, russet, or red. In 1981, the five most important U.S. potato varieties and their types were (1) Russet Burbank (long russet), (2) Kennebec (round white), (3) Norchip (round white), (4) Superior (round white), and (5) Katahdin (round white). This ranking is based on the number of acres of each variety certified for seed in the United States. The total certified seed acreage in 1981 was reported at 172,978. Of this total, Russet Burbank accounted for 41 percent; Kennebec, 8 percent; Norchip, 7 percent; Superior, 7 percent; and Katahdin, 5 percent. The remainder consisted of a large number of relatively minor varieties.

The Russet Burbank variety is in demand for both the processing and fresh potato markets. It is processed primarily into frozen french fries, into other frozen products, and into dehydrated potatoes; the consumer can use it

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1/ The sweet potato (Ipomoea batatas) belongs to the Convolvulaceae, or morning glory, family and is not botanically related to the white or Irish potato.

for baking, frying, boiling, and french frying. This variety is disease resistant and stores and handles well. Idaho, Washington, and Oregon are the primary domestic source of this variety, although it is also grown in other States. The Kennebec is used mainly for processing (especially for chips); however, it also has good to excellent boiling and baking qualities, which allows it to be competitive in the fresh market. The yields are generally high, but its susceptibility to certain diseases limits its production in some areas. It is primarily grown in North Dakota, Minnesota, and Pennsylvania. Norchip is a white variety used for processing. It matures early and has moderate disease resistance. The major areas of production include North Dakota, Minnesota, and Michigan. The Superior variety has early to medium maturity, cooks white, and is excellent for chips and boiling. It is resistant to certain common potato diseases and is popular in Maine, New York, and Wisconsin. The Katahdin is a late maturing variety adapted to a wide range of conditions. It is considered by users to be good to excellent for processing and boiling, and is resistant to some diseases but susceptible to others such as scab and ring rot. The major producing States of this variety include Maine, New York, and Pennsylvania.

Uses

Tablestock and processing potatoes

The U.S. Department of Agriculture (USDA) reports that about 82 percent of the potatoes produced in the 1980 crop year were used as food, about 8 percent, for seed, and about 2 percent, for feed and starch. Shrinkage and loss accounted for the remainder. Of the potatoes used for food, 61 percent were processed, and 39 percent were consumed fresh. The former are usually processed into frozen products, chips, dehydrated products, and canned products. The frozen products accounted for just over half of all potatoes used for processing in 1980 and consisted of french fries, patties, hash browns, and diced potatoes. Potatoes used for chips and shoestrings accounted for about a quarter of the potatoes used for processing; dehydration accounted for about a fifth. Dehydrated products for mashed potatoes are granules, shreds, and flakes. Canned potatoes make up the remainder and consist of small whole or sliced potatoes, or are used as an ingredient in hashes, stews, salads, and soups.

Seed potatoes

The seed planted in the United States is usually certified seed. Approximately 20 States have established systems for seed certification. There is no Federal seed certification program, although a final shipping point inspection is required nationally for a certification tag showing seed class and size. While standards for certification vary by State, they are similar in content. For example, most include requirements that fields entered for certification be planted with seed that meets the approval of the certifying agency, rules about the distance that certified fields must be from fields of other potatoes, and requirements that samples of seed be grown during the winter in the South to further prove their freedom from disease. Seed is inspected while growing and after harvest by qualified inspectors

employed by the official certification agency. Seed that meets the standards may be certified and offered as certified seed. A tag is attached to each sack of potatoes with the words "certified seed potatoes" and the name of the certifying agency.

TARIFF TREATMENT

U.S. Tariff Treatment and Recent Trade Agreement Concessions

As used herein, the term potatoes "other than seed" refers to that portion of the white or Irish potato crop that is generally used for human and animal food (Tariff Schedules of the United States (TSUS) items 137.25-137.28). The term "seed potatoes" refers to potatoes selected for their ability to most likely produce a disease-free crop, used mainly for planting. Unless imported seed potatoes are certified, they are dutiable as other than seed potatoes. In order to enter the United States as certified seed potatoes (TSUS items 137.20 and 137.21), such potatoes must be "certified by a responsible officer or agency of a foreign government in accordance with official rules and regulations to have been grown and approved especially for use as seed," and must be "in containers marked with the foreign government's official certified seed potato tags." Domestically grown certified seed potatoes must meet similar standards. The Federal or Federal-State Inspection Service of the USDA and the Production and Marketing Branch of Agriculture Canada are designated as Governmental inspection agencies for certifying lots as meeting the requirements. It is the responsibility of the importer to obtain the necessary certification. Under an agreement between the USDA and Agriculture Canada, certificates on produce requiring inspection are accepted by each country at face value.

Pursuant to a 1936 trade agreement with Canada, annual tariff-rate quotas were made part of the U.S. customs treatment for imports of certified seed potatoes. A later trade agreement under the GATT, effective January 1, 1948, increased the quota on certified seed potato imports (presently TSUS item 137.20) from 90 million pounds to 150 million pounds during each quota year, beginning on September 15. This concession was renegotiated, reducing the quota to 114 million pounds effective September 15, 1957.

In a 1939 trade agreement with Canada, annual tariff-rate quotas also were placed on imports of other than seed potatoes. Under the GATT, effective January 1, 1948, the period during which the first 60 million pounds of such potatoes could be imported at a reduced rate--37.5 cents per hundred pounds (presently TSUS item 137.25)--in any quota year was extended from the original March 1-November 30 period to include the entire year. This concession was renegotiated, effective September 15, 1957, reducing the quota on imports dutiable at 37.5 cents per hundred pounds from 60 million pounds to 36 million pounds. Also established was a quota on imports over 36 million pounds but less than 60 million pounds, dutiable at 60 cents per hundred pounds. On August 31, 1963, when the TSUS became effective, the latter quota was eliminated and the 36-million-pound quota was increased to 45 million pounds, and the headnote was added providing for an increase in the quota amount whenever there is a shortfall in the domestic potato crop.

Tariff-rate quotas apply to imports of fresh white or Irish potatoes. For certified seed potatoes, not more than 114 million pounds (1,140,000 hundredweight) can be entered during the 12-month period beginning September 15 in any year, at the present (Jan. 1, 1982) rate of 36.5 cents per hundredweight (TSUS item 137.20); imports of such potatoes in excess of that amount are dutiable at 60 cents per hundredweight (TSUS item 137.21). For

potatoes other than certified seed potatoes, not more than 45 million pounds (450,000 hundredweight) can be entered during the same 12-month period beginning September 15, at the present rate of 36.5 cents per hundredweight (TSUS item 137.25); 1/ overquota imports are dutiable at 60 cents per hundredweight (TSUS item 137.28). Appendix C contains an excerpt from the TSUS showing the present rates of duty on potatoes. Appendix C also contains a table showing the column 1 rates of duty in effect prior to January 1, 1980, and modifications as a result of concessions granted by the United States in the Tokyo round of Multilateral Trade Negotiations (MTN) under the General Agreement on Tariffs and Trade (GATT). The duty rates for the four TSUS items will undergo staged reductions through January 1, 1987 (as a result of MTN concessions), at which time they will all be harmonized at 35 cents per 100 pounds.

The rates of duty for potatoes entered under TSUS items 137.21 and 137.28 prior to January 1, 1980, were the same as those provided for in paragraph 771 of the Tariff Act of 1930. These rates were bound against increase as the result of a concession, effective January 1, 1948, under the GATT.

The average ad valorem equivalents of the specific rates of duty in effect in 1981, based on dutiable imports during that year, were as follows:

TSUS item No.	Ad valorem equivalent (percent)
137.20	4.3
137.21	7.2
137.25	5.9
137.28	7.8

Imports of fresh potatoes must meet the plant quarantine regulations of the USDA as established under the Plant Quarantine Act (37 Stat. 316; 7 U.S.C. 159). 2/ Imports of tablestock potatoes into the United States are required to comply with the grade, size, quality, and maturity provisions of Federal Marketing Order regulations under the Agricultural Marketing Agreement Act of 1937. Imports of certified seed potatoes are exempt from these requirements.

1/ Headnote 2, subpt. A, pt. 8 schedule 1, of the TSUS provides for an increase in the annual tariff-rate quota for white or Irish potatoes, other than certified seed potatoes, whenever domestic production of all white or Irish potatoes, including seed potatoes, falls short of 21 billion pounds, as estimated on Sept. 1 each year by the U.S. Department of Agriculture. The increase in the annual tariff-rate quota would equal the "shortfall" in domestic production, i.e., the amount by which domestic production fell short of the 21 billion pounds (or 210 million hundredweight). The domestic potato crop has not dropped below 21 billion pounds since 1951.

2/ Potatoes may be imported from Bermuda and Canada (except Newfoundland and certain parts of British Columbia) into the United States free of the plant quarantine restrictions required for potatoes from other countries.

That act requires that whenever the Secretary of Agriculture issues grade, size, quality, or maturity regulations under a domestic marketing order for a particular commodity, he must likewise issue the same or comparable regulations on imports of that commodity, if it is so designated by statute, for the same period of time. Marketing orders for fresh potatoes are presently active in five production areas--Idaho, Oregon, Washington, Colorado, and Virginia/North Carolina.

Canadian Tariff Treatment and Other Import Regulations

Tariff treatment

Potatoes imported into Canada are classified as seed potatoes or other than seed potatoes. The Canadian tariff item, description, and most-favored-nation (MFN) rates of duty for 1982 and 1987 are shown in the following table.

Item No.	Description	MFN rate of duty effective-- Jan. 1, 1982	Jan. 1, 1987
		Cents per hundredweight	
7120-1	Seed potatoes for propagating purposes, under such regulations as the Minister [of Agriculture] may prescribe	36.6	35
8305-1	Potatoes, in their natural state, n.o.p	36.6	35

The exact staging of the Canadian duty rate for potatoes imported under items 7120-1 and 8305-1 during 1980-87 is as follows:

Period	Cents per hundredweight
Pre-MTN 1/	37.5
1980	37.2
1981	36.9
1982	36.6
1983	36.2
1984	35.9
1985	35.6
1986	35.3
1987	35.0

1/ Rate in effect before 1980.

Other import regulations

Under the fresh fruit and vegetable regulations of the Canadian Agricultural Products Standards Act, fresh produce may be imported into Canada in any package commonly used for a particular commodity in the country of origin, but such packaged goods may be sold at retail only. An import permit is not needed for such packaged goods. However, produce entered in bulk containers cannot be imported into Canada without a special permit from the Federal Government. 1/

The discovery of the Columbia root-knot nematode as a crop pest in the Western United States in 1981 led the Government of Canada to restrict imports of seed and tablestock potatoes from specified areas of five States in that year. The present restriction applies to potatoes grown in all of Washington and Idaho and in certain counties within Oregon, Nevada, and California. Under certain conditions, imports of both types of potatoes are permissible in Canada. The entry requirements for seed stock potatoes are more stringent than those for tablestock potatoes, and the latter, if admissible, must be treated with a sprout inhibitor.

1/ According to Canadian Government officials, certain U.S. exports of potatoes to Canada were denied entry permits as of July 26, 1982, under the Canadian Agriculture Products Standards Act of 1955. This Act has a waiver procedure as an ongoing requirement that importers of produce shipped in bulk (all fruits and vegetables) must request a permit to import such produce. Such permits are issued only when supplies are not available from local (Provincial) sources. In the case of potatoes, the permit requirement does not apply to containers holding 100 pounds or less. The permit requirements for imports into a Province also applies to shipments from one Province to another.

U.S. POTATO SITUATION

U.S. Consumption

The long-term demand for fresh potatoes has declined markedly over the past two decades; the total demand for all potatoes (fresh and processed) has increased modestly during the same period. During 1960-64, the average annual per capita consumption of fresh potatoes was 80 pounds, and that of potatoes for all uses (including fresh) was 110 pounds. During 1976-80, the average annual per capita consumption of fresh potatoes was 52 pounds, representing a decline of 35 percent from such consumption during 1960-64. The per capita consumption of potatoes for all uses in 1976-80 averaged 117 pounds, representing an increase of 6 percent from such consumption in the earlier period.

Potato promotion boards at local, State, and national levels are an integral part of the potato industry today. Such boards, or Commissions as some are called, obtain funds from assessments on growers and shippers to advertise potatoes and to promote the demand for potatoes in various ways. Federal legislation in 1982 has authorized the National Potato Board to seek an ad valorem assessment rate from producers to be used to promote potatoes.

The National Potato Council (NPC) is a potato grower-member organization consisting of a federation of more than 30 State organizations, each of which employ measures to adjust to competition (the names and addresses of member organizations are shown in app. D). The NPC represents growers' interests nationwide, primarily through the dissemination of information, meetings, 1/ and lobbying efforts in Federal and State legislative and administrative offices on issues beneficial to potato growers. In 1981, there were 34 policy resolutions on the books passed by grower members of the NPC on a wide range of subjects from marketing regulations to quality standards to statistical reporting and to international trade. Most of these resolutions and committee actions taken therefrom have a direct bearing on the competitiveness of producers. In the individual potato producing States, the measures taken or planned by producers to adjust to competition will vary according to the circumstances of the location. Some measures common in many States, however, include State- or area-wide grading regulations, improved production management practices through research, strict seed certification standards and improved varieties, and promotion of the State name on the marketed potatoes.

The consumption of potatoes in the United States 2/ declined from 321 million hundredweight for crop year 1976/77 to 275 million hundredweight for the crop year 1980/81 (table 1, app. E). The U.S. consumption of

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1/ For example, the National Potato Council and the Canadian Horticultural Council (it's counterpart in Canada) have met together annually in recent years to discuss issues of mutual benefit or disagreement. The next joint meeting is slated for early 1983.

2/ Includes all potatoes sold for all uses.

fall-harvested potatoes, 1/ which when marketed fresh are the subject of this investigation, averaged 268 million hundredweight annually, which was equivalent to about 87 percent of the consumption of potatoes harvested in all seasons for these crop years (table 2). During that period, fall-harvested potato consumption was the highest in 1978/79, at 286 million hundredweight, and the lowest in 1980/81, at 241 million hundredweight. Of the remainder of the consumption, about one-half consisted of summer-harvested potatoes (6 percent of the annual consumption), and one-half consisted of spring- and winter-harvested potatoes (7 percent of the annual consumption).

Movement of fresh potatoes

The consumption of fresh potatoes, those sold and bought in the fresh state, consists of potatoes of different specifications for different uses. Data on U.S. production or consumption of the different use categories of fresh potatoes moving in trade channels are generally not available. The principal use of fresh potatoes moving in trade channels is for tablestock sales, and probably the second largest volume use is certified seed potatoes. However, potatoes for certain other uses such as processing for potato chips, and some cull potatoes, also enter fresh trade channels. 2/ But for general purposes, tablestock and seed potato sales constitute the bulk of the fresh trade in potatoes. Domestic consumption of tablestock and seed potatoes for the years 1976/77 to 1980/81 declined from 140 million hundredweight in 1976/77 to 118 million hundredweight in 1980/81 (a short crop year), or by 16 percent (table 3). More than four-fifths of the consumption was of tablestock potatoes, and the remainder was certified seed, the sales of which, at about 20 million hundredweight annually, fluctuate little from year to year.

1/ Fall-harvested potatoes are that part of the U.S. potato crop designated by the U.S. Department of Agriculture as being the "fall" crop. Harvest of the fall crop generally begins about Sept. 1; however, the designations for fall crop are determined by production areas, such as States or countries, rather than by a particular harvest date. Thus, all potatoes harvested in a designated fall area, even if harvested in July or August, are reported as fall-harvested potatoes.

2/ Most processing potatoes move from field or storage to a processing line near the location where the potatoes are grown and do not enter fresh trade channels. Potato chip processors, on the other hand, often are located in or near the market areas, and supplies which have not been previously contracted for may be obtained through fresh trade channels. For the crops of 1976-80, the volume of potatoes processed as chips averaged 37 million hundredweight annually and accounted for about 22 percent of all processing potatoes.

The estimated U.S. consumption of fall-harvested fresh potatoes for tablestock and seed are shown for the crop years 1976/77 to 1980/81 in the following tabulation: 1/

Crop year	Estimated U.S. consumption (million hundredweight)
1976/77	124
1977/78	121
1978/79	116
1979/80	109
1980/81	106

These data indicate that fall-harvested potato consumption accounts for about 89 percent of the total consumption of tablestock and seed potatoes, and that consumption of fall-harvested potatoes has declined annually during the period 1976/77 to 1980/81, continuing the long-term decline in per capita consumption for fresh potatoes. Also, the data indicate that for 1980/81, such fall-harvested consumption accounted for 39 percent of the fresh weight of the U.S. consumption of potatoes in all seasons for all uses.

Tablestock potatoes.--Tablestock potatoes are nearly all bought and sold under specifications of type, grade, size, condition (washed or not), origin, and kind of package by telephone, usually for immediate delivery. The specifications of the buyer will vary depending on intended use and the price of the available supplies. Restaurants and institutional eating establishments are the predominant users of russet potatoes graded to uniform size and packed in cartons of 50 pounds net weight. Chain stores and other retail sales outlets are the predominant users of round white potatoes packed in 5-pound or 10-pound poly or paper bags; 50-pound bulk bags are also popular with some retail outlets. To meet the needs of customers, retail outlets usually display two or more types of potatoes simultaneously at different prices. Specialized wholesale firms have developed a primary function of serving their restaurant or retail store customers the specified requirements in tablestock potatoes on a yearround basis. These firms typically repackage potatoes, obtaining their supplies from various production areas, or they may be shipper-dealers that move their base of operations from one production area to another.

Certified seed potatoes.--Certified seed potatoes are bought and sold under specifications of variety, the level of certification (or the expected degree of freedom from disease), and seed size (size of the potato). 2/ The name and reputation of the grower of the seed is usually important to the buyer of seed; however, market grade, narrowness of size range, and type of

1/ Consumption estimates are derived from unpublished crop utilization data supplied by the U.S. Department of Agriculture and market assumptions on U.S. exports and imports in fresh potatoes.

2/ Seed potato users prefer small-size potatoes for planting whole, and medium-range sizes for cutting before planting; large sizes, even of the highest certification level, are usually sold to the tablestock or processing markets.

package are not important specifications. Seed potatoes generally sell at higher prices per hundredweight than tablestock potatoes.

Production and consumption regions

Fall-harvested potatoes are produced in virtually every State across the northern part of the United States, even though the largest concentrations of production are centered in three Western States, three Central States, and one Northeastern State--Maine (fig. 1). For purposes of this investigation, three U.S. supply regions for fall-harvested potatoes have been designated to coincide with the largest concentrations of production. 1/ The same designated groups of States constituting the individual supply regions are also designated as marketing regions (fig. 2). The names of the regions and the States in each region are listed in the following tabulation:

Western	North Central	Northeastern
Idaho	North Dakota	Maine
Washington	Minnesota	New York
Oregon	Wisconsin	Pennsylvania
Montana	Michigan	New Jersey
Wyoming	Ohio	Connecticut
Colorado	Indiana	Rhode Island
Utah	Illinois	Massachusetts
Nevada	Iowa	Vermont
California (Northern)	Nebraska	New Hampshire
	South Dakota	

The regional consumption of fresh fall-harvested potatoes for tablestock and seed use has been calculated for three U.S. regions for 1976/77 to 1980/81 by estimating the volume of regional production sold for such use, the volume of shipments leaving the region for other markets, the volume of shipments received in the region from other fall-harvested production areas, and the volume of U.S. imports that remained in the region for consumption (table 4). 2/ These data indicate that consumption in the Northeastern marketing region during 1976/77 to 1980/81 declined from 30 million to 33 million hundredweight, but still represented 27 percent of the U.S. market for such potatoes. On the average, regional production consumed within the region) (about one-fourth of the production leaves the region) 3/ accounted for nearly two-thirds of the regional consumption, or 20 million hundredweight; shipments from other domestic fall-harvested producing areas accounted for almost one-third of the consumption, or about 10 million

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1/ The request for the investigation asked for a study of the competitive status of major supply regions for fall-harvested fresh white or Irish potatoes in selected markets.

2/ Year-to-year changes in the estimated regional consumption (less imports) are in the same proportions as the year-to-year changes in the U.S. sales of tablestock and seed potatoes (table 3), owing to the estimating methodology.

3/ A significant portion of the production that leaves the fall-harvested production regions is consumed in Southern States, where fall-harvested potatoes are not produced.

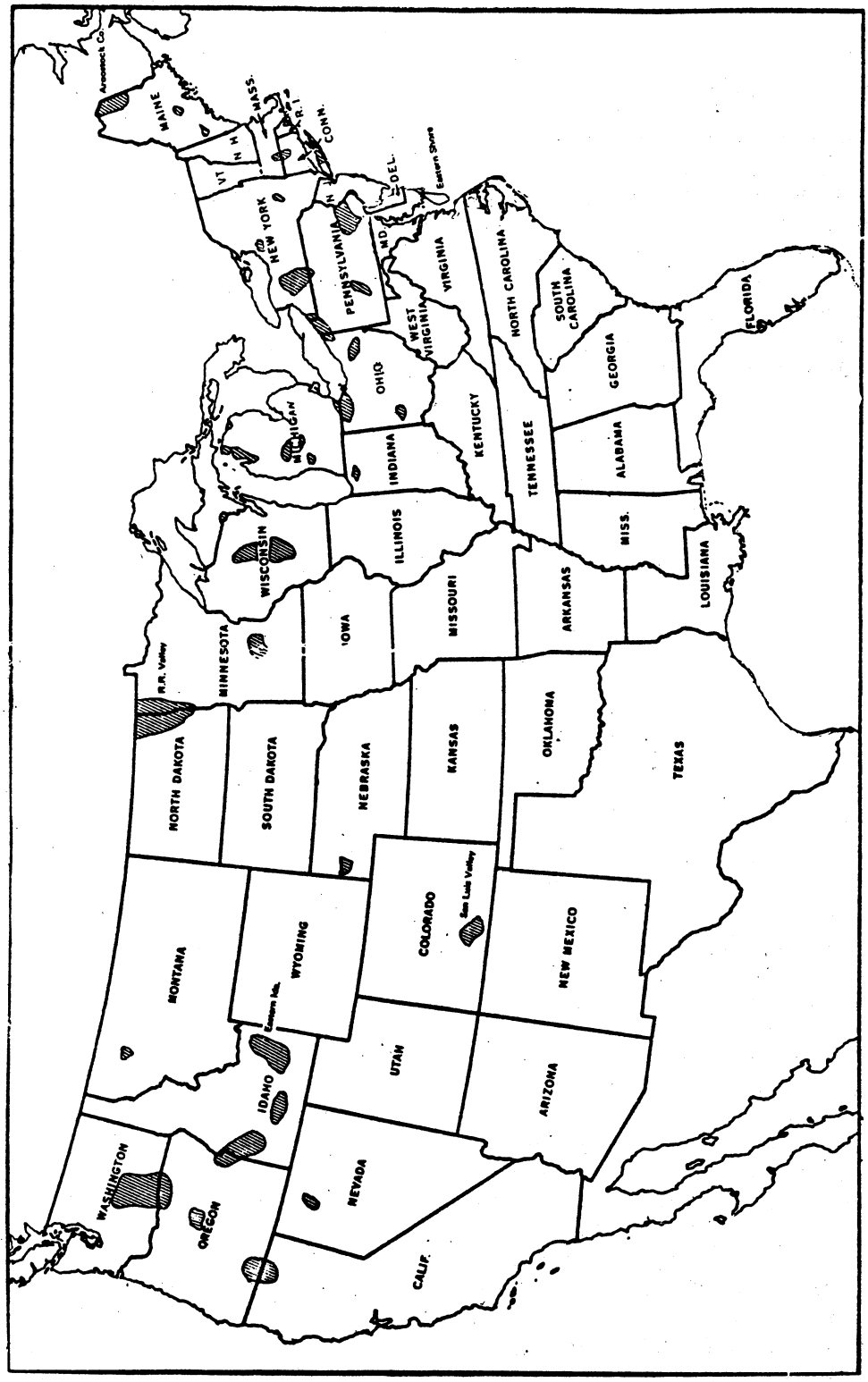
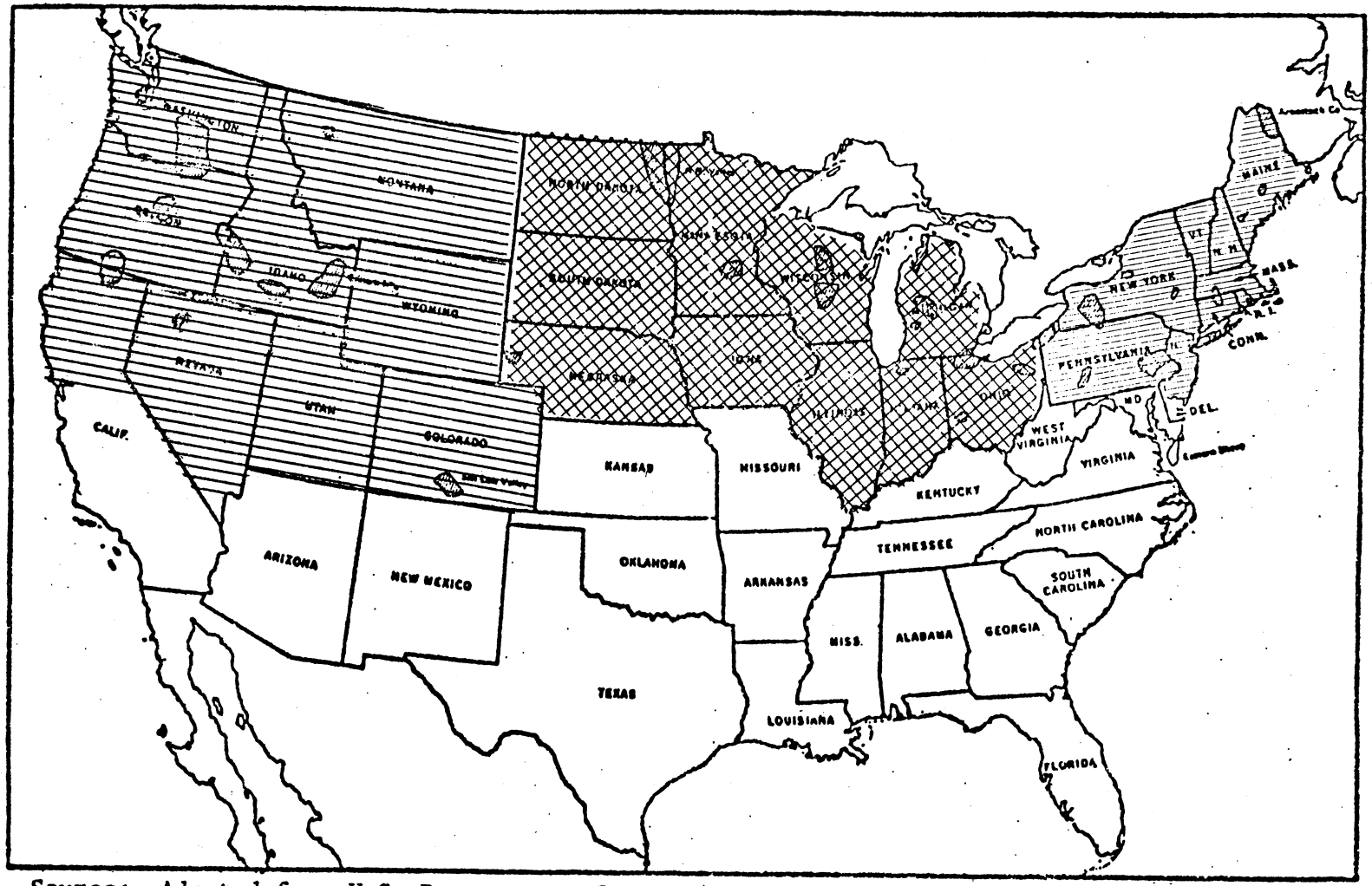


Figure 1.--Fall-harvested potato production areas.

Source: Adapted from U.S. Department of Agriculture, Economic Research Service.

Figure 2.--Fall-harvested potato production and consumption regions examined.



Source: Adapted from U.S. Department of Agriculture, Economic Research Service.

Northeastern ----------
North Central ----------
Western Region ----------

13

hundredweight. On the average, imports during 1976/77 to 1980/81, accounted for 4 percent of the consumption in the Northeastern region.

In the North Central region during 1976/77 to 1980/81, consumption of fall-harvested tablestock and seed potatoes ranged from 21 million to 25 million hundredweight. Regional production consumed within the region (about one-half of the production leaves the region), on the average, accounted for a little more than one-half of consumption, or 12 million hundredweight; shipments of nearly 11 million hundredweight from other domestic fall-harvested producing areas accounted for a little less than one-half of consumption. Imports accounted for an estimated 1 percent of consumption.

In the Western Region during 1976/77 to 1980/81, consumption ranged from 15 million to 18 million hundredweight, and, on the average, 98 percent of the consumption was produced within the region (at the same time that nearly three-fourths of the regional production for tablestock and seed use was shipped out of the region); the balance of consumption nearly all came from domestic sources; imports as a share of consumption were negligible.

U.S. Production

Although potatoes are grown commercially in nearly every State, production of fall-harvested potatoes (i.e., those usually harvested from September to December) is concentrated in the Western, North Central, and Northeastern regions of the United States (fig. 1). Fall- harvested potatoes account for about 88 percent of the U.S. production of potatoes (not including sweet potatoes). The farm value of U.S. production of fall-harvested potatoes declined from $1.0 billion in 1976/77 to $953 million in 1978/79; by 1980/81, the latest year for which data are available, it had risen to an alltime high of $1.7 billion.

Acreage planted and harvested

Total.--The number of acres planted in fall-harvested potatoes in the United States increased from 1,172,000 in 1976/77 to 1,187,000 in 1978/79 and then declined to 1,002,000 in 1980/81, when production of potatoes dropped 10 percent. In 1981/82, however, 1,070,000 acres were planted in fall-harvested potatoes (table 5), and production increased by about 9 percent. The cost of planting and growing tablestock potatoes for 1982/83 currently is projected by the USDA to range from some $1,100 per acre for Maine round potatoes to $1,300 per acre for Wisconsin russet potatoes. As shown in table 5 most of the U.S. acreage planted in potatoes is harvested. During 1976/77 to 1981/82, for example, from 97 to 98 percent of the annual U.S. acreage planted in potatoes was harvested, although slight deviations in the amount of acreage harvested occurred from time to time between regions. Unharvested acreage usually results from adverse climatic conditions such as excessive rainfall and/or freezing temperatures at harvest time.

Western region.--During 1976/77 to 1981/82, the Western region accounted for slightly more than half of the some 1 million acres planted in fall-harvested potatoes in the United States. During the period, nearly 60

percent of the Western region's approximately 600,000 potato acreage was in Idaho, and 20 percent was in Washington. Most of the remaining 20 percent was in Oregon, Colorado, California, and Nevada. As shown in table 6, russet potatoes accounted for virtually all of the acreage planted in potatoes in the principal producing States of the Western region during 1976/77 to 1981/82, and accordingly, russets accounted for virtually all of the potatoes produced in that region. Each year during the period more than 98 percent of the acreage planted in potatoes in the Western region was harvested.

Of the potato-producing regions in the United States, the Western region has the highest yield per acre. During 1976/77 to 1981/82, average yield per acre in that region ranged from 306 hundredweight in 1977/78 to 327 hundredweight in 1980/81 (table 7). Washington had the highest average yield per acre in the region (as well as in the United States), ranging from 450 hundredweight in 1976/77 to 505 hundredweight in 1980/81. Much of the area in Washington's Columbia basin consists of sandy soil that, under irrigation, is conducive to growing potatoes.

North Central region.--The North Central region accounted for nearly a third of the acreage planted in fall-harvested potatoes in the United States during 1976/77 to 1981/82. During the period, about 40 percent of the North Central region's 316,000 acres in potatoes was planted in North Dakota, 22 percent, in Minnesota, and 18 percent, in Wisconsin. The remaining 20 percent was planted in Ohio, Nebraska, South Dakota, and Indiana. As shown in table 6, the North Central region was somewhat diverse in the acreage planted by major types of potatoes during 1976/77 to 1981/82, as well as in the types of potatoes produced. While round whites generally predominate in the principal producing States in the region, except in Wisconsin, where there has been a marked shift to russets, the region is the major U.S. supplier of fall-harvested round red potatoes.

Each year during 1976/77 to 1981/82, more than 95 percent of the acreage planted in potatoes in the North Central region was harvested. The North Central region had the lowest yield per acre of the U.S. potato-producing regions. During 1976/77 to 1981/82, average yield per acre in the region ranged from 191 hundredweight in 1976/77 to 218 hundredweight in 1978/79 and 1981/82. Wisconsin had the highest average yield per acre in the region, ranging from 290 hundredweight in 1976/77 to 340 hundredweight in 1981/82. Nationally, the potato yield in Wisconsin was surpassed only by that in Washington, Oregon, California, and Nevada.

Northeastern region.--The Northeastern region accounted for nearly a fifth of the some 1 million acres planted in fall-harvested potatoes in the United States during 1976/77 to 1981/82. Nearly 60 percent of the Northeastern region's 215,000 to 182,000 potato acreage (an average of 199,000 acres in 1976-81) was planted in Maine, with New York accounting for about 24 percent of the total; most of the remainder (nearly 20 percent) was planted in Pennsylvania. As shown in table 6, most of the acreage planted in potatoes in the Northeastern region during 1976/77 to 1981/82 was planted in round whites. However, the acreage planted in russet potatoes in Maine increased from 21 percent in 1976/77 and 1977/78 to about 30 percent from 1978/79 to 1981/82, reflecting a shift from round whites to russets in the types of potatoes produced in the Northeastern region. Each year during 1976/77 to 1981/82, more than 96 percent of the acreage planted in potatoes in the

Northeastern region was harvested. In 1977/78, however, only 92 percent of the acreage planted was harvested, mainly because heavy rainfall delayed harvesting until part of the crop froze. New York had the highest average yield per acre in the region, ranging from 252 hundredweight in 1980/81 to 289 hundredweight in 1977/78. The yield per acre in Maine ranged from 220 hundredweight in 1978/79 to 255 hundredweight in 1981/82. During 1976/77 to 1981/82, the average yield of potatoes per acre in Maine ranged from 8 to 21 percent below the U.S. average of 269 hundredweight in 1976/77 and 279 hundredweight in 1977/78 and 1978/79.

Production

Total.--U.S. production of fall-harvested potatoes increased from 308 million hundredweight in 1976/77 and 1977/78 to an alltime high of 325 million hundredweight in 1978/79 (table 7). By 1980/81, however, production dropped to 266 million hundredweight, representing a decline of 10 percent from the 1979/80 level and being 18 percent below the record production level of 1978/79. This decline resulted from a combination of factors, including less acreage planted and harvested, as prices received by growers generally declined since the mid-1970's. Also, yield per acre in 1980/81 was down about 2 percent from that of the previous year because of adverse climatic conditions for growing and/or harvesting potatoes in a number of States. The decline in production of potatoes in 1980/81 resulted in an increase in prices. The average price received by growers for fall-harvested potatoes rose to a record high of $6.36 per hundredweight (table 8), up 96 percent from that in 1979/80 and 117 percent from that in 1978/79. In response to the high prices, growers increased production. By 1981/82, production of potatoes rose to 291 million hundredweight, or 9 percent above the 1980/81 crop. As production increased in 1981/82, prices dropped. The farm price of potatoes in October-December 1981 averaged $4.48 per hundredweight, compared with $5.36 for the price the corresponding period of 1980. In January-March 1982, the price averaged about $4.75 per hundredweight, compared with $8.00 in the corresponding period of 1981.

Western region.--Production of potatoes in all regions of the United States from 1976/77 to 1981/82 ranged from 266 million to 325 million hundredweight. The Western region (principally Idaho, Washington, and Oregon) is, by far, the principal U.S. producer of fall harvested potatoes. From 1976/77 to 1981/82, the production of potatoes in that region ranged from 170 million to 207 million hundredweight. The share of the U.S. production of fall-harvested potatoes accounted for by the Western region declined irregularly from 65 percent in 1976/77 to 62 percent in 1981/82.

North Central region.--During 1976/77 to 1981/82, the production of fall-harvested potatoes in the North Central region (mostly North Dakota, Minnesota, and Wisconsin) ranged from 52 million to 71 million hundredweight. The share of U.S. production accounted for by the region increased irregularly from 19 percent in 1976/77 to 22 percent in 1981/82.

Northeastern region.--From 1976/77 to 1980/81, the production of fall-harvested potatoes in the Northeastern region declined irregularly from 51 million to 42 million hundredweight; in 1981/82, production amounted to 46 million hundredweight. The share of fall-harvested potato production

accounted for by the Northeastern region (principally Maine and New York) declined from 17 percent of the U.S. total production of 308 million hundredweight in 1976/77 to 14 percent of the total of 325 million hundredweight in 1978/79, but then rose to 16 percent of the total of 297 million hundredweight in 1979/80 and 1981/82.

From 1976/77 to 1981/82, production of potatoes in Maine ranged from 25 million to 28 million hundredweight. During the period, that State supplied nearly three-fifths of the production of potatoes in the Northeastern region. Maine accounted for about 9 percent of the annual U.S. potato production from 1976/77 to 1981/82. Thus, Maine has maintained its share of the U.S. production of potatoes in recent years.

Utilization

Total.--From 1976/77 to 1978/79, the U.S. utilization of potatoes (sales and nonsales uses), which were mostly fall-harvested potatoes, ranged from 358 million hundredweight (1976/77) to 366 million hundredweight (1978/79), and then declined. By 1980/81, utilization had dropped to 303 million hundredweight (table 9). 1/

About four-fifths of the U.S. potato crop was sold for human food from 1976/77 to 1980/81; of the remaining one-fifth, about 50 percent went to shrinkage and loss, 30 percent to commercial seed, and 20 percent to farm seed, feed, and household use, or to commercial livestock feed.

Of the annual U.S. potato crop sold for human food from 1976/77 to 1980/81, about three-fifths was used for processing (trade sources indicate about two to three times as many russets are used for processing as round whites) and two-fifths was used for tablestock. However, over the longer term, the pattern of sales of potatoes for use for human food reflects a marked shift from tablestock to processing. In 1970/71 to 1974/75, for example, 46 percent of the average annual sales of potatoes for human food was used for tablestock, and 54 percent, for processing. From 1964/65 to 1969/70, 54 percent, of the sales was used for tablestock, and 46 percent, for processing. Although detailed utilization data relating to russet and round white potatoes are not available, it would appear that the utilization shift from tablestock to processing would benefit the producers of the russet potato more so than the producers of the round white as the russet is the primary type used for processing.

In absolute terms, the quantities of potatoes used for tablestock declined each year from 1976/77 to 1980/81 (from 123 million hundredweight to 97 million hundredweight); the quantities used for processing declined irregularly from 175 million hundredweight (1976/77) to 153 million hundredweight (1980/81). Nearly 50 percent of the potatoes used for processing during the period were made into frozen french fries; the remainder were used to make potato chips, dehydrated potatoes, other frozen products, canned potatoes (including use as an ingredient in hash, soups, or stews), or were processed into starch or flour.

1/ Utilization of the 1981/82 fall-harvested potato crop will not be completed until August 1982; hence, data for 1981/82 are not included here.

Western region. 1/--Data are available on sales of fall-harvested potatoes, by regions, only for 1979/80 and 1980/81. Sales of fall-harvested potatoes for tablestock use by Western region producers declined from 47 million hundredweight in 1979/80 to 45 million hundredweight in 1980/81. Nevertheless, the share of these sales to total region potato sales increased from 28 percent in 1979/80 to 30 percent in 1980/81. The share of total U.S. sales of tablestock potatoes accounted for by that region increased from 52 to 54 percent during the period.

Sales of fall-harvested potatoes for processing use by Western region producers declined from 106 million hundredweight in 1979/80 (63 percent of total sales) to 95 million hundredweight in 1980/81 (62 percent of total sales), but they increased slightly their share of U.S. sales of such potatoes from 71 to 72 percent during the 2-year period.

North Central region.--Sales of fall-harvested potatoes for tablestock use by North Central region growers declined from 20 million hundredweight in 1979/80 to 18 million hundredweight in 1980/81, yet the share of the region's total sales of such potatoes increased from 36 percent in 1979/80 to 37 percent in 1980/81. The North Central region supplied 22 percent of the U.S. sales of tablestock potatoes each year during the period.

Sales of fall-harvested potatoes for processing use by North Central region growers declined from 29 million hundredweight in 1979/80 to 24 million hundredweight in 1980/81. That region's share of the U.S. sales of potatoes for processing use declined from 19 percent of the total in 1979/80 to 18 percent in 1980/81. The share of the region's total sales of potatoes for processing declined from 53 percent in 1979/80 to 49 percent in 1980/81.

Northeastern region.--Sales of fall-harvested potatoes for tablestock use by the Northeastern region producers declined from 24 million hundredweight in 1979/80 to 20 million hundredweight in 1980/81. The share of U.S. sales of tablestock potatoes supplied by the Northeastern region declined from 26 percent to 24 percent during the 2-year period. The share of the region's total sales of potatoes consisting of tablestock potatoes declined from 56 percent in 1979/80 to 54 percent in 1980/81.

Sales of fall-harvested potatoes for processing use by Northeastern region producers declined from 14 million hundredweight in 1979/80 to 13 million hundredweight in 1980/81. The share of the region's total sales of potatoes for processing increased from 34 percent in 1979/80 to 35 percent in 1980/81. The share of the U.S. sales of processing potatoes supplied by the Northeastern region averaged 10 percent each year during the period. During the period, the Northeastern region was the only area for which sales of potatoes for processing use increased as a share of sales of all potatoes, and indicates a recent shift in sales of Northeastern production away from the tablestock market and towards the processing market.

1/ Data in the following regional discussions, by use categories (tablestock and processing), are derived from unpublished estimates of the U.S. Department of Agriculture, Statistical Reporting Service. The totals for all regions do not add to the published national totals owing principally to interregional shipments of processing potatoes shipped fresh, quantities diverted from normal market channels, and sales for livestock feed.

Employment Information of Growers

Questionnaires were sent to approximately 1,000 growers, or about 4 percent of the total number of U.S. potato growers, asking them to provide information on full- and part-time employment on their farms from 1976/77 to 1981/82. The information requested included the number of persons engaged in farming operations, the number of persons engaged in potato production, the hours worked by persons engaged in potato production, and the total wages paid to such workers.

Full-time employees

Of the questionnaires received, approximately 40 contained useful information on full-time employees. 1/ These 40 questionnaires represent less than one-half percent of the total acreage harvested by U.S. potato growers. For each year from 1976/77 to 1981/82, the reported average number of full-time employees engaged in potato production on each farm was 3. The reported average number of full-time employees per farm that engaged in all farming operations was 4 in 1976/77 and 1978/79, and 3 in all other years. Growers in the Northeastern region employed an average of 2 full-time workers a year, whereas growers in the North Central region employed an average of 8 full-time employees a year.

The total number of hours worked by full-time employees engaged in potato production averaged 5,500 per farm per year from 1976/77 to 1981/82. On Northeastern region farms, full-time employees worked an average total of 3,500 hours, whereas full-time employees on North Central region farms worked an average total of 18,000 hours. This means that the average Northeastern region full-time employee spent 1,750 hours a year working on potato production. For a 9-month crop year, this works out to 47 hours a week per full-time employee.

Total wages and fringe benefits paid to persons engaged in potato production was reported to average about $22,000 per farm per year. Total wages tended to increase over time. Wages on Northeastern region farms was reported to average about $15,000 a year, or approximately $7,500 per year per full-time employee. North Central region farms paid out an average of $72,000 per year in wages from 1976/77 to 1981/82, or approximately $9,000 per year per full-time employee.

Part-time employees

Approximately 75 questionnaires had useful information on part-time employees. These questionnaires represent less than 1 percent of the total acreage harvested by U.S. potato growers. The average number of part-time employees engaged in potato production ranged from 14 to 21. Northeastern region farms used an average of 16 part-time employees per year from 1976/77 to 1981/82, whereas North Central region farms used an average of 27 part-time employees per year.

1/ On average, 30 useful questionnaires were received from the Northeastern region, 6 from the North Central region, and 4 from the Western region.

The total hours worked by part-time employees per year averaged about 3,000 hours from 1976/77 to 1981/82, or approximately 167 hours per part-time employee per year. The average part-time worker on a Northeastern region farm worked an average of 138 hours a year, whereas the average part-time worker on a North Central region farm worked an average of 372 hours a year.

The average part-time employee received approximately $650 a year in wages, or about $3.90 an hour. Northeastern region part-time employees received about $600 a year, or about $4.34 an hour, whereas North Central region part-time employees received about $1,250 a year, or about $3.36 an hour.

Financial Information of Growers

Profit-and-loss experience

Approximately 100 growers returned questionnaires that contained useful financial information. These growers farm approximately 22,525 acres a year, with about 60 percent of the acreage devoted to potato farming. This represents between 1 and 2 percent of the total acreage harvested by U.S. potato growers. About two-thirds of the growers were from the State of Maine, representing about 6 percent of Maine's total production, and about 85 percent were from the Northeastern region, representing about 4 percent of that area's total production.

Potatoes accounted for about 70 percent of the total sales of the respondents (table 10). The value of potato sales were relatively constant from 1976/77 through 1979/80, but then increased by 30 percent in 1980/81 and by another 65 percent in 1981/82. Operating expenses averaged 90 percent of total sales in 1976/77 and 1977/78, 101 percent in 1978/79 to 1980/81, and 81 percent in 1981/82.

Producing potatoes was profitable for the respondents in 1976/77 and 1977/78, but unprofitable from 1978/79 to 1980/81. In 1981/82, potato production became profitable again for the respondents. Non-potato farm production was profitable in only one crop year--1976/77.

From 1976/77 to 1981/82, reported total net farm income equaled $4.7 million on sales of $90.9 million, or just over 5 percent of total sales. Reported net potato income equaled $5.9 million on sales of $72.5 million, or just over 8 percent of potato sales.

Assets and capital expenditures

Approximately 65 questionnaires contained useful information about assets and capital expenditures. The growers that responded account for slightly less than 1 percent of the total acreage harvested by U.S. potato growers. The original cost of reported total farm assets rose from $16.0 million in 1976/77 to $23.6 million, or by 48 percent, in 1981/82 (table 11). Book value over the same period rose 53 percent. Capital expenditures of reported farms averaged about 30 percent of original cost over this period and increased by 13 percent from 1976/77 to 1981/82. Machinery, equipment, and fixtures accounted for about 60 percent of total capital expenditures.

Questionnaire data indicate that potato operations accounted for about two-thirds of reported total farm assets. Capital expenditures on potatoes accounted for about 85 percent of total capital expenditures. Assets leased for use in potato production amounted to less than 1 percent of reported total farm assets.

Production costs

Detailed studies on cost of production for U.S. potatoes are not undertaken on a regular basis. However, a study was published in 1981 that estimated the costs of growing and harvesting potatoes in the major fall production areas in 1980/81 (table 12).

These estimates show that the Columbia basin area of Washington and Oregon was the most cost-efficient production area. Operating costs per hundredweight ranged from $1.64 in Oregon to $3.00 in Long Island. Maine's costs were second highest at $2.38. Maine's position improved somewhat when the cost of land is included. Although Maine clearly had no advantage over other potato-producing areas in the costs of production, Maine is not at a major competitive disadvantage because of production costs.

The most important costs in producing potatoes in Maine were fertilizers, which accounted for 30 percent of total operating expenses, and labor, which accounted for 21 percent. Labor costs were higher in Maine than in any other production area. Seed and chemicals, which were more important costs in areas other than Maine, accounted for 11 and 15 percent, respectively, of total operating expenses in Maine. Fuel and repair costs each accounted for about 11 percent of total costs in Maine. Nationwide, fertilizer accounted for 25 percent of total operating expense; chemicals, 21 percent; seed, 17 percent; and labor, 12 percent.

Depreciation expenses averaged $113 per acre, with only North Dakota's $50 being far from the average. Interest expenses were highest in Long Island because of the high cost of land, and were lowest in Maine and North Dakota.

In late 1981, the Economic Research Service of the U.S. Department of Agriculture estimated the costs of producing tablestock potatoes in Maine, Wisconsin, and Idaho from 1980/81 to 1982/83 (tables 13-15). These estimates show Wisconsin with lower production costs than either Idaho or Maine.

On the basis of testimony presented at the hearing in Bangor, production costs for Maine from 1976/77 to 1981/82 are given in the following tabulation:

Crop year	Production cost (per hundredweight)
1976/77	$3.77
1977/78	3.70
1978/79	4.20
1979/80	4.32
1980/81	4.79
1981/82	5.80

From 1976/77 to 1981/82, the cost of growing potatoes in Maine grew 54 percent, with about half of the total increase coming in the 1981/82 crop year. Consumer prices from 1976 to 1981 increased 69 percent. A sharp rise in the cost of seed potatoes was responsible for much of the extraordinary 1981/82 increase.

Government Programs Affecting Production

Various Federal, State, and local programs throughout the United States relate directly and indirectly to potato production. Most of the programs are general in nature and are not specifically oriented toward potato production, although they ultimately may affect production. Examples include programs dealing with scientific and economic research, credit and loans, economic development, conservation programs, and the collection and dissimination of data.

Potato Diversion Program

The U.S. Government programs relating most directly to potato production are the Potato Diversion Program and the various potato-marketing orders. The Agricultural Adjustment Act allows the Secretary of Agriculture to encourage the domestic consumption of certain commodities or products by diverting them, by the payment of benefits or indemnities or by other means, from the normal channels of trade and commerce. 1/ The legislation allows the Federal Government to make payments to potato farmers for diverting potatoes to livestock feed or starch in surplus production years. Potatoes eligible for diversion must meet specific grade requirements and are then processed (for livestock feed or starch) to insure that they will not enter normal trade channels. The Secretary of Agriculture, at his discretion, must approve the program and decide the payment level (with the approval of the Office of Management and Budget), and he may limit its coverage to specific areas and certain potatoes. Officials at the USDA report that during 1976-81, the Potato Diversion Program was used twice, for the 1978 and 1979 crops. With respect to the 1978 crop, officials at the USDA report that 11.8 million hundredweight of fall-harvested potatoes were purchased at a cost of $22.4 million from producing regions throughout the United States. Maine potatoes were the only potatoes eligible for the program in 1979. In that year, 0.5 million hundredweight (about 2 percent of Maine's 1979 production level) of potatoes were diverted for a total of $1.1 million.

Marketing orders

Under the Agricultural Marketing Agreement Act of 1937, producers and handlers of specified fruits and vegetables may "self-regulate" through marketing orders. Orders are regulatory programs issued by the Secretary of Agriculture that legally obligate all commodity handlers to abide by order terms. 2/ In the case of potatoes, the terms involve quality control regulations and market support activities. The quality regulations specify minimum shipping standards for size, grade, and product maturity. The market support activities involve financing research, promotion, and standarization of containers and pack. The standards are enforced by Federal inspection.

1/ Agricultural Adjustment Act, ch. 641, sec. 32, 49 Stat. 774.

2/ Marketing agreements, in contrast to marketing orders, are binding only on signatory handlers.

There are five active potato-marketing orders and one inactive order. 1/ It is estimated that approximately 69 percent of fall potato production is covered by potato orders. The six potato orders and their areas of coverage are listed below.

Order No. and area 2/

945 - Idaho - Eastern Oregon
946 - Washington
947 - Oregon - Northern California
948 - Colorado
950 - Maine (inactive)
953 - Virginia - North Carolina

The USDA reports that orders may become inactive rather than terminated. In an inactive status, no regulations are issued under an order, but the order remains "on the books." For example, an order permitting regulation of grade, size, pack, and container specifications for Maine potatoes has been inactive for many years. 3/

National Potato Marketing Research and Promotion Act

In 1972, the National Potato Marketing Research and Promotion Act established the National Potato Promotion Board. Under the act, the NPPB is authorized to collect a fee from every commercial potato grower in the United States, based on volume of production, for use in promotion and research. (Lobbying by the NPPB is prohibited by statute.) For fiscal 1982, the NPPB budgeted to spend nearly $1.5 million on programs to aid the consumption of fresh and processed potatoes. Nearly one-half of the $1.5 million was for consumer and trade advertising, leaving approximately one-fourth for public relations programs, and one-fourth for chainstore merchandising programs. A remainging 4 percent was for export promotion programs in Latin America and Pacific countries, such as Japan. No Federal tax dollars are employed in the NPPB budget.

1/ All five active orders have grade and size regulations, four have pack regulations, two have container regulations, and two authorize assessments for research and development.

2/ Order number refers to the part in the Code of Federal Regulations where the order is found. For example, order No. 945 is codified as 7 CFR 945.

3/ In the 1981-1982 marketing year, a State-supervised voluntary quality control program was instituted in Maine which calls for a 2-inch minimum for the Maine grade and a 2-1/4-inch minimum for the fancy grade to be packed in the "Maine bag." Estimates given at the Bangor hearing (transcript of the hearing, p. 362) indicate about 27 percent of Maine's tablestock potatoes were marketed in the "Maine bag" during the same period.

Potato Stocks

Total

Until fall-harvested potatoes for table use are shipped to market, they are generally held in storage by growers, processors, and local dealers. Officials at the USDA report there are no Government programs for the storage of potatoes. Holdings of fall-harvested potatoes are at their highest level in December, immediately after the harvest. As the crop year progresses, potato stocks are drawn down. Potatoes cannot be stored indefinitely, and consequently, stocks are usually disposed of by June, but no later than the end of the crop-year (August). The USDA estimates that potato stocks, on December 1, 1981, in 15 major fall potato States were 188 million hundredweight, or eqivalent to about 67 percent of 1981 fall production (table 16). This level was about 9 percent higher than the December 1, 1980, level, but about 7 percent lower than the December 1, 1979, level. During 1976-81, total stocks on December 1 ranged from 220 million hundredweight in 1978 to 172 million hundredweight in 1980 (table 17).

Regional

Holdings in the Eastern region (Maine, New York, and Pennsylvania) on December 1, 1981, totaled 31 million hundredweight, or 71 percent of that region's 1981 production (table 17). This stock level was about 15 percent greater than the level of 1 year earlier. Stocks held in Maine in 1981 increased to 21 million hundredweight, or about 13 percent over the 1980 level. This level was equivalent to about 80 percent of 1981 production. During 1976-81, holdings in the North Central region (North Dakota, Minnesota, Wisconsin, Michigan, Nebraska, and Iowa) reached 40 million hundredweight, or 18 percent above the 1980 level. This December 1, 1981, stock level was equivalent to 64 percent of the North Central region's 1981 production. During 1976-81, stocks in the North Central region ranged from 48 million hundredweight in 1978 to 34 million hundredweight in 1980. Stocks in the Western region in 1981 reached 116 million hundredweight. This level was about 5 percent greater than the 1980 level and accounted for about 67 percent of the Western region's production. Stocks in Idaho reached 58 million hundredweight, which was about 3 percent less than the level of a year earlier. Holdings in Washington amounted to 29 million hundredweight, and were up about 19 percent compared with those on December 1, 1980. During 1976-80, stocks in the Western region ranged from 142 million hundredweight in 1978 to 110 million hundredweight in 1980.

Principal Destinations and Shipping Periods

Destinations

The USDA reports shipments of potatoes from the major production areas in the United States and unloads of fresh potatoes from trucks and railcars in 36 large U.S. metropolitan cities. Data on shipments and unloads provide information on the pattern of distribution of potatoes. The leading producing region (Western) supplied 53 percent of U.S. fall-harvested potato shipments of 80 million hundredweight in 1980/81 (table 18), followed in importance by the North Central region (27 percent) and the Northeastern region (21 percent).

The three U.S. regions producing fall-harvested potatoes for table use vary considerably in their marketing patterns and in the destinations to which they ship. Potato farmers in the Northeastern region market about three-quarters of their tablestock potatoes to cities within their own region, North Central farmers market about one-half of their output within their own region, and the Western farmers, only about one-fifth within their own region. 1/

According to the volume of unloads 2/ reported by the USDA, farmers in the Northeastern region in 1980/81 marketed about 6 million hundredweight of fresh potatoes in specified U.S. cities (table 19). About 76 percent of the potatoes went to cities within their own region, 18 percent, to cities in the South Atlantic region, and 6 percent, to cities in the North Central region. They shipped no potatoes to the Western region and only negligible amounts to other regions. The bulk of the Northeastern region output was thus shipped to cities either within the region (such as New York City, Boston, Philadelphia, and Buffalo) or to markets along the South Atlantic coast (such as Baltimore, Washington, and Miami).

In the North Central producing region, farmers in 1980/81 shipped 8 million hundredweight of fresh potatoes, of which 49 percent went to cities within the region, 31 percent, to the Southern region, 10 percent, to the Northeastern region, and 9 percent, to the South Atlantic region. Among the more important cities taking potatoes from the North Central region were Chicago, Atlanta, Pittsburgh, Cincinnati, Detroit, and Indianapolis. There were very few potatoes produced in the North Central region and sold in the Western region.

1/ Fall-harvested potato unloads in 36 cities totaled about 39 million hundredweight in 1980/81, which is approximately 48 percent of the 80 million hundredweight recorded as shipments of fresh potatoes by the major States producing fall-harvested potatoes. Thus, 52 percent of fall-harvested potato shipments went to smaller U.S. towns and cities, and other destinations. The pattern of distribution, however, probably follows that reported for the 36 cities.

2/ "Unloads" is a term used to represent the quantity of fresh potatoes unloaded from trucks and railcars by the first receiver in the metropolitan market area of a specified city.

In addition to supplying about 99 percent of the unloads in the Western region, Western regional farmers rely heavily on markets outside this region. In 1980/81, 80 percent of their total potato unloads of 24 million hundredweight went to cities outside the Western region. In that year, potatoes from the Western fall-harvested crop went mainly to cities in the Southern region (43 percent of Western unloads); this was followed in importance by North Central region cities (17 percent), and Northeastern region cities (14 percent).

Shipping periods

The bulk of the fall-harvested potatoes are marketed in the United States during the months of September to the following April. Monthly shipments of fall-harvested potatoes in 1980/81 averaged 7.9 million hundredweight during September through April, declined to 2.4 million hundredweight in June, and then rose to 5.9 million hundredweight in August (table 18). The increase in August shipments reflects potatoes harvested before maturity for the early market. During 1977/78 to 1980/81, March had the heaviest monthly U.S. shipments; July was the month with the fewest.

Farmers in the Northeastern region have generally followed the seasonal U.S. marketing pattern of shipping nearly all of their potatoes from September to April. In 1980/81, monthly shipments from Maine and New York (the principal Northeastern region producing States) rose irregularly from 1.2 million hundredweight in September to a peak of 2.1 million hundredweight in March, and thereafter declined (table 18). The fewest Northeastern potatoes are shipped during the month of July. By August, Northeastern potato shipments generally increase as farmers market early season potatoes.

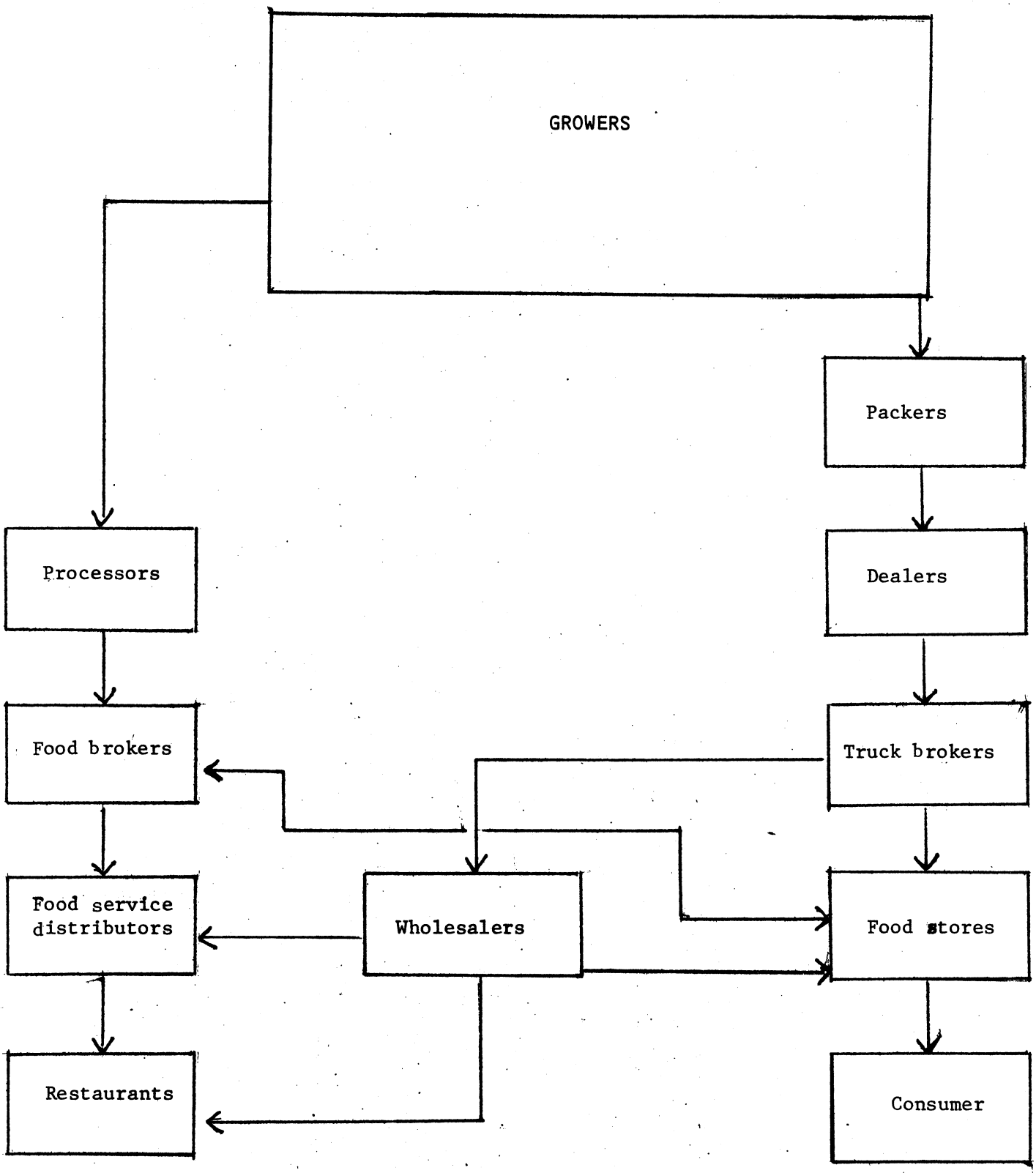
North Central region farmers also market most of their fall-harvested potatoes from September to April, although substantial shipments also take place in August.

Producers in the Western region market their potatoes with less seasonal variations than those in other regions. In 1980/81, monthly shipments from the Western region ranged from 4.3 million hundredweight in January to 2.1 million hundredweight in July.

Channels of Distribution

Figure 3 shows the various channels of distribution for Maine potatoes. In Maine, the majority of the potatoes are sold to the fresh market as tablestock potatoes, whereas the majority of production in most other major producing areas is destined for processing.

Figure 3.--Flow chart of channels of distribution for potatoes.



Source: Maine Potato Industry Long Range Plan 1982-1986, Maine Potato Industry Long Range Planning Committee, Caribou, Maine 04736.[28]

Shippers and brokers

Potato shippers and brokers in some of the producing regions are important factors in the distribution system to the final consumer. In Maine, shippers or dealers (other than independent shippers) account for the majority of the potatoes sold in the terminal markets and chainstores. The following tabulation shows the classification of Maine licensed potato dealers in 1978-1979 as reported by the University of Maine:

Classification	Percent of licensed dealers	Average loads shipped per licensed dealer
Independent shipper:		
Shippers that grade and load the potatoes themselves and make sales direct to buyers without the service of shipping point potato dealers.	61.1	177
Shipping point dealers:		
Shippers that buy and sell under their own names; that may grow some of the potatoes they sell and/or contract with growers to grow potatoes for them; but whose largest volume comes from buying truck or rail-loaded potatoes sold to them by growers, shippers, or other shipping point dealers; that are not buying agents nor affiliated with wholesalers, receivers, or retail chainstore organizations.	36.5	320
Terminal receivers:		
Firms whose primary business is located in the wholesale market, but that have their own buying and/or grading and loading operations in Maine.	1.2	
Retail chains:		
Firms that have their own buying, grading, and loading operations in Maine, or have their buyers in the producing area to purchase potatoes directly from growers, shippers, or shipping point dealers.	1.2	
Total or average	100.0	233

The independent shipper in Maine usually is a potato grower that has decided to market its own production, and in some cases, may grade and load potatoes which were consigned by other shippers or growers. In other producing

regions, such as Idaho, large centralized packing plants which may be owned and operated by farmers account for a significant portion of the potatoes shipped and sold to terminal markets and retail chains, either directly or through terminal-market brokers. Large quantities of tablestock potatoes in these areas may be marketed by processors that have graded and selected tablestock potatoes from the potatoes they purchased or had for processing.

Marketing methods

Potatoes for the fresh market are packed in various size containers. According to a 1981 study by the Aroostook County Production Credit Association the proportion of round white potatoes marketed in consumer-size containers (20 pounds or less) have been constant at about 60 percent of total volume; the mix consists primarily of 5- and 10-pound containers. Nearly one-third of the round whites are marketed in 50-pound containers and are used for either food service sales or for repacking in the terminal markets. Over four-fifths of Maine's tablestock russets are packed in consumer-size containers.

Most of the round white potatoes are sold in paper bags with mesh windows (consumer-size packs) or solid paper bags (primarily 50-pound bags). A small percentage of the round whites are marketed in polyethylene bags. However, about three-quarters of the russets in Maine are sold in polyethylene bags. Poly bags account for most of the volume of russets and round red potato tablestock marketings from other areas. It should be noted that round white potatoes do not market well in poly bags because they are more susceptible to greening from light exposure and thus require faster turnover in the supermarket. Furthermore, unwashed potatoes tend to appear unsightly in poly bags. Only about 15 percent of the Maine round white potatoes are washed compared with 90 percent of the potatoes from other producing areas being washed.

Transportation

Potato shippers in different parts of the United States and Canada encounter appreciable differences in transportation costs to various destinations. Shippers in Maine, for instance, generally face higher transportation costs than shippers in Montreal but have approximately the same or lower transportation costs as have the shippers in the Maritime provinces. Shippers in Idaho have lower transportation costs than shippers in Canada when shipping to the Midwest but have higher transportation costs when shipping to the Northeast.

Mode of transportation

An important factor affecting transportation costs is the mode used for the shipment. The costs of shipping potatoes by rail can be substantially different from the cost of shipping potatoes by truck. 1/

The extent to which shippers in different growing areas use truck and rail is shown in table 20. Shippers in the major Northeastern potato-producing States, Maine and New York, rely entirely on truck transport, as do growers in Wisconsin and Canada. Shippers in the Western United States are less reliant on trucks, but shippers in only one of these areas, Idaho, move most of their potatoes by rail.

One reason shippers in Western States use rail to a greater extent is that they are farther from consumers. The choice of mode of transport depends in large part on the distance traveled. Loading costs are commonly higher for rail than for trucks; linehaul costs are higher for truck than for rail. Therefore, the longer the distance, the lower is the cost of rail relative to the cost of truck. The effect of distance on mode choice is indicated by the data in table 21. These data show that several growing areas ship a larger share of their potatoes by rail. For example, in 1981, Idaho used truck for 59 percent of its shipments to Chicago, and only 1 percent of its shipments to New York City and Boston.

Distance, however, does not explain the total difference in modal choice. For example, the distance from Maine to Miami is approximately the same as the distance from Idaho to Chicago, but all potatoes shipped from Maine to Miami go by truck whereas 41 percent of potatoes shipped from Idaho to Chicago go by rail.

A major reason that shippers may prefer truck to rail transport, even if the rail rate is lower than the truck rate, is travel time. It usually takes much longer for a shipment to travel a given distance by rail than by truck. A representative of the Maine potato industry told the Commission staff that the major reason shippers there do not use rail is that it is too slow. A rail shipment from Maine may not reach Boston in 5 days; a truck shipment can reach New York in 1 day. The cost advantage of rail transport is not large enough to overcome the time disadvantage. 2/ As a result, Maine potato

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1/ Potatoes consumed in the United States are rarely if ever shipped by water or air.

2/ For many destinations, the cost advantage would be minimal. In November 1978, it cost $1.65 per hundredweight to ship potatoes from Maine to the New York City area by truck; it cost $1.62 by rail. The Bangor and Aroostook Railroad no longer publishes rates for potato shipments.

shippers' use of rail has steadily dwindled. Railroads' share of Maine potato shipments went from 28 percent in 1963/64 to 17 percent in 1973/74 to almost none in 1980/81. 1/

Rail service is particularly slow for Maine potato shipments, because they must be handled by many different connecting railroads. For a shipment from Aroostook County, Maine, to reach Boston, it must travel over the lines of three railroads; reaching New York City requires handling by a fourth railroad; and reaching Atlanta, Ga., or Miami, Fla., requires one or two additional railroads. In contrast, shipments from Idaho to Chicago travel over the lines of two railroads; reaching Boston or New York City requires a third. While a rail shipment from Maine to Miami would travel approximately the same distance as one from Idaho to Chicago, the Maine shipment would be handled by at least five railroads, and the Idaho shipment by two. Because the railroad system serving Maine is fragmented into so many different carriers, the length of time rail shipments would take increases, and so Maine shippers rely increasingly on trucks.

Transportation costs

The transportation costs faced by shippers in Maine and Idaho are compared with the costs faced by Canadian shippers in table 22. Maine and Idaho were chosen because they are the largest producing States in the East and West, respectively. The comparison focuses on two cities in the Northeast, New York City and Boston, and two cities just outside the Northeast, Atlanta and Chicago. The latter two cities were chosen because data on the costs of truck shipments to them from Maine and Idaho are readily available.

The information in table 22 shows that transportation costs often are a significant part of the price of potatoes. In some cases, it costs more to ship potatoes than to purchase them at the shipping point in Maine.

The cost of shipping potatoes from Maine is the lowest for shipments to Boston and the highest for shipments to Atlanta. Shipments from Maine to Boston cost $1.50 per hundredweight, or 32 percent of the shipping point price of potatoes; shipments from Maine to Atlanta cost $3.71 per hundredweight, or 79 percent of the shipping point price.

These data also show that Idaho's use of rail transport substantially reduces its transportation costs. For example, even though Idaho is much farther from Atlanta than is Maine, it costs less to ship potatoes by rail from Idaho than by truck from Maine. Idaho shippers' use of rail transport may significantly improve their ability to compete with shippers in Maine and Canada.

The cost of shipping potatoes by rail from Idaho is the highest for shipments to Boston and the lowest for shipments to Chicago. Rail shipments from Idaho to Boston cost $5.05 per hundredweight, or 107 percent of the shipping point price in Maine. Rail shipments from Idaho to Chicago cost $2.95 per hundredweight, or 63 percent of the shipping point price in Maine. 2/

1/ U.S. Department of Agriculture Office of Transportation, "Shipping Maine Potatoes to Eastern Markets," March 1981, p. 13.

2/ Prices are expressed as a share of the Maine shipping point price to facilitate comparisons between areas.

Rates for truck shipments of potatoes to U.S. destinations from New Brunswick, Canada, are approximately the same as those for shipments from Maine. Rates for shipments from Prince Edward Island are commonly about $1 per hundredweight more than rates for shipments from Maine. Rates for shipments from Montreal are from 20 to 48 cents less than rates for shipments from Maine. Therefore, transportation costs to U.S. destinations are similar for shippers in Canada and shippers in Maine, the Northeast's major producing area. Because most imports of Canadian potatoes travel to destinations in the Northeast, transportation costs probably do not significantly affect competition between Canadian imports and U.S. producers.

Three factors seem to influence the relative costs of truck transport from Canada and the United States. The first is distance; rates from Prince Edward Island are higher because it is farther from U.S. destinations than Maine or New Brunswick. The second is the availability of backhaul truck capacity. If a larger volume of truck freight enters an area than leaves it, some trucks will have to make their return trip, or backhaul, empty. Because these truckers must make this trip anyway, they will be willing to carry freight on the backhaul at very low rates. Rates from Montreal are lower than rates from Maine in large part because more backhaul capacity is available in Montreal. The third factor is the price of fuel; fuel for trucks is cheaper in Canada than in the United States.

U.S. industry sources have indicated that some Canadian potatoes are trucked from New Brunswick and Prince Edward Island to Montreal for warehousing, and then shipped to the United States. By shipping potatoes to Montreal before shipping them to the United States, importers can take advantage of the low truck rates from Montreal to the United States and the Canadian government assistance on potato shipments from the Maritime Provinces and eastern Quebec to the rest of Canada. The rail rate for shipments from Prince Edward Island to Montreal is $1.49 per hundredweight, for shipments in truck trailers carried on rail cars it is $1.62 per hundredweight. The Canadian Government's freight rate assistance reduces these costs by $0.22 per hundredweight, so the net cost is $1.27, or $1.40 per hundredweight. 1/

The truck rate from Montreal to New York City is $2.17 per hundredweight (table 22). Thus, the cost of shipping from Prince Edward Island to New York City via Montreal is $3.44, or $3.57 per hundredweight. These costs are higher than the rate of $2.50 per hundredweight for direct truck shipments from Maine, but lower than the rate of $3.75 per hundredweight on truck shipments from Prince Edward Island directly to New York. Furthermore, trucks are likely to be more readily available in Montreal than in Maine or the Maritime Provinces. However, the rates via Montreal do not include the cost of transferring potatoes from rail to truck in that city. 2/ These costs will reduce the savings of shipping via Montreal.

1/ Data on freight rates within Canada, and assistance are from the testimony of Mr. Danny Dempster, Assistant to the Executive Vice President of the Canadian Horticultural Council, June 30, 1982, transcript of the hearing, p. 428.

2/ These rates also do not include the cost of shipping by truck from the farm to the rail siding. The Canadian National Railroad, a Government-owned carrier, may begin to pay part of these costs this fall. The Canadian National agreed to make such payments in order to reduce shipper opposition to its attempts to get Government permission to abandon some of its lines in Prince Edward Island.

U.S. Exports

The United States is usually a net exporter of fresh white or Irish potatoes. During 1976-81, annual U.S. exports of such potatoes ranged from 13.6 million hundredweight, in 1976, to 1.9 million hundredweight in 1980 (table 23). In 1981, exports amounted to 2.8 million hundredweight, valued at $37.0 million. A drought in Europe in 1975 and 1976 resulted in shortfalls in two successive European crops, which increased the demand for potatoes from the United States. Thus, exports were unusually large for several years in the mid-1970's.

Canada is generally the principal export market for fresh U.S. potatoes, and most of those exports are tablestock potatoes (tables 23 and 24). In 1980 and 1981, exports of such potatoes to Canada accounted for more than nine-tenths of total potato exports to that market, and seed potatoes accounted for the remainder. Five ports of embarkation account for four-fifths or more of the annual exports of fresh potatoes to Canada. They are Seattle; Detroit; Ogdensburg, N.Y.; Buffalo; and Great Falls, Mont. (table 25). Two of the principal ports of embarkation are located in the Western region, two are in the Northeastern region, and one is in the North Central region. The share of the potato exports going through ports in the Western region increased from 36 percent in 1978 to 41 percent in 1981; that share going through Northeastern ports dropped from 35 percent in 1978 to 25 percent in 1980, before rebounding to 36 percent in 1981. The share of exports shipped through North Central ports during 1978-81 declined irregularly from 29 to 23 percent.

Exports of potatoes to Canada from ports within a region usually include potatoes grown in other regions of the country. This diversity of supply sources reflects the seasonal character of the export trade to Canada. From 1976/77 to 1980/81, more than four-fifths of the potatoes exported to that country were shipped during the months of March through July (table 26). Exports during these months consist largely of new crop potatoes harvested from the spring and summer crops, which supplement supplies in Canada from the previous fall-harvested crop. Seed potatoes bound for the Canadian market are usually shipped during the winter and early spring months.

The following tabulation shows the percentage distribution of the average annual unloads of U.S. tablestock potatoes (1.7 million hundredweight) in 12 principal Canadian cities, by U.S. production regions and Canadian consumption regions, 1/ during 1977-79, as compiled from official statistics of Agriculture Canada:

1/ The Canadian consumption regions and their markets are as follows: Western--Edmonton, Calgary, and Vancouver; Central--Toronto, Winnipeg, Regina, and Saskatoon; and Eastern--Halifax, Saint John, Quebec City, Montreal, and Ottawa.

U.S. production region	Percentage distribution	Canadian consumption region	Percentage distribution
Southern 1/	68		
Western	27	Western	40
North Central	5	Central	33
Northeastern	2/	Eastern	27
Total	100	Total	100

1/ Includes the California potato crop.
2/ Less than 0.5 percent.

A similar distribution pattern probably existed in the Canadian market for U.S. potatoes in 1980 and 1981. The principal States supplying potatoes to Canada were California (37 percent of the total), Washington (19 percent), Virginia (12 percent), and Florida (9 percent). By comparison, less than 1 percent of the potatoes unloaded in the 12 Canadian cities were from States in the Northeastern United States. The principal Canadian markets for U.S. potatoes were located in the Western consumption region, followed by those in the Central and Eastern regions.

U.S. exports of potatoes in bulk to Canada are subject to restriction under the Canadian Agriculture Products Standards Act. 1/ The full extent of the effect of such restrictions on exports of potatoes from the United States is unknown. However, of the waiver requests made during 1980-82 that were granted for the months of January to June (months that account for about two-thirds of the U.S. annual bulk exports), the Northeastern U.S. region received permits for less than one percent of the U.S. bulk shipments to Canada. Most of such exports are supplied by Eastern Shore States (Virginia, Delaware, Maryland, and North Carolina), the Western region (principally California), and Florida. It appears, therefore, that at least for 1980-82 (January-June), Maine supplied none or only small quantities of potatoes in bulk to Canada. It is not known if Maine potato exporters are unable to secure the necessary permits or whether such exporters do not apply for the permits. Most of Maine's potatoes are shipped during the months of January to June, principally to markets in the U.S. Northeastern region.

Of bulk U.S. exports shipped to Canada under permit during January-June of 1980-82, which aggregated 1.7 million hundredweight, nearly one-half (43 percent) was shipped by Eastern Shore States from unstored spring or summer-harvested potatoes. Because of market proximity and related transportation costs, much of the Eastern Shore potato crop is sold in the Northeastern market region, and restraints on exports of that crop to Canada would likely increase the supply to be sold in this region.

1/ Such shipments must be accompanied by a waiver (permit) exempting the shipment from packaging requirements. Waivers are granted by Canadian officials on a case by case basis. The waivers specify the quantity, supply and receiving locations, use, and time limit for the shipments. Documents accompanying the bulk exports are stamped by U.S. inspectors at the shipping point, verifying that the shipments meet Canadian requirements.

California (mostly from the central part of the State) accounted for 28 percent of the bulk exports shipped under permit to Canada; because California ships tablestock potatoes throughout the United States, permit denials by Canada would most likely result in an increase in shipments from that State to other U.S. regions.

During the time periods discussed here, the Western region (excluding California) accounted for 13 percent of the U.S. bulk exports to Canada under permit. Restrictions on Western region exports to Canada probably would increase the domestic supply of potatoes for processing and would unlikely increase supplies of Western potatoes in Northeastern markets for tablestock use.

The North Central region accounted for only 7 percent of the U.S. bulk potato exports to Canada under permit during the January-June periods of 1980-82. Permit denials would tend to increase the shipments from this region to the Northeastern region.

Florida accounted for 8 percent of the U.S. bulk potato exports to Canada during the period under review. However, most of Florida's shipments occur during the 3-month period of April through June. Such shipments probably would not be seriously affected by permit denials since Florida potatoes are among the first to reach the market place.

From information presently on hand, it appears that the non-issuing of import permits on bulk potatoes probably has a minor direct impact upon Maine exports to Canada relative to such exports from other U.S. regions. The majority of Maine's potatoes are consumed within the Northeastern region.

Most of Maine's potatoes are shipped to markets within the Northeastern region. Very small quantities either in bulk or packaged are exported to Canada. This distribution pattern for marketing Maine potatoes has been essentially unchanged for a number of years. Maine potatoes to be exported to Canada must meet Canadian import regulations, such as to quality and size. Denial of import permits to potatoes from other U.S. regions would tend to have the indirect effect of increasing the unloads from those regions, as discussed above, to the Northeastern region.

U.S. Imports

U.S. imports of fresh white or Irish potatoes during 1976-81 increased steadily in terms of volume and value from 532,000 hundredweight, valued at $3.3 million, in 1976 to 3.9 million hundredweight, valued at $32.3 million, in 1981 (table 27). During this period, Canada accounted for virtually all of the imports. Data obtained from questionnaire responses by importers indicate that the majority of the imports are round white potatoes. 1/ Imports of russet potatoes were next in importance, while round red potatoes were a very small part of the total. 2/ The data also showed that the majority of the imported potatoes were grown in the Canadian Provinces of Prince Edward Island, New Brunswick, and Ontario from 1977/78 to 1980/81. However, Quebec accounted for a significant portion of the U.S. imports in 1980/81 (23 percent of the questionnaire response volume). The significant rise in U.S. imports in 1980 and 1981 is believed to be in response to high U.S. prices during 1980/81 for potatoes resulting from decreased U.S. production that year.

Imports by quota category

U.S. imports of white or Irish potatoes are classified under four TSUS items for quota purposes, depending on whether they are imported as certified seed potatoes within quota (TSUS item 137.20) or overquota (TSUS item 137.21), and as potatoes other than certified seed within quota (TSUS 137.25) or over quota (TSUS 137.28). 3/ Imports of certified seed potatoes within quota (TSUS item 137.20) are concentrated from December through June (table 28) and are limited to a maximum of 1,140,000 hundredweight annually. 4/ During the quota years 1977/78 through 1980/81, imports within the quota averaged 740,000 hundredweight annually and ranged from a low of 587,000 hundredweight in quota year 1979/80 to a high of 1,097,000 hundredweight in quota year 1980/81. During the first 9 months of the 1981/82 quota year, imports totaled 1,140,000 hundredweight compared with 1,093,000 hundredweight

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1/ The response data indicated that of the combined imports of seed and tablestock potatoes from all Provinces, the share accounted for by round whites for the crops of 1976/77 to 1980/81 ranged from 65 to 91 percent. The importers that responded imported an average of 465,000 hundredweight annually from 1976/77 to 1980/81, which was equivalent to about one-fourth of total imports during the period.

2/ However, testimony presented at the Bangor hearing (transcript p. 407) and the post-hearing brief of the Canadian Horticulture Council (p. 9) indicate that about 70 percent of Prince Edward Island's exports to the United States consist of russet-type potatoes, and 75 to 80 percent of the potatoes grown in New Brunswick are the Russet Burbank variety.

3/ The quota year is from Sept. 15 to the following Sept. 14.

4/ Potatoes imported under the tariff provisions for cetified seed potatoes are not required to be used as seed potatoes for planting in the United States. The only requirments is that they be "certified by a responsible officer or agency of a foreign government in accordance with official rules and regulations to have been grown and approved especially for use as seed," and must be "in containers marked with the foreign government's official certified seed potato tags."

during the comparable period in 1980/81. Imports of certified seed potatoes over quota (TSUS item 137.21) have been very small in most years (table 29). However, imports of over quota seed potatoes in 1980/81 totaled 470,000 hundredweight and were concentrated from March through May.

Imports of potatoes other than certified seed within quota (TSUS item 137.25) are limited to an annual quantity of 450,000 hundredweight (table 30). In recent years, imports were concentrated in the months of October and November, with significant imports in September, December, and January in some years. Although data in table 30 show that the quota was not filled in 1977/78 or 1978/79, and that it was exceeded in 1979/80 and 1980/81, information obtained from the U.S. Department of the Treasury indicates that the quota was filled in each of those years on the following dates:

Quota year	Date
1977/78----------	Jan. 31, 1978
1978/79----------	Mar. 7, 1979
1979/80----------	Dec. 21, 1979
1980/81----------	Nov. 12, 1980
1981/82----------	Nov. 20, 1981

It is believed that any differences between data reported by the U.S. Customs Service and the U.S. Bureau of the Census are, in part, due to delays in data being recorded and to improperly reported or recorded data.

During quota years 1977/78 through 1980/81, U.S. imports of potatoes other than certified seed potatoes over quota (TSUS item 137.28) ranged from a low of 301,000 hundredweight in 1978/79 to a high of 1,936,000 hundredweight in 1980/81 and averaged 851,000 hundredweight annually (table 31). During first 9 months of 1981/82, overquota imports totaled 2,190,000 hundredweight compared with 1,838,000 hundredweight in the corresponding period of 1980/81.

Data in tables 28-31 indicate that imported potatoes are generally entered under TSUS item 137.25 (underquota potatoes other than certified seed) during the first 3 to 4 months of the quota year, by which time the quota of 450,000 hundredweight is usually filled. After that quota is filled, imports of potatoes are usually entered as certified seed potatoes within quota (TSUS item 137.20) or as potatoes other than certified seed potatoes over quota (TSUS item 137.28). In quota years 1977/78 and 1978/79, imports under TSUS item 137.20 exceeded imports under TSUS item 137.28 by 476,000 hundredweight, or nearly 58 percent, but during 1979/80, 1980/81, and September 1981-March 1982, imports under TSUS item 137.28 exceeded those under TSUS item 137.20 by 1,542,000 hundredweight, or by 66 percent. However, the certified seed quota of 1,140,000 hundredweight was not filled in any of the years under review, except during 1981/82 quota year, when it was filled on April 27, 1982. 1/ The majority of the imports under TSUS items 137.20 and 137.28 entered during the months of December through June.

1/ For the 1980/81 quota year, U.S. Department of the Treasury officials report that the quota quantity was not filled. However, data of the U.S. Department of Commerce on imports of underquota and over quota seed potatoes show that the combined imports exceeded the quota quantity by 37 percent, but that those imports that were entered within the quota provision amounted to only 96 percent of the quota quantity (tables 28 and 29).

Imports by customs districts

From January-March 1978 to January-March 1982, the majority of U.S. imports of potatoes were entered through four customs districts of the United States--Portland, Maine; Ogdensburg, N.Y.; Pembina, N. Dak.; and Buffalo, N.Y., which together accounted for 90 percent of the entries in 1981, with the majority of the entries being in Portland, Maine. Nearly all of the entries were during January-March, April-June, and October-December. Tables 32 and 33 show imports, by customs districts, for certified seed potatoes and noncertified potatoes. In general, the Portland district accounts for over 75 percent of the imports of certified seed potatoes and from 45 to 60 percent of the noncertified potatoes. Other Northeastern customs districts usually account for the majority of the remaining imports of both types of potatoes. An exception is Pembina, N. Dak., which accounted for significant quantities of potatoes other than certified seed in some years.

Distribution of imports by market regions

Data available from the USDA on unloads of potatoes in major cities show that the majority of the imports from Canada are sold in the Northeastern United States (tables 34, 35, and 36). From 1977/78 to 1980/81, Canada's share of the potato unloads in the Northeastern region increased irregularly from 3 to 6 percent. Canada accounted for less than 0.5 percent of the potato unloads in the North Central region in crop years 1977/78 through 1980/81 and for none of the unloads in the Western region during that period.

Responses to the importers questionnaire indicate that the Southern region is also an important marketing region for imported potatoes, accounting for nearly one-third of the imports in some years. The data also showed that potatoes, other than certified seed, accounted for about 80 percent of the responding importers' sales to buyers in the Northeastern region, whereas, importers' sales to buyers in the Southern region are primarily certified seed potatoes.

CANADIAN POTATO SITUATION

Consumption

During 1976-81, apparent consumption (fresh market, processing, and seed) of potatoes ranged from 47.5 million hundredweight in 1977 to 41.5 million hundredweight in 1980 (table 37). Consumption in 1981 is estimated at 43.6 million hundredweight. Data compiled from information supplied by the USDA indicate that in recent years (1978-81) Canadian consumption (by quantity) of potatoes was approximately 50 percent fresh market (includes imports), 38 percent processing, and 12 percent seed.

Production

Acreage

During 1976-81, Canadian acreage planted in fall-harvested potatoes ranged from 264,000 in 1976 to 280,000 in 1979 and 267,000 in 1981 (table 38). Acreage planted in Eastern Canada in 1981 (Prince Edward Island, New Brunswick, Quebec, Newfoundland, and Nova Scotia) accounted for 62 percent of the total acreage planted and ranged from 155,000 in 1976 to 169,000 in 1979. During 1976-81, acreage planted in Central Canada (Ontario, Manitoba, and Saskatchewan) followed no regular pattern and ranged from 87,000 in 1976 to 79,000 in 1981. Acreage planted in Western Canada (Alberta and British Columbia) declined irregularly during 1976-81 from 27,000 to 24,000.

Acreage passing certification for seed amounted to 79,000 in 1981, or 30 percent of total Canadian acreage planted (table 39). During 1976-80, Canadian acres certified increased steadily from 53,000 to 81,000 and then declined to the 1981 level. Eastern Canada accounted for about 91 percent of Canadian acreage passing certification. The Province of Prince Edward Island is the most important producer of certified seed and in 1981 accounted for 62 percent of total acreage. Central Canada and Western Canada accounted for 6 and 3 percent, respectively, of 1981 certified acreage.

Acreage planted in certified seed potatoes provides an indication of the types of potatoes grown for tablestock and other uses. The bulk of the certified seed potato acreage in Canada is devoted to the round white type of potato, followed by the russet and round red types. There has been a shift, however, in the relative importance of the types planted for seed certification. During 1977-81, the share of certified round white seed potato acreage declined from 73 to 60 percent of the total that of russet potato acreage increased from one-fifth to one-third. The share of the acreage planted in certified round red seed potatoes remained relatively unchanged, annually ranging from 5 to 8 percent of the total during 1977-81. The following tabulation, as compiled from data published by the United Fresh Fruit and Vegetable Association, Alexandria, Va., shows the percentage distribution of Canadian potato acreage passing certification, by specified seed potato types:

Year	Round white	Russet	Round red	Total
	Percent			
1977	73	20	7	100
1978	70	24	6	100
1979	68	27	5	100
1980	60	34	6	100
1981	60	32	8	100

Production costs

Detailed cost-of-production studies for Canadian potatoes are not undertaken on a regular basis. However, since potatoes were designated for price support in 1981 under the 1979 Eastern Canada Potato Stabilization Program, support-price calculations were made by the Canadian Government, and in conjunction with these calculations, certain cost of production data (termed "out-of-pocket costs") were developed for potato growers in Prince Edward Island, New Brunswick, Quebec, and Ontario.

Cash costs converted to U.S. dollars per hundredweight (as of Jan. 1) for potato production in Eastern Canada and Ontario are shown in the tabulation below: 1/

Crop year	Prince Edward Island	New Brunswick	Quebec	Ontario	Average
1976/77	2.54	2.84	3.02	2.09	2.61
1977/78	2.29	2.39	2.14	1.66	2.13
1978/79	1.97	1.97	2.02	1.68	1.91
1979/80	2.04	2.04	2.35	1.99	2.12

Seed and fertilizer costs were the most important cost elements of total costs, and generally, each accounted for about 20 percent of total cost. Other important elements of total cost were labor and spray.

Costs in Prince Edward Island declined from $2.54 per hundredweight (U.S.) in 1976/77 to $1.97 per hundredweight in 1978/79 and then increased slightly to $2.04 per hundredweight in 1979/80 (table 40). In 1979/80, seed costs were the most important cost element of total costs and accounted for 26 percent of the total. Other important cost factors for production in Prince Edward Island and their respective share of total costs were spray (19 percent), fertilizer (13 percent), and labor (11 percent). Costs in

1/ Eastern Canada includes Prince Edward Island, New Brunswick, and Quebec.

New Brunswick also declined during 1976/77 to 1978/79, from $2.84 to $1.97 per hundredweight and then increased to $2.14 per hundredweight in 1979/80 (table 41). The most important elements of cost and their respective share of total costs for 1979/80 were as follows: Fertilizer (21 percent), seed (18 percent), labor (16 percent), and spray (9 percent). From 1976/77 to 1979/80, production costs in Quebec declined irregularly from $3.02 per hundredweight to $2.35 per hundredweight (table 42). Important cost elements for 1979/80 were as follows: Fertilizer (34 percent), seed (21 percent), labor (19 percent), and spray (10 percent). Costs in Ontario increased irregularly from 1976/77 to 1979/80 from $2.09 per hundredweight to $1.99 per hundredweight (table 43). The most important elements of total cost for 1979/80 and their share of total cost were seed (23 percent), fertilizer (20 percent), labor (15 percent), and spray (13 percent).

Estimated cost-of-production data for Prince Edward Island (1980), New Brunswick (1981), and Ontario (1981), as compiled from Canadian sources, are included as appendix F. The data indicate that the cost of potato production in Prince Edward Island in 1980 was $890 (U.S. dollars) per acre, or $3.68 per hundredweight. 1/ Hired labor, fertilizer and lime, and seed were the most important cost elements, and, respectively, accounted for 15 percent, 15 percent, and 10 percent of total costs. The average cost of production per acre for New Brunswick tablestock potatoes in 1981 is estimated at $1,067 ($949 per acre for processing potatoes and $1,140 for seed potatoes). The most important cost elements for tablestock production were seed and seed treatment (14 percent), fertilizer and lime (10 percent), and labor (10 percent). The estimated cost of producing potatoes in Ontario for 1981 is reported to have been $885 per acre, or $4.60 per hundredweight. Seed and seed treatment were the largest single cost elements, accounting for 22 percent of total cost in 1981. Spray and labor costs were also significant, with each accounting for 10 percent of total cost.

Data relating to estimated costs of production in 1980 for the major U.S. fall production areas reveals an average (nationwide) cost of $3.27 per hundredweight (table 12). Major cost components were interest expenses (26 percent), fertilizer (16 percent), chemicals (13 percent), seed (11 percent), and depreciation (11 percent). Average farm expenses in 1980 for Canadian (Prince Edward Island) producers were $4.30 (Canadian) per hundredweight or $3.68 in U.S. dollars. Interest expense was a more important cost component in the United States, while labor was more important in Canada.

Average cost of production for Prince Edward Island producers in 1980 was higher than all but one (Long Island) domestic production area and very close to Maine's 1980 cost of production of $3.43 per hundredweight. Fertilizer and interest expense were more important components of total cost in Maine, while depreciation and labor were more important in Prince Edward Island.

1/ Converted to U.S. dollars on the basis of conversion rate in effect on Jan. 1 of the year in question.

Production and utilization

From 1976/77 to 1981/82, Canadian production of fall-harvested potatoes, which occurs in all 10 Provinces, ranged from 52 million hundredweight in 1976/77 to 61 million hundredweight in 1979/80 (table 44). Production in 1981/82 amounted to 56 million hundredweight, equivalent to about 20 percent of U.S. production. It is estimated that three varieties (Russet Burbank, Sebago, and Kennebec) account for about three-quarters of Canadian potato production.

Production in Eastern Canada from 1976/77 to 1981/82 ranged from 31 million hundredweight in 1976/77 to 39 million hundredweight in 1979/80. Eastern Canadian production in 1981/82 was 37 million hundredweight, or 66 percent of total production. Prince Edward Island and New Brunswick are the leading producing areas in Canada, and made up 27 and 23 percent, respectively, of Canadian production.

From 1976/77 to 1981/82, production in Central Canada ranged from 17 million hundredweight in 1977/78 to 14 million hundredweight in 1981/82 and accounted for a quarter of total Canadian production in the latter year. Most of the production was in Ontario and Manitoba. Western Canadian production declined irregularly from 1976/77 to 1981/82 from 6 million hundredweight to 5 million hundredweight, and in 1981/82 made up 9 percent of total Canadian production. Alberta accounted for 72 percent of Western Canadian production in 1981/82.

Detailed utilization data relating to all Canadian Provinces are not available; however, information is available for the top three potato-producing Provinces, specifically Prince Edward Island, New Brunswick, and Quebec (for which only general data are available). 1/ Utilization of potatoes for Prince Edward Island and New Brunswick for 1980/81 (compiled from Canadian Government sources) are shown in the following tabulation:

Province	Shipments		Local use (including seed and processing)	Cullage and loss	Total
	Table	Seed			
	1,000 hundredweight				
Prince Edward Island	5,862	2,761	2,223	2,180	13,026
New Brunswick	1,828	1,523	5,875	2,363	11,589

The data indicate that the majority of production in Prince Edward Island was not used locally, but was shipped to other areas. Approximately 68 percent of the shipments consisted of tablestock; the remainder was seed potatoes. The majority of the production in New Brunswick was used locally (largely for processing), with shipments divided about evenly between tablestock potatoes and seed potatoes.

1/ In 1981/82, these three Provinces accounted for over 64 percent of total Canadian production.

Information obtained by the USDA from the Provincial Department of Agriculture in Quebec indicates about 70 percent of the 1980/81 Quebec crop entered the Provincial fresh market, 21 percent was processed, and 4 percent was sold out of the Province. Of the last category, the majority were shipped to Ontario markets, particularly Ottawa, with small quantities sold to processors in the New England States. These exports are reported to represent less than 1 percent of Quebec output. The USDA reports that Quebec is only 63 percent self-sufficient in tablestock potatoes and relies on interprovincial shipments from Prince Edward Island and New Brunswick and imports from the United States.

Seed potato certification requirements

Canadian seed potatoes are certified by the Seed Potato Division of Agriculture Canada's Food Production and Inspection Branch. Requirements for seed certification in Canada are similar to those in the United States and include field inspection to detect disease and compulsory postharvest testing. Canadian sources indicate about 84 percent of requested acreage for certification in 1981 was certified. In July 1980, Canada announced the implementation of the Seed Potato Quality Improvement Program, designed to improve seed potato quality, improve management techniques, encourage further varietal development, expand market promotion, and intensify disease control efforts. Canadian sources report that changes to seed potato regulations have recently been introduced to assist in these efforts. 1/ The new regulations require zero tolerance for spindle tubers in all seed grades and provide for better postharvest testing for bacterial ring rot. A comparison of Maine and Canadian disease standards for certified seed potatoes is shown in appendix G.

Stocks

Canadian potato stocks are at their highest levels in November (immediately after harvest). In the following months, stocks are gradually depleted, and by June stocks are usually nil. Total Canadian stocks held in cold storage and wholesale warehouses on November 1, of 1976-81 ranged from 35 million hundredweight in 1976 and 1978 to 44 million hundredweight in 1979 (table 45). The high stock level on November 1, 1979 was a direct result of the record harvest for the 1979 crop. Stocks on November 1, 1981, totaled 41 million hundredweight. Stocks held in Eastern Canada account for the majority of holdings and in 1981 made up 69 percent of total stocks. From 1976/77 to 1981/82, the ratio of potato stocks (on Nov. 1) to total Canadian potato production ranged between 63 percent, for 1978 stocks, and 73 percent, for 1981 stocks.

1/ The Canadian Minister of Agriculture stated on Feb. 17, 1982, that as part of an agreement on seed potatoes with the European Economic Community, Agriculture Canada is speeding up the expansion of its capacity for postharvest laboratory testing, developing production criteria for seed farms that are in line with European practices, and working with European Economic Community phytosanitary experts on mutually agreed postharvest testing procedures. The agreement also calls for the creation of bacterial ring-rot-free zones where the disease has not been identified for at least 3 years.

Principal destinations (marketing regions) and shipping periods, by major production regions

Data relating to Canadian shipments of tablestock potatoes to specified Canadian markets from 1976/77 to 1979/80 are shown in table 46. In 1979/80 (the most recent year for which national data are available), Montreal, Toronto, and Quebec City were the most important domestic markets for Canadian potatoes, accounting for 24, 24, and 12 percent, respectively, of total Canadian domestic shipments.

In 1978/79 (the most recent year for which Provincial data are available), shipments from Prince Edward Island accounted for a third of the total Canadian shipments of 7,950,000 hundredweight, and shipments from New Brunswick made up 13 percent of total shipments. 1/ Information relating to Quebec (obtained from the USDA) indicates that about 333,000 hundredweight (or 4 percent of production) were shipped out of the Province in 1980/81, and that the majority of these shipments went to Ontario markets, particularly Ottawa.

The most recent information available (1979) indicates that January is the peak shipping month (accounting for 11 percent of total shipments in 1979), although in general, shipments are spread throughout the year. Shipments were fairly stable (about 90 percent of the January level) during February-May, after which they declined sharply, reaching their lowest levels in June and July. Shipments then more than doubled in August, compared with those in July, and generally remained near this level through December.

Exports

Total

Canadian exports of potatoes (both seed potatoes and fresh potatoes other than seed) during 1976-81 are shown in the following tabulation (in thousands of hundredweight):

Year	Seed	Other than seed	Total
1976	2,210	2,958	5,168
1977	2,182	1,898	4,080
1978	2,027	1,066	3,093
1979	2,068	1,519	3,587
1980	3,010	2,489	5,499
1981	2,986	2,897	5,883

Exports of seed potatoes accounted for 51 percent of the total quantity of 1981 Canadian potato exports. Canada has a worldwide reputation for high-quality seed potatoes. During 1976-79, exports of seed potatoes were relatively stable, averaging 2.1 million hundredweight annually (table 47). The quantity of exports in both 1980 and 1981 increased to 3.0 million

1/ Shipments from Prince Edward Island, New Brunswick, and Quebec are believed to have accounted for over 50 percent of 1980/81 Canadian shipments to domestic markets.

hundredweight. The United States was the major market in 1981, accounting for about 48 percent of the value of total seed exports. Venezuela, Cuba, and Uruguay were also markets, and accounted for 19, 9, and 7 percent of the value of 1981 Canadian seed potato exports, respectively.

During 1976-81, exports of fresh potatoes, other than seed, ranged from 3.0 million hundredweight, valued at $17.4 million, in 1976 to 1.1 million hundredweight, valued at $5.5 million, in 1978 (table 48). Exports in 1981 amounted to 2.9 million hundredweight, valued at $27.4 million. The United States is the chief market, and in 1981 accounted for 83 percent of the value of total Canadian exports. Other important markets in 1981 included Trinidad-Tobago (9 percent) and Venezuela (4 percent).

Regional

Canadian potato exports, by regions, are shown in table 49. The data for 1980/81 indicate that Eastern Canada accounted for 88 percent (5.5 million hundredweight) of Canadian exports to all markets and for 79 percent (3.0 million hundredweight) of Canadian exports to the United States. About 60 percent of the Eastern Canadian exports were seed potatoes, and the remainder were potatoes other than seed. In comparison, in 1975/76, exports from Eastern Canada accounted for 91 percent (2.8 million hundredweight) of total Canadian exports and 64 percent (428,000 hundredweight) of exports to the United States. Approximately 83 percent of the Eastern Canadian exports consisted of seed potatoes in 1975/76. Based on the USDA unloads data for major U.S. metropolitan market areas (tables 34-36), most of the Canadian potatoes exported to the United States are probably marketed in the Northeastern region of the country.

Imports

During 1976-81, Canadian imports of seed potatoes and fresh potatoes, other than seed, declined irregularly from 4.4 million hundredweight, valued at $24.5 million (Canadian), to 3.6 million hundredweight, valued at $45.2 million (table 50). Fresh potatoes, other than seed, made up the majority of imports, and in 1981, they accounted for 96 percent of the total quantity and 97 percent of the total value of imports. The United States is the primary supplier (over 99 percent by quantity and value in 1981), and only miniscule amounts are supplied by other countries. During 1976-81, Canadian imports of seed potatoes ranged from 454,000 hundredweight, valued at $2.0 million, in 1978 to 129,000 hundredweight, valued at $1.3 million, in 1981.

Canadian Government Programs that Affect Production or Exports of Potatoes

Federal support programs are available to growers of potatoes in Canada. In addition, Provincial support programs are available to growers of potatoes in Canada's Maritime Provinces of Prince Edward Island and New Brunswick, the Provinces that account for about one-half of the potato production in Canada. Many of these Federal and Provincial programs are available to farmers other than potato farmers. Also, export market promotion is available to Maritime potato growers through both the Federal and Provincial departments of

agriculture and basically the efforts of two industry groups, the Prince Edward Island Potato Marketing Board and the New Brunswick Potato Agency.

Production programs

During 1976-80, major expenditures on various Government programs to assist the Canadian potato industry (mostly for production) averaged about $8 million annually, not including low-interest recoverable Federal loans for advance payment for storage crops and Provincial loans from the New Brunswick Farm Adjustment Act. These latter loans were valued at about $5 million annually during the period. 1/ 2/ About one-half of the expenditures, not including the loans, were made by the Federal Government and mostly consisted of income support under the Canadian Agricultural Stabilization Act. These expenditures averaged about $4 million annually during 1976-80. The remaining half of the average annual expenditures for 1976-80 consisted of (a) Canadian-Provincial programs--crop insurance for Prince Edward Island and New Brunswick ($716,000 and $23,000, respectively) various farm development programs ($1.1 million), (b) Provincial programs of New Brunswick--agricultural limestone assistance ($140,000), seed potato distribution to the industry ($304,000), potato industry evaluation and education and disease eradication ($184,000), and (c) Provincial programs of Prince Edward Island--cull burial program and potato disinfection ($450,000), agricultural limestone incentive ($185,000), and seed incentive and distribution (about $100,000).

Storage programs

The USDA reports that the Canadian Fresh Fruit and Vegetable Storage Construction Assistance Program, in effect since 1973, and administered by Agriculture Canada, extends financial assistance to producer groups of up to one-third the cost of renovations or construction of storage facilities suitable for the preservation of perishable fruits and vegetables. In recent years, the annual budget for the program is reported to have ranged from

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1/ "A Summary of Governmental Assistance Programs Available to Potato Producers, Packers, Processors, and Dealers in Maine, New Brunswick, and Prince Edward Island", prepared by the New Brunswick Department of Agriculture and Rural Development, Prince Edward Island Department of Agriculture and Forestry, Agriculture Canada, and the Maine Department of Agriculture, Food and Rural Resources, March 1982, p. IV.

2/ Data are not available on loans by Canada's Farm Credit Corporation (FCC) for potatoes for 1976-80. According to a report from the U.S. Agricultural Counselor, Ottawa, Canada, to the Foreign Agricultural Service, U.S. Department of Agriculture (Report No. CN1061, May 15, 1981), total FCC loans for cash crops in Atlantic Canada, the majority which reportedly were made to potato farmers in Prince Edward Island and New Brunswick, were valued at about $19 million during 1979/80, or about 3 percent of total FCC loans of $628 million.

$1 million to $3.5 million, and approximately 30 percent is reported to have been used for potato storage facilities. 1/

In addition, the Advance Payments for Crops Act (passed in 1977) allows Canadian farmers to receive advance payments on crops entering storage for later sale. The Federal Government pays the interest on loans for growers who as an organization undertake to store and market their produce through specified purchases and to repay the principal amount of the loan as sales are made. Over the past 5 years, annual interest payments to producers in Prince Edward Island and New Brunswick averaged about $175,000 toward loans averaging $3.1 million. 2/

Freight assistance

The Atlantic Regional Freight Assistance Act, under the authority of the Maritime Freight Act of 1927, offers industries, including agriculture, and manufacturers in Newfoundland, Nova Scotia, New Brunswick, Prince Edward Island, and Quebec south of the St. Lawrence River and east of Levis, and Diamond, Quebec, freight rate assistance to points within, as well as outside, the regions, but within Canada. The purpose of the assistance is to provide Maritime producers and manufacturers with competitive access to Central and Western Canadian markets. The assistance is available only for public carriers registered with the Canadian Transportation Commission, and they are paid to the carriers by the Commission on the basis of manifests established by the volume of traffic. Data are not available on the funds paid only for potatoes. 3/ Two types of assistance are available for goods, including potatoes. One is an intraregional payment at a rate of 15 percent of the cost of transporting by rail, truck, water, or air, commodities originating in, and destined to, points within the designated area. Goods that are to be exported from Canada are specifically excluded. The other type of assistance essentially involves a two-tier payment system totaling 50 percent of the cost of transporting by truck or rail goods originating within a designated area and transported to Canadian designations outside the area; commercial rates apply to that portion of the transportation outside the designated area. As is the case with the intraregional assistance, this two-tier payment is not paid for products exported from Canada. 4/

1/ New Brunswick Department of Agriculture and Rural Development, Prince Edward Island Department of Agriculture and Forestry, Agriculture Canada, and the Maine Department of Agriculture, Food and Rural Resources, op. cit., p. 22.

2/ Ibid, p. 25.

3/ Ibid, p. 51.

4/ Incoming telegram from American Embassy, Ottawa, Canada, to Foreign Agricultural Service, U.S. Department of Agriculture, Canadian Assistance for Potatoes, November 1981.

Export programs

An agency called Potatoes Canada made up of licensed seed exporters; the Canadian Department of Industry, Trade, and Commerce; the Departments of Agriculture of Prince Edward Island and New Brunswick; the Prince Edward Island Potato Marketing Board; and the New Brunswick Potato Agency facilitate and promote the sale of seed potatoes in offshore markets. The major services of the agency include providing seed samples for trial, as well as technical assistance in foreign countries, obtaining licensing for Canadian varieties of potatoes in foreign countries, using a pyramid system of propagation from disease-free plots, thus permitting much of the Prince Edward Island output to be certified for seed, and arranging incoming and outgoing visits and missions. The agency's 1981/82 budget was $498,000, 44 percent of which is funded by industry, 36 percent, by the Federal Government, and 20 percent, by the Provincial Governments. Thus, Governmental funding supplied 56 percent of the budget, or $279,000, for Potatoes Canada for 1981/82, the same amount as the average annual Governmental expenditures on the program during 1976-80. 1/ The Federal Government intends to withdraw its contribution to Potatoes Canada over the next 2 years. 2/

On March 9, 1982, the U.S. Secretary of State expressed concern that the Quality Seed Potato Marketing Program of New Brunswick, designed to assist in the development of offshore seed potato markets, is in conflict with the spirit of Canada's international obligations under the Subsidies Code of the GATT. 3/ Among other things, the program is reported to include direct payments to exporters on their sales of seed potatoes. The payments amount to either 25 or 50 cents (Canadian) per 50 kilograms (about 110 pounds), depending on the export market and the variety of potato. Puerto Rico is listed as a market for which the payment is 50 cents if a new variety of potato is shipped. 4/ The Secretary of State pointed out that the lower value of the Canadian dollar compared with that of the U.S. dollar already creates an advantage of nearly 20 percent for Canadian exporters of seed potatoes, thus making competition in foreign markets difficult for U.S. potato producers. The U.S. Government has requested of the Government of Canada to urge New Brunswick Provincial officials to refrain from direct payments on such exports.

On April 13, 1982, New Brunswick advised the American Embassy in Ottawa, Canada, that funds have not been budgeted for the fiscal year beginning April 1, 1982, for the quality standard component of the program, which provides for direct payments to exporters of seed potatoes. In addition, it was noted that

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1/ New Brunswick Department of Agriculture and Rural Development, Prince Edward Island Department of Agriculture and Forestry, Agriculture Canada, and the Maine Department of Agriculture, Food and Rural Resources, op. cit., p. 22.

2/ Ibid., p. 50.

3/ Telegram from the U.S. Secretary of State to the American Embassy, Ottawa (61993), Mar. 9, 1982.

4/ At the hearing on the investigation in Bangor, Maine, on June 30, 1982, testimony was presented that exports of potatoes from Canada to the United States, including Puerto Rico, had never been eligible for payments and that the documentation containing information to that effect was in error (transcript of the hearing, pp. 453-454).

"as a practical matter, no payments have been made on shipments to Puerto Rico and that none will be made."

U.S.-CANADIAN CURRENCY EXCHANGE RATES

General

At the beginning of 1976, the Canadian dollar was worth 0.9839 U.S. dollars. By the end of 1978, the value of the Canadian dollar had declined to 0.8432 U.S. dollars, representing a 14.3-percent fall in the value of the Canadian dollar vis-a-vis the U.S. dollar. At the end of 1981, a Canadian dollar was worth 0.8439, representing a 0.08-percent appreciation since 1978, but a 14.2-percent depreciation since 1976. The following tabulation shows how much the exchange rate between the Canadian dollar and the U.S. dollar changed on January 1 of 1976-81:

Year	Exchange rate (U.S. dollars per Canadian dollar)	Percentage change from previous year
1976	0.9839	-
1977	.9909	0.71
1978	.9137	-7.79
1979	.8432	-7.72
1980	.8561	1.53
1981	.8370	-2.23
1982	.8439	0.82

Source: Compiled from official statistics of the International Monetary Fund.

Unless offset by differences in relative inflation rates, the drop in the value of the Canadian dollar vis-a-vis the U.S. dollar would increase the competitiveness of Canadian products in the United States. The inflation rates for the two countries, as measured by changes in the consumer price indexes (CPI's) of the two countries, show that since 1975, Canadian prices have increased 2 percent more than U.S. prices. The following tabulation shows the changes in the CPI's for both countries.

Year	Percentage change from the previous year in the Canadian CPI	Percentage change from the previous year in the U.S. CPI
1976	7.5	5.8
1977	8.0	6.5
1978	9.0	7.5
1979	9.2	11.3
1980	10.1	13.5
1981	12.4	10.4
Compounded 1976-81	71.0	69.0

Source: Compiled from official statistics of the International Monetary Fund.

Although the CPI's for the two countries are computed in different ways, the evidence suggests that changes in the U.S. dollar/Canadian dollar exchange rate have not been fully offset by differences in inflation. Thus, since 1976, Canadian goods in general have become more competitive with U.S. goods in the United States.

Effect of Exchange Rates on U.S.-Canadian Trade in Potatoes

From 1976 to 1981, when the exchange rate between the U.S. dollar and the Canadian dollar depreciated by 14.2 percent, the amount of Canadian potatoes imported by the United States increased from 532,000 hundredweight to 3,924,000 hundredweight, representing a sevenfold increase, which may be due in part to the gain in Canadian competitiveness that resulted from the change in the exchange rate. 1/

The depreciation of the Canadian dollar increases the competitiveness of Canadian potatoes in the United States if the exchange-rate change has lowered the U.S. dollar costs of producing potatoes in Canada. If the U.S. dollar cost of producing potatoes in Canada is lowered by the exchange-rate change, Canadian growers could earn higher profits after the depreciation than before by selling potatoes in the United States. As a result, more Canadian potatoes would probably come into the U.S. market.

If U.S. and Canadian potato growers purchased all of their inputs from the same sources, an exchange-rate change would have no effect on their competitiveness because their relative costs of production would be the same. An exchange-rate change will only affect the competitiveness of Canadian potatoes in the United States if U.S. and Canadian potato growers purchase some inputs from local sources, only then would the relative costs of production change.

Discussions with industry representatives suggest that U.S. and Canadian growers purchase some inputs such as tractors and fertilizers from the same sources, and therefore have the same U.S. dollar costs for these products regardless of exchange-rate changes. However, other inputs such as seed and labor are generally purchased from local sources. Exchange-rate changes would affect the relative prices of these inputs. This suggests that the change in the U.S. dollar/Canadian dollar exchange rate since 1976 has increased the competitiveness of Canadian potatoes in the United States relative to that in 1976. But the 14.2-percent depreciation of the Canadian dollar since 1976 probably overstates the gain in competitiveness that Canadian potato growers have enjoyed.

1/ Focusing on the period from 1976 to 1981, however, may make exchange-rate changes seem more important than they are. In 1974 and 1975, potato imports from Canada were at high levels despite a relatively strong Canadian dollar. In 1974, a Canadian dollar was worth 1.0089 U.S. dollars, and U.S. imports of Canadian potatoes totaled 1,418,000 hundredweight; in 1975, a Canadian dollar was worth 1.0042 U.S. dollars, and U.S. imports of Canadian potatoes totaled 1,870,000 hundredweight.

COMPETITIVE CONDITIONS IN THE NORTHEASTERN UNITED STATES
Sources of Fresh-Market Supply in the Northeast Market

Supplies from the Northeast

From 1977/78 to 1980/81, the fresh-market supply of fall-harvested potatoes for seven major cities in the Northeastern region of the United States, measured in terms of unloads, ranged from 9 million to 10 million hundredweight (table 34) and showed no discernible trend. The share of the unloads supplied by the Northeastern region declined irregularly from 55 percent in 1977/78 to 49 percent in 1980/81, reflecting a long-term trend of fewer of the unloads in the Northeastern region being supplied by regional production. For example, unloads in New York City (the principal market in the Northeastern region) supplied by Maine, traditionally the dominant supplier, declined by 17 percentage points from 1965/66 to 1980/81; unloads from New York State, the next most important supplier, declined by 7 percentage points during the same period. 1/

However, according to USDA unloads reports, the share of the total of the Northeastern fresh, fall-harvested potato shipments that were marketed in the Northeastern region increased from 69 percent in 1977/78 to 76 percent in 1980/81, indicating that although Northeastern producers have marketed an increased share of their potato shipments within the region, such shipments have accounted for a smaller part of that market, owing to an increased share of the market being supplied by producers outside of the region.

Supplies from other regions

The principal outside supplying region to the Northeastern markets is the Western region, which provides somewhat more than one-third of the total Northeastern supply. During 1977/78 to 1980/81, unloads of potatoes from the Western region in seven major cities of the Northeastern region ranged from 36 percent of the total (1977/78 and 1980/81) to 43 percent of the total (1978/79). Unloads in New York City from Idaho and Washington, the principal potato-producing States in the Western region, increased by 25 percentage points from 1965/66 to 1980/81. According to the USDA, these unloads consisted largely of russet potatoes, many of which arrive in the Northeastern region during the period when Maine makes its heaviest shipments. 2/

The North Central region and Canada supply much smaller quantities than the Western region; however, during 1977 to 1980, both the North Central region and Canada substantially increased their share of the Northeastern market. During 1977/78 to 1980/81, unloads of potatoes from the North Central region in seven major cities in the Northeastern region increased irregularly from 6 percent of the total in 1977/78 to 8 percent of the total in 1980/81.

1/ It is believed consumer preference for the russet-type potato from the Western region (unloads from the Western region in New York City increased significantly over the same period) contributed greatly to the decline in unloads from the Northeastern region over the period.

2/ Potato Supply Sources for Northeastern U.S.A., AMS report to F.A.S., Maine Potato Task Force, Oct. 1981.

These potatoes have consisted principally of round red varieties and russet varieties.

Unloads of fall-harvested potatoes from Canada in seven major cities in the Northeastern region increased irregularly from 3 percent of the total in 1977/78 to 6 percent in 1980/81. According to information from the USDA, 1/ the potatoes from Canada consist of the same types of round white potatoes as produced in Maine.

Potato types

In 1980/81, farmers in the three principal producing States in the Northeastern United States (Maine, New York, and Pennsylvania) planted between 66 and 100 percent of their total potato acreage in round white potatoes, and marketed about 76 percent of their potato shipments within their own region. According to responses to the Commission questionnaire, 2/ during 1976/77 to 1980/81, round white potatoes accounted for between 65 and 91 percent of U.S. imports of potatoes, other than certified seed. In average of 73 percent of these imports were reported to be marketed in the Northeastern region during 1979/80 to 1981/82. The majority of these potato imports enter the United States during the period of October to June, months when the vast majority of Northeastern-produced potatoes are also marketed.

According to information received from USDA, 3/ consumer preference for russet potatoes has increased in recent years. The demand for russet potatoes is strong because it is the primary type used for processing, especially frozen potato products, and it is also the primary type preferred for baking by many consumers. Production in the Western region is virtually all russet potatoes, and accounts for nearly two-thirds of the U.S. production of all fall-harvested potatoes. The abundant supplies of russet potatoes in the Western region makes it possible for that region to ship only the highest quality of russets to the Northeastern tablestock markets. As a percentage of the Northeastern region market, unloads of Western potatoes showed an upward trend during the period, with market share ranging from 36 percent to 43 percent. The strong demand for russets is also evidenced by the higher prices paid for russets.

1/ Ibid.

2/ During the period, imports reported by importers responding to Commission questionnaires accounted for about a quarter of the imports reported by the U.S. Department of Commerce.

3/ Potato Supply Sources for Northeastern U.S.A., AMS report to F.A.S., Maine Potato Task Force, Oct. 1981.

Wholesalers

Location and type

Unlike wholesalers in other areas of the country, Maine wholesalers do not act as brokers. Rather, Maine wholesalers are dealers that purchase potatoes and take title to packed potatoes. In most States, wholesalers work on consignment and act strictly as middlemen bringing together buyers and sellers.

In 1978/79, 135 State-licensed potato dealers operated in Maine. These dealers handled an average of 233 loads each, a relatively small amount. Idaho, for example, marketed 48 percent more potatoes than Maine with a total of 59 dealers. The Idaho dealers handled an average of 611 truckloads each.

The eight largest Maine shippers handled 46 percent of total shipments, or 1,820 each. The remaining 127 dealers, therefore, handled an average of 133 loads each. 1/ The large number of dealers implies a high degree of competition in the Maine potato market.

Over 90 percent of the Maine potatoes sold in the wholesale market are sold through dealers. Dealers purchase potatoes from growers and then sell the potatoes to chainstores, produce stores, and so forth. Some of the potatoes that the dealers purchase are bought in bulk (165-pound barrels), but the majority are purchased in 50- and 100-pound sacks. Occasionally, growers will package the potatoes in consumer-sized 5- and 10-pound packages.

Dealers take possession of the potatoes and pay for them soon after delivery, but the quality of the potatoes remains the responsibility of the grower until the dealer sells the potatoes.

Most dealers have dealt with the same group of growers for a number of years, and much business is done by verbal agreement. Most deals are made over the phone, with growers generally calling dealers. It is not uncommon, however, for dealers to call growers when dealers are short of potatoes. Prices are agreed to over the phone.

Dealers have storage facilities that can be used to tide them over the times when growers are not selling. Dealers complain that growers tend not to sell potatoes when potato prices are rising rapidly or falling rapidly, and thus they need storage facilities to keep a steady supply for their buyers.

Most dealers in Maine only operate during September-June, and are closed for the summer. Several dealers operate yearround by closing their Maine offices in the summer and opening smaller offices in the South. Delaware, Virginia, and North Carolina produce potatoes that dealers can buy in the summer. No dealers operate yearround by dealing exclusively with Maine potatoes.

Chainstores prefer buying from dealers that can provide potatoes yearround, because consumers purchase potatoes yearround. This is the reason why some Maine-based dealers go south to buy potatoes in the summer. Other

1/ James N. Putnam II, Aroostook County, Maine: Potato Industry Study, Farm Credit Service, January 1981, p. 105.

dealers have arrangements with Southern dealers in which the Maine dealer will provide the chainstores with potatoes for part of the year, and the Southern dealer will provide them with potatoes for the rest of the year.

Long Island has about 22 dealers, 5 of which handle about half of Long Island's potatoes. Some of Long Island's largest dealers also handle potatoes from Maine. 1/

Pricing practices

Growers are generally price takers. Because dealers are usually aware of what other dealers are offering for potatoes, dealers tend to offer similar prices to growers. Problems do not generally develop, because growers tend to deal with the same dealers year after year. As a result, growers may haggle over prices a bit, but generally, they feel that the dealers are offering them a fairly reasonable price.

Because dealers sell primarily to chainstores, which want a steady supply of potatoes, dealers generally prefer to buy potatoes at a steady rate. Growers, however, sell potatoes based on their need for money. Growers generally prefer selling potatoes at a steady rate to obtain a steady income, but emergencies can occur that force growers to sell their potatoes more quickly. Higher prices also entice growers to sell more potatoes.

Price changes generally filter their way down the distribution system. If chainstores find it difficult obtaining sufficient potatoes, they will offer a higher price to wholesalers and pass the higher costs on to consumers. Wholesalers will then offer growers a higher price for their potatoes to entice growers to sell more of their inventory.

Importers

Location and type

Twenty-five importers of Canadian potatoes provided information on their activities for the 1976-81 period. These firms imported 1,424,136 hundredweight of potatoes in 1980/81, or 38 percent of the potatoes imported from Canada that year. Thirty-two percent of the importers were from Maine, 72 percent were from the Northeastern region, 20 percent were from the North Central region, 4 percent were from the Western region, and 4 percent were from the Southern region.

Of the 2.9 million hundredweight of potatoes imported by these firms frin 1979/80 to 1981/82, approximately 76 percent went to the Northeastern region, 22 percent went to the Southern region, and 2 percent went to the North Central region. No importer reported shipping Canadian potatoes to the Western region.

Of the 2.2 million hundredweight of potatoes shipped to the Northeastern region from 1979/80 to 1981/82, 46 percent went to New York City, and 6 percent went to Boston.

1/ Ibid., p. 75.

Sixteen of the importers are dealers that buy and sell both Canadian and U.S. potatoes. Five of the importers are also packers, and 5 importers are located in terminal markets. Four of the importers are retail distributors to chainstores, and four grow their own potatoes in addition to importing potatoes.

Pricing practices

The importers reported that Canadian dealers initially called them and told them they were selling Canadian potatoes for approximately 42 percent of all transactions. In 33 percent of all transactions, U.S. shippers or brokers initially called the importers, and in 24 percent of all transactions, the importers initially called the sellers. Thus, approximately twice as many of the reported transactions resulted from a Canadian seller looking for a U.S. buyer than resulted from a U.S. buyer looking for a Canadian seller. This implies that Canadian sellers are more anxious to sell potatoes in the United States than U.S. buyers are to buy Canadian potatoes.

The price paid for Canadian potatoes was agreed to before the potatoes left Canada 94 percent of the time. The price paid was agreed to before shipment duty-paid from Maine for the remaining 6 percent. Thus, any exchange rate changes between the time of delivery and the time of payment would not be compensated for in the purchase agreement.

None of the importers hedged against changes in the exchange rate between the U.S. dollar and the Canadian dollar by using the forward exchange market. In 1981, two of the importers hedged against changes in potato prices by using the Maine futures contract market, and two speculated on future potato prices by using the Maine futures contract market. But in only one case did a firm actually have to accept delivery of potatoes in fulfillment of a contract. Thus, the futures market appears to have little effect on the behavior of importers.

Ninety-three percent of all transactions from 1979/80 to 1981/82 were conducted in U.S. dollars, whereas only 7 percent were conducted in Canadian dollars. Because nearly all transactions are conducted in U.S. dollars, Canadian dealers bear the risk of any exchange rate changes between the time of delivery and the time of payment; U.S. dealers are sure of their return in U.S. dollars, but the return to Canadian dealers, in Canadian dollars, depends on the exchange rate.

The final settlement was made between 11 and 21 days after the potatoes were delivered in 43 percent of the cases, between 4 and 10 days in 28 percent of the cases, and between 22 and 45 days in 27 percent of the cases. Because final settlement occurs, on average, about 3 and 4 weeks after delivery, the possibility of a sizable gain or loss as a result of an exchange rate change, exists.

Wholesale Prices in Selected Markets

Several studies have estimated the sensitivity of potatoes prices to changes in potato production. A 1967 USDA study found that a 1-percent increase in the production of tablestock potatoes would result in a 5-percent decrease in the retail price of potatoes. 1/ A 1981 USDA study found that a 1-percent increase in the production of Maine potatoes would lower the real farm price of tablestock potatoes by approximately 2 percent. 2/ A study unpublished by Dr. Alan Kezis and Paul Fackler of the University of Maine found that a 1-percent increase in the production of Maine potatoes would change the price of potatoes by 3.76 percent.

Potatoes throughout the United States are marketed at two distinct levels before they are sold to consumers for final sale. The first level is the sale of potatoes from a grower to a potato dealer. The price the dealer pays the grower is called the shipping-point price. The second level is the sale of potatoes in the wholesale market by dealers to terminal-market buyers. The price the terminal-market buyer pays the dealer is called the wholesale price. Prices at both of these levels are discussed below.

Selected shipping-point prices

Prices of potatoes vary according to the type of potato (russet, round red, or round white), the State of origin, and the type of container (count carton or sack). In the following discussion, prices are given for 50-pound sacks for round red and round white potatoes. Russet potato prices are given for 50-pound, 80 to 100 count cartons. 3/

Shipping-point prices are the prices that growers get for their potatoes when they sell to dealers. The price is the return received by the grower for growing, harvesting, grading, packing, and selling the potatoes. Shipping-point prices are reported by the Federal-State Market News Service, a division of the U.S. Department of Agriculture. They are reported weekly and represent the range of prices for the entire week.

Shipping-point prices of potatoes are generally highest for russet potatoes, next highest for round reds, and lowest for round whites. Shipping-point prices of russet potatoes generally have been two to three

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1/ Olman Hee, Demand and Price Analysis For Potatoes, U.S. Department of Agriculture, Technical Bulletin No. 1380, July 1967.

2/ Allen B. Paul, Kandice H. Kahl, and William G. Tomek, Performance of Futures Markets: The Case of Potatoes, U.S. Department of Agriculture, Technical Bulletin No. 1636, January 1981.

3/ Russet potatoes get a premium when packed in count cartons. The 80 to 100 count cartons contain 80 to 100 premium-sized russet potatoes that together weigh approximately 50 pounds. The potatoes that go into this carton are of a similar, average size. Other count-carton sizes exist, such as 70 count, but because the potatoes in these count cartons are too large, these cartons sell for 10 to 20 percent less than the 80 to 100 count cartons. Potatoes are primarily bought in count cartons by restaurants for baking purposes.

Russet potatoes that are packed in sacks, and not in count cartons, generally sell for 25 to 35 percent less per pound than the 80 to 100 count cartons. In addition to providing a uniformly sized potato, count cartons protect potatoes from damage during shipping better than sacks.

times higher than shipping-point prices of round whites and round reds from Minnesota. Round red potatoes from Florida sold for about the same price as russet potatoes in 5 of the last 6 years.

Russet potatoes from Idaho tend to sell for higher prices than russet potatoes from Wisconsin and Washington. The approximate 10-percent premium that Idaho russet potatoes bring is probably caused by the public's perception that Idaho produces quality potatoes. Shipping-point prices of Washington and Wisconsin russet potatoes show no stable relationship. The prices of potatoes from all three States generally move in the same direction.

Russet shipping-point prices tend to start relatively high for each crop. Prices tend to fall during the middle months of the crop year and tend to rise at the end of the crop year. 1/

The high shipping-point prices in the early months of the harvesting season reflect the limited supplies of potatoes that are available in September. Growers that are able to harvest and market their potatoes earlier than most other growers generally can obtain a relatively high price.

The shipping-point prices of round red potatoes from Minnesota and Florida differ widely. Florida round red potatoes tend to sell for a higher price than those from Minnesota, presumably because the Florida potatoes are newer than the Minnesota product. 2/ The prices of Florida potatoes drop rather dramatically after their initial month on the market and then tend to rise in their last month on the market. The relative shortage of round red potatoes on the market in the summer months presumably is responsible for this late season move.

The shipping-point prices of Long Island round white potatoes are always higher than the shipping-point prices of Maine round white potatoes. On average, the price difference is 20 percent. The higher shipping-point prices received for Long Island round white potatoes are primarily caused by two factors. First, most Long Island potatoes are washed, whereas most Maine potatoes are not. Consumers find washed potatoes more desirable than unwashed potatoes and are willing to pay a higher price for them. Second, dealers are willing to pay higher prices for Long Island potatoes than for Maine potatoes because Long Island is considerably closer to the major Northeastern markets than Maine. This proximity to markets means that Long Island potatoes have lower delivery costs to retail markets than Maine potatoes. 3/

In general, the prices of round white potatoes fluctuate much less from month to month than do the prices of russet and round red potatoes. During crop years 1976/77, 1978/79, 1980/81, and 1981/82, round white prices rose; during crop years 1977/78 and 1979/80, round white prices fell.

1/ Prices of potatoes are normally expected to rise throughout the marketing season to reflect the costs to growers of storing the potatoes.

2/ Because Florida does not produce enormous amounts of potatoes, growers in that State do not have to worry about oversaturating the market. Thus, they are able to market their potatoes immediately after harvesting without any fears of dramatically lowering prices. Thus, Florida potatoes have the advantage of always being fresh.

3/ According to information received from the U.S. Department of Agriculture, shipping-point prices of Canadian potatoes recently have been lower than shipping-point prices of Maine potatoes.

The 1980/81 crop had by far the highest shipping-point prices because of the relatively small crop of potatoes produced in Western States. This was true for all three kinds of potatoes. The shipping-point prices of the 1981 crop, although the second highest in the last 6 years, were about 40 percent below the prices of the 1980 crop.

To some extent, the shipping-point prices of the different types of potatoes move together from month to month. Russet potatoes, however, show much greater price fluctuations than do the other two types. At times, prices for the different types of potatoes move in different directions.

Tables 51 to 56 give the ranges of shipping-point prices, by months, for 1976/77 to 1981/82.

Selected wholesale market prices

New York City.--Wholesale prices are the prices that dealers get for their potatoes when they sell the potatoes in the terminal markets. Wholesale prices in New York City are reported by the Federal-State Market News Service. They are reported weekly and represent the range of prices for the Tuesday of that week.

California potatoes sell for the highest wholesale prices in New York City (tables 57-62). The California potatoes are of the long white variety. 1/

Wholesale prices of Idaho russet potatoes tend to be 2 to 3 times higher than the wholesale prices of round white potatoes. Round red potatoes from Florida sell for about twice the price of round red potatoes from Minnesota.

Although the shipping-point prices of Long Island round white potatoes are generally 20 percent higher than Maine shipping-point prices, Maine and Long Island round whites sell for about the same price at the wholesale level. Because of the proximity of Long Island to New York City, potatoes from Long Island incur lower shipping costs than potatoes from Maine. Quicker service also results from the nearness of Long Island to New York City, helping offset the price advantage that Maine potatoes have at the shipping-point level.

Round white potatoes from Prince Edward Island generally sell for a premium of 10 to 20 percent over the other round whites in the New York City wholesale market. Even though the Canadian potatoes are unwashed, they sell for a premium because they are of more uniform size than are U.S. potatoes. Exported Canadian potatoes must meet Canadian export specification of being between 2-1/4 and 3-1/2 inches in diameter, whereas U.S. No. 1 potatoes only have to be larger than 1-7/8 inches in diameter. The more lenient U.S. standards allow for greater size variation in packages and permits smaller, and presumably less desirable, potatoes to be included in packages than the Canadian standards.

The premium for Canadian potatoes does not seem to have grown over time. Indeed, in the 1980 marketing season, U.S. potatoes sold for about the same price as Canadian potatoes.

1/ Long white potatoes, like round white potatoes, are an all-around potato, good for boiling, roasting, and mashing. Unlike round whites, however, they are good for french frying because they are long and firm. Long white potatoes constitute a relatively small share of the total potato production of the United States.

The tariff on Canadian potatoes has probably had a limited effect on the price of Canadian potatoes. The tariff, however, probably has had more of an effect on the quantity of potatoes exported by Canada to the United States. A reduction in the tariff on imported potatoes allows foreign growers to lower prices, achieve higher profits per pound, or both. But Canadian growers would have little incentive to lower prices, because as with U.S. growers, they are generally price takers that have little incentive to lower their prices; they generally can sell all of the potatoes that they want at the going prices. Therefore, the principal response of Canadian growers to lower U.S. tariffs would be to increase their exports to the United States. Prices might fall slightly relative to U.S. prices, but not by much.

New York City wholesale prices tend to be relatively stable over time--much more stable than are the shipping-point prices. The wholesale prices of potatoes, especially round whites, in New York City tend to drift upward during a crop year.

Round white and russet potatoes were priced at three levels--f.o.b. shipping point (Maine-New York and Idaho-Washington), wholesale, and retail at New York City--to get an idea of the marketing spreads (tables 63-72). 1/ Retail prices in the first full week of the month were collected by the U.S. Bureau of Labor Statistics before 1978, and since by the New York State Department of Agriculture, Division of Market Information. 2/

The retail value of 100 pounds of potatoes represents the return to the retailer for salable potatoes (retail price minus 4 percent allowance for spoilage and loss during marketing). The wholesale-retail spread, the difference between the retail price and the wholesale price, is payment for secondary wholesaling, intracity transportation, and retailing. The shipping-point/wholesale spread, the difference between the wholesale price and the shipping-point price, is payment for transportation from the shipping point and for primary wholesaling.

From 1976/77 to 1981/82, the grower return (shipping-point price) was highest for the 1980 crop of round white potatoes, with an average return of $5.56 per hundredweight. The lowest average return occurred with the 1979/80 crop, when growers received only $3.87 per hundredweight. The shipping-point price has generally been between 20 and 30 percent of the retail price. The percentage return to growers for round white potatoes has tended to decline over time. Thus, growers of round white potatoes are getting a constantly shrinking share of the retail price of potatoes.

The shipping-point/wholesale spread for round white potatoes increased dramatically with the 1980/81 crop. The highest spread before 1980/81 had been the $2.48 spread for the 1979/80 crop. The 1980/81 crop, however, had an average shipping-point/wholesale spread of $7.78. The $7.78 spread

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1/ Marketing spreads refer to the increases in the prices of potatoes that occur at each level of the distribution chain.

The information on marketing spreads comes from Stephen M. Raleigh, "Fall Potato Production, Consumption, Marketing Patterns, Prices, and Spreads," November-Vegetable Situation, U.S. Department of Agriculture, and from additional tables provided by Stephen M. Raleigh. The discussion of marketing spreads is based on 100-pound sacks of potatoes.

2/ Because of budget constraints, surveys of retail prices in New York City were not made after mid-1981.

represented 29 percent of the retail price of round white potatoes in New York City. For the previous 4 years, the shipping-point/wholesale spread represented an average of 11 percent of the retail price. Therefore, dealers of round white potatoes enjoyed much of the higher 1980/81 retail prices.

The wholesale-retail spread for round white potatoes averaged about $9.00 for the 1976/77 to 1979/80 crops, but for the 1980/81 crop, the spread jumped to $13.16. The wholesale-retail spread for the 1980/81 crop, however, represented the smallest share of the retail price for the last 5 years. The 50-percent share for the 1980/81 crop was substantially below the 60-percent average share for the previous 4 years. Overall, the cost of marketing, advertising, and displaying potatoes accounts for at least half of the retail price of potatoes.

The grower return for russet potatoes was highest for the 1980/81 crop, with an average return of $11.83 per hundredweight. The lowest average return occurred with the 1978/79 crop, when growers received only $5.14 per hundredweight. The shipping-point price was generally between 20 and 30 percent of the retail price for the 1976/77 to 1979/80 crops, the same share that round white potato growers received. Therefore, growing russet potatoes does not provide growers with a higher share of the sales price than growing round white potatoes. For the 1980/81 crop, however, growers received 37 percent of the high retail price.

The shipping-point/wholesale spread for russet potatoes did not increase dramatically for the 1980/81 crop. Instead, the $6.20 average spread for the 1980/81 crop was the lowest spread since the 1976/77 crop. The spread accounted for 19 percent of the retail price of the potatoes, the lowest share since the 1973/74 crop. Thus, unlike dealers of round white potatoes, dealers of russet potatoes did not get a much higher profit from the 1980/81 crop. The average shipping-point wholesale spread for russet potatoes for the 5 years represented 28 percent of the retail price, almost twice as high as the average spread for round white potatoes. Some of the higher spread for russet potatoes over round whites can be explained by higher transportation costs for shipping potatoes from the Idaho-Washington area than from Maine or New York.

The wholesale-retail spread for russet potatoes averaged about $9.00 for the 1976/77 to 1979/80 crops, but for the 1980/81 crop, the spread jumped to $14.11. The spread for round white potatoes was very similar. The spread for russet potatoes for all 5 years was in the range of 40 to 45 percent.

Boston.--Wholesale prices in Boston are reported by the Federal-State Market News Service. They are reported weekly and represent the range of prices for the Monday of that week.

The wholesale prices of potatoes in Boston tend to be about 5 to 10 percent lower than wholesale prices in New York City (tables 73-78). Prices of many consumer goods are higher in New York City than in Boston.

The relationships between wholesale prices of potatoes discussed in the previous section generally hold for the Boston wholesale prices. One notable exception is that Prince Edward Island round white potatoes sell for a higher premium in Boston than in New York City. This higher premium, which ranges from between 15 to 25 percent in Boston versus 10 to 20 percent in New York City, might reflect the greater selection of potatoes available to New York

City wholesalers. Canadian potatoes sell for a relatively lower price in New York City than in Boston, because Canadian potatoes face more competition in New York City markets.

The price spreads of round white potatoes sold in Boston (tables 79-84) tend to be about 10 percent lower than the price spreads of round white potatoes in New York City. The retail value of round white potatoes sold in Boston also tends to be lower than the value of round white potatoes sold in New York City. The percentages of retail value that the spreads account for, however, is similar to the percentages in New York City.

The return to growers ranged from 22 to 29 percent of the retail value with no discernable trend. The 1980/81 crop provided growers with the largest dollar return--$4.94.

The shipping point-wholesale spread increased dramatically in 1980/81, reaching $6.59. The spread for the previous 4 years had averaged about $1.75. The percentage of retail value also increased dramatically in 1980/81, jumping to 29 percent after averaging half that for the previous 4 years.

The wholesale-retail spread accounted for an average 61 percent of the retail value for the 1976-79 crops, but fell to 49 percent for the 1980 crop. The $11.04 spread in 1980, however, was the highest ever, easily surpassing the $9.09 spread for the 1976 crop.

Futures Markets 1/

Futures trading in potatoes started on the Chicago Mercantile Exchange (CME) in 1931 for Russet Burbank potatoes and on the New York Mercantile Exchange (NYME) in 1941 for round white potatoes from Maine. 2/ The volume of trading in these markets, however, was low until price supports for potatoes were removed in 1951.

Futures trading in general differs from trading in other forward contracts, because futures trading occurs under the special rules and regulations of both an organized commodity exchange and the Federal Government. The exchange standardizes all the terms of trading except the price and handles all the day-to-day administrative affairs. The Government, under the Commodity Exchange Act in 1936 and through the Commodity Futures Trading Commission (CFTC), oversees futures trading with an elaborate set of laws, rules, regulations, and guidelines to curb unfair dealings and undesirable market performance.

The potato futures contract of the NYME, the only contract involving Maine potatoes, calls for 1,000 50-pound bags of any round white variety (except Cobbler and Warba) grown in Maine, Connecticut, or New York and

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1/ Much of the information in this section comes from Allen B. Paul, Kandice H. Kahl, and William G. Tomek, Performances of Futures Markets: The Case of Potatoes, United States Department of Agriculture, Economics and Statistics Service, Technical Bulletin No. 1636, January 1981.

2/ New York and Connecticut potatoes were added to the futures contracts on the NYME in 1980. There were two reasons for this. First, because potato production in Maine has been declining since the mid-1950's, fewer potatoes were available to fulfill the contracts, especially the later contracts. Second, potato production in Maine shifted from late-maturing varieties to early-maturing varieties. Again, the later contracts could be affected by this shift in production.

graded U.S. No. 1, size 2 inches to 4 inches, delivered by truck or rail to specified points in New York City (or in Boston or Maine, at a freight differential, if the buyer so elects) during November, February, March, or April, with grade reinspection at the buyer's request in New York City and Boston. Substitutions of U.S. Commercial Grades are permitted on the April contracts at a 25-percent discount. The costs of negotiating futures transactions usually are relatively small.

The potato futures market is essentially a paper market. Potato futures contracts usually are liquidated before they come due through offsetting transactions, rather than by delivery of the potatoes. Potato futures contracts can be entered into by almost anyone who can put up the required margin deposit. By short-selling, a person can sell potatoes without actually having any potatoes or being in a position to get any. Because of this feature, the number of contracts outstanding at any time can exceed the physical supply of the potatoes.

Growers that sell potato futures contracts do not intend to actually sell potatoes as a result of the contracts. Rather, they are trying to protect their crops against price declines while the potatoes are in storage. If the price of potatoes falls after the grower sells the contract, he will be able to buy back the contract for a lower price than he sold it for. His gain in the futures market, however, will be offset by the loss in value of his stock of potatoes.

If the price of potatoes rises after the grower sells the contract, he will have to buy his contract back for a higher price than he sold it for. His loss, however, will be offset by the gain in the value of his stock of potatoes.

Potato futures trading can serve a useful economic purpose by limiting the risks to potato growers of price fluctuations. By using the futures market, growers limit their gains in an upward market, but they also limit their losses in a downward market. The buyers of futures contracts assume any gains or losses arising out of the changing market value of potatoes.

In a perfect market, cash prices for potatoes would be lowest at harvest and would rise during the storage season by the cost of storage. If time passed and information did not change, the basis (difference between the price of a futures contract and the spot price) would narrow until, at maturity, it would be zero.

The potato market, of course, is not perfect. Information that influences prices changes almost continuously, and potato prices move up or down as information changes. At harvest, no one knows how many potatoes put in storage will deteriorate, nor does anyone know the size of the total crop. Thus, prices existing at harvest will adjust through the storage period as more information becomes available.

Prices of futures contracts can affect current cash prices by altering the storage plans of growers. If futures prices are considerably higher than current cash prices, growers will tend to store their crop for a longer time in the hopes of selling it for a much higher price in the future. The growers thus view the futures market as a predictor of future prices. By holding their crop off the market, growers will probably cause the current price of

potatoes to rise. Conversely, if the futures price of potatoes is barely above the current price, growers will tend to sell more of their crop now to avoid the costs of storage. This action should lower the current price.

As suggested above, the cash and futures prices of potatoes should be correlated, and the difference between the two should narrow over the storage period. A U.S. Department of Agriculture study, using data from 1960 to 1978, found that the Maine basis, as expected, decreased during most harvest years. 1/ The basis, however, rarely followed a steadily declining path, and large differences in its behavior existed between years. The study also found that the basis has varied more in recent years than in previous years. Thus, hedging in futures markets appears to have become riskier in recent years.

The increased riskiness of the potato futures market has limited the usefulness of the potato futures market for hedging. In most futures markets, futures prices tend to remain somewhat below cash prices in the final days of the contract, because buyers face uncertainties about the exact product characteristics, location, or time of delivery that sellers will elect. For potato futures, however, premiums on futures prices have replaced discounts. The high rejection rate of Maine potatoes delivered in New York City on the NYME potato contracts has contributed to this. 2/ The increased premium on potato futures presumably reflects increasing risks to sellers in undertaking to deliver potatoes graded U.S. No. 1 in Maine. The shift to growing early-maturing potatoes in Maine probably is a major cause of the increased risk premium.

The increased year-to-year instability of the cash futures differential at contract maturity makes the potato market more susceptible to manipulation. Declining deliverable stocks and greater costs to sellers of delivering increases the potential for squeezes by buyers. The large price distortion of the last day of the contract reflects the showdown between buyers and sellers, both of whom generally do not want a delivery to occur, yet who want to maximize profits. An extreme result of this showdown would be failure to offset contracts or to make an acceptable delivery resulting in default on the contract. In May 1955, 606 cars of potatoes were defaulted, and in May 1976, 1,000 cars were defaulted. According to the USDA study, "The [1976] default was virtually unprecendented and, in the words of CFTC officials and members of the industry, shocked the commodity markets and the participants more than any other single event in recent years." 3/ In March 1979, trading was suddenly terminated to avert a feared squeeze brought about by a lack of deliverable supply. Such events have undermined the credibility of the potato futures market.

Although only a small percentage of all futures traders ever take delivery of potatoes, such deliveries can cause major problems for growers. If growers who hedge their crops cannot deliver potatoes even on those rare occasions when delivery is called for, the growers might be exploited by speculators who know the hedgers will have to close out their futures positions before the contract expires regardless of price.

1/ Paul et al., op. cit.

2/ The shift to early-maturing and less storable potatoes in Maine potato production has led to the increase in rejected potatoes.

3/ Paul et al., p. 165.

The futures market for Maine-grown round white potatoes at one time helped growers decide how long they should store their potatoes. This influence has apparently lessened considerably in recent years because of the recent problems of the potato futures market and the dwindling size of deliverable potatoes. Maine growers have been reluctant to use the futures market to hedge against price declines, because the futures market has been subject to large price fluctuations and because of the increased risk of default. As a result, activity in potato contracts on the NYME has dropped off sharply, and the influence of the potato futures market on current potato prices has been reduced. Thus, the futures market for potatoes is of little use to growers and dealers and has become primarily a market for speculators.

MEASURES TAKEN OR PLANNED BY U.S. PRODUCERS TO ADJUST TO COMPETITION

In Maine, industry leaders organized a long-range planning committee in partial response to competition faced by their industry, and in 1982 issued the "Maine Potato Industry Long Range Plan 1982-1986." The planning program looked at eight subject areas in which Maine might improve itself competitively. These areas were: seed and/or variety development, agricultural practices, harvesting practices, storage practices, marketing and/or product specifications, transportation, financing problems, and processing. In summary, the goals of the plan include improved agricultural and storage practices and increased yields per acre, improved seed and variety development for tablestock and processing potatoes, delivery of a higher quality product to the consumer of tablestock potatoes, and an increase in production of processing potatoes for frozen french fry use.

In response to questionnaires sent to potato growers in Maine, about 70 producers returned replies of which 41 producers addressed the question of measures they might take, or have taken, to adjust to competition. For those replying, 34 percent, the largest category, said that they have, or will, quit potato farming as a means of livelihood. The second category, 27 percent, said that they would improve their marketing practices by improving packaging, quality of potato marketed, or their marketing organization. Improved production efficiency and cost cutting over all were cited by 24 percent of the respondents. Changing pricing practices as a means of adjusting to competition was mentioned by 12 percent of the respondents. Other responses included additional research as away of meeting competition.

Appendix A

Requests from the United States Trade Representative and Notice of Investigation in the Federal Register

THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON
20506

February 5, 1982

The Honorable Bill Alberger
Chairman
U.S. International Trade Commission
701 E Street, N.W.
Washington, D.C. 20436

Dear Chairman Alberger:

At the direction of the President and pursuant to Section 332 of the Tariff Act of 1930, as amended, I hereby request that the United States International Trade Commission investigate the competitive conditions affecting the potato industry of the State of Maine, and report the results of the Commission's investigation to the President through me as soon as practicable.

It is our expectation that the Commission will conduct public hearings on this matter, including hearings in the State of Maine. I will be providing the Commission specific areas to be covered in the investigation in the very near future. Any further questions regarding the extent of the investigation should be directed to my General Counsel, Donald E. deKieffer.

Very truly yours,

WILLIAM E. BROCK

WEB:hkp

THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON
20506

March 15, 1982

The Honorable Bill Alberger
Chairman
U.S. International Trade
Commission
701 E Street, N.W.
Washington, D.C. 20436

Dear Chairman Alberger:

In furtherance of my letter to you of February 5, 1982, requesting at the direction of the President that the Commission make a report to the President on competitive conditions affecting the potato industry of the State of Maine, I request that the Commission's report include the types of information summarized in the enclosed outline.

My staff has had consultations with representatives of the domestic industry to discuss the information which the Commission's report should contain in order to enable a full understanding of the problems that the Maine potato industry is experiencing.

Although the Northeastern U.S. market should be emphasized, the analysis of the report should not be confined to that area. The report should cover the period from 1976 to the present. In addition, it is particularly important for us to have the Commission's analysis indicate the relative importance of the various factors which affect the comparative competitive position of Maine producers vis-a-vis producers in other states or marketing regions of the United States and Canada.

We request that your report be made as soon as possible but not later than August 15, 1982.

Very truly yours,

WILLIAM E. BROCK

Enclosure

WEB:crt

PROPOSED OUTLINE FOR INVESTIGATION NO. 332 -

The Competitive Status of Major Supply Regions for Fall-harvested, Fresh, White, or Irish Potatoes in Selected Markets

Introduction

General Information on the United States and Canadian Industries

I. Description and Uses

A. Table-stock potatoes (fresh-market)

B. Seed potatoes

C. Potatoes for Other Uses

II. Tariff Treatment

A. U.S. tariff treatment and recent trade agreement concessions

B. Canadian tariff treatment

C. History of tariff treatment between the United States and Canada

III. U.S. Potato Situation

A. Consumption of potatoes, total and by region

The marketing regions in the United States and Canada for fresh-market potatoes, seed potatoes, and potatoes for other uses should be described in terms of varieties (russet, round white, round red), grade and size, types of pack, certification, and origin of potatoes marketed in each region. For each of the marketing regions, but especially the markets the Maine potato industry serves, there should be an analysis showing shifts in demand for types, varieties, and qualities of potatoes, and the changing size and nature of the markets.

B. Production

1. Acreage planted and harvested, by region and class (variety)

2. Production and utilization, total and by region and by varieties

Include data on yield, production methods, qualities, costs of production (including wages paid to full and part-time workers, the book value of owned or leased fixed assets involved in potato production, replacement costs for such assets, and the value of capital expenditures involved in the production, storage, and distribution of potatoes) profitability of domestic producers, and average number of workers involved in potato-growing operations and government programs that affect production.

3. Storage programs and stocks, total and by region

4. Principal destinations (marketing regions) and shipping periods, by major shipping points in production regions

In discussing market distribution of U.S. production give market shares, and discuss marketing methods, the various types of shippers and brokers, and the effect which different marketing mechanisms have on competitive position in a market during the various parts of the year.

5. Transportation costs from major shipping points to selected destinations

C. Exports (include tables showing quantity and value)

1. Major markets, by months and source of supply

2. Ports of embarkation

D. Imports (include tables showing quantity and value)

1. Sources

2. Quotas, by classes and months

3. Ports of entry

4. Distribution of imports in the United States, by market region

73

Give market shares and discuss marketing methods.

IV. Canadian Potato Situation
   A. Consumption of potatoes

   B. Production

      1. Acreage planted and harvested, by region and by class (variety)

      2. Production costs, by region and by class

      3. Production and utilization, total and by region

      4. Seed potato certification requirements

      5. Storage programs and stocks, total and by region

      6. Principal destinations (marketing regions) and shipping periods, by major production regions

   C. Exports by major markets stocks, total and by region

      1. Major markets

      For exports to the United States, if not already covered under III.D.4, give distribution by market region, market region shares, and discuss marketing methods.

   D. Imports

   E. Canadian government programs that affect Canadian production of exports of potatoes

V. U.S.-Canadian Currency Exchange Rates

   A. General

   B. Effect of exchange rates on U.S.-Canadian trade in potatoes

VI. Competitive Conditions in Northeastern United States as a Selected Market Region Receiving Imports

   A. Sources of fresh market supply

      1. Regional production

      2. From other U.S. regions

      3. Imports from Canada, by type and variety

B. Wholesalers
   1. Location and type

   2. Pricing practices

C. Importers

   1. Location and type

   2. Pricing practices

D. Wholesale prices in selected markets (especially Boston and New York) (by type [variety], grade and size, packaging, and source)

   In this section discuss the pricing structure of U.S. and Canadian potatoes at all levels of distribution, by types and varieties of potatoes, with information on both average prices and ranges, marketing spreads, transportation costs, tariffs as a price factor, exchange rates as a price factor, and the effect of the futures market of the New York Mercantile Exchange. Be sure to examine both large and small enterprises.

   1. Selected shipping-point prices

   2. Selected wholesale-market prices

      a. New York City

      b. Boston

VII. Measures Taken or Planned by U.S. Producers to Adjust to Competition

VIII. Conclusions

Based on the information in the preceding sections, provide a comparative analysis and conclusions regarding the relative importance of the factors affecting the competitive position of Maine producers vis-a-vis those in other states or regions in the U.S. and vis-a-vis Canadian producers.

INTERNATIONAL TRADE COMMISSION

[Investigation No. 751-TA-6]

Birch Three-Ply Door Skins From Japan

AGENCY: International Trade Commission.

ACTION: Institution of a review investigation concerning the Commission's affirmative determination in investigation No. AA1921-150, Birch Three-Ply Door Skins From Japan.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission has initiated an investigation pursuant to section 751(b) of the Tariff Act of 1930 (19 U.S.C. 1675(b)) to review its determination in investigation No. AA1921-150. The purpose of the investigation is to determine whether an industry in the United States would be materially injured, or would be threatened with material injury, or the establishment of an industry in the United States would be materially retarded, by reason of imports of birch three-ply door skins from Japan if the antidumping order regarding such merchandise were to be revoked. Birch three-ply door skins are provided for in item 240.14 of the Tariff Schedules of the United States.

SUPPLEMENTARY INFORMATION: On January 12, 1976, the Commission determined that an industry in the United States was injured within the meaning of the Antidumping Act, 1921, by reason of the importation of birch three-ply door skins from Japan which were determined by the Secretary of the Treasury to be, or likely to be, sold in the United States at less than fair value.

On February 18, 1976, the Department of the Treasury issued a finding of dumping (T.D. 76-46) and published notice thereof in the Federal Register (41 FR 7386).

The Department of Commerce published notice of the preliminary results of its most recent administrative review of the antidumping finding in this matter in the Federal Register on March 18, 1982 (47 FR 11737).

On January 8, 1982, the Commission received a request to review its affirmative determination in investigation No. AA1921-150 from counsel representing the Hokkaido Plywood Manufacturers Association of Japan.

The Commission requested comments from the public regarding the institution of a review investigation in a notice published in the Federal Register on February 10, 1982 (47 FR 6116). Comments supporting the request for an investigation were received from four U.S. firms that either import or purchase birch three-ply door skins from Japan: Toyomenka (America), Inc.; C. Itoh & Co. (America), Inc.; Pan Asiatic Trading Co., Inc.; and Nu-Dor, Inc. Comments opposing the institution of an investigation were received from Potat Plywood Corp., a U.S. producer of such door skins. On the basis of the request for review and all comments filed concerning the request, the Commission on March 30, 1982, voted to institute investigation No. 751-TA-6.

The Commission determined that the alleged changed circumstances were sufficient to warrant a review investigation. For example, the production facilities of the domestic producer that accounted for a majority of U.S. production at the time of the Commission's determination have been sold and are no longer used for the production of door skins, and the share of the U.S. market for birch three-ply door skins lost by Japan following the dumping finding has been taken by other foreign suppliers rather than by domestic producers.

The investigation will be conducted in accordance with § 207.45(b) of the Commission's Rules of Practice and Procedure (19 CFR 207.45(b)). The purpose of the investigation is to determine whether an industry in the United States would be materially injured, or would be threatened with material injury or the establishment of an industry in the United States would be materially retarded by reason of imports of birch three-ply door skins from Japan if the antidumping order regarding such merchandise were to be revoked.

Dates.—Pursuant to § 207.45(b) of the Commission's Rules of Practice and Procedure, the 120-day period for completion of this investigation begins on the date of publication of this notice in the Federal Register.

Written submissions.—Any person may submit to the Commission written statements of information pertinent to the subject matter of the investigation on or before June 3, 1982. A signed original and fourteen true copies of such statements must be submitted in accordance with section 201.8 of the Commission's Rules of Practice and Procedure (19 CFR 201.8).

Any business information which a submitter desires the Commission to treat as confidential shall be submitted separately, and each sheet must be clearly marked at the top "Confidential business data." Confidential submissions must conform with the requirements of § 201.6 of the Rules of Practice and Procedure (19 CFR 201.6). All written submissions, except confidential business data, will be available for public inspection. A staff report containing preliminary findings of fact will be available to all interested parties on May 21, 1982.

Public hearing.—The Commission will hold a public hearing in connection with this investigation on June 10, 1982, in the Hearing Room of the U.S. International Trade Commission Building, 701 E Street NW., Washington, D.C. 20436, beginning at 10:00 a.m., e.d.t. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission not later than the close of business (5:15 p.m., e.d.t.), May 20, 1982. All persons desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 10:00 a.m., e.d.t., on May 21, 1981, in Room 117 of the U.S. International Trade Commission Building, and may file prehearing briefs on or before June 3, 1982. For further information concerning the conduct of the investigation, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, part 207, subparts A, C, and E (19 CFR 207), and part 201, subparts A through E (19 CFR 201).

FOR FURTHER INFORMATION CONTACT: David Coombs, Investigator, Office of Investigations, U.S. International Trade Commission (202-523-1376) or Lairold Street, Esq., Office of the General Counsel, U.S. International Trade Commission (202-523-3395).

By order of the Commission.
Issued: April 1, 1982.

Kenneth R. Mason,
Secretary.

[FR Doc. 82-9151 Filed 4-6-82; 8:45 am]
BILLING CODE 7020-02-M

[332-140]

The Competitive Status of Major Supply Regions for Fall-Harvested Fresh White or Irish Potatoes in Selected Markets

AGENCY: International Trade Commission.

ACTION: At the request of the United States Trade Representative, the Commission has instituted investigation No. 332-140 under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)), for the purpose of gathering and presenting information on the competitive status of major supply regions for fall-harvested fresh white or Irish potatoes in selected markets. The study will examine the consumption of fresh potatoes for fresh-

market use and other uses by region, production and costs of production by region, and competitive conditions in selected Northeastern U.S. markets for fresh-market potatoes from major supply sources. The study also will include an examination of economic conditions relating to the importation of such potatoes from Canada, including currency exchange rates.

EFFECTIVE DATE: April 1, 1982.

FOR FURTHER INFORMATION CONTACT: Mr. Alvin Macomber or Mr. William Lipovsky, Agriculture, Fisheries, and Forest Products Division, U.S. International Trade Commission, Washington, D.C. 20436, telephone 202–724–1765 or 202–724–0097, respectively.

BACKGROUND: The USTR requested on March 15, 1982, that the Commission investigate the competitive conditions affecting the potato industry of the State of Maine and that although the Northeastern U.S. market should be emphasized, the analysis of the Commission's report should not be confined to that area. He stated that it is particularly important for the Commission's analysis to indicate the relative importance of the various factors which affect the comparative position of Maine producers vis-a-vis producers in other States or marketing regions of the United States and Canada.

PUBLIC HEARING: A public hearing in connection with the investigation will be held beginning at 10 a.m., on June 30, 1982, in the Regency Room, Bangor Holiday Inn, 500 Main Street, Bangor, ME. All persons shall have the right to appear by counsel or in person, to present information, and to be heard. Requests to appear at the public hearing should be filed with the Secretary, U.S. International Trade Commission, 701 E Street NW., Washington, D.C. 20436, not later than noon, June 24, 1982.

WRITTEN SUBMISSIONS: In lieu of or in addition to appearances at the public hearing, interested persons are invited to submit written statements concerning the investigation. Commercial or financial information which a submitter desires the Commission to treat as confidential must be submitted on separate sheets of paper, each clearly marked "Confidential Business Information" at the top. All submissions requesting confidential treatment must conform with the requirements of § 201.6 of the Commission's rules of practice and procedure (19 CFR 201.6). All written submissions, except for confidential business information, will be made available for inspection by interested persons. To be ensured of consideration by the Commission, written statements should be submitted at the earliest practicable date, but not later than July 6, 1982. All submissions should be addressed to the Secretary at the Commission's office in Washington, D.C.

Issued: April 2, 1982.

By order of the Commission.

Kenneth R. Mason,

Secretary.

[FR Doc. 82-9362 Filed 4-6-82; 8:45 am]

BILLING CODE 7020-02-M

[Investigation No. 751-TA-5]

Salmon Gill Fish Netting of Manmade Fibers From Japan

Determination

On the basis of the record [1] developed in this investigation, the Commission unanimously determines [2] that the establishment of an industry in the United States would be materially retarded, by reason of imports of salmon gill fish netting of manmade fibers from Japan covered by antidumping order T.D. 72–158, if the order were to be modified or revoked.

Background

On July 28, 1981, the Commission received a request to review its determination in *Fish Nets and Netting of Manmade Fibers From Japan,* Inv. No. AA1921–85, T.C. Pub. No. 477 (1972). On October 14, 1981, the Commission instituted an investigation, pursuant to section 751(b) of the Tariff Act of 1930, to determine whether an industry in the United States would be materially injured, or would be threatened with material injury, or the establishment of an industry in the United States would be materially retarded, if the antidumping order (T.D. 72–158) regarding fish nets and fish netting of manmade fibers from Japan were to be modified or revoked with respect to salmon gill fish netting of manmade fibers.

Notice of the institution of the investigation and of the public hearing to be held in connection therewith was published in the Federal Register on October 21, 1981 (46 FR 51675). The public hearing was held on March 2, 1982, in Portland, Oregon. All interested persons were afforded an opportunity to appear in person or by counsel.

[1] The "Record" is defined in § 207.2(i) of the Commission's rules of practice and procedure (47 FR 6190, February 10, 1982).

[2] Commissioners Eckes and Haggart not participating.

Views of the Commission

Imports of salmon gill fish netting of manmade fibers from Japan have been subject to an antidumping order (T.D. 72–158) covering all types of fish netting of manmade fibers from Japan since June 1972 (37 FR 11560, June 9, 1972). Based on the record developed in this investigation,[3] we conclude that the establishment of an industry in the United States would be materially retarded by reason of imports of salmon gill fish netting of manmade fibers covered by the antidumping order if the order were to be modified or revoked.

Scope of the Commission's Investigation

On April 18, 1972, the Commission determined that an industry in the United States was being injured within the meaning of the Antidumping Act, 1921, by reason of imports of fish netting of manmade fibers from Japan which the Secretary of the Treasury had determined were being sold or were likely to be sold at less than fair value.[4] As a consequence of the Commission's determination, the Secretary of the Treasury issued an antidumping order overing the merchandise.

The Commission received a request on July 28, 1981, filed under section 751(b) of the Tariff Act, to review its determination. The request alleged changed circumstances in the domestic production of salmon gill fish netting and alleged that the modification or revocation of the outstanding antidumping order with respect to imports of salmon gill fish netting would not result in material injury or the threat of material injury to a domestic industry. The review request also claimed that the establishment of a domestic industry would not be materially retarded by such modification or revocation. This investigation focused entirely on salmon gill fish netting. Prior to the institution of the Commission's investigation, no information concerning changed circumstances was alleged with regard to the domestic production of fish netting other than salmon gill netting of manmade fibers.[5]

[3] The record is defined in § 207.2(i) of the Commission's rules of practice and procedure (19 CFR 207.2(i), 47 FR 6190, February 10, 1982).

[4] *Fish Nets And Netting Of Manmade Fibers From Japan,* Inv. No. AA1921–85, TC Pub. 477 (1972).

[5] Section 751(b)(1) of the Tariff Act states, in relevant part—

Whenever the * * * Commission receives information concerning, or a request for the review of, * * * an affirmative determination * * * which shows changed circumstances sufficient to warrant a review of such determination, it shall conduct such a review after publishing notice of the review in the Federal Register

By order of the Commission.

Kenneth R. Mason,

Secretary.

[FR Doc. 82-14334 Filed 5-25-82, 8:45 am]

BILLING CODE 7020-02-M

[Investigation No. 337-TA-105]

Certain Coin-Operated Audiovisual Games, and Components Thereof (Viz, Rally-X and PAC-MAN); Termination of a Respondent Based on a Settlement Agreement

AGENCY: International Trade Commission.

ACTION: Termination of the investigation with respect to respondent Fernandez Fun Factory, Inc., based on a settlement agreement.

SUPPLEMENTARY INFORMATION: Complainant Midway Manufacturing Co., respondent Fernandez Fun Factory, Inc., and the Commission investigative attorney moved on January 12, 1982, to terminate the investigation on the basis of a settlement agreement.

On March 24, 1982, the Commission published a notice in the Federal Register requesting comment from the public and from interested Federal agencies regarding whether the investigation should be terminated on the basis of the settlement agreement (47 FR 12701). No comments were received.

On May 17, 1982, the Commission terminated this investigation as to Fernandez Fun Factory on the basis of the settlement agreement. The Commission concluded that such termination would not adversely affect the public interest.

Notice of this investigation was published in the Federal Register of July 1, 1981 (46 FR 34436).

Copies of the Commission's Action and Order and all other nonconfidential documents filed in connection with this investigation are available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 701 E Street NW., Washington, D.C. 20436, telephone 202-523-0161.

FOR FURTHER INFORMATION CONTACT: Scott Daniels, Esq., U.S. International Trade Commission, 701 E Street NW., Washington, D.C. 20436, telephone 202-523-0074

By order of the Commission.

Issued: May 18, 1982.

Kenneth R. Mason,

Secretary.

[FR Doc. 82-14359 Filed 5-25-82, 8:45 am]

BILLING CODE 7020-02-M

[Investigation No. 337-TA-122; Order No. 1]

Certain Miniature, Battery-Operated, All-Terrain, Wheeled Vehicles

Pursuant to my authority as Chief Administrative Law Judge of this Commission, I hereby designate Donald K. Duvall as Presiding Officer in this investigation with the understanding that a Recommended Determination as to temporary relief will be rendered forty-five days from the date of publication of the notice of investigation in the Federal Register, if consistent with due process.

The Secretary shall serve a copy of this order upon all parties of record and shall publish it in the Federal Register.

Issued: May 18, 1982.

Donald K. Duvall,

Chief Administrative Law Judge.

[FR Doc. 82-14361 Filed 5-25-82; 8:45 am]

BILLING CODE 7020-02-M

[Investigation No. 337-TA-97]

Certain Steel Rod Treating Apparatus and Components Thereof; Denial of Petition for Reconsideration

AGENCY: International Trade Commission.

ACTION: Denial of petition for reconsideration.

SUPPLEMENTARY INFORMATION: Notice of the institution of this investigation was published in the Federal Register of January 28, 1981 (46 FR 9263).

The investigation concerned the alleged infringement of U.S. Letters Patent 3,390,871.

On December 10, 1981, the Commission, having determined that there was a violation of section 337 of the Tariff Act of 1930 in the sale for importation of the subject steel rod treating apparatus, issued an exclusion order pursuant to section 337(d). On December 30, 1981, the U.S. District Court for the District of South Carolina found the '871 patent invalid and unenforceable. The Commission thereupon revoked its determinations as to remedy, the public interest, and bonding, and issued an order permitting entry under bond pursuant to section 337(e), the order to remain in effect pending the exhaustion of appeal rights from the South Carolina action.

Respondents have moved for reconsideration of the Commission's determination as to violation of section 337 in light of the conflicting findings of the district court as set forth in the court's opinion of February 2, 1982. After review of the record in the Commission's investigation and the district court's opinion, the Commission has denied the petition for reconsideration.

Copies of the Commission' Action and Order and Memorandum Opinion, and all other public documents contained in the record of the investigation are available for inspection by the public during official working hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 701 E Street, N.W., Room 161, Washington, D.C. 20436, telephone (202) 523-0161.

FOR FURTHER INFORMATION CONTACT: Warren H. Maruyama, Esq., Office of the General Counsel, U.S. International Trade Commission, 701 E Street, NW., Washington, D.C. 20436; telephone (202) 523-0375.

By order of the Commission.

Issued: May 17, 1982.

Kenneth R. Mason,

Secretary.

[FR Doc. 82-14364 Filed 5-25-82, 8:45 am]

BILLING CODE 7020-02-M

[332-140]

Competitive Status of Major Supply Regions for Fall-Harvested Fresh White or Irish Potatoes in Selected Markets

AGENCY: International Trade Commission.

ACTION: Upon consideration of a request from the National Potato Council, the Commission has scheduled an additional public hearing for investigation No. 332-140 to be held beginning at 10:00 a.m., on June 24, 1982, to be continued on June 25, 1982, if required, in the Gold Room, Room 420, State Capitol Building, Boise, Idaho 83720. All persons shall have the right to appear by counsel or in person, to present information, and to be heard. Requests to appear at the public hearing should be filed with the Secretary, U.S. International Trade Commission, 701 E Street NW., Washington, D.C. 20436, not later than noon, June 18, 1982. A hearing in Bangor, Maine on June 30, 1982, will be held as originally scheduled.

Notice of the investigation and information on the Bangor, Maine hearing were published in the Federal Register of April 7, 1982 (47 FR 14976).

By order of the Commission.
Issued: May 18, 1982.
Kenneth R. Mason,
Secretary.

[FR Doc. 82-14150 Filed 5-25-82; 8:45 am]
BILLING CODE 7020-02-M

[Investigation No. 731-TA-90 (Preliminary)]

Chlorine From Canada

Determination

On the basis of the record [1] developed in investigation No. 731-TA-90 (Preliminary), the Commission determines,[2] pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)), that there is no reasonable indication that an industry in the United States is materially injured or threatened with material injury, or that the establishment of an industry in the United States is materially retarded, by reason of imports from Canada of Chlorine, as provided for in item 415.20 of the Tariff Schedules of the United States (TSUS), which are alleged to be sold in the United States at less than fair value (LTFV).

Background

On April 5, 1982, a petition was filed by counsel on behalf of Diamond Shamrock Corp., Olin Corp., and Pennwalt Corp. with the U.S. International Trade Commission and with the Department of Commerce alleging that an industry in the United States is materially injured, or is threatened with material injury, by reason of imports from Canada of chlorine which is allegedly being sold at LTFV. Accordingly, the Commission instituted a preliminary investigation under section 733(a) of the Tariff Act of 1930 to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or that the establishment of an industry in the United States is materially retarded, by reason of the importation of such merchandise into the United States.

Notice of the institution of the Commission's investigation and of a conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, D.C., and by publishing the notice in the Federal Register on April 14, 1982 (47 FR 16128). The conference was held in Washington, D.C. on April 29, 1982, and all persons who requested the opportunity were permitted to appear in person or by counsel.

Views of Chairman Bill Alberger, Vice Chairman Michael J. Calhoun, and Commissioners Paula Stern, Alfred E. Eckes, and Veronica A. Haggart

On the basis of the record established in this investigation, we determine that there is no reasonable indication that an industry in the United States is being materially injured or threatened with material injury by reason of imports from Canada of chlorine allegedly sold at less than fair value.[3] The reasons for our determination are set forth below.

Domestic Industry

Section 771(4) of the Tariff Act of 1930 defines the term "industry" as,

> the domestic producers as a whole of the like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product.

The term "like product" is defined in section 771(10) of the Act as,

> a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation under this title.

The chlorine that is imported into the United States from Canada is almost exclusively liquid chlorine. Chlorine is an inorganic chemical and one of the largest volume chemicals produced in the United States. Chlorine is produced as gas, and it remains in that state at normal temperatures and pressures. Under low temperatures and/or elevated pressures, chlorine reaches a liquid state. Most chlorine is liquified before shipment because the volume can be reduced in the liquification process. However, there are no chemically discernible differences between the liquid and gaseous chlorine and both forms can be used interchangeably.

We find the like product to be chlorine whether in its liquid or gaseous state. therefore, the domestic industry against which injury should be assessed consists of the domestic producers of chlorine.

An argument has been made by the respondents during the course of this investigation that injury should be assessed with regard to the profitability of the chlor-alkali industry and not solely with regard to the chlorine industry. The chlor-alkali industry represents the production of both chlorine and caustic soda. Chlorine is produced by an electrolytic charging process which also produces caustic soda and hydrogen [4] as co-products. The respondents argued that, since the producers of chlorine produce both chlorine and caustic soda "by definition, and not by choice or by coincidence, the economic reality is that they constitute a single chlor-alkali industry."[5]

The respondents also claim that, because there is no separate production process and because there are no separate industry-wide profit figures available, the Commission must analyze injury to the domestic industry in terms of information on the production of chlorine and caustic soda. The respondents cite 19 U.S.C. 1677(4)(D) (section 771(4)(D) of the Tariff Act of 1930) in support of their position. Section 771(4)(D) states:

> (D) Product Lines.—The effect of subsidized or dumped imports shall be assessed in relation to the United States production of a like product if available data permit the separate identification of production in terms of such criteria as the production process or the producer's profits. If the domestic production of the like product has no separate identity in terms of such criteria, then the effect of the subsidized or dumped imports shall be assessed by the examination of the production of the narrowest group or range of products, which includes a like product, for which the necessary information can be provided.

We have not found the respondents' arguments persuasive because there are data published on an industry-wide basis concerning the chlorine industry alone. Furthermore, the staff has been able to gather from the domestic producers information on the chlorine production process and producers' profits with regard to chlorine.[6] Although chlorine and caustic soda are coproducts, there is a point in the production process where the chlorine gas is removed from the reaction stream. From this point on, chlorine and caustic soda are completely segregated and assume separate identities. Although we received limited profit-and-loss data from the domestic industry, for the most part this was not related to their inability to allocate data to their chlorine operations, but rather a failure to come forward with the information.

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[1] The "record" is defined in § 207.2(i) of the Commission's Rules of Practice and Procedure (47 FR 6190, Feb. 10, 1982).

[2] Commissioner Frank dissenting.

[3] Material retardation of the establishment of an industry was not raised as an issue in this investigation.

[4] The amount of hydrogen produced in the electrolytic charging process is minimal in comparison to chlorine and caustic soda.

[5] Post Conference Brief of C-I-L, Inc. and C-I-L Chemicals, Inc. in Opposition to the Petition, p. 4.

[6] *See* Sodium Hydroxide, In Solution (Liquid Caustic Soda), from the Federal Republic of Germany, France, Italy, and the United Kingdom, Inv. No. 731-TA-8 through 11 (Preliminary), U.S.I.T.C. Pub. No. 1030 (1980). In that investigation the Commission relied on information gathered with regard to the production of caustic soda only. *See* also views of Vice Chairman Bill Alberger in that investigation.

Appendix B

Sources of Information

Submissions at the Commission Hearings
(in order of appearance)

Boise, Idaho, June 24, 1982:

Honorable John Evans, Governor, State of Idaho

Allen Larsen on behalf of the Honorable George Hansen, United States Congressman, State of Idaho

Phil Reberger, Chief of Staff, States Congressman, State of Idaho on behalf of the Honorable Steve Symms, United States Senator, State of Idaho

Rusby E. Jesser, Legislative Assistant, on behalf of the Honorable Larry Craig, United States Congressman, State of Idaho

Herschel Heilig, President, National Potato Council, Denver, Colorado

M. B. Anderson, Executive Director, Potato Growers of Idaho, Blackfoot, Idaho

Del Raybould, Grower, Rexburg, Idaho

LaDon Harriell, Potato Grower, Idaho Falls, Idaho

David Smith, Executive Vice-President, Idaho Grower-Shippers Association, Blackfoot, Idaho

Gordon Randall, Director, Idaho Potato Commission, Blackfoot, Idaho

Gary Ball, Grower and Chairman - Idaho Potato Commission, Blackfoot, Idaho

Howard Phillips, Vice-President of Nonpareil Corp., Blackfoot, Idaho

Albert M. Johnson, President, Potato Growers of Idaho, Inc., Blackfoot, Idaho

Patrick Brubaker, Potato Inspector, Blackfoot, Idaho

Henry C. Michael, Secretary/Manager, Washington-Oregon Potato and Onion Association., Moses Lake, Wash.

David W. Long, Chairman, Washington-Oregon Potato and Onion Association, Othello, Wash.

Lorin Strangeland, President, Three River Potato Services, Pasco, Wash.

Williams and Ince--Counsel, Washington, D.C., on Behalf of:

Canadian Horticultural Council William Daman, Executive Vice-President
Walter Kroeker, Past-President
Greg Gouryluk, Chairman, Potato Committee of the Canadian Horticultural Council

William K. Ince--Of Counsel

Bangor, Maine, June 30, 1982:

Honorable Olympia J. Snowe, United States Congresswoman, State of Maine

Honorable Joseph E. Brennan, Governor, State of Maine

Honorable David F. Emery, United States Congressman, State of Maine

Bob Umphrey, Legislative Assistant, on Behalf of the Honorable William S. Cohen, United States Senator, State of Maine

Clyde MacDonald, Staff Assistant, on Behalf of the Honorable George Mitchell, United States Senator, State of Maine

Stewart N. Smith, Commissioner of Agriculture, Food and Rural Resources, State of Maine

Holland and Knight--Counsel, Washington, D.C. on Behalf of:

Dorothy Kelley, Executive Vice-President, Maine Potato Council
Vyron Chapman, Potato Producer, Cassville, New York
Donald LaPointe, Potato Grower, Van Buren, Maine
Ray O. Hews, Senior Credit Representative, Farm Credit, Federal Land Bank and Production Credit, Presque Isle, Maine
John Shaw, Potato Grower, Presque Isle, Maine
Ronald Buck, Potato Grower and Dealer, Corinna, Maine
Stan Greaves, Executive Secretary, Maine Potato Sales Association, Presque Isle, Maine
Ralph Hooke, Potato Grower and President of Maine Potato Council
Edwin Plissey, Executive Director, Maine Potato Commission
Carroll Richardson, Marketing Representative for Agway, Inc., Presque Isle, Maine
Owen Smith, Potato Grower and Agriculture Consultant, Presque Isle, Maine
Frank Hemphill, Chairman, County Committee, Agriculture Soil and Conservation Service, Presque Isle, Maine

Thomas A. Rothwell, Jr.
Alfred G. Scholle --Of Counsel

Peter W. Curra, President, Maine Farm Bureau Association

Williams and Ince--Counsel, Washington on Behalf of:

Canadian Horticultural Council
Walter Kroeker, Past-President
William Daman, Executive Vice-President
Danny Dempster, Assistant to the Executive Vice-President
Les Armstrong, Secretary/Manager of the Ontario Potato Growers Marketing Board
Jacques Maillhot, Secretary/Manager of Quebec Potato Growers Federation
James Patterson, Assistant Secretary/Manager of New Brunswick Potato Agency
Ches Smith, Executive Director, Potato Division, New Brunswick Department of Agriculture

Eugene Brennan, President, New Brunswick Potato Shippers Association
Don Anderson, General Manager, Prince Edward Island Potato Marketing Board
Win Smith, Potato Program Coordinator, Prince Edward Island Department of Agriculture and Forestry

William K. Ince -- of Counsel

Written Submissions

Rev. John Audibert, St. Agatha Parish, St. Agatha, Me., April 28, 1982

Ned Berce, St. Agatha, Me., April 28, 1982

Allan R. Bouchard, Fort Kent, Me., April 28, 1982

Ronald Bouchard, Frenchville, Me., April 28, 1982

Canadian Horticultural Council, Nepean, Ont., July 13, 1982

Carroll Caron, Fort Kent, Me., April 28, 1982

Jerome J. Chamberland, St. Agatha, Me., April 28, 1982

Dennis J. Conley, Manager, Sun Special, Inc., Moses Lake, Wash., June 10, 1982

Rev. Joel Cyr, District V Chaplain, DHRS Inc., Grand Isle, Me., April 28, 1982

Zevon A. Daigle, Fort Kent, Me., June 18, 1982

Daniel Deveau, Van Buren, Me., April 28, 1982

Lawrence Dumais, Dumais & Sons, Inc., Frenchville, Me., June 17, 1982

Ken C. Gilliland, Manager, Transportation, Western Growers Association, Irvine, Calif., July 5, 1982

Roy O. Green, Parish Social Ministry Coordinator, Caribou, Me., April 28, 1982

Roland Guerrette, St. Agatha, Me., June 16, 1982

Ronald Guerrette, St. Agatha, Me., July 8, 1982

Roberta Guerrette, St. Agatha, Me., July 8, 1982

Frank R. Hemphill, Presque Isle, Me., July 9, 1982

L. G. Jorgenson, Manager, Washington Potato Growers Association., Othello, Washington, June 29, 1982

Daniel LaBrie, St. Agatha, Me., June 16, 1982

Lawrence E. London, Houlton, Me., June 28, 1982

Edgar J. MacBurnie, Caribou, Me., June 18, 1982

Maine Potato Council, Presque Isle, Me., July 13, 1982

Rev. Leopold G. Nickair, Dean of Deanery I, Fort Kent, Me., June 24, 1982

Tony Palmiero, Manager, Harvest Fresh Produce Inc., Othello, Wash., June 18, 1982

James Pelletier, President, Edwin Pelletier & Sons, Inc., Fort Kent, Me., June 21, 1982

George Pelletier, St. John, Me., April 28, 1982

Philip D. Pelletier, Frenchville, Me., April 28, 1982

Reno Pelletier, St. Agatha, Me., June 18, 1982

Fr. Raymond Picard, St. Joseph Parish, Sinclair, Me., April 28, 1982

Eileen Mary Pinette, Chairperson, District V Advisory Board, DHRS Inc., Caribou, Me., April 28, 1982

Ivey Roberts, Andrus & Roberts Produce Co., Sunnyside, Wash., June 15, 1982

Ernest C. Smith, Caribou, Me., June 17, 1982

Otis W. Smith, Houlton, Me., June 24, 1982

Scott V. Smith, Mapleton, Me., June 21, 1982

Nancy St. Pierre, Van Buren, Me., April 28, 1982

Norman Theriault, Fort Kent, Me., April 28, 1982

Martin J. Wistisen, Vice President, Marketing, U and I Incorporated, Tri-Cities, Wash., June 22, 1982

Appendix C

Part 8, Subpart A, Schedule 1, of the Tariff Schedules of the United States Annotated (1982)

GSP	Item	Stat. Suffix	Articles	Units of Quantity	Rates of Duty 1	Rates of Duty LDDC	Rates of Duty 2
			PART 8. - VEGETABLES				
			Subpart A. - Vegetables, Fresh, Chilled, or Frozen				
			Subpart A headnotes:				
			1. In the assessment of duty on any kind of vegetables, any foreign matter or impurities mixed therewith shall not be segregated nor shall any allowance therefor be made.				
			2. For the purposes of item 137.25 in this part, if for any calendar year the production of white or Irish potatoes, including seed potatoes, in the United States, according to the estimate of the Department of Agriculture made as of September 1, is less than 21,000,000,000 pounds, an additional quantity of potatoes equal to the amount by which such estimated production is less than the said 21,000,000,000 pounds shall be added to the 45,000,000 pounds provided for in the said item 137.25 for the year beginning the following September 15. Potatoes, the product of Cuba, covered by item 137.25 or 137.26 shall not be charged against the quota quantity provided for in item 137.25.				
			Vegetables, fresh, chilled, or frozen (but not reduced in size nor otherwise prepared or preserved):				
			Beans:				
			Lima beans:				
	135.10	00	If entered during the period from June 1 to October 31, inclusive, in any year	Lb.	3.5¢ per lb.		3.5¢ per lb.
	135.11		If products of Cuba		2.8¢ per lb. (s)		
D A	135.12	00	If entered during November in any year	Lb.	2.1¢ per lb.		3.5¢ per lb.
	135.13		If products of Cuba		1.4¢ per lb. (s)		
D A	135.14	00	If entered during the period from December 1 in any year to the following May 31, inclusive	Lb.	2.34¢ per lb.		3.5¢ per lb.
	135.15		If products of Cuba		1.4¢ per lb. (s)		
	135.16	00	Other than lima beans	Lb.	3.5¢ per lb.		3.5¢ per lb.
	135.17		If products of Cuba		3.1¢ per lb. (s)		
	135.20	00	Beets (not including sugar beets)	Lb.	Free		17% ad val.
A	135.30	00	Cabbage	Lb.	0.55¢ per lb.		2¢ per lb.
			Carrots:				
A	135.41	00	Under 4 inches long	Lb.	1¢ per lb.		8¢ per lb.
	135.42	00	Other	Lb.	0.5¢ per lb.		4¢ per lb.

(s) = Suspended. See general headnote 3(b).

Note: For explanation of the symbol "A" or "A*" in the column entitled "GSP", see general headnote 3(c).

GSP	Item	Stat. Suffix	Articles	Units of Quantity	Rates of Duty 1	Rates of Duty LDDC	Rates of Duty 2
			Vegetables, fresh, chilled, or frozen, etc. (con.):				
			Peas:				
			If entered during the period from July 1 to September 30, inclusive, in any year:				
			Fresh or chilled:				
	136.94	00	Pigeon peas	Lb.	Free		3.9¢ per lb.
A	136.95	00	Other	Lb.	0.5¢ per lb.		3.9¢ per lb.
			Frozen:				
	136.96	00	Pigeon peas	Lb.	Free		3.9¢ per lb.
❶A	136.97	00	Other	Lb.	1¢ per lb.		3.9¢ per lb.
			Other:				
❶A	137.02		Pigeon peas		0.8¢ per lb.		3.9¢ per lb.
		20	Fresh or chilled	Lb.			
		40	Frozen	Lb.			
A	137.04		Other		2¢ per lb.		3.9¢ per lb.
		20	Fresh or chilled	Lb.			
		40	Frozen	Lb.			
❶A*	137.10	00	Peppers	Lb.	2.5¢ per lb.		2.5¢ per lb.
	137.11		If products of Cuba		2.2¢ per lb. (s)		
			Potatoes, white or Irish:				
			Seed, certified by a responsible officer or agency of a foreign government in accordance with official rules and regulations to have been grown and approved especially for use as seed, in containers marked with the foreign government's official certified seed potato tags:				
	137.20	00	For not over 114,000,000 pounds entered during the 12-month period beginning September 15 in any year	Cwt.	36.5¢ per 100 lbs.	35¢ per 100 lbs.	75¢ per 100 lbs.
	137.21	00	Other	Cwt.	60¢ per 100 lbs.	35¢ per 100 lbs.	75¢ per 100 lbs.
			Other than such certified seed:				
	137.25	00	For not over 45,000,000 pounds and such additional quantity as may be allowed pursuant to headnote 2 of this part, entered during the 12-month period beginning September 15 in any year	Cwt.	36.5¢ per 100 lbs.	35¢ per 100 lbs.	75¢ per 100 lbs.
	137.26		If products of Cuba and entered during the period from December 1 in any year to the last day of the following February, both dates inclusive		30¢ per 100 lbs. (s)		
	137.28	00	Other	Cwt.	60¢ per 100 lbs.	35¢ per 100 lbs.	75¢ per 100 lbs.
	137.29		If products of Cuba and entered during the period from December 1 in any year to the last day of the following February, both dates inclusive		30¢ per 100 lbs. (s)		
A*	137.40	00	Radishes	Lb.	6% ad val.		50% ad val.

(s) = Suspended. See general headnote 3(b).

Note: For explanation of the symbol "A" or "A*" in the column entitled "GSP", see general headnote 3(c).

Potatoes, white or Irish: U.S. rates of duty, present and negotiated

TSUS item	Commodity	Rate prior to Jan. 1, 1980	Rates of duty, effective with respect to articles entered, or withdrawn from warehouse, for consumption on and after—							
			Jan. 1, 1980	Jan. 1, 1981	Jan. 1, 1982	Jan. 1, 1983	Jan. 1, 1984	Jan 1, 1985	Jan. 1, 1986	Jan. 1, 1987
	Potatoes, white or Irish:									
	Seed, certified by a responsible officer or agency of a foreign government in accordance with official rules and regulations to have been grown and approved especially for use as seed in containers marked with the foreign government's official certified seed potato tags:									
137.20	For not over 114,000,000 pounds entered during the 12-month period beginning September 15 in any year.	37.5¢/100 lbs.	37¢/100 lbs.	37¢/100 lbs.	36.5¢/100 lbs.	36¢/100 lbs.	36¢/100 lbs.	35.5¢/100 lbs.	35¢/100 lbs.	35¢/100 lbs.
137.21	Other	75¢/100 lbs.	70¢/100 lbs.	65¢/100 lbs.	60¢/100 lbs.	55¢/100 lbs.	50¢/100 lbs.	45¢/100 lbs.	40¢/100 lbs.	35¢/100 lbs.
	Other than certified seed:									
137.25	For not over 45,000,000 pounds and such additional quantity as may be allowed pursuant to headnote 2 of this part, entered during the 12-month period beginning September 15 in any year.	37.5¢/100 lbs.	37¢/100 lbs.	37¢/100 lbs	36.5¢/100 lbs.	36¢/100 lbs.	36¢/100 lbs.	35.5¢/100 lbs.	35¢/100 lbs.	35¢/100 lbs.
137.28	Other	75¢/100 lbs.	70¢/100 lbs.	65¢/100 lbs.	60¢/100 lbs.	55¢/100 lbs.	50¢/100 lbs.	45¢/100 lbs.	40¢/100 lbs.	35¢/100 lbs.

90

Appendix D

Names and Addresses of State Potato Grower Organizations which are Members of the National Potato Council

NATIONAL POTATO COUNCIL
1981 MANAGERS ADVISORY COMMITTEE

CALIFORNIA

Don Dressler, Executive Vice President
Western Growers Association
P.O. Box 2130
Newport Beach, CA 92663
Phone: (714) 641-5000

Dan Orr, President
Tulelake Growers Association
P.O. Box 338
Tulelake, CA 96134
Phone: (916) 667-5214

COLORADO

Mary Shield
Potato Administrative Committee Area III
2601 10th Street, Suite 3
Greeley, CO 80631
Phone: (303) 352-5231

Maurice B. Smith, Manager
San Luis Valley Potato Administrative Committee
P.O. Box 348
Monte Vista, CO 81144
Phone: (303) 852-3322

FLORIDA

Wayne Crain, Manager
Production & Marketing Division
Florida Fruit & Vegetable Association
P.O. Box 20155
Orlando, FL 32814
Phone: (305) 894-1351

Fred Jones, Executive Secretary
Hastings Potato Growers Association
P.O. Box 758
Hastings, FL 32045
Phone: (904) 692-1272

IDAHO

Mel Anderson, General Manager
Potato Growers of Idaho, Inc.
P.O. Box 949
Blackfoot, ID 83221
Phone: (208) 785-1110

Max Huntsman, Manager
Idaho & Eastern Oregon Potato Committee
P.O. Box 2192
Idaho Falls, ID 83401
Phone: (208) 529-8057

Gordon C. Randall, Executive Director
Idaho Potato Commission
P.O. Box 1068
Boise, ID 83701
Phone: (208) 344-8519

MAINE

Dorothy Kelley, Executive Vice President
Maine Potato Council
744 Main Street, Suite 1
Presque Isle, ME 04769
Phone: (207) 769-2711

Edwin S. Plissey, Executive Director
Maine Potato Commission
744 Main Street, Room 9
Presque Isle, ME 04769
Phone: (207) 769-5061

MASSACHUSETTS

William T. Drozdal, Secretary
Massachusetts Potato Growers Association
River Drive
Hadley, MA 01035
Phone: (413) 594-3644

MICHIGAN

Roy Kaschyk, Executive Secretary
Michigan Potato Industry Commission
500 North Homer
Lansing, MI 48912
Phone: (517) 373-8783

MINNESOTA

C. Thomas Jacobson, Manager
Hollandale Marketing Association
Hollandale, MN 56045
Phone: (507) 889-3351

Lloyd Schmidt, Executive Vice President
Red River Valley Potato Growers Association
P.O. Box 201
East Grand Forks, MN 56721
Phone: (218) 773-3633

MONTANA

Mike Sun, Executive Director
Montana Potato Improvement Association
Montana State University
Johnson Hall
Bozeman, MT 59715
Phone: (406) 994-4282

NEBRASKA

Gary Leever
Potato Development Division
State Department of Agriculture
P.O. Box 839
Alliance, NE 69301
Phone: (308) 762-1674

Warren A. Trank, Secretary
Nebraska Potato Council
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Alliance, NE 69301
Phone: (308) 762-1674

92

NEW HAMPSHIRE

Leighton C. Pratt, Secretary
Vermont-New Hampshire Potato Growers Association
148 Main Street
Lancaster, NH 03584
Phone: (603) 788-4561

NATIONAL POTATO COUNCIL
1981 MANAGERS ADVISORY COMMITTEE, Cont.

NEW JERSEY

Jack Gallagher
New Jersey Department of Agriculture
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Trenton, NJ 08620
Phone: (609) 292-8853

NEW YORK

Richard Amidon, Executive Secretary
Empire State Potato Club, Inc.
P.O. Box 166
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Phone: (315) 677-3635

Randy S. Greider
Cooperative Extension Assn. of Suffolk County
246 Griffing Avenue
Riverhead, LI, NY 11901
Phone: (516) 727-7850

Leon Weber, Cooperative Extension Agent
Suffolk County Extension Service Assn.
Riverhead, LI, NY 11901
Phone: (516) 727-7850

NORTH CAROLINA

Fred Heckaday, Secretary-Treasurer
North Carolina Potato Association, Inc.
P.O. Box 27647
Raleigh, NC 27611
Phone: (919) 733-7136

OHIO

David M. Kelly, General Manager
Ohio Potato Growers Association
4689 Indianola Avenue
Columbus, OH, 43214
Phone: (614) 261-6834

OREGON

James A. Burr, County Extension Agent
Malheur County Extension Office
710 S.W. 5th Avenue
Ontario, OR 97914
Phone: (503) 889-9129

Joseph Spiruta, Administrator
Oregon Potato Commission
Equitable Building #214
530 Center Street, N.E.
Salem, OR 97301
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PENNSYLVANIA

Howard L. Featherman, General Manager
Pennsylvania Cooperative Potato Growers, Inc.
3517 Walnut Street
Harrisburg, PA 17109
Phone: (717) 652-4251

SOUTH DAKOTA

Roy Amacher, Secretary
South Dakota Potato Growers Association
P.O. Box 127
Clark, SD 57225
Phone: (605) 532-3311

VIRGINIA

E. Philip McCaleb, Executive Vice President
Association of Virginia Potato & Vegetable Growers, Inc.
P.O. Box 265
Belle Haven, VA 23306
Phone: (804) 442-6187

WASHINGTON

Larry Jorgenson, Manager
Washington Potato Growers Association
P.O. Box 377
Othello, WA 99344
Phone: (509) 488-5678

George O'Leary, Administrator
Washington State Potato Commission
108 Interlake Road
Moses Lake, WA 98837
Phone: (509) 765-8845

WISCONSIN

Harold Sargent, Executive Secretary
Wisconsin Potato & Vegetable Growers Association
P.O. Box 327
Antigo, WI 54409
Phone: (715) 623-7683

Source: 1981 Potato Statistical Yearbook
The National Potato Council
12075 East 45th Avenue, Suite 301
Denver, Colorado 80239
Phone: (303) 373-5639

Appendix E

Statistical Tables

Table 1.--Potatoes, all seasons, fresh: U.S. sales for all uses, exports of domestic merchandise, imports for consumption, and apparent consumption, crops of 1976-80

(Quantity in 1,000 hundredweight; value in 1,000 dollars; unit value per hundredweight)

Crop of 1/	U.S. sales	Exports 2/	Imports 3/	Apparent consumption	Ratio (percent) of imports to consumption
	Quantity				
1976	324,660	4,342	804	321,122	4/
1977	317,497	2,736	1,571	316,332	4/
1978	325,573	2,358	1,347	324,562	4/
1979	306,367	1,779	1,719	306,307	1
1980	273,106	2,377	3,990	274,719	1
	Value				
1976	1,166,539	26,371	3,944	5/	5/
1977	1,127,531	19,164	6,493	5/	5/
1978	1,098,936	13,148	5,714	5/	5/
1979	1,052,302	17,221	7,795	5/	5/
1980	1,787,969	31,886	33,707	5/	5/
	Unit value				
1976	$3.59	$ 6.07	$4.90	-	-
1977	3.55	7.00	4.13	-	-
1978	3.38	5.58	4.24	-	-
1979	3.43	9.68	4.53	-	-
1980	6.55	13.41	8.45	-	-

1/ Crop of the year in which harvested. Exports and import are for the year beginning September 1.

2/ To Canada only, by far the leading market in most years.

3/ Includes seed and other than seed potatoes. Imports are virtually all from Canada.

4/ Less than 0.5 percent.

5/ Not meaningful.

Source: Sales compiled from official statistics of the U.S. Department of Agriculture; imports and export (as noted) compiled from official statistics of the U.S. Department of Commerce.

Table 2.--Fall-harvested potatoes, fresh: U.S. sales for all uses, exports of domestic merchandise, imports for consumption, and apparent consumption, crops of 1976-80

(Quantity in 1,000 hundredweight; value in 1,000 dollars; unit value per hundredweight)

Crop of 1/	U.S. sales	Exports 2/	Imports 3/	Apparent consumption	Ratio (percent) of imports to consumption
			Quantity		
1976	276,819	1,433	804	276,190	4/
1977	272,120	903	1,571	272,788	1
1978	285,826	778	1,347	286,395	4/
1979	262,688	587	1,719	263,820	1
1980	238,011	784	3,990	241,217	2
			Value		
1976	922,979	8,702	3,944	5/	5/
1977	868,382	6,324	6,493	5/	5/
1978	838,127	4,339	5,714	5/	5/
1979	850,247	5,683	7,795	5/	5/
1980	1,514,086	10,522	33,707	5/	5/
			Unit value		
1976	$3.33	$ 6.07	$4.90	-	-
1977	3.19	7.00	4.13	-	-
1978	2.93	5.58	4.24	-	-
1979	3.24	9.68	4.53	-	-
1980	6.36	13.41	8.45	-	-

1/ Crop of the year in which harvested, generally beginning September 1, from States designated by the U.S. Department of Agriculture as fall-harvest States. Exports and import are for the year beginning September 1.

2/ Exports from fall-harvest States only, which are estimated as one-third of annual U.S. exports (based on unloads in Canadian cities).

3/ Includes seed and other than seed potatoes.

4/ Less than 0.5 percent.

5/ Not meaningful.

Source: Sales compiled from official statistics of the U.S. Department of Agriculture; imports and export (as noted) compiled from official statistics of the U.S. Department of Commerce.

Table 3.--Potatoes, all seasons, fresh: U.S. sales of tablestocks and seed, exports of domestic merchandise, imports for consumption, and apparent consumption, crops of 1976-80

(In thousands of hundredweight)

Crop of 1/	U.S. sales 2/	Exports 3/	Imports	Apparent consumption	Ratio (percent) of imports to consumption
1976	143,588	4,342	804	140,050	1
1977	138,199	2,736	1,571	137,034	1
1978	132,086	2,358	1,347	131,075	1
1979	133,136	1,779	1,719	133,076	1
1980	116,320	2,377	3,990	117,933	3

1/ Crop of the year in which harvested. Exports and import are for the year beginning September 1.

2/ Reported tablestock sales are derived by subtracting the quantities reported for "all other uses" from total reported production. About 85 percent of the sales indicated above are estimated to be tablestock sales, the remainder being seed sales. Data on fall-harvest tablestock and seed sales are not separately reported, although during 1976-80, it was reported that 86 percent of all potato sales for all uses were fall-harvested potatoes.

3/ To Canada only, by far the leading market in most years.

Source: Sales compiled from official statistics of the U.S. Department of Agriculture; imports and export (as noted) compiled from official statistics of the U.S. Department of Commerce.

Note.--Data do not include tablestock and seed sales from 12 States for which production estimates are not made by the U.S. Department of Agriculture; such sales probably do not exceed 2 million hundredweight annually. These States are Alaska, Arkansas, Georgia, Hawaii, Kansas, Kentucky, Mississippi, Missouri, New Hampshire, Oklahoma, South Carolina, and West Virginia.

Table 4.--Fall-harvested potatoes, fresh for tablestock and seed: Estimated regional production sold in the three U.S. producing regions, out-shipments from the regions, in-shipments from domestic sources, imports consumed in the region, apparent consumption and ratio of imports to consumption, crops of 1976-80

(In thousands of hundredweight)

U.S. crop of 1/	Regional production sold 2/	Out-shipments 3/	In-shipments 4/	Imports 5/	Apparent consumption	Ratio (percent) of imports to consumption
	Northeastern Region					
1976	31,000	8,800	10,700	500	33,400	1
1977	30,000	8,400	10,300	1,000	32,900	3
1978	29,000	8,100	9,800	900	31,600	3
1979	27,000	7,600	9,200	1,100	29,700	4
1980	25,500	7,200	8,700	3,000	30,000	10
	North Central Region					
1976	28,000	14,300	11,500	120	25,320	6/
1977	27,000	13,800	11,100	240	24,540	1
1978	25,000	13,200	10,600	200	22,600	1
1979	24,000	12,400	9,900	140	21,640	1
1980	22,500	11,700	9,400	320	20,520	2
	Western Region					
1976	66,000	48,400	300	40	17,940	6/
1977	64,000	46,700	300	40	17,640	6/
1978	61,000	44,600	250	40	16,690	6/
1979	57,000	41,800	200	40	15,440	6/
1980	54,000	39,600	200	100	14,700	1

1/ Crop of the year in which harvested, generally beginning Sept. 1; imports are for the year beginning Sept. 1.

2/ Fall-harvested sales for tablestock use, and production sold by regions, are derived from unpublished data of the U.S. Department of Agriculture Statistical Reporting Service. The regional percentage allocations used herein of the U.S. fall-harvested sales are as follows: Northeastern Region, 25 percent; North Central Region, 22 percent; and Western Region 53 percent.

3/ Out-shipments from the region to other States and foreign markets. The shares of regional production shipped out is based on origins of fresh potato unloads during the crop years 1977/78 to 1980/81 as reported for 36 U.S. and 12 Canadian cities. The shares used herein for regional out-shipments are as follows: Northeastern Region, 28 percent; North Central Region, 52 percent; and Western Region, 73 percent.

4/ Domestic in-shipments from fall-harvest States. The quantities are based on percentage ratios of interregional sales, as derived from origin of fresh potato unloads data during crop years 1977/78 to 1980/81 for 36 U.S. cities.

5/ The regional quantities represent allocations of the annual U.S. imports from Canada, based on responses received on questionnaires sent to U.S. importers, official statistics of U.S. imports by customs district, the origin of potato unloads reported in 36 U.S. cities, and other sources.

6/ Less than 0.5 percent.

Source: Compiled by the U.S. International Trade Commission (ITC) as noted, based on official and unpublished statistics of the U.S. Department of Agriculture, official statistics of the U.S. Department of Commerce, official statistics of Agriculture Canada, responses to questionnaires of the ITC, and other sources.

Note.--Year-to-year changes in production sold by regions are in proportion to national year-to-year changes and do not indicate gains or losses of one region compared to another.

Table 5.—Fall-harvested potatoes: U.S. acreage planted and harvested, by regions and by States, crops years 1976-81

Region and State	1976	1977	1978	1979	1980	1981
	Planted acreage (1,000 acres)					
Northeastern:						
Maine	116	124	119	116	108	106
New York	50	51	50	48	45	45
Pennsylvania	29	28	26	25	23	22
Other New England 1/	11	12	11	10	9	9
Total 2/	206	215	206	199	185	182
North Central:						
North Dakota	126	142	137	121	114	119
Minnesota	69	76	73	70	65	73
Wisconsin	56	58	59	57	53	55
Michigan	35	34	35	33	33	32
Ohio	12	12	11	10	10	10
Nebraska	5	6	7	6	7	8
South Dakota	6	6	8	7	7	6
Indiana	6	5	4	4	4	3
Total 3/	315	339	334	308	293	306
Western:						
Idaho	370	365	370	335	305	330
Washington	124	110	111	102	87	108
Oregon	66	60	70	66	48	55
Colorado	37	37	42	40	37	41
California 4/	19	17	17	17	17	18
Nevada	14	14	17	15	13	12
Other States 5/	21	22	22	19	18	19
Total	651	625	649	594	525	582
Total, Fall	1,172	1,178	1,187	1,101	1,002	1,070
	Harvested acreage (1,000 acres)					
Northeastern:						
Maine	112	118	118	113	104	104
New York	49	43	48	45	44	44
Pennsylvania	28	26	25	24	22	21
Other New England 1/	11	11	10	10	9	9
Total 2/	200	198	201	192	179	178
North Central:						
North Dakota	123	140	135	114	112	115
Minnesota	67	72	71	68	64	70
Wisconsin	53	56	55	54	54	54
Michigan	34	32	34	32	32	30
Ohio	12	11	10	10	10	9
Nebraska	5	6	7	6	7	8
South Dakota	4	6	7	6	7	5
Indiana	6	5	4	4	3	3
Total 3/	304	328	323	294	285	294
Western:						
Idaho	363	360	365	330	300	325
Washington	124	110	111	102	87	108
Oregon	66	60	68	63	47	54
Colorado	36	36	41	40	37	40
California 4/	18	17	17	17	17	18
Nevada	14	14	17	15	13	12
Other States 5/	20	21	21	18	18	19
Total	641	618	640	585	519	576
Total, Fall	1,145	1,144	1,166	1,071	981	1,047

1/ The New England States other than Maine: excludes New Hampshire after 1977, for which data are not available.

2/ Excludes New Jersey because potato harvests in that State are classified as summer season.

3/ Excludes Illinois and Iowa because potato harvests in these States are classified as summer season.

4/ Northern California only.

5/ Includes Montana, Utah, and Wyoming.

100

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Note.—Because of rounding, figures may not add to the totals shown.

Table 6.--Fall-harvested potatoes: Percent of acreage planted, by type of potatoes, by principal States within regions, 1976-81

Year and type	Northeastern Region			North Central Region				Western Region			
	Maine	New York	Pennsylvania	North Dakota	Minnesota	Wisconsin	Michigan	Idaho	Washington	Oregon	Colorado
	Percent										
Russet:											
1976	21	1/	1/	10	16	38	41	100	92	92	81
1977	21	1/	1/	12	29	49	24	100	93	93	86
1978	27	2	1	10	26	56	43	99	96	94	78
1979	32	1	-	13	24	58	31	99	95	98	89
1980	34	-	-	9	23	53	25	100	100	100	86
1981	28	-	-	8	22	53	23	100	100	100	85
Round white:											
1976	79	97	97	47	61	53	56	1/	8	7	3
1977	79	98	99	50	54	40	74	1/	6	6	1
1978	73	98	98	67	50	33	56	1	3	4	5
1979	68	96	99	63	59	34	68	1/	4	2	1
1980	66	100	100	63	52	33	75	-	-	-	5
1981	72	100	100	57	55	34	72	-	-	-	5
Round reds:											
1976	1/	3	3	44	23	9	3	1/	1/	1	16
1977	1/	1	1	38	16	12	2	1/	1	1	13
1978	-	1	1	24	24	12	2	-	1	2	17
1979	1	3	1	24	17	8	1	1/	1	1	10
1980	-	-	-	28	25	14	-	-	-	-	9
1981	-	-	-	35	23	13	5	-	-	-	10

1/ Less than 0.5 percent.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 7.—Fall-harvested potatoes: U.S. production harvested and average yield per acre, by regions and by States, crops year 1976-81

Region and State	1976	1977	1978	1979	1980	1981
	Production harvested (1,000 hundredweight)					
Northeastern:						
Maine	27,440	28,320	25,960	27,685	24,960	26,520
New York	13,510	12,538	12,675	12,894	11,044	12,240
Pennsylvania	7,140	6,375	6,250	6,000	4,180	5,250
Other New England 1/	2,725	2,707	2,401	2,116	2,009	2,176
Total 2/	50,815	49,940	47,286	48,695	42,193	46,186
North Central:						
North Dakota	17,220	22,400	23,625	18,240	15,680	20,125
Minnesota	11,055	12,960	14,910	12,920	9,920	13,300
Wisconsin	15,370	18,038	17,325	17,010	16,000	18,190
Michigan	8,330	8,800	8,500	8,000	7,403	7,050
Ohio	2,933	2,744	2,215	2,400	1,995	1,845
Nebraska	1,274	1,440	1,800	1,482	1,876	2,252
South Dakota	286	1,062	1,190	1,205	1,072	702
Indiana	1,530	1,128	936	1,071	726	615
Total 3/	57,998	68,572	70,501	62,326	51,672	64,079
Western:						
Idaho	88,455	88,200	100,310	85,050	79,840	80,040
Washington	55,800	50,600	50,505	48,450	43,935	52,380
Oregon	28,913	25,550	28,488	25,310	19,745	21,710
Colorado	9,257	9,490	11,275	11,455	10,950	12,000
California 4/	6,475	5,950	6,055	6,364	6,438	6,734
Nevada	5,320	4,760	5,440	4,950	4,420	3,480
Other States 5/	4,755	4,906	4,996	4,319	4,235	4,075
Total	198,975	189,456	207,069	185,898	169,563	180,419
Total, United States	307,788	307,968	324,856	296,919	266,428	290,684
	Yield per acre (hundredweight)					
Northeastern:						
Maine	245	240	220	245	240	255
New York	277	289	262	285	252	281
Pennsylvania	255	250	250	250	190	250
Other New England 1/	239	237	229	223	223	242
Average 2/	254	252	234	254	236	260
North Central:						
North Dakota	140	160	175	160	140	175
Minnesota	165	180	210	190	155	190
Wisconsin	290	325	315	315	320	340
Michigan	245	275	250	250	235	235
Ohio	255	245	215	240	210	205
Nebraska	260	240	250	260	280	285
South Dakota	65	180	170	185	160	130
Indiana	255	240	240	255	220	205
Average 3/	191	210	218	212	193	218
Western region:						
Idaho	244	245	275	258	266	246
Washington	450	460	455	475	505	485
Oregon	441	426	421	402	420	402
Colorado	255	260	275	290	300	300
California 4/	350	350	350	370	370	370
Nevada	380	340	320	330	340	290
Other States 5/	239	234	233	237	238	220
Average	310	306	323	318	327	313
Average, United States	269	269	279	277	272	278

1/ The New England States other than Maine; excludes New Hampshire after 1977, for which data are not available.

2/ Excludes New Jersey because potato harvests in that State are classified as summer season.

3/ Excludes Illinois and Iowa because potato harvests in these States are classified as summer season.

4/ Northern California only.

5/ Includes Montana, Utah, and Wyoming.

102

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 8.--Fall-harvested potatoes: U.S. average price received by growers for sale for all uses, by regions and by States, crops year 1976-80

(Per hundredweight)

Region and State	1976	1977	1978	1979	1980
Northeastern:					
Maine	$4.95	$3.36	$3.86	$3.25	$7.25
New York	4.82	3.94	4.49	4.14	8.86
Pennsylvania	5.00	4.70	4.85	5.00	7.90
Other New England 1/	5.16	4.99	5.64	5.05	7.25
Average 2/	4.93	3.78	4.27	3.79	7.75
North Central:					
North Dakota	3.45	2.70	2.60	3.25	6.85
Minnesota	3.25	2.74	2.71	3.05	7.70
Wisconsin	3.95	3.95	4.13	4.30	10.10
Michigan	4.20	4.13	4.53	4.45	6.60
Ohio	4.40	4.25	4.45	4.35	7.90
Nebraska	3.95	3.65	3.90	4.25	6.45
South Dakota	3.20	3.05	3.03	3.05	3.85
Indiana	3.90	4.75	3.90	4.30	8.00
Average 3/	3.73	3.35	3.37	3.74	7.91
Western region:					
Idaho	2.95	2.95	2.25	2.95	5.65
Washington	2.50	2.80	2.45	2.55	4.40
Oregon	2.71	2.89	2.76	2.83	4.59
Colorado	2.55	2.80	2.15	2.90	7.05
California 4/	4.55	5.45	5.20	5.45	10.80
Nevada	2.35	2.90	2.40	2.75	5.20
Other States 5/	3.75	3.93	3.82	4.00	7.46
Average	2.82	2.99	2.49	2.93	5.52
Average, United States	3.33	3.19	2.93	3.24	6.36

1/ The New England States other than Maine; excludes New Hampshire after 1977, for which data are not available.

2/ Excludes New Jersey because potato harvests in that State are classified as summer season.

3/ Excludes Illinois and Iowa because potato harvests in these States are classified as summer season.

4/ Northern California only.

5/ Includes Montana, Utah, and Wyoming.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 9.—Potatoes: Utilization of U.S. crops, 1976/77 to 1980/81

(In thousands of hundredweight)

Utilization items	1976/77	1977/78	1978/79	1979/80	1980/81
Sales:					
Tablestock	123,091	117,171	112,096	114,957	97,226
For processing:					
Chips	34,583	36,947	37,839	38,276	37,611
Dehydration	40,354	32,783	33,243	30,784	28,220
Frozen french fries	79,654	79,949	79,539	74,320	67,222
Other frozen products	12,872	14,597	15,406	14,420	13,673
Canned potatoes	1,914	2,797	2,660	2,479	2,052
Other canned products (hash, stews, soups)	2,557	2,474	2,127	2,251	1,919
Starch and flour	2,813	2,355	3,460	3,574	2,186
Total	174,747	171,902	174,274	166,104	152,883
Total sales for human food	297,838	289,073	286,370	281,061	250,109
Other sales:					
Livestock feed	6,325	7,396	7,173	6,636	3,903
Seed	20,497	21,028	19,990	18,179	19,094
Total diverted 1/	0	0	12,040	491	0
Total	26,822	28,424	39,203	25,306	22,997
Total sales	324,660	317,497	325,573	306,367	273,106
Non-sales:					
Seed used on farms where grown	5,069	4,961	4,634	4,257	4,967
Household use and used for feed on farms where grown	1,691	1,757	1,668	1,666	1,412
Shrinkage and loss	26,246	31,119	34,439	30,207	23,372
Total non-sales	33,006	37,837	40,741	36,130	29,751
Total production	357,666	355,334	366,314	342,497	302,857

1/ Quantity of potatoes sold for livestock feed and starch under the USDA Diversion Program.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 10.--Profit-and-loss experience of U.S. potato growers, 1976-81

Item	For the tax year ending in--					
	1976	1977	1978	1979	1980	1981
	Farm operations (in 1,000 dollars)					
Total sales	12,463	12,626	13,482	11,556	15,600	25,146
Operating expenses:						
Material and growing supplies	5,088	5,100	5,353	5,200	7,350	8,281
Labor	1,980	2,400	2,945	2,037	2,565	3,915
Depreciation	1,200	1,287	1,386	1,188	1,235	2,366
Others 1/	3,106	2,999	4,101	3,555	4,753	6,755
Total expenses 2/	11,374	11,786	13,785	11,980	15,903	21,317
Net farm income	1,089	840	-303	-424	-303	3,829
	Potato operations (in 1,000 dollars)					
Total sale of potatoes	10,486	10,807	9,588	8,700	12,480	20,416
Operating expenses:						
Material and growing supplies	3,600	3,440	3,440	3,485	5,146	9,916
Labor	1,863	2,064	2,125	1,764	2,268	2,550
Depreciation	1,053	1,092	1,131	957	1,105	1,064
Others 1/	2,902	3,166	2,987	2,589	4,139	2,736
Total expenses 2/	9,418	9,762	9,683	8,795	12,658	16,266
Net income from potato production	1,068	1,045	-95	-95	-178	4,150

1/ Others includes the salaries of a sole proprietor, partners, or officers, and was determined by subtracting Material, Labor, and Depreciation from Total Expenses.

2/ Total expenses were determined by subtracting net income from total sales.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 11.--Assets and capital expenditures of U.S. potato growers, 1976-81

Item	For the tax year ending in--					
	1976	1977	1978	1979	1980	1981
	Farm operations (in 1,000 dollars)					
Total farm assets:						
Original cost	15,975	17,388	22,168	22,750	24,080	23,595
Book value	10,340	12,285	15,535	15,812	16,575	15,780
Total capital expenditures	5,828	5,760	6,438	7,254	6,968	6,588
	Potato operations (in 1,000 dollars)					
Total farm assets:						
Original cost	10,962	11,685	14,224	15,080	15,232	15,847
Book value	7,682	8,802	11,165	12,255	11,385	12,299
Total capital expenditures	4,800	5,096	5,499	5,967	5,904	6,132
Value of assets leased for use in potato production	72	102	168	152	176	136

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 12.--Fall-harvested potatoes: Estimated costs of growing and harvesting potatoes in major production areas, 1980

	Maine	Long Island	Wisconsin	North Dakota	Idaho	Oregon	Washington
	Per acre						
Operating expenses:							
Fertilizer	$165	$ 226	$ 175	$ 30	$100	$244	$ 185
Chemicals	85	214	133	85	104	130	176
Seed	64	159	108	80	90	100	166
Fuel & lubricants	58	58	47	30	53	48	70
Irrigation operation	-	-	90	-	54	52	68
Labor	116	105	62	60	73	61	65
Repairs	63	54	51	25	45	42	51
Real estate taxes	8	60	14	6	6	6	8
Total	559	876	680	316	525	683	789
Interest expenses	137	605	250	128	237	191	267
Depreciation expenses	110	108	142	50	119	116	144
Total expenses	806	1,589	1,072	494	881	990	1,200
	Yield per acre (hundredweight)						
Average, 1977-79	235	292	318	165	259	416	467
	Total expenses (per hundredweight)						
Operating	$2.38	$3.00	$2.14	$1.92	$2.03	$1.64	$1.69
Operating, depreciation, and interest	3.43	5.44	3.37	2.99	3.40	2.38	2.57

Source: James N. Putnam II, Aroostook County, Maine: Potato Industry Study, Farm Credit Service, January 1981, pp. 80-81.

Table 13.--Fall-harvested potatoes: Production costs for tablestock potatoes, Maine round whites, crops of 1980-82

Item	Year beginning September 1--		
	1980	1981 1/	1982 1/
	------U.S. dollars per acre-----		
Variable 2/	561.49	782.67	745.50
Ownership 3/	137.48	154.53	168.59
Management 4/	72.31	96.38	94.30
Land Charge 5/	40.00	44.04	47.65
General Overhead 6/	21.11	26.61	28.95
Total	835.35	1,104.23	1,084.99
	------(U.S. cents per pound)----		
Cost per pound	3.34	4.42	4.34

1/ Estimated.

2/ Variable costs include, (1) materials, costs for seed, fertilizer, and chemicals, (2) machinery costs such as fuel, lubricants, repairs, and custom machinery services, (3) charges for paid and unpaid labor, (4) irrigation power and water charges, and (5) interest on operating capital.

3/ Ownership costs include charges for depreciation, taxes, insurance, and interest on machinery investment.

4/ Management charge based on 10 percent of all other costs exclusive of the land charge.

5/ Land charge was based on cash rental rates for land and improvements such as irrigation canals, sprinkler systems, and wells.

6/ General overhead includes charges for telephone, accounting, legal services, association dues, and assessments.

Source: Compiled from official statistics of the Economic Research Service, U.S. Department of Agriculture.

Table 14.--Fall-harvested potatoes: Production costs for tablestock potatoes, Eastern Idaho russets, crops of 1980-82

Item	Year beginning September 1--		
	1980	1981 1/	1982 1/
	------U.S. dollars per acre-----		
Variable 2/	550.91	677.09	684.80
Ownership 3/	87.71	98.59	107.56
Management 4/	67.59	81.68	83.70
Land Charge 5/	150.00	165.15	178.69
General Overhead 6/	37.27	41.09	44.62
Total	893.48	1,063.60	1,099.37
	------(U.S. cents per pound)----		
Cost per pound	3.57	4.25	4.40

1/ Estimated.

2/ Variable costs include, (1) materials, costs for seed, fertilizer, and chemicals, (2) machinery costs such as fuel, lubricants, repairs, and custom machinery services, (3) charges for paid and unpaid labor, (4) irrigation power and water charges, and (5) interest on operating capital.

3/ Ownership costs include charges for depreciation, taxes, insurance, and interest on machinery investment.

4/ Management charge based on 10 percent of all other costs exclusive of the land charge.

5/ Land charge was based on cash rental rates for land and improvements such as irrigation canals, sprinkler systems, and wells.

6/ General overhead includes charges for telephone, accounting, legal services, association dues, and assessments.

Source: Compiled from official statistics of the Economic Research Service, U.S. Department of Agriculture.

Table 15.--Fall-harvested potatoes: Production costs for tablestock potatoes, Central Wisconsin russets, crops of 1980-82

Item	Year beginning September 1--		
	1980	1981 1/	1982 1/
	------U.S. dollars per acre-----		
Variable 2/	634.92	817.78	809.90
Ownership 3/	120.45	135.39	147.71
Management 4/	78.77	98.22	98.92
Land Charge 5/	150.00	165.15	178.69
General Overhead 6/	26.30	29.02	31.56
Total	1,009.84	1,245.56	1,266.78
	------(U.S. cents per pound)----		
Cost per pound	2.89	3.56	3.62

1/ Estimated.

2/ Variable costs include, (1) materials, costs for seed, fertilizer, and chemicals, (2) machinery costs such as fuel, lubricants, repairs, and custom machinery services, (3) charges for paid and unpaid labor, (4) irrigation power and water charges, and (5) interest on operating capital.

3/ Ownership costs include charges for depreciation, taxes, insurance, and interest on machinery investment.

4/ Management charge based on 10 percent of all other costs exclusive of the land charge.

5/ Land charge was based on cash rental rates for land and improvements such as irrigation canals, sprinkler systems, and wells.

6/ General overhead includes charges for telephone, accounting, legal services, association dues, and assessments.

Source: Compiled from official statistics of the Economic Research Service, U.S. Department of Agriculture.

Table 16.--Fall-harvested potatoes: U.S. production and storage stocks held on the first day of each month, December through May 1/, by quantity and share of total production, crops of 1976-81

Crop year	Production 2/	Stocks held on the first day of --					
		December	January	February	March	April	May
	Quantity (1,000 hundredweight)						
1976/77	294,978	198,630	172,230	142,030	112,830	81,130	3/
1977/78	295,421	202,550	175,300	147,930	119,850	88,680	3/
1978/79	311,981	219,850	193,520	162,980	132,570	99,250	64,830
1979/80	285,060	200,820	176,020	147,910	121,720	92,550	59,535
1980/81	255,691	171,730	146,610	121,565	97,280	72,460	44,446
1981/82	281,375	187,790	160,010	132,770	106,735	77,475	
	Share of total production (percent)						
1976/77	100	67	58	48	38	28	3/
1977/78	100	69	59	50	41	30	3/
1978/79	100	70	62	52	42	32	21
1979/80	100	70	62	52	43	32	21
1980/81	100	67	57	48	38	28	17
1981/82	100	67	57	47	38	28	

1/ Includes 15 States for which stocks are reported. The 15 States account for about 95 percent of the fall-harvested production.

2/ Production is for the crop of the year shown first, e.g., 1976/77 is for the crop of 1976.

3/ Not reported prior to 1978.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Note.--Stocks are defined by the U.S. Department of Agriculture as the quantity remaining in storage for all purposes and uses, including shrinkage and waste and other losses that occur after the date of each report. Sales of fall potatoes for all purposes generally account for about 90 percent of the total fall production. Shrinkage and loss and home use account for the remaining 10 percent.

Table 17.—Potatoes, fall-harvested: Total stocks held by growers, processors and dealers, by regions and selected States on December 1, 1976-81 1/

Region and State	1976	1977	1978	1979	1980	1981
	Quantity (1,000 hundredweight)					
Eastern:						
Maine	20,600	22,900	19,700	23,300	18,900	21,300
Other	11,150	10,850	10,800	10,700	8,250	9,910
Total	31,750	33,750	30,500	34,000	27,150	31,210
Central:						
North Dakota	11,600	16,100	17,200	12,500	10,700	14,500
Minnesota	9,000	10,100	12,000	10,500	8,400	9,100
Wisconsin	7,900	10,200	10,100	9,450	8,600	9,100
Other	7,380	7,700	8,150	7,750	6,400	7,530
Total	35,880	44,100	47,450	40,200	34,100	40,230
Western:						
Idaho	67,500	68,000	78,000	65,000	59,000	57,500
Washington	33,200	28,400	32,000	30,600	24,500	29,200
Oregon	17,700	15,700	17,700	16,900	13,300	15,200
Colorado	6,700	6,750	8,300	8,200	7,850	8,500
Other	5,900	5,850	5,900	5,920	5,830	5,950
Total	131,000	142,700	141,900	126,620	110,480	116,350
Grand total	198,630	202,550	219,850	200,820	171,730	187,790
	Ratio of stocks to production (percent)					
Eastern:						
Maine	75	81	76	84	76	80
Other	54	57	57	57	54	57
Total	66	71	68	73	68	71
Central:						
North Dakota	67	72	73	69	68	72
Minnesota	81	78	80	81	85	68
Wisconsin	51	57	58	56	54	50
Other	59	59	65	65	57	68
Total	64	66	69	67	64	64
Western:						
Idaho	76	77	78	76	74	72
Washington	59	56	63	63	56	56
Oregon	61	61	62	67	67	70
Colorado	72	71	74	72	72	71
Other	71	73	72	73	71	70
Total	69	69	71	71	68	67
Grand total	67	69	70	70	67	67

1/ States included are Maine, New York, Pennsylvania, North Dakota, Minnesota, Wisconsin, Michigan, Nebraska, Ohio, Idaho, Washington, Oregon, Colorado, California, and Montana. Stocks these States are estimated to account for over 95 percent of total fall-potato stocks.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Note.—Stocks are defined by USDA as the quantity remaining in storage for all purposes and uses, including shrinkage and waste and other losses. Sales of fall potatoes for all purposes generally account for about 90 percent of total fall production. Shrinkage and loss and home use account for the remaining 10 percent.

Table 18.--Fall-harvested potatoes: U.S. shipments from producing regions by months, September 1977 to May 1982

(In thousands of hundredweight)

Period	U.S. producing region			
	Western	North Central	North-eastern	Total
1977/78:				
September	3,070	2,885	1,155	7,110
October	3,243	3,473	1,393	8,109
November	3,628	3,577	1,871	9,076
December	3,857	3,175	2,272	9,304
January	4,086	3,443	2,384	9,913
February	3,623	3,737	2,358	9,718
March	4,179	4,462	2,716	11,357
April	4,004	4,124	3,151	11,279
May	3,862	3,090	1,821	7,773
June	2,529	98	493	3,120
July	1,657	367	68	2,092
August	2,676	2,691	635	6,002
Total	40,414	34,122	20,317	94,853
1978/79:				
September	2,640	3,407	1,210	7,257
October	3,542	3,946	1,508	8,996
November	4,094	3,564	1,744	9,402
December	3,892	3,536	1,849	9,277
January	4,442	4,043	2,407	10,892
February	3,708	3,399	2,137	9,244
March	4,222	4,918	2,684	11,824
April	4,323	4,153	2,471	10,947
May	4,535	2,009	1,684	8,228
June	3,397	50	444	3,891
July	1,716	297	45	2,058
August	2,849	1,917	501	5,267
Total	43,360	35,239	18,684	97,283
1979/80:				
September	2,513	3,066	1,100	6,679
October	3,649	3,930	1,526	9,105
November	3,903	3,000	1,894	8,797
December	3,699	3,012	2,022	8,733
January	4,537	3,284	2,402	10,223
February	4,171	3,315	2,391	9,877
March	4,255	4,190	2,796	11,241
April	4,536	3,852	2,848	11,235
May	4,237	1,736	2,006	7,979
June	2,975	281	781	4,037
July	2,060	724	117	2,901
August	2,603	2,571	731	5,905
Total	43,133	32,961	20,614	96,713

See footnote at end of table.

Table 18.--Fall-harvested potatoes: U.S. shipments from producing regions by months, September 1977 to May 1982--Continued

(In thousands of hundredweight)

Period	U.S. producing region			
	Western	North Central	North-eastern	Total
1980/81:				
September	2,882	2,776	1,209	6,867
October	4,043	2,316	1,529	7,888
November	3,643	2,340	1,826	7,809
December	4,092	2,562	1,958	8,612
January	4,263	2,728	1,973	8,964
February	3,603	1,987	1,776	7,366
March	4,130	2,117	2,062	8,309
April	4,309	1,227	1,958	7,494
May	3,676	482	1,139	5,297
June	2,180	28	172	2,380
July	2,059	430	160	2,649
August	3,904	2,230	732	5,866
Total	41,784	21,223	16,494	79,501
1981/82:				
September	3,196	3,053	1,246	7,495
October	3,837	2,309	1,582	7,728
November	3,768	2,374	1,805	7,947
December	4,088	2,586	2,020	8,694
January	4,072	2,746	2,147	8,965
February	3,389	2,492	1,658	7,539
March	4,279	2,813	2,020	9,112
April	4,271	1,828	1,880	7,979
May	1/ 2,105	1/ 702	1/ 785	1/ 3,592

1/ May 1-19 only.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Note.--Shipments from the following producing States are included--Western region: Northern California, Colorado, Idaho, Montana, Oregon, Washington, and Wyoming; North Central region: Michigan, Minnesota, Nebraska, North Dakota, and Wisconsin; and Northeastern region: Maine and New York.

Table 19.--Fresh potatoes: Destination of unloads in 36 specified U.S. cities, by U.S. supplying region, 1977/78 and 1980/81 1/

Market regions	Supplying regions									
	Fall-harvested potato regions						Other U.S. regions		Total	
	Northeastern region		North Central region		Western region					
	1977/78	1980/81	1977/78	1980/81	1977/78	1980/81	1977/78	1980/81	1977/78	1980/81
	Quantity (1,000 hundredweight)									
Northeastern	5,468	4,761	634	816	3,545	3,486	2,229	2,510	11,876	11,573
North Central	404	364	8,128	4,107	3,660	4,021	1,878	1,378	14,070	9,870
Western	-	-	86	59	7,507	4,904	1,623	876	9,216	5,839
South Atlantic	2,008	1,152	1,680	732	1,436	1,318	1,572	834	6,696	4,036
Other Southern	14	17	5,810	2,605	9,224	10,178	5,671	3,767	20,719	16,567
Total	7,894	6,294	16,338	8,319	25,372	23,907	12,973	9,365	62,577	47,885
	Share of total (percent)									
Northeastern	69	76	4	10	14	14	17	27	19	24
North Central	5	6	50	49	14	17	14	15	22	21
Western	-	-	1	1	30	20	13	9	15	12
South Atlantic	25	18	10	9	6	6	12	9	11	8
Other Southern	2/	2/	36	31	36	43	44	39	33	35
Total	100	100	100	100	100	100	100	100	100	100

1/ Unloads are reported for 36 U.S. cities--Northeastern region: Albany, Boston, Buffalo, New York-Newark, Philadelphia, Pittsburgh, and Providence; North Central region: Chicago, Cincinnati, Cleveland, Detroit, Indianapolis, Milwaukee, and Minneapolis-St. Paul; Western region: Denver, Portland, Salt Lake City, San Francisco-Oakland, and Seattle; South Atlantic region--Atlanta, Baltimore-Washington, Columbia, S.C., and Miami; and Other Southern regions--Birmingham, Dallas, Ft. Worth, Houston, Kansas City, Los Angeles, Louisville, Memphis, Nashville, New Orleans, Oklahoma City, St. Louis, and San Antonio.

2/ Less than 0.5 percent.

Source: Compiled from official statistics of the U.S. Department of Agriculture, Agricultuaral Marketing Service.

Note.--"Unloads" are the quantity of fresh potatoes unloaded from trucks or railcars by the first receiver in the metropolitan market area of the specified city. First receivers of fresh potatoes include chain-store warehouses, terminal market wholesalers, potato repackers, seed distributors, and potato chip processors. Totals may differ slightly because of rounding.

115

Table 20.--Potatoes: Choice of transport mode for shipments from selected growing areas to 41 U.S. cities, 1979-1981

Growing area	Share (percent) of shipments by--					
	Truck			Rail		
	1979	1980	1981	1979	1980	1981
Maine	100	100	100	-	-	-
New York	100	100	100	-	-	-
California	66	64	66	34	36	34
Idaho	40	47	40	60	53	60
Minnesota	90	96	97	10	4	3
North Dakota	76	87	83	24	13	17
Wisconsin	100	100	100	-	-	-
Canada	88	100	100	12	-	-
Total	81	82	82	19	18	18

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Note.--Total refers to all shipments, not only those from the specified growing areas.

116

Table 21.--Potatoes: Choice of transport mode for shipments from selected growing areas to specified cities, 1979-81

Destination: Boston, Mass.

Growing area	Share (percent) of shipments delivered by--					
	Truck			Rail		
	1979	1980	1981	1979	1980	1981
Maine	100	100	100	-	-	-
New York	100	100	100	-	-	-
California	6	3	6	95	97	94
Idaho	1	-	1	99	100	99
Minnesota	71	100	100	29	-	-
North Dakota	88	100	100	13	-	-
Wisconsin	100	100	100	-	-	-
Canada	100	100	100	-	-	-
Total	64	69	66	36	31	34

Destination: New York, N.Y.

Maine	98	100	100	2	-	-
New York	100	100	100	-	-	-
California	6	7	8	94	93	92
Idaho	5	3	1	95	97	99
Minnesota	100	100	100	-	-	-
North Dakota	61	100	75	39	-	25
Wisconsin	100	100	100	-	-	-
Canada	72	100	100	28	-	-
Total	43	52	60	57	48	40

Destination: Atlanta, Ga.

Maine	100	100	100	-	-	-
New York	100	100	100	-	-	-
California	28	45	50	72	55	50
Idaho	28	37	39	72	63	61
Minnesota	96	81	95	4	19	5
North Dakota	96	52	92	4	48	8
Wisconsin	100	100	100	-	-	-
Canada	1/	100	100	-	-	-
Total	85	81	85	15	19	15

Table 21.--Potatoes: Choice of transport mode for shipments from selected growing areas to specified cities, 1979-81--Cont.

Destination: Chicago, Ill.

Growing area	Share (percent) of shipments delivered by--					
	Truck			Rail		
	1979	1980	1981	1979	1980	1981
Maine	100	100	100	-	-	-
New York	100	100	100	-	-	-
California	4	7	6	96	93	94
Idaho	62	59	59	38	41	41
Minnesota	74	94	87	26	6	13
North Dakota	58	89	54	42	11	46
Wisconsin	100	100	100	-	-	-
Canada	100	100	100	-	-	-
Total	60	72	69	40	28	31

1/ No unloads of Canadian potatoes were reported in Atlanta in 1979.

Source: Compiled from official statistics of the U.S. Department of Agriculture. Total refers to all shipments, not only those from the specified growing areas.

Table 22.--Potatoes: Transportation costs between selected origins and destinations, May 1982

Origin	Mode	Boston		New York		Atlanta		Chicago	
		$/cwt	Percent of price 1/	$/cwt	Percent of price 1/	$/cwt	Percent of price 1/	$/cwt	Percent of price 1/
Idaho	Rail	5.05	107	4.95	105	3.95	84	2.95	63
Idaho	Truck	NA	NA	NA	NA	4.63	99	3.50	74
Maine	Truck	1.50	32	2.50	53	3.71	79	3.55	76
New Brunswick	Truck	1.30	28	2.25	48	3.71	79	3.55	76
Prince Edward Island	Truck	2.75	59	3.75	80	4.71	100	4.55	97
Montreal 2/	Truck	1.30	28	2.17	46	3.23	69	3.09	66

1/ Price is $4.70 per hundredweight the price of potatoes packaged in plain paper in Aroostook County, Maine, on Apr. 6, 1982.

2/ The rates from Montreal to New York and from Maine to New York in March of 1981 were supplied by the U.S. Department of Agriculture. For each city, the ratio of these two rates was multiplied by the current rate from Maine to estimate the rate from Montreal. The staff hopes to get additional information on transportation costs from Canada through the importers' questionnaires.

Source: Rail rates from Idaho are from the Union Pacific Railroad. Truck rates from Idaho and rates from Maine to Atlanta and New York are from official statistics of the U.S. Department of Agriculture. Rates from Montreal are estimates by the staff of the U.S. International Trade Commission. Rates from New Brunswick and Prince Edward Island to Boston and New York are from the Canadian Horticultural Council. Other rates are provided by the representatives of the Maine potato industry.

119

Table 23.--Potatoes, fresh: U.S. exports of domestic merchandise, by principal markets, 1976-81

Market	1976	1977	1978	1979	1980	1981
	Quantity (1,000 hundredweight)					
Canada	4,969	4,171	2,716	2,378	1,750	2,394
Mexico	234	298	204	72	97	273
Bahamas	49	53	46	36	33	32
Netherland Antilles	35	27	12	17	17	20
All other	8,328	2,385	132	286	99	81
Total	13,615	6,934	3,110	2,789	1,996	2,800
	Value (1,000 dollars)					
Canada	22,623	25,594	18,968	13,147	18,291	32,009
Mexico	977	1,386	1,104	371	710	2,810
Bahamas	485	512	405	312	374	472
Netherland Antilles	446	368	141	209	280	394
All other	60,201	18,357	1,219	2,343	1,691	1,325
Total	84,732	46,217	21,837	16,382	21,346	37,010
	Unit value (per hundredweight)					
Canada	$4.55	$6.14	$6.98	$5.53	$10.45	$13.37
Mexico	4.18	4.64	5.42	5.17	7.35	10.27
Bahamas	9.85	9.68	8.75	8.59	11.27	14.57
Netherland Antilles	12.67	13.50	12.24	12.28	16.23	20.01
All other	7.23	7.70	9.23	8.19	17.08	16.36
Average	6.22	6.67	7.02	5.87	10.69	13.22

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 24.--Potatoes fresh: U.S. exports of domestic merchandise to Canada, by kind, 1980 and 1981 and January-March 1981 and January-March 1982

Item	1980	1981	January-March	
			1981	1982
	Quantity (1,000 hundredweight)			
Tablestock potatoes 1/	1,592	2,292	120	195
Seed potatoes	158	102	34	17
Total	1,750	2,394	154	212
	Value (1,000 dollars)			
Tablestock potatoes 1/	17,416	31,203	2,231	2,590
Seed potatoes	875	806	277	106
Total	18,291	32,009	2,508	2,696
	Unit value (per hundredweight)			
Tablestock potatoes 1/	$19.94	$13.61	$18.59	$13.28
Seed potatoes	5.55	7.93	8.08	6.25
Average	10.45	13.37	13.29	12.20

1/ May include small quantities for processing.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note.--Exports of potatoes, by kind, were not separately reported before 1980.

Table 25.--Potatoes, fresh: U.S. exports of domestic merchandise to Canada, by ports of embarkation, 1978-81 and January-March 1981 and January-March 1982

(In thousands of hundredweight)

Port of embarkation	1978	1979	1980	1981	January-March 1981	January-March 1982
Seattle, Wash	579	583	486	725	92	143
Detroit, Mich	562	493	364	407	19	16
Ogdensburg, N.Y	416	282	154	387	1/	1/
Buffalo, N.Y	267	248	130	291	4	2
Great Falls, Mont	403	376	268	264	10	24
Portland, Maine	196	108	126	160	1	1
Pembina, N. Dak	214	243	169	118	25	23
St. Albans, Vt	65	37	36	28	0	0
Duluth, Minn	14	8	17	14	3	3
Total	2,716	2,378	1,750	2,394	154	212

1/ Less than 500 hundredweight.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 26.--Potatoes, fresh: U.S. exports of domestic merchandise to Canada, by months, crop years 1976-81

Month	Crop year beginning September 1--					
	1976	1977	1978	1979	1980	1981
	Quantity (1,000 hundredweight)					
September	80	46	62	108	46	55
October	74	85	34	47	50	72
November	52	46	41	33	43	37
December	87	37	57	28	48	40
January	73	55	55	25	46	60
February	77	53	57	71	38	44
March	242	95	108	110	71	108
April	319	184	147	148	105	
May	655	410	391	308	378	
June	1,526	708	715	369	810	
July	944	861	605	434	570	
August	213	156	86	98	172	
Total	4,342	2,736	2,358	1,779	2,377	
	Value (1,000 dollars)					
September	381	339	377	564	619	673
October	394	521	232	277	631	714
November	258	281	260	215	461	469
December	530	265	341	154	570	548
January	447	369	349	155	666	739
February	518	308	340	470	590	601
March	1,477	525	622	607	975	1,249
April	1,939	1,154	892	1,231	1,515	
May	4,333	2,745	2,452	2,589	4,743	
June	9,240	5,495	3,593	3,767	10,637	
July	5,516	6,184	3,224	5,729	18,143	
August	1,338	978	466	1,463	2,336	
Total	26,371	19,164	13,148	17,221	31,886	
	Unit value (per hundredweight)					
September	$4.76	$7.37	$6.07	$5.24	$13.50	$12.23
October	5.32	6.13	6.92	5.88	12.55	9.87
November	4.96	6.11	6.35	6.54	10.65	12.73
December	6.09	7.16	6.00	5.57	11.92	13.63
January	6.12	6.69	6.35	6.18	14.41	12.33
February	6.72	5.86	6.01	6.66	15.72	13.71
March	6.10	5.50	5.74	5.54	13.78	11.52
April	6.08	6.26	6.08	8.31	14.40	
May	6.62	6.69	6.27	8.40	12.55	
June	6.06	7.76	5.03	10.22	13.13	
July	5.84	7.19	5.33	13.20	14.29	
August	6.28	6.27	5.42	14.91	13.55	
Average	6.07	7.00	5.58	9.68	13.41	

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 27.--Potatoes, fresh white or Irish: U.S. imports for consumption, by principal source, 1976-81

Source	1976	1977	1978	1979	1980	1981
	Quantity (1,000 hundredweight)					
Canada	532	1,064	1,500	1,594	2,183	3,924
All other	1/	0	1/	0	1	1/
Total	532	1,064	1,500	1,594	2,184	3,924
	Value (1,000 dollars)					
Canada	3,307	5,217	5,879	6,736	12,801	32,268
All other	2	2	7	-	9	2
Total	3,309	5,219	5,886	6,736	12,810	32,270
	Unit value (per hundredweight)					
Canada	$6.22	$4.90	$3.92	$4.22	$5.87	$ 8.22
All other	4.00	-	9.97	-	6.36	11.00
Average	6.21	4.90	3.92	4.22	5.87	8.22

1/ Less than 500 hundredweight.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 28.--Potatoes, fresh, certified seed, under quota: 1/ U.S. imports for consumption, cumulative by months, September 1977 to March 1982

(In thousands of hundredweight)

Month	Year beginning September 1--				
	1977	1978	1979	1980	1981
September	-	-	1	1	-
October	-	1	1	3	1
November	9	7	3	57	15
December	57	38	41	220	106
January	139	96	133	530	260
February	194	145	195	939	429
March	241	221	278	1,093	655
April	466	383	387	1,095	
May	577	528	553	1,097	
June	652	605	586	1,097	
July	664	612	587	1,097	
August	664	612	587	1,097	

1/ TSUS item 137.20.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 29.--Potatoes, fresh, certified seed, over quota: 1/ U.S. imports for consumption, cumulative by months, September 1977 to March 1982

(In thousands of hundredweight)

Month	Year beginning September 1--				
	1977	1978	1979	1980	1981
September	-	-	-	-	1
October	-	-	-	-	1
November	1	-	-	-	1
December	1	-	-	-	1
January	1	-	-	1	3
February	1	-	-	1	3
March	1	-	1	173	3
April	1	-	5	380	
May	2	-	8	464	
June	2	-	8	470	
July	2	-	8	470	
August	2	-	8	470	

1/ TSUS item 137.21.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 30.--Potatoes, fresh, other than certified seed, under quota: 1/ U.S. imports for consumption, cumulative by months, September 1977 to March 1982

(In thousands of hundredweight)

Month	Year beginning September 1--				
	1977	1978	1979	1980	1981
September	5	2	7	100	21
October	61	39	75	311	269
November	141	130	287	449	402
December	313	259	452	450	435
January	385	430	454	456	436
February	388	433	454	463	436
March	403	433	454	478	436
April	406	434	455	480	
May	406	434	456	480	
June	406	434	456	487	
July	406	434	456	487	
August	406	434	456	487	

1/ TSUS item 137.25.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 31.--Potatoes, fresh, other than certified seed, over quota: 1/ U.S. imports for consumption, cumulative by months, September 1977 to March 1982

(In thousands of hundredweight)

Month	Year beginning September 1--				
	1977	1978	1979	1980	1981
September	1	2	17	76	45
October	1	2	17	77	45
November	1	2	17	192	63
December	1	2	95	339	402
January	60	3	134	560	690
February	135	38	186	869	941
March	244	69	261	1,292	1,277
April	331	116	406	1,651	
May	455	176	608	1,838	
June	489	259	642	1,902	
July	496	293	657	1,925	
August	499	301	668	1,936	

1/ TSUS item 137.28.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 32.--Potatoes, fresh, certified seed 1/: U.S. imports for consumption, by principal Customs Districts, by quarters, January-March 1978 to January-March 1982

Quantity (In thousands of hundredweight)

Period	Port of entry--					Total
	Portland, ME	Ogdensburg, NY	Pembina, ND	Buffalo, NY	All other	
1978:						
Jan.-Mar.	142	9	0	3	31	185
April-June	314	2	0	3	93	412
July-Sept.	12	0	0	0	0	12
Oct.-Dec.	37	0	0	0	1	38
1979:						
Jan.-Mar.	150	5	0	0	29	184
April-June	307	2	0	3	72	384
July-Sept.	7	0	0	0	0	7
Oct.-Dec.	34	0	0	2	3	39
1980:						
Jan.-Mar.	225	3	0	2/	11	239
April-June	247	2	0	2	65	316
July-Sept.	1	0	0	1	1	3
Oct.-Dec.	158	49	0	0	12	219
1981:						
Jan.-Mar.	826	94	8	7	111	1,046
April-June	206	12	10	2	71	301
July-Sept.	2/	0	0	0	1	1
Oct.-Dec.	91	10	0	0	4	105
1982:						
Jan.-Mar.	513	21	0	5	11	550

See footnotes at end of table.

Table 32.--Potatoes, fresh, certified seed 1/: U.S. imports for consumption, by principal Customs Districts, by quarters, January-March 1978 to January-March 1982 (Cont.)

Value (1,000 dollars)

Period	Port of entry--					Total
	Portland, ME	Ogdensburg, NY	Pembina, ND	Buffalo, NY	All other	
1978:						
Jan.-Mar.	615	47	-	13	142	817
April-June	945	8	-	12	335	1,300
July-Sept.	51	-	-	-	-	51
Oct.-Dec.	233	-	-	-	5	238
1979:						
Jan.-Mar.	697	20	-	-	138	855
April-June	1,179	6	-	13	348	1,546
July-Sept.	18	-	-	-	-	18
Oct.-Dec.	185	-	-	6	21	212
1980:						
Jan.-Mar.	927	14	-	1	43	985
April-June	885	15	-	9	324	1,233
July-Sept.	1	-	-	4	6	11
Oct.-Dec.	1,249	393	-	-	89	1,731
1981:						
Jan.-Mar.	7,426	764	60	62	952	9,264
April-June	1,820	103	110	18	706	2,757
July-Sept.	2	-	-	-	6	8
Oct.-Dec.	576	84	-	-	8	708
1982:						
Jan.-Mar.	2,677	178	-	35	113	3,003

See footnotes at end of table.

Table 32.--Potatoes, fresh, certified seed 1/: U.S. imports for consumption, by principal Customs Districts, by quarters, January-March 1978 to January-March 1982 (Cont.)

Unit value (per hundredweight)

Period	Port of entry--					Total
	Portland, ME	Ogdensburg, NY	Pembina, ND	Buffalo, NY	All other	
1978:						
Jan.-Mar.	$4.33	$5.32	-	$4.38	$4.58	$4.43
April-June	3.01	3.58	-	4.79	3.60	3.16
July-Sept.	4.23	-	-	-	-	4.23
Oct.-Dec.	6.34	-	-	-	5.18	6.34
1979:						
Jan.-Mar.	4.64	3.90	-	-	4.76	4.65
April-June	3.85	3.59	-	4.20	4.83	4.03
July-Sept.	2.55	-	-	-	-	2.55
Oct.-Dec.	5.41	-	-	2.53	7.05	5.38
1980:						
Jan.-Mar.	4.13	5.67	-	5.02	3.91	4.12
April-June	3.58	6.83	-	5.05	4.98	3.90
July-Sept.	1.04	-	-	4.50	4.73	4.01
Oct.-Dec.	7.89	8.06	-	-	7.42	7.91
1981:						
Jan.-Mar.	8.99	8.12	$7.66	8.86	8.58	8.85
April-June	8.82	8.35	10.69	10.77	9.94	9.16
July-Sept.	3.85	-	-	-	7.58	7.36
Oct.-Dec.	6.33	8.58	-	-	12.00	6.73
1982:						
Jan.-Mar.	5.22	8.57	-	7.21	10.27	5.46

1/ TSUS items 137.20 and 137.21.
2/ Less than 500 hundredweight.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 33.--Potatoes, fresh, other than certified seed 1/: U.S. imports for consumption, by principal Customs Districts, by quarters, January-March 1978 to January-March 1982

Quantity (In thousands of hundredweight)

Period	Port of entry--					Total
	Portland, ME	Ogdensburg, NY	Pembina, ND	Buffalo, NY	All other	
1978:						
Jan.-Mar.	143	4	103	28	55	333
April-June	95	20	64	7	63	249
July-Sept.	9	0	0	4	1	14
Oct.-Dec.	126	0	117	2	12	257
1979:						
Jan.-Mar.	151	0	73	6	11	241
April-June	118	3	46	4	20	191
July-Sept.	16	0	17	1	32	66
Oct.-Dec.	306	50	116	9	2	483
1980:						
Jan.-Mar.	130	5	21	40	12	208
April-June	107	53	11	118	94	383
July-Sept.	79	80	-	24	18	201
Oct.-Dec.	373	100	61	58	21	613
1981:						
Jan.-Mar.	511	128	168	58	115	980
April-June	325	87	117	15	74	618
July-Sept.	65	31	3	1	1	101
Oct.-Dec.	424	98	239	7	3	771
1982:						
Jan.-Mar.	467	151	190	41	26	875

See footnote at end of table.

Table 33.--Potatoes, fresh, other than certified seed 1/: U.S. imports for consumption, by principal Customs Districts, by quarters, January-March 1978 to January-March 1982 (Cont.)

Value (1,000 dollars)

Period	Port of entry--					Total
	Portland, ME	Ogdensburg, NY	Pembina, ND	Buffalo, NY	All other	
1978:						
Jan.-Mar.	544	10	310	129	325	1,318
April-June	422	109	192	28	360	1,111
July-Sept.	48	-	-	12	17	17
Oct.-Dec.	571	-	352	4	42	969
1979:						
Jan.-Mar.	740	-	220	23	38	1,021
April-June	528	23	140	9	115	815
July-Sept.	82	-	48	2	233	365
Oct.-Dec.	1,372	138	349	37	7	1,903
1980:						
Jan.-Mar.	814	13	65	157	67	1,116
April-June	687	257	34	574	496	2,048
July-Sept.	687	366	-	99	98	1,250
Oct.-Dec.	3,259	541	184	273	169	4,426
1981:						
Jan.-Mar.	5,198	1,045	871	585	1,064	8,763
April-June	3,034	667	716	169	864	5,450
July-Sept.	507	147	12	4	5	675
Oct.-Dec.	2,926	761	889	47	21	4,644
1982:						
Jan.-Mar.	2,945	1,417	703	243	196	5,504

See footnote at end of table.

Table 33.--Potatoes, fresh, other than certified seed 1/: U.S. imports for consumption, by principal Customs Districts, by quarters, January-March 1978 to January-March 1982 (Cont.)

Unit value (per hundredweight)

Period	Port of entry--					Total
	Portland, ME	Ogdensburg, NY	Pembina ND	Buffalo, NY	All other	
1978:						
Jan.-Mar.	$3.80	$2.55	$3.00	$4.67	$5.91	$3.95
April-June	4.45	5.56	3.01	4.16	5.71	4.45
July-Sept.	5.52	-	-	3.14	10.77	5.50
Oct.-Dec.	4.53	-	3.00	2.12	3.50	3.77
1979:						
Jan.-Mar.	4.90	-	3.00	3.67	3.45	4.24
April-June	4.46	7.95	3.01	2.52	5.75	4.27
July-Sept.	5.14	-	2.85	2.86	7.28	5.57
Oct.-Dec.	4.49	2.76	3.00	4.08	3.50	3.94
1980:						
Jan.-Mar.	6.28	2.84	3.06	3.95	5.58	5.36
April-June	6.43	4.83	3.00	4.86	5.28	5.35
July-Sept.	8.65	4.58	-	4.12	5.44	6.21
Oct.-Dec.	8.73	5.42	3.01	4.69	8.05	7.23
1981:						
Jan.-Mar.	10.17	8.16	5.18	10.01	9.25	8.94
April-June	9.33	7.65	6.11	11.53	11.68	8.82
July-Sept.	7.84	4.77	3.20	3.03	5.00	6.71
Oct.-Dec.	6.91	7.78	3.71	6.31	7.00	6.02
1982:						
Jan.-Mar.	6.31	9.37	3.70	5.98	7.54	6.29

1/ TSUS items 137.25 and 137.28.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 34.--Fall-harvested potatoes: Unloads in 7 specified U.S. cities in the Northeastern market region, from selected supply regions, 1/ years beginning Sept. 1, 1977-80

Year beginning Sept. 1--	Supply regions				
	United States			Canada	Total
	Western	North Central	North-eastern		
	Quantity (1,000 hundredweight)				
1977	3,545	634	5,468	249	9,896
1978	3,929	752	4,399	204	9,284
1979	3,677	676	5,178	297	9,828
1980	3,486	816	4,761	628	9,691
	Share of total (percent)				
1977	36	6	55	3	100
1978	43	8	47	2	100
1979	37	7	53	3	100
1980	36	8	49	6	100

1/ Unloads are reported for 7 cities within the Northeastern region--Albany, Boston, Buffalo, New York City, Philadelphia, Pittsburgh, and Providence.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Note.--"Unloads" are the quantity of fresh potatoes unloaded from trucks or railcars by the first receiver in the metropolitan market area of the city specified. First receivers of fresh potatoes include chainstore-warehouses, terminal market wholesalers, potato repackers, seed distributors, and potato chip processors. Data excludes chip processors in 1980.

Because of rounding, figures may not add to the totals shown.

Table 35.--Fall-harvested potatoes: Unloads in 7 specified U.S. cities in the North Central market region, from selected supply regions, 1/ years beginning Sept. 1, 1977-80

Year beginning Sept. 1--	Supply regions				
	United States			Canada	Total
	Western	North Central	North-eastern		
	Quantity (1,000 hundredweight)				
1977	3,360	8,128	404	33	12,225
1978	3,429	6,620	298	13	10,360
1979	3,753	7,713	351	37	11,854
1980	4,021	4,107	364	26	8,518
	Share of total (percent)				
1977	30	66	3	2/	100
1978	34	63	3	2/	100
1979	32	65	3	2/	100
1980	47	48	4	2/	100

1/ Unloads are reported for 7 cities within the North Central region--Chicago, Cincinnati, Cleveland, Detroit, Indianapolis, Milwaukee, and Minneapolis-St. Paul.

2/ Less than 0.5 percent.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Note.--"Unloads" are the quantity of fresh potatoes unloaded from trucks or railcars by the first receiver in the metropolitan market area of the city specified. First receivers of fresh potatoes include chainstore-warehouses, terminal market wholesalers, potato repackers, seed distributors, and potato chip processors. Data excludes chip processors in 1980.

Because of rounding, figures may not add to the totals shown.

Table 36.--Fall-harvested potatoes: Unloads in 5 specified U.S. cities in the Western market region, from selected supply regions, 1/ years beginning Sept. 1, 1977-80

Year beginning Sept. 1--	Supply regions				
	United States			Canada	Total
	Western	North Central	North-eastern		
	Quantity (1,000 hundredweight)				
1977	7,507	86	0	0	7,623
1978	7,599	74	0	0	7,673
1979	7,503	65	0	0	7,568
1980	4,904	59	0	0	4,963
	Share of total (percent)				
1977	99	1	-	-	100
1978	99	1	-	-	100
1979	99	1	-	-	100
1980	99	1	-	-	100

1/ Unloads are reported for 5 cities in the Western region--Denver, Portland, Ore., Salt Lake City, San Francisco-Oakland, and Seattle.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Note.--"Unloads" are the quantity of fresh potatoes unloaded from trucks or railcars by the first receiver in the metropolitan market area of the city specified. First receivers of fresh potatoes include chainstore-warehouses, terminal market wholesalers, potato repackers, seed distributors, and potato chip processors. Data excludes chip processors in 1980.

Table 37.--Potatoes: Canadian production, exports, imports, cullage and loss, and apparent consumption, 1976-81

(In thousands of hundredweight)

Year	Production	Exports	Imports	Cullage and loss 1/	Apparent consumption
1976	51,708	5,168	4,381	5,700	45,220
1977	54,969	4,080	5,567	9,000	47,456
1978	55,517	3,093	3,670	9,100	46,994
1979	60,856	3,587	3,736	15,000	46,005
1980	54,620	5,499	2,501	10,100	41,522
1981	56,325	5,883	3,580	10,400	43,622

1/ Estimated from the average percent of cullage and loss for production in Prince Edward Island and New Brunswick for 1976-80. Data for 1981 were estimated from 1980 data.

Source: Compiled from official statistics of Statistics Canada, except as noted.

Table 38 .--Fall-harvested potatoes: Canadian acreage planted, by regions and Provinces, crops of 1976-81

(In thousands of acres)

Region and Province	1976	1977	1978	1979	1980	1981
EASTERN CANADA:						
Prince Edward Island	52	55	56	61	56	60
New Brunswick	56	57	58	56	52	53
Quebec	43	45	46	47	45	47
Other Maritime 1/	5	5	5	5	5	5
Total	155	162	165	169	158	165
CENTRAL CANADA:						
Ontario	46	48	44	45	41	36
Manitoba	34	37	37	37	40	41
Saskatchewan	2	2	2	2	2	2
Total	82	87	83	84	82	79
WESTERN CANADA:						
Alberta	16	17	16	17	16	16
British Columbia	11	11	10	10	8	8
Total	27	28	26	27	24	24
Total Canada	264	277	274	280	264	267

1/ Include Newfoundland and Nova Scotia.

Source: Compiled from official statistics of Statistics Canada.

Note.--Because of rounding, figures may not add to totals shown.

Table 39.--Fall-harvested potatoes: U.S. and Canadian acreage passing certification for seed, by regions and by principal States or Provinces, crops planted in 1976-81

(In acres)

Region and State or Province	1976	1977	1978	1979	1980	1981
Eastern:						
Total, Eastern U.S.	37,917	50,093	40,717	41,336	37,176	31,303
Maine	35,128	47,619	37,810	38,864	34,580	28,977
Other 1/	2,789	2,474	2,907	2,472	2,596	2,326
Total, Eastern Canada	47,154	59,276	66,373	72,123	74,234	71,153
Prince Edward Island	29,938	36,698	42,803	48,986	47,759	49,059
New Brunswick	15,358	20,823	21,177	19,854	22,747	19,309
Other 2/	1,858	1,755	2,393	3,283	3,728	3,385
Central:						
Total, Central U.S.	85,879	93,669	87,268	69,057	64,071	69,828
North Dakota	38,433	40,302	34,455	25,305	22,599	25,383
Minnesota	28,202	31,384	29,153	23,478	22,300	23,545
Wisconsin	9,907	11,996	11,914	10,870	10,760	10,512
Other 3/	9,337	9,987	11,746	9,404	8,412	10,388
Total, Central Canada	3,705	4,805	5,266	5,326	4,929	4,678
Manitoba	2,026	3,151	3,241	3,242	2,896	2,735
Other 4/	1,679	1,654	2,025	2,084	2,033	1,943
Western:						
Total, Western U.S.	88,308	86,696	90,486	70,715	62,188	71,847
Idaho	65,494	59,050	66,051	50,040	44,233	51,540
Colorado	6,534	9,498	8,137	7,099	6,359	7,139
Montana	6,664	6,709	7,139	6,101	5,675	6,137
Other 5/	9,616	11,439	9,159	7,475	5,921	7,031
Total, Western Canada 6/	1,990	2,757	2,604	2,343	2,153	2,288
Grand total:						
United States	212,104	230,458	218,471	181,108	163,435	172,978
Canada	52,849	66,838	74,243	79,792	81,316	78,719

1/ Includes New York, New Hampshire, Pennsylvania, and Vermont.
2/ Includes Quebec and Nova Scotia.
3/ Includes Michigan, Nebraska, and South Dakota.
4/ Includes Ontario and Saskatchewan.
5/ Includes Oregon, California, Washington, Wyoming, Utah, and Nevada.
6/ Includes Alberta and British Columbia.

Source: Compiled from statistics published by the United Fresh Fruit and Vegetable Association, Alexandria, Va.

Table 40.--Canadian potatoes: Production costs in Prince Edward Island for tablestock potatoes, crops of 1976-79

Item	Year beginning September 1--			
	1976/77	1977/78	1978/79	1979/80
	-----Canadian dollars per acre-----			
Seed 1/	262.00	180.00	118.75	155.50
Sprays	92.34	94.78	99.10	110.39
Fertilizer	56.82	58.50	61.63	75.67
Labor	52.46	58.00	60.38	64.03
Hired labor	39.80	43.22	49.80	48.58
Interest on operating capital 2/	34.98	25.94	28.55	40.83
Repairs (buildings and machinery)	29.38	31.52	33.06	37.92
Land, rent (includes taxes)	24.08	25.00	27.38	29.30
Fuel	23.13	24.72	25.72	29.08
Insurance	2.98	3.07	3.04	3.16
Total	619.97	544.41	504.41	594.46
	-----(Canadian cents per pound)-----			
Cost per pound based on actual yield 3/	2.56	2.51	2.33	2.38

1/ Seed: 2,500 pounds per acre at an average wholesale price for Canadian No. 1 grade, Prince Edward Island potatoes at Quebec City.

2/ Interest on operating capital was calculated for half year using prime business loan rate plus 2 percent.

3/ Actual Provincial yield was used.

Source: Telegram from American Embassy, Ottawa, Canada to Foreign Agriculture Service, U.S. Department of Agriculture, Report No. CN1063, Canada: Maritime Potatoes, Cost of Production and Utilization, May 1981.

Table 41.--Canadian potatoes: Production costs in New Brunswick for tablestock potatoes, crops of 1976-79

Item	Year beginning September 1--			
	1976/77	1977/78	1978/79	1979/80
	-----Canadian dollars per acre-----			
Seed 1/	208.80	129.60	88.20	102.60
Sprays	41.31	43.08	44.34	49.39
Fertilizer	87.98	89.65	95.42	117.17
Hired labor	74.17	81.83	85.36	90.53
Interest on operating capital 2/	32.75	24.30	27.81	38.76
Repairs (building and machinery)	49.27	51.87	55.80	63.88
Taxes	7.40	7.83	8.41	9.00
Fuel	35.58	38.39	41.06	44.74
Insurance	20.02	21.07	20.42	21.20
Custom work 3/	2.64	2.83	3.07	3.44
Miscellaneous 4/	18.62	20.04	21.46	23.67
Total	578.54	510.49	491.35	564.38
	-----(Canadian cents per pound)-----			
Cost per pound based on actual yield 5/	2.87	2.62	2.33	2.50

1/ Seed: 18 hundredweight per acre at the average March wholesale price for Canadian No. 1 grade, New Brunswick potatoes at St. Johns, N.B.

2/ Interest on operating capital was calculated for 6 months using the prime business loan rate plus 2 percent.

3/ Custom work, includes custom trucking.

4/ Miscellaneous, includes telephone, electricity, and rentals of equipment and buildings.

5/ Actual yield is total production divided by total acreage.

Source: Telegram from American Embassy, Ottawa, Canada to Foreign Agriculture Service, U.S. Department of Agriculture, Report No. CN1063, Canada: Maritime Potatoes, Cost of Production and Utilization, May 1981.

Table 42.--Canadian potatoes: Production costs in Quebec for tablestock potatoes, crops of 1976-79

Item	Year beginning September 1--			
	1976/77	1977/78	1978/79	1979/80
	-----Canadian dollars per acre-----			
Seed 1/	183.12	122.22	77.49	109.62
Sprays	44.56	45.81	47.83	53.28
Fertilizer	132.98	135.66	144.23	177.09
Hired labor	79.90	87.41	91.96	97.52
Interest on operating capital 2/	28.67	21.58	24.28	35.75
Repairs (buildings and machinery)	8.70	9.38	10.26	11.62
Taxes	3.78	4.00	4.30	4.60
Electricity	6.35	7.49	8.21	8.83
Insurance (buildings and machinery)	5.83	6.14	5.95	6.18
Miscellaneous	12.58	13.54	14.51	16.00
Total	506.47	453.23	429.02	520.49
	-----(Canadian cents per pound)-----			
Cost per pound	3.05	2.34	2.40	2.74

1/ Interest on out-of-pocket expenses charged for half year using annual prime business loan rate plus 2 percent.

2/ Seed: 2,100 pounds per acre at an average wholesale price for Canadian No. 1 grade, Quebec potatoes at Quebec City.

Source: Telegram from American Embassy, Ottawa, Canada to Foreign Agriculture Service, U.S. Department of Agriculture, Report No. CN1063, Canada: Maritime Potatoes, Cost of Production and Utilization, May 1981.

Table 43.--Canadian potatoes: Production costs in Ontario for late potatoes, crops of 1976-79

Item	Year beginning September 1--			
	1976/77	1977/78	1978/79	1979/80
	-----Canadian dollars per acre-----			
Seed 1/	149.40	108.60	77.10	107.10
Sprays	51.71	58.16	59.49	61.82
Fertilizer	70.13	71.54	76.06	93.39
Hired labor	59.19	64.75	68.12	72.74
Interest on operating capital 2/	24.86	19.37	22.38	32.62
Repairs (building and machinery)	28.10	29.91	31.76	36.18
Tractor (operations)	23.27	24.86	27.60	31.47
Taxes	13.50	14.29	15.34	16.43
Insurance	2.85	3.00	2.90	3.01
Other materials	9.88	10.63	11.40	12.57
Other (services)	6.34	6.82	7.30	8.05
Total	439.23	406.90	395.45	475.38
	-----(Canadian cents per pound)-----			
Cost per pound based on actual yield 3/	2.11	1.82	1.99	2.32

1/ Seed: 1,500 pounds per acre at an average wholesale price for Canadian No. 1 grade, Prince Edward Island potatoes at Toronto, Ont.

2/ Interest on out-of-pocket expenses charged for half year using annual prime business loan rate plus 2 percent.

3/ Actual Provincial yield was used.

Source: Telegram from American Embassy, Ottawa, Canada to Foreign Agriculture Service, U.S. Department of Agriculture, Report No. CN1063, Canada: Maritime Potatoes, Cost of Production and Utilization, May 1981.

Table 44.--Fall-harvested potatoes: Canadian production and average yield per acre, by regions and by Provinces, crops of 1976-81

Region and Province	1976	1977	1978	1979	1980	1981
	Total production (1,000 hundredweight)					
EASTERN CANADA:						
Prince Edward Island	12,457	11,913	12,386	15,195	13,025	15,180
New Brunswick	11,143	11,093	12,236	13,016	11,589	12,720
Quebec	7,129	8,032	8,234	9,747	8,494	8,320
Other Maritime 1/	694	751	785	830	809	885
Total	31,423	31,789	33,641	38,788	33,917	37,105
CENTRAL CANADA:						
Ontario	9,466	10,760	9,288	9,225	8,063	6,933
Manitoba	4,200	5,500	6,800	6,216	6,301	6,888
Saskatchewan	440	420	360	316	323	264
Total	14,106	16,680	16,448	15,757	14,687	14,085
WESTERN CANADA:						
Alberta	3,600	3,700	3,294	3,825	4,096	3,710
British Columbia	2,580	2,800	2,134	2,486	1,920	1,425
Total	6,180	6,500	5,428	6,311	6,016	5,135
Total, Canada	51,708	54,969	55,517	60,856	54,620	56,325
	Yield per acre (hundredweight)					
EASTERN CANADA:						
Prince Edward Island	241	217	221	249	233	253
New Brunswick	201	195	211	232	223	240
Quebec	166	179	179	205	188	177
Other Maritime 1/	143	151	166	171	166	183
Average	203	196	204	229	215	225
CENTRAL CANADA:						
Ontario	208	224	209	205	197	193
Manitoba	122	149	184	168	160	168
Saskatchewan	220	247	212	186	190	155
Average	172	192	198	188	179	179
WESTERN CANADA:						
Alberta	222	218	206	225	256	229
British Columbia	239	255	220	260	240	190
Average	229	232	211	238	251	217
Average, Canada	196	199	203	218	207	211

1/ Includes Newfoundland and Nova Scotia.

Source: Compiled from official statistics of Statistics Canada.

145

Table 45.--Canadian potato stocks: Stocks held on November 1, by regions, 1976-81

(In thousands of hundredweight)

Region	November 1--					
	1976	1977	1978	1979	1980	1981
Eastern Canada:						
Prince Edward Island	9,698	10,751	8,997	13,490	10,949	13,111
New Brunswick	10,375	9,383	8,400	10,624	9,796	10,403
Quebec	2,760	3,258	3,005	4,152	4,480	4,605
Other	414	343	530	497	449	425
Total	23,247	23,735	20,932	28,763	25,674	28,544
Central Canada:						
Ontario	4,660	3,347	4,208	4,443	3,812	3,459
Manitoba	3,834	4,912	5,982	5,530	5,240	5,460
Saskatchewan	127	148	188	165	173	254
Total	8,621	8,407	10,378	10,138	9,225	9,173
Western Canada:						
Alberta	2,690	3,194	2,535	2,917	3,259	2,844
British Columbia	679	1,534	1,353	1,790	1,100	747
Total	3,369	4,728	3,888	4,707	4,359	3,591
Grand total	35,237	36,870	35,198	43,608	39,258	41,308

Source: Compiled from official statistics of Statistics Canada.

Table 46.—Canadian tablestock potatoes: Shipments to 12 principal Canadian markets from New Brunswick and Prince Edward Island, and total Canadian sources, 1976/77 to 1979/80

(In thousands of hundredweight)

Market	1976/77			1977/78			1978/79			1979/80		
	NB	PEI	Canada	NB	PEI	Canada	NB	PEI	Canada	NB	PEI	Canada
Toronto	3	624	1,457	3	901	1,362	2	1,442	2,023	10	1/	1,996
Montreal	416	589	1,708	277	696	1,912	470	708	1,967	310	1/	1,985
Quebec City	349	73	839	321	132	926	398	132	979	280	1/	1,013
Vancouver	0	0	598	0	0	1,080	0	0	768	0	1/	846
Ottawa	149	147	510	91	218	522	140	231	524	104	1/	563
Winnepig	0	0	488	0	0	488	0	0	541	0	1/	552
Calgary	0	0	298	0	0	318	0	0	351	0	1/	356
Edmonton	0	0	359	0	0	360	0	0	338	0	1/	343
Halifax	1	153	219	1	130	196	0	129	195	50	1/	221
Regina	0	0	116	0	0	128	0	0	139	0	1/	157
Saint John	40	17	57	33	14	47	52	5	55	66	1/	76
Saskatoon	0	0	50	0	0	80	0	0	70	0	1/	69
Total	958	1,603	6,699	726	2,091	7,419	1,062	2,645	7,950	820	1/	8,177

1/ Not available.

Source: Compiled from official statistics of the Prince Edward Island Department of Agriculture and Forestry and the New Brunswick Department of Agriculture and Rural Development.

Note.—New Brunswick is abbreviated as NB and Prince Edward Island is PEI.

147

Table 47.--Seed potatoes: Canadian exports, by principal markets, 1976-81

Markets	1976	1977	1978	1979	1980	1981
	Quantity (1,000 hundredweight)					
United States 1/	344	212	575	528	791	1,456
Venezuela	309	290	400	243	521	512
Cuba	178	233	144	143	305	411
Uruguay	327	258	75	242	429	182
All other	1,052	1,188	833	911	1,054	426
Total	2,210	2,182	2,027	2,068	3,010	2,986
	Value (1,000 dollars, Canadian)					
United States 1/	2,493	1,390	2,736	3,040	5,177	15,288
Venezuela	2,599	3,201	3,911	2,205	4,892	5,999
Cuba	1,156	1,648	1,237	981	2,153	2,985
Uruguay	2,498	1,482	414	1,744	4,016	2,045
All other	8,883	9,728	6,855	1,405	9,197	5,305
Total	17,629	17,449	14,311	14,825	25,435	31,622
	Unit value (cents per pound)					
United States 1/	7.2	6.6	6.8	5.8	6.5	10.5
Venezuela	8.4	11.0	6.8	9.1	9.4	11.7
Cuba	6.5	7.1	8.6	6.9	7.1	7.3
Uruguay	7.6	5.8	5.5	6.8	9.4	11.2
All other	8.4	8.3	7.6	7.5	8.7	12.4
Average	8.0	8.0	7.1	7.2	8.2	10.6

1/ Includes Puerto Rico.

Source: Compiled from official statistics of Statistics Canada.

Table 48 .--Fresh potatoes, other than seed: Canadian exports, by principal markets, 1976-81

Markets	1976	1977	1978	1979	1980	1981
	Quantity (1,000 hundredweight)					
United States 1/	142	843	848	978	1,352	2,322
Trindad-Tobago	52	19	117	319	329	325
Venezuela	0	15	0	0	175	149
All other	2,765	1,021	100	224	634	102
Total	2,958	1,898	1,066	1,519	2,489	2,897
	Value (1,000 dollars, Canadian)					
United States 1/	768	3,810	4,084	4,928	10,771	22,898
Trindad-Tobago	279	105	743	1,474	1,923	2,434
Venezuela	-	226	-	-	712	1,044
All other	16,374	16,148	648	1,019	3,018	1,060
Total	17,421	10,037	5,475	7,421	16,424	27,436
	Unit value (cents per pound)					
United States 1/	5.4	5.4	4.8	5.2	8.0	9.9
Trindad-Tobago	5.4	5.5	6.3	4.6	4.1	7.5
Venezuela	-	15.0	-	-	-	7.0
All other	5.9	5.9	6.5	4.5	4.8	10.4
Average	5.9	5.3	5.1	4.9	6.6	9.5

1/ Includes Puerto Rico.

Source: Compiled from official statistics of Statistics Canada.

Table 49.--Potatoes: Canadian exports of seed potatoes and potatoes other than seed potatoes, by province and by region, 1975/76 and 1980/81

(In thousands of hundredweight)

Province or region	1975/76 (July-June)						1980/81 (July-June)					
	Seed		Other		U.S. total	Grand total	Seed		Other		U.S. total	Grand total
	U.S.	Total	U.S.	Total			U.S.	Total	U.S.	Total		
Eastern Canada:												
Prince Edward Island	200	1,219	97	314	297	1,534	603	2,167	827	1,270	1,430	3,436
New Brunswick	49	1,086	82	154	131	1,240	637	1,128	685	685	1,322	1,814
Quebec	-	-	1	1	-	1	-	-	204	204	204	204
Nova Scotia	-	3	-	-	-	3	-	1	-	1	-	2
Total	249	2,308	180	217	428	2,778	1,240	3,296	1,716	2,160	2,956	5,456
Central Canada:												
Ontario	50	50	63	68	113	118	12	12	230	231	242	243
Prairie Provines 1/	48	48	20	31	68	79	74	74	412	412	487	487
Total	98	98	83	99	181	197	86	86	642	643	727	730
Western Canada:												
Total 2/	62	65	-	1	62	65	36	36	-	-	36	36
Total, Canada	409	2,471	263	569	672	3,040	1,363	3,419	2,359	2,803	3,722	6,222

1/ Includes Manitoba, Saskatchewan, and Alberta.
2/ Only British Columbia.

Source: Compiled from official statistics of Agriculture Canada.

150

Table 50.--Potatoes: Canadian imports of seed potatoes and fresh potatoes, other than seed, 1976-81

Year	Seed potatoes	Fresh potatoes, other than seed	Total
	Quantity (1,000 hundredweight)		
1976	216	4,165	4,381
1977	449	5,118	5,567
1978	454	3,217	3,670
1979	320	3,416	3,736
1980	191	2,310	2,501
1981	129	3,451	3,580
	Value (1,000 dollars, Canadian)		
1976	1,321	23,136	24,457
1977	2,458	29,431	31,889
1978	2,018	25,843	27,861
1979	1,382	20,435	21,817
1980	1,015	23,694	24,709
1981	1,263	43,931	45,194
	Unit value (cents per pound)		
1976	6.1	5.6	1/
1977	5.5	5.8	1/
1978	4.4	8.0	1/
1979	4.3	6.0	1/
1980	5.3	10.3	1/
1981	9.8	12.7	1/

1/ Not meaningful.

Source: Compiled from official statistics of Statistics Canada.

Table 51.--Potatoes: Monthly ranges of selected shipping-point prices, 1/ 1976 crop

Month	Russets (Cartons, 80-100, washed)			Round Whites (2" min.)		Round Reds (washed)	
	Idaho	Washington	Wisconsin	Maine (unwashed)	Long Island (washed)	Florida	Minnesota
September 1976	-	-	$4.25-$4.50	-	$1.90-$2.00	-	-
October 1976	$3.87-$4.12	$3.25-$3.50	3.50- 4.50	$1.65-$1.90	2.00- 2.25	-	-
November 1976	3.87- 4.12	3.25- 3.75	3.50- 3.82	1.70- 1.85	2.25	-	$1.55-$1.87
December 1976	3.75- 4.12	3.50- 3.62	3.25- 3.75	1.75- 2.02	2.25- 2.50	-	1.42- 1.75
January 1977	3.88- 4.25	3.50- 4.00	3.62- 4.50	2.02- 3.00	2.50- 3.62	$6.50	1.42- 2.25
February 1977	3.62- 4.25	3.50- 3.62	3.50- 4.50	2.40- 2.62	3.00	$5.50- 6.50	2.25- 2.50
March 1977	3.62- 4.50	3.25- 3.62	3.50- 4.00	2.35- 2.55	3.00	4.50- 6.50	2.07- 2.50
April 1977	4.37- 5.75	3.50- 4.50	3.75- 4.50	2.30- 4.00	-	4.50- 5.00	2.00- 2.75
May 1977	4.75- 5.75	4.25- 4.88	-	3.05- 4.00	-	-	-
June 1977	5.00- 5.75	4.62- 5.00	-	3.37- 3.65	-	-	-

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 52.--Potatoes: Monthly ranges of selected shipping-point prices, 1/ 1977 crop

Month	Russets (Cartons, 80-100, washed)			Round Whites (2" min.)		Round Reds (washed)	
	Idaho	Washington	Wisconsin	Maine (unwashed)	Long Island (washed)	Florida	Minnesota
September 1977	$6.50-$6.75	$6.00-$6.75	$6.50-$7.00	-	$1.88-$2.20	-	$2.02-$2.07
October 1977	5.50- 6.75	5.00- 6.25	5.50- 6.25	$1.62-$2.00	2.10- 2.50	-	1.95- 2.12
November 1977	5.25- 5.50	5.00- 5.37	5.25- 5.75	1.27- 1.75	1.88- 2.25	-	1.65- 1.87
December 1977	5.37- 5.75	5.00- 5.25	5.00- 5.50	1.12- 1.40	1.88- 2.00	-	1.57- 1.82
January 1978	5.25- 5.75	5.00- 5.25	5.00- 5.50	1.25- 1.50	1.90- 2.00	$5.00-$7.00	1.57- 1.77
February 1978	5.00- 5.62	5.00- 5.25	4.50- 5.25	1.20- 1.45	1.93- 2.00	5.00- 6.00	1.55- 1.77
March 1978	5.25- 5.75	5.00- 5.25	4.50- 5.00	1.05- 1.30	1.80- 2.00	5.00- 6.00	1.50- 1.62
April 1978	5.17- 5.75	5.00- 5.25	5.00	1.25- 1.88	-	6.50	1.45- 1.57
May 1978	5.67- 7.75	5.00- 7.00	-	1.45- 2.02	-	-	-
June 1978	7.25- 7.75	6.75- 7.00	-	2.00- 2.42	-	-	-

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

152

Table 53.--Potatoes: Monthly ranges of selected shipping-point prices, 1/ 1978 crop

Month	Russets (Cartons, 80-100, washed)			Round Whites (2" min.)		Round Reds (washed)	
	Idaho	Washington	Wisconsin	Maine (unwashed)	Long Island (washed)	Florida	Minnesota
September 1978	-	$4.25-$4.75	$4.75-$5.25	-	$1.89-$2.00	-	$2.32
October 1978	$4.75-$5.50	-	4.75- 5.00	$1.62-$1.75	2.00- 2.25	-	$1.95- 2.32
November 1978	4.75- 5.25	4.25- 4.75	3.50- 4.00	1.57- 1.75	2.13- 2.25	-	1.70- 1.87
December 1978	4.75- 5.12	4.50- 4.87	3.25- 4.00	1.50- 1.70	2.13- 2.25	-	1.45- 1.70
January 1979	4.87- 5.25	4.62- 5.00	3.25- 3.75	1.57- 2.00	2.38- 2.75	$5.00-$6.00	1.45- 1.70
February 1979	4.50- 5.25	4.00- 4.87	3.25- 3.50	1.67- 1.97	2.25- 2.88	3.50- 4.50	1.52- 1.70
March 1979	4.00- 4.75	4.00- 4.62	3.00- 3.12	1.75- 2.00	2.50- 2.63	3.00	1.45- 1.70
April 1979	3.75- 4.25	3.87- 4.25	3.00- 3.25	1.70- 1.95	-	3.50- 4.50	1.32- 1.57
May 1979	3.62- 4.50	3.75- 4.25	-	1.75- 2.40	-	4.50	1.27- 3.07
June 1979	4.25- 4.75	3.50- 4.00	-	2.15- 2.30	-	-	-

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 54.--Potatoes: Monthly ranges of selected shipping-point prices, 1/ 1979 crop

Month	Russets (Cartons, 80-100, washed)			Round Whites (2" min.)		Round Reds (washed)	
	Idaho	Washington	Wisconsin	Maine (unwashed)	Long Island (washed)	Florida	Minnesota
September 1979	$4.75-$5.00	-	$4.50	-	$1.90-$2.13	-	-
October 1979	4.75- 5.50	$4.25-$4.75	$4.50- 5.50	$1.70-$1.90	2.13- 2.38	-	$2.40-$2.68
November 1979	5.75- 6.25	5.00- 5.50	5.50- 5.75	1.50- 1.70	2.13- 2.25	-	2.32- 2.45
December 1979	5.75- 6.00	5.00- 5.50	5.50- 5.75	1.35- 1.50	2.10- 2.15	-	2.07- 2.42
January 1980	5.25- 6.00	5.00- 5.50	4.75- 5.75	1.38- 1.48	2.00- 2.25	$5.00	2.32- 2.57
February 1980	4.50- 5.50	4.50- 5.25	4.50- 5.00	1.18- 1.35	1.88- 2.00	$3.00- 4.50	2.27- 2.45
March 1980	4.00- 5.00	3.75- 4.75	4.00- 4.75	0.95- 1.18	1.75- 2.00	3.00- 3.50	2.07- 2.45
April 1980	4.00- 5.00	3.50- 4.25	4.00- 4.50	0.92- 1.00	1.75- 1.93	3.50- 5.00	1.95- 2.07
May 1980	4.75- 7.00	3.75- 6.25	-	0.95- 1.75	-	6.00	-
June 1980	6.20- 7.00	5.75- 6.25	-	1.75- 1.87	-	-	-

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

153

Table 55.--Potatoes: Monthly ranges of selected shipping-point prices, 1/ 1980 crop

Month	Russets (Cartons, 80-100, washed)			Round Whites (2" min.)		Round Reds (washed)	
	Idaho	Washington	Wisconsin	Maine (unwashed)	Long Island (washed)	Florida	Minnesota
September 1980	$12.50-$13.00	$11.00-$13.00	$11.00-$12.50	-	$4.00-$4.38	-	-
October 1980	9.50- 12.50	13.00- 11.50	8.50- 11.00	$3.38-$4.30	4.25- 5.13	-	$4.75-$4.90
November 1980	8.50- 9.50	8.00- 9.00	7.50- 9.00	3.38- 3.50	5.00- 5.08	-	4.87- 4.90
December 1980	8.50- 9.50	8.00- 8.50	7.50- 8.50	3.50- 4.00	5.00- 5.13	-	4.65- 4.77
January 1981	9.50- 12.00	8.25- 10.00	8.50- 11.00	4.25- 5.30	5.50- 6.75	-	5.07- 7.07
February 1981	9.50- 11.25	9.00- 10.00	9.00- 9.50	4.75- 5.25	6.00- 6.25	$5.50	6.57- 7.07
March 1981	9.50- 10.00	8.50- 9.00	8.50- 9.00	4.62- 5.75	6.00- 6.25	$3.50- 5.50	6.57- 7.57
April 1981	9.50- 9.75	8.50- 9.00	8.50- 9.00	5.00- 5.75	-	3.50- 5.00	6.62- 7.57
May 1981	9.50- 13.50	8.25- 12.00	-	5.00- 5.90	-	5.00	6.12- 6.25
June 1981	12.00- 14.50	-	-	-	-	-	-

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 56.--Potatoes: Monthly ranges of selected shipping-point prices, 1/ 1981 crop

Month	Russets (Cartons, 80-100, washed)			Round Whites (2" min.)		Round Reds (washed)	
	Idaho	Washington	Wisconsin	Maine (unwashed)	Long Island (washed)	Florida	Minnesota
September 1981	-	-	-	-	-	-	-
October 1981	$7.50-$8.00	$6.50	$6.50	$2.25-$2.62	$3.25-$3.40	-	$2.75-$3.00
November 1981	7.62- 8.25	$6.50- 7.00	$6.25- 6.50	2.12- 2.50	3.00- 3.37	-	2.75- 3.00
December 1981	7.00- 7.75	6.50- 7.00	6.25- 6.50	2.15- 2.40	3.25- 3.37	-	2.62- 2.87
January 1982	7.25- 8.00	6.50- 7.25	6.00- 6.25	2.15- 2.75	3.29- 3.65	$6.00	2.50- 2.75
February 1982	7.00- 7.50	6.50- 7.00	6.00- 6.50	2.42- 2.70	3.50- 3.65	8.00	2.50- 3.00
March 1982	7.25- 8.00	6.50- 7.00	6.25- 6.75	2.30- 2.62	3.45- 3.62	6.00	2.50- 2.75
April 1982	8.00-10.00	8.50	-	2.20- 3.12	-	$6.00- 6.50	-
May 1982	10.00-11.00	8.75-10.00	-	2.75- 3.37	-	5.50- 6.00	-
June 1982	-	-	-	-	-	-	-

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

154

Table 57.--Potatoes: Monthly ranges of New York City wholesale prices, 1/ 1976 crop

Month	Russets (Cartons, 80-100) washed		Round Whites (2" min.)		Round Reds (washed)		Long Whites
	Idaho	Wisconsin	Maine (unwashed)	Long Island (washed)	Minnesota	Florida	California
September 1976	$6.50	-	-	$2.25-$2.75	-	-	$5.25-$6.00
October 1976	$6.25- 6.75	-	-	2.25- 2.85	-	-	5.00- 5.50
November 1976	6.25- 6.50	-	$2.50-$2.90	2.60- 2.85	-	-	-
December 1976	6.25- 6.50	-	2.75- 3.28	2.65- 3.00	-	-	-
January 1977	6.25- 7.00	-	3.50- 4.50	3.25- 4.00	$4.00-$4.75	-	7.00- 8.00
February 1977	6.75- 7.00	-	3.75- 4.00	3.50- 3.75	4.50- 5.00	$6.75-$7.00	7.00- 8.00
March 1977	6.50- 7.00	-	3.80- 3.85	3.80- 3.75	4.50	6.50- 7.00	7.00- 8.00
April 1977	7.00- 8.25	-	3.75- 5.00	3.75- 4.50	4.50	8.00- 9.00	7.50
May 1977	8.00- 8.50	-	4.50- 5.25	4.25- 4.50	-	7.50- 9.00	8.50
June 1977	8.00- 9.00	-	4.50- 5.50	4.25	-	6.50- 7.00	5.50- 8.00

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 58.--Potatoes: Monthly ranges of New York City wholesale prices, 1/ 1977 crop

Month	Russets (Cartons, 80-100) washed		Round Whites (2-1/4" min.)	Round Whites (2" min.)		Round Reds (washed)		Long Whites
	Idaho	Wisconsin	Canada (PEI) (unwashed)	Maine (unwashed)	Long Island (washed)	Minnesota	Florida	California
September 1977	$9.50-$10.00	-	-	-	$2.40-$3.00	$3.50-$5.00	-	$6.75-$7.50
October 1977	8.00- 9.50	-	-	-	2.75- 3.25	4.00- 5.00	-	7.50
November 1977	8.00- 9.00	-	-	$2.75-$2.85	2.50- 3.00	4.00- 4.50	-	-
December 1977	8.00- 8.50	-	-	2.25- 2.75	2.50- 2.75	4.00- 4.50	-	-
January 1978	8.00- 8.75	-	$2.75-$3.00	2.50- 2.75	2.50- 2.75	4.00- 4.25	$7.00-$7.50	8.50
February 1978	8.00- 8.75	-	2.75- 3.00	2.50- 2.75	2.50- 2.75	4.25- 4.75	6.00- 7.00	9.50- 10.00
March 1978	8.00- 8.50	-	2.85- 3.00	2.25- 2.75	2.25- 2.75	4.00- 4.50	4.50- 6.00	-
April 1978	8.00- 8.50	-	3.00- 3.50	2.50- 3.00	2.25	-	5.00- 6.50	-
May 1978	8.25- 10.00	-	3.00- 4.00	2.75- 3.25	-	-	7.00	7.00- 8.00
June 1978	9.50- 11.00	-	4.75- 5.50	3.25- 6.00	-	-	-	-

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

155

Table 59.--Potatoes: Monthly ranges of New York City wholesale prices, 1/ 1978 crop

Month	Russets (Cartons, 80-100) washed		Round Whites (2-1/4" min.)	Round Whites (2" min.)		Round Reds (washed)		Long Whites
	Idaho	Wisconsin	Canada (PEI) (unwashed)	Maine (unwashed)	Long Island (washed)	Minnesota	Florida	California
September 1978	-	-	-	-	$2.00-$2.75	$4.50-$5.50	-	$7.50-$8.00
October 1978	$6.50-$8.50	-	-	$3.00	2.35- 3.00	4.75- 5.25	-	7.25- 8.50
November 1978	7.50- 8.25	-	$3.25-$3.50	$2.65- 3.00	2.60- 2.75	4.50- 5.00	-	10.00
December 1978	7.50- 8.50	-	3.50	2.75- 3.00	2.75	4.50- 4.75	-	-
January 1979	7.00- 8.50	-	3.50- 3.75	3.00- 3.50	2.75- 3.50	4.50- 5.50	$7.00-$7.50	10.00-12.00
February 1979	7.00- 8.50	-	3.50- 3.75	3.00- 3.60	3.00- 3.50	4.00- 5.00	6.50- 7.50	10.00-11.00
March 1979	6.50- 8.50	-	3.50- 3.75	3.25- 3.30	3.00- 3.75	-	5.00- 6.00	10.00-11.00
April 1979	6.00- 7.75	-	3.40- 3.75	3.00- 3.50	2.65- 3.25	-	5.50- 5.00	-
May 1979	6.50- 7.50	-	4.00- 4.25	3.00- 3.75	3.75	-	8.50- 10.00	6.50- 8.00
June 1979	6.50- 8.00	-	4.00- 4.25	3.25- 4.00	3.25- 4.00	-	-	5.00- 6.00

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 60.--Potatoes: Monthly ranges of New York City wholesale prices, 1/ 1979 crop

Month	Russets (Cartons, 80-100) washed		Round Whites (2-1/4" min.)	Round Whites (2" min.)		Round Reds (washed)		Long Whites
	Idaho	Wisconsin	Canada (PEI) (unwashed)	Maine (unwashed)	Long Island (washed)	Minnesota	Florida	California
September 1979	$7.50-$8.00	-	-	-	$2.50-$3.00	$4.00-$5.00	-	$6.25-$7.00
October 1979	7.25- 8.50	-	$3.25-$3.50	$2.85-$3.00	2.90- 3.25	4.00- 5.50	-	7.00- 7.50
November 1979	8.00- 9.25	-	3.00- 3.25	2.75- 3.00	2.75- 3.00	5.00- 5.50	-	7.50- 9.00
December 1979	8.00- 9.25	-	3.00- 3.25	2.50- 3.00	2.50- 2.75	5.00- 5.50	-	10.00- 10.50
January 1980	8.50- 9.00	$6.50-$7.50	3.50- 4.00	2.75- 3.00	2.75- 3.00	5.00- 5.50	$8.00-$8.50	9.00- 11.00
February 1980	8.00- 9.00	6.00- 7.50	3.40- 3.75	2.65- 3.00	2.50- 3.00	5.00- 5.50	7.50- 8.00	9.00- 11.00
March 1980	7.50- 8.50	6.25- 6.50	3.25- 3.50	2.50- 2.75	2.50- 2.85	5.25- 6.00	6.00- 8.50	9.50- 10.50
April 1980	7.50- 8.00	6.50	3.00- 3.25	2.50- 2.80	2.50- 3.00	-	-	9.00- 10.00
May 1980	8.00- 10.50	7.00	2.75- 4.25	2.50- 4.00	3.25- 3.50	5.50- 7.00	-	7.00- 10.00
June 1980	9.50- 10.00	-	-	3.50- 5.50	3.25- 4.00	-	-	7.00- 8.50

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

156

Table 61.--Potatoes: Monthly ranges of New York City wholesale prices, 1/ 1980 crop

Month	Russets (Cartons, 80-100) washed		Round Whites (2-1/4" min.)	Round Whites (2" min.)		Round Reds (washed)		Long Whites
	Idaho	Wisconsin	Canada (PEI) (unwashed)	Maine (unwashed)	Long Island (washed)	Minnesota	Florida	California
September 1980	$16.50-$17.00	-	-	-	$4.50-$5.50	$7.00-$8.00	-	$11.00-$12.00
October 1980	13.00- 16.50	$11.00	$5.00-$6.00	$5.25-$5.75	4.75- 6.00	7.00- 8.50	-	11.50- 13.00
November 1980	12.00- 14.00	$9.00- 11.00	5.00- 6.00	5.00- 5.50	5.50- 6.00	7.50- 8.50	-	11.00- 12.00
December 1980	11.50- 12.50	7.50- 10.00	5.25- 6.00	5.00- 6.00	2.50- 2.75	7.50- 8.00	-	13.00
January 1981	12.50- 15.50	11.00- 12.50	6.00- 7.50	6.00- 7.50	6.25- 7.50	7.50- 10.00	-	13.00- 14.00
February 1981	13.00- 15.00	8.00- 11.00	6.75- 7.25	6.50- 7.00	6.50- 7.00	9.00- 11.00	$12.00-$13.00	12.00- 17.00
March 1981	12.50- 14.00	9.00- 10.00	6.50- 8.50	6.25- 7.50	6.50- 7.00	9.50- 11.00	12.50- 18.00	17.00- 18.00
April 1981	12.50- 13.50	8.00- 10.50	7.50- 8.25	7.00- 7.50	6.50- 7.00	10.00- 11.00	11.00- 13.00	18.00
May 1981	12.50- 15.00	8.00- 10.00	7.50- 8.25	6.50- 8.00	-	10.00- 10.50	9.00- 11.00	9.00- 11.00
June 1981	10.00- 18.00	-	8.50- 9.00	7.75- 8.50	-	9.50- 10.00	-	9.00- 11.00

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacked unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 62.--Potatoes: Monthly ranges of New York City wholesale prices, 1/ 1981 crop

Month	Russets (Cartons, 80-100) washed		Round Whites (2-1/4" min.)	Round Whites (2" min.)		Round Reds (washed)		Long Whites
	Idaho	Wisconsin	Canada (PEI) (unwashed)	Maine (unwashed)	Long Island (washed)	Minnesota	Florida	California
September 1981	$12.50-$14.00	$7.00-$11.00	$5.00	-	-	$7.00	-	$11.00-$12.00
October 1981	11.00- 13.00	7.00 9.00	$4.50- 5.00	$3.75-$4.00	$3.50-$4.25	$6.50- 7.00	-	11.75
November 1981	11.00- 12.00	7.00- 9.00	4.25- 4.50	3.75- 4.25	3.50- 4.25	6.00- 7.00	-	9.00
December 1981	11.00- 11.50	6.50- 8.00	4.25- 4.50	3.75- 4.25	4.00- 4.25	6.00- 7.50	-	13.00- 14.00
January 1982	10.50- 11.50	7.00- 7.50	4.25- 5.00	3.75- 4.75	4.00- 4.50	6.00- 7.00	$9.50-$10.00	13.00- 14.00
February 1982	11.00- 11.50	-	4.50- 5.00	4.00- 4.50	4.25- 4.50	6.50- 7.50	10.00- 13.00	-
March 1982	11.00- 11.50	-	4.50- 4.75	4.00- 4.25	-	6.00- 8.00	9.00- 11.00	15.00- 16.00
April 1982	11.00- 13.00	-	4.25- 5.00	4.00- 4.75	-	-	9.00- 10.00	15.00
May 1982	12.50- 15.00	-	4.50- 5.00	4.25- 5.00	-	-	9.00- 10.00	11.00- 12.00
June 1982	-	-	-	-	-	-	-	-

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacked unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

157

Table 63.--Potatoes: Monthly average price spreads of round whites 1/ sold in New York City, 1976 crop

Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1976	$15.26	$5.00	$3.94	26	$1.06	7	$10.26	67
October 1976	13.63	5.00	4.00	30	1.00	7	8.63	63
November 1976	13.54	4.60	3.56	26	1.04	8	8.94	66
December 1976	13.92	5.70	3.60	26	2.10	15	8.22	59
January 1977	13.82	6.50	3.98	29	2.52	18	7.32	53
February 1977	16.61	7.70	5.14	31	2.56	15	8.91	54
March 1977	15.74	7.70	4.90	31	2.80	18	8.04	51
April 1977	16.22	7.40	4.80	30	2.60	16	8.82	54
Average	15.07	6.23	4.31	28	1.92	13	8.84	59

1/ U.S. No. 1, Size A

Source: Compiled from statistics provided by the U.S. Department of Agriculture.

Table 64.--Potatoes: Monthly average price spreads of round whites 1/ sold in New York City, 1977 crop

Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1977	$14.11	$4.90	$3.82	27	$1.08	8	$9.21	65
October 1977	13.63	5.70	4.30	32	1.40	10	7.93	58
November 1977	13.73	5.70	4.25	31	1.45	11	8.03	58
December 1977	13.63	5.30	3.92	29	1.38	10	8.33	61
January 1978	13.54	5.30	3.90	29	1.40	10	8.24	61
February 1978	13.07	5.10	3.92	30	1.18	9	7.97	61
March 1978	13.34	5.20	3.92	29	1.28	10	8.14	61
April 1978	13.34	5.00	5.00	37	0	0	8.34	63
Average	13.61	5.24	4.13	30	1.11	8	8.37	61

1/ U.S. No. 1, Size A

Source: Compiled from statistics provided by the U.S. Department of Agriculture.

158

Table 65.--Potatoes: Monthly average price spreads of round whites 1/ sold in New York City, 1978 crop

Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1978	$15.17	$5.00	$3.88	26	$1.12	7	$10.17	67
October 1978	14.21	5.00	3.90	27	1.10	8	9.21	65
November 1978	16.13	5.40	4.50	28	.90	6	10.73	67
December 1978	15.17	5.50	4.50	30	1.00	7	9.67	64
January 1979	15.17	5.50	4.40	29	1.10	7	9.67	64
February 1979	16.13	6.24	4.70	29	1.54	10	9.89	61
March 1979	16.13	6.70	5.18	32	.52	3	9.43	58
April 1979	16.13	6.30	5.50	34	.80	5	9.83	61
Average	15.40	5.58	4.41	28	1.17	8	9.82	64

1/ U.S. No. 1, Size A

Source: Compiled from statistics provided by the U.S. Department of Agriculture.

Table 66.--Potatoes: Monthly average price spreads of round whites 1/ sold in New York City, 1979 crop

Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1979	$16.13	$7.00	$4.04	25	$2.96	18	$9.13	57
October 1979	15.16	7.00	4.20	28	2.80	18	8.16	54
November 1979	14.21	6.50	4.36	31	2.14	15	7.71	54
December 1979	16.13	6.75	4.36	27	2.39	15	9.38	58
January 1980	15.16	6.00	4.34	29	1.66	11	9.16	60
February 1980	15.16	6.00	3.86	26	2.14	14	9.16	60
March 1980	15.16	5.30	3.86	26	1.44	9	9.86	65
April 1980	15.17	5.85	1.94	13	3.91	26	9.32	61
Average	15.28	6.35	3.87	25	2.48	16	8.93	58

1/ U.S. No. 1, Size A

Source: Compiled from statistics provided by the U.S. Department of Agriculture.

159

Table 67.--Potatoes: Monthly average price spreads of round whites 1/ sold in New York City, 1980 crop

Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1980	$24.77	$11.00	$5.00	20	$6.00	24	$13.77	56
October 1980	22.85	12.00	5.10	22	6.90	30	10.85	47
November 1980	24.77	13.25	5.90	24	7.35	30	11.52	47
December 1980	22.85	11.25	5.90	26	5.35	23	11.60	51
January 1981	27.65	12.50	6.40	23	6.10	22	15.15	55
February 1981	30.53	13.50	6.98	23	6.52	21	17.03	56
March 1981	30.53	15.50	6.92	23	8.58	28	15.03	49
April 1981	30.53	16.50	5.56	18	10.94	36	14.03	46
Average	26.50	13.34	5.56	21	7.78	29	13.16	50

1/ U.S. No. 1, Size A

Source: Compiled from statistics provided by the U.S. Department of Agriculture.

Table 68.--Potatoes: Monthly average price spreads of russets 1/ sold in New York City, 1976 crop

Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1976	$18.82	NA	NA	NA	NA	NA	NA	NA
October 1976	19.49	$10.50	$5.35	28	$5.15	26	$8.99	46
November 1976	18.43	10.00	5.19	28	4.81	26	8.43	46
December 1976	18.53	10.30	4.00	22	6.30	34	8.23	44
January 1977	18.91	10.30	5.00	26	5.30	28	8.61	46
February 1977	20.06	11.00	6.48	32	4.52	23	9.06	45
March 1977	20.35	11.00	6.50	32	4.50	22	9.35	46
April 1977	20.45	11.50	6.25	30	5.25	26	8.95	44
Average	19.49	10.70	5.60	29	5.10	26	8.79	45

1/ U.S. No. 1, Size A

Source: Compiled from statistics provided by the U.S. Department of Agriculture.

160

Table 69.--Potatoes: Monthly average price spreads of russets 1/ sold in New York City, 1977 crop

Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1977	$22.08	$6.00	NA	NA	NA	NA	$16.08	73
October 1977	19.68	11.50	$5.54	28	$5.96	30	8.18	42
November 1977	19.20	11.50	5.29	28	6.21	32	7.70	40
December 1977	19.49	12.00	5.10	26	6.90	35	7.49	38
January 1978	19.68	12.00	5.09	26	6.91	35	7.68	39
February 1978	21.79	12.30	5.53	25	6.77	31	9.49	44
March 1978	19.97	12.30	6.08	30	6.22	31	7.67	38
April 1978	20.35	12.30	5.56	27	6.74	33	8.05	40
Average	19.97	12.02	5.45	27	6.57	33	7.95	40

1/ U.S. No. 1, Size A

Source: Compiled from statistics provided by the U.S. Department of Agriculture.

Table 70.--Potatoes: Monthly average price spreads of russets 1/ sold in New York City, 1978 crop

Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1978	$23.81	$13.00	$5.50	23	$7.50	31	$10.81	45
October 1978	21.89	13.50	5.20	24	8.30	38	8.39	38
November 1978	22.85	12.00	5.12	22	6.88	30	10.85	47
December 1978	21.89	11.50	5.12	23	6.38	29	10.39	47
January 1979	21.89	11.76	5.12	23	6.64	30	10.13	46
February 1979	21.89	13.50	5.38	25	8.12	37	8.39	38
March 1979	21.89	12.24	5.00	23	7.24	33	9.65	44
April 1979	21.89	11.24	5.08	23	6.16	28	10.65	49
Average	21.98	12.13	5.14	23	6.99	32	9.85	45

1/ U.S. No. 1, Size A

Source: Compiled from statistics provided by the U.S. Department of Agriculture.

161

Table 71.--Potatoes: Monthly average price spreads of russets 1/ sold in New York City, 1979 crop

Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1979	$22.85	$12.50	$6.50	28	$6.00	26	$10.35	45
October 1979	20.93	13.00	6.50	31	6.50	31	7.93	38
November 1979	22.85	13.00	6.50	28	6.50	28	9.85	43
December 1979	22.85	12.75	6.25	27	6.50	28	10.10	44
January 1980	22.85	13.00	5.75	25	7.25	32	9.85	43
February 1980	21.89	12.25	5.50	25	6.75	31	9.64	44
March 1980	20.93	12.25	5.50	26	6.75	32	8.68	41
April 1980	19.97	12.00	5.62	28	6.38	32	7.97	40
Average	21.88	12.57	5.94	27	6.63	30	9.31	43

1/ U.S. No. 1, Size A

Source: Compiled from statistics provided by the U.S. Department of Agriculture.

Table 72.--Potatoes: Monthly average price spreads of russets 1/ sold in New York City, 1980 crop

Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1980	$32.45	$11.00	$9.75	30	$1.25	4	$21.45	66
October 1980	33.60	18.00	8.75	26	9.25	28	15.60	46
November 1980	27.65	18.50	9.75	35	8.75	32	9.15	33
December 1980	30.53	17.50	10.75	35	6.75	22	13.03	43
January 1981	30.53	20.00	12.25	40	7.75	25	10.53	34
February 1981	33.41	22.00	13.50	40	8.50	25	11.41	34
March 1981	34.37	15.50	14.50	42	1.00	3	18.87	55
April 1981	34.37	22.00	13.30	39	8.70	25	12.37	36
Average	32.14	18.03	11.83	37	6.20	19	14.11	44

1/ U.S. No. 1, Size A

Source: Compiled from statistics provided by the U.S. Department of Agriculture.

162

Table 73.--Potatoes: Monthly ranges of Boston wholesale prices, 1/ 1976 crop

Month	Russets (Cartons, 80-100, washed)			Round Whites (2" min.)		Round Whites (2-1/4" min.)	Round Reds
	Idaho	Washington	Wisconsin	Maine (unwashed)	Long Island (washed)	Canada (PEI) (unwashed)	Florida (washed)
September 1976	-	$4.75-$5.75	$5.00-$5.50	$2.50	$2.50-$2.75	$3.50-$3.75	-
October 1976	$6.50	5.00- 5.50	5.00- 5.50	$2.50- 2.75	2.50- 2.75	3.25- 3.75	-
November 1976	$5.50- 6.50	5.00- 5.50	5.00- 5.50	2.50	3.25	3.75- 4.00	-
December 1976	5.50- 6.00	-	5.50	2.50	3.00- 3.25	3.75- 4.00	-
January 1977	5.75- 6.50	-	5.50- 6.50	2.60- 3.75	3.50- 4.25	3.75- 4.00	-
February 1977	6.00- 6.50	5.00- 6.00	5.00- 6.00	3.25- 3.50	3.75	4.00- 4.25	7.50- 8.00
March 1977	6.50- 7.50	5.00- 5.50	5.00- 6.00	3.15- 3.25	-	3.75- 4.00	6.00- 7.00
April 1977	7.00- 9.00	6.50	6.00- 6.50	3.15- 4.50	-	4.50- 6.00	8.00- 9.50
May 1977	8.00- 9.00	-	6.00- 6.50	4.00- 4.50	-	6.00	7.50- 8.50
June 1977	8.00	-	-	4.25- 4.50	-	-	-

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 74.--Potatoes: Monthly ranges of Boston wholesale prices, 1/ 1977 crop

Month	Russets (Cartons, 80-100, washed)			Round Whites (2" min.)		Round Whites (2-1/4" min.)	Round Reds
	Idaho	Washington	Wisconsin	Maine (unwashed)	Long Island (washed)	Canada (PEI) (unwashed)	Florida (washed)
September 1977	$9.00	$8.50-$9.00	$8.00-$8.50	$2.25-$2.75	$2.50-$2.75	$3.25-$3.75	-
October 1977	$7.50- 8.25	7.00- 8.00	7.00	2.50- 2.75	2.50- 3.50	3.25- 3.50	-
November 1977	7.50- 7.75	-	7.00- 7.25	2.00- 2.75	2.90- 3.00	2.75- 3.25	-
December 1977	7.50- 8.00	-	7.00- 7.50	1.80- 2.00	2.00- 2.75	2.50- 3.00	-
January 1978	6.50- 8.00	4.50- 5.00	6.00- 7.00	1.90- 2.25	-	2.50- 2.75	-
February 1978	6.00- 7.00	7.00	4.00	2.00- 2.10	-	2.75	$5.50-$7.00
March 1978	7.00- 8.00	-	-	2.00	-	2.75- 3.00	4.00- 5.50
April 1978	7.00- 8.00	6.00- 7.00	-	2.00- 2.50	-	3.00	5.00- 6.50
May 1978	7.00- 10.00	7.00- 7.50	-	2.25- 3.00	-	3.00- 4.50	7.00- 7.50
June 1978	9.25- 10.50	-	-	3.00- 4.50	-	4.00- 5.00	-

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

163

Table 75.--Potatoes: Monthly ranges of Boston wholesale prices, 1/ 1978 crop

Month	Russets (Cartons, 80-100, washed)			Round Whites (2" min.)		Round Whites (2-1/4" min.)	Round Reds
	Idaho	Washington	Wisconsin	Maine (unwashed)	Long Island (washed)	Canada (PEI) (unwashed)	Florida (washed)
September 1978	-	-	$6.00	$2.25-$2.75	$2.50-$2.75	$3.50-$3.75	-
October 1978	$7.50	$6.00-$7.00	$6.00- 7.00	2.50- 2.75	2.60- 3.00	3.25- 3.50	-
November 1978	$6.50- 7.25	6.00- 6.50	6.00- 6.50	2.50- 2.75	2.50- 2.75	3.25	-
December 1978	6.50- 7.50	6.00- 6.50	-	2.25- 2.50	-	2.90- 3.25	-
January 1979	6.50- 7.50	-	5.50- 7.00	2.50- 2.75	-	3.00- 3.50	-
February 1979	6.50- 7.25	-	4.00- 6.00	2.50- 2.75	-	3.00- 3.50	$5.00-$6.00
March 1979	6.00- 6.50	6.00	-	2.65- 2.75	-	3.25	5.50- 6.00
April 1979	6.00- 6.50	-	-	2.50- 2.75	-	3.25- 4.00	6.00
May 1979	6.00- 7.00	-	-	2.60- 3.20	-	3.50- 3.75	-
June 1979	7.00- 7.50	-	-	3.50	-	3.75	-

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 76.--Potatoes: Monthly ranges of Boston wholesale prices, 1/ 1979 crop

Month	Russets (Cartons, 80-100, washed)			Round Whites (2" min.)		Round Whites (2-1/4" min.)	Round Reds
	Idaho	Washington	Wisconsin	Maine (unwashed)	Long Island (washed)	Canada (PEI) (unwashed)	Florida (washed)
September 1979	-	$5.50-$6.00	$5.00-$5.50	-	$2.75-$3.10	$3.50-$4.50	-
October 1979	$8.00	6.75- 7.50	7.00	$2.75-$3.25	3.00- 3.35	3.25- 3.50	-
November 1979	$8.50- 9.00	7.50- 9.00	8.00- 8.50	2.50- 3.25	3.25- 3.50	2.50- 3.25	-
December 1979	8.00- 8.50	7.00- 7.50	7.00- 7.50	2.50- 2.75	-	2.50- 3.00	-
January 1980	8.00- 9.00	8.50	6.50- 8.00	2.25- 2.75	-	3.00- 3.75	-
February 1980	7.00- 8.00	-	6.00- 6.50	2.25- 2.50	3.00	3.25- 3.75	$8.00
March 1980	7.00- 7.50	-	5.50- 6.00	2.25- 2.50	-	2.75- 3.50	$7.00- 8.00
April 1980	7.00- 7.50	-	5.50- 6.00	2.00- 2.25	-	2.75- 3.00	6.50- 7.00
May 1980	8.00- 8.50	-	-	2.50- 3.50	-	3.50	8.00
June 1980	9.00- 10.00	-	-	2.75- 3.00	-	3.75- 6.00	-

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

164

Table 77.--Potatoes: Monthly ranges of Boston wholesale prices, 1/ 1980 crop

Month	Russets (Cartons, 80-100, washed)			Round Whites (2" min.)		Round Whites (2-1/4" min.)	Round Reds (washed)
	Idaho	Washington	Wisconsin	Maine (unwashed)	Long Island (washed)	Canada (PEI) (unwashed)	Florida
September 1980	-	$15.00-$18.00	-	$4.50-$5.00	$4.50-$5.50	$4.75-$5.75	-
October 1980	$12.00-$13.00	9.00- 13.00	$9.00-$10.00	4.25- 5.00	-	5.00- 5.50	-
November 1980	11.00- 12.50	8.00	9.00	4.50- 5.00	-	5.00- 5.25	-
December 1980	10.00- 12.00	-	9.00	4.50- 5.00	-	4.75- 5.50	-
January 1981	12.00- 14.00	12.00	10.00- 12.50	5.50- 6.50	-	6.00- 6.50	-
February 1981	13.00	11.00	11.00	6.00- 6.50	-	6.50	-
March 1981	12.00- 13.00	10.00- 11.00	10.50- 11.00	6.00- 7.00	-	6.50- 7.50	$16.00-$18.00
April 1981	12.00- 13.00	-	10.50- 11.00	6.75- 7.00	-	7.00- 7.50	11.00- 16.00
May 1981	12.00- 15.00	-	10.00	6.50- 7.00	-	7.50- 8.00	9.00
June 1981	16.00- 17.00	-	-	7.00	-	-	-

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 78.--Potatoes: Monthly ranges of Boston wholesale prices, 1/ 1981 crop

Month	Russets (Cartons, 80-100, washed)			Round Whites (2" min.)		Round Whites (2-1/4" min.)	Round Reds
	Idaho	Washington	Wisconsin	Maine (unwashed)	Long Island (washed)	Canada (PEI) (unwashed)	Florida (washed)
September 1981	$10.00-$12.00	$9.00-$10.00	$7.50-$9.00	$4.00-$4.25	$4.50-$4.75	$5.00-$6.00	-
October 1981	9.00-$10.00	7.00- 7.50	7.00- 8.50	3.50- 4.00	4.50	4.50- 5.00	-
November 1981	9.00- 10.00	7.00- 9.00	7.00- 8.00	3.25- 3.75	-	3.75- 4.50	-
December 1981	9.00- 10.00	-	7.00- 7.50	3.25	-	3.75- 4.00	-
January 1982	9.00- 10.00	-	7.00- 8.50	3.25- 4.00	-	3.50- 4.25	-
February 1982	8.50- 10.00	-	7.00- 7.50	3.50- 4.00	-	4.00- 4.25	$10.00-$14.00
March 1982	9.50- 10.00	-	7.00- 7.50	3.25- 4.00	-	3.75- 4.25	8.50- 10.00
April 1982	10.00- 11.00	-	6.50- 7.00	3.75	-	4.00- 5.00	8.00- 10.00
May 1982	12.50	-	-	4.25- 4.50	-	4.00- 4.50	7.00- 10.00
June 1982	-	-	-	-	-	-	-

1/ U.S. No. 1 potatoes, Size A, 50 lbs., packed in sacks unless otherwise noted

Source: Compiled from official statistics of the U.S. Department of Agriculture.

165

Table 79.--Potatoes: Monthly average price spreads of round whites 1/ sold in Boston, 1976 crop

Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1976	$14.78	$5.00	$3.94	27	$1.06	7	$9.78	66
October 1976	16.22	5.24	4.00	25	1.24	8	10.98	68
November 1976	13.44	5.00	3.56	26	1.44	11	8.44	63
December 1976	15.07	5.00	3.60	24	1.40	9	10.07	67
January 1977	14.02	5.35	3.98	28	1.27	10	8.67	62
February 1977	15.26	7.00	5.14	34	1.86	12	8.26	54
March 1977	15.44	6.50	4.90	32	1.60	10	8.94	58
April 1977	15.65	6.44	4.80	31	1.64	10	9.21	59
Average	14.88	5.79	4.27	29	1.52	10	9.09	61

1/ U.S. No. 1, Size A

Source: Compiled from statistics provided by the U.S. Department of Agriculture.

Table 80.--Potatoes: Monthly average price spreads of round whites 1/ sold in Boston, 1977 crop

Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1977	$14.59	$5.35	$3.82	26	$1.53	10	$9.24	63
October 1977	13.54	4.76	3.50	26	1.26	9	8.76	65
November 1977	12.77	5.24	3.28	26	1.96	15	7.53	59
December 1977	13.73	4.00	2.52	18	1.48	11	9.73	71
January 1978	10.46	4.00	2.60	25	1.40	13	6.46	62
February 1978	12.29	4.00	2.72	22	1.28	10	8.29	67
March 1978	13.34	4.00	2.32	17	1.68	13	9.34	70
April 1978	12.58	5.50	2.36	19	3.14	25	7.08	56
Average	12.77	4.54	2.78	22	1.76	14	8.23	64

1/ U.S. No. 1, Size A

Source: Compiled from statistics provided by the U.S. Department of Agriculture.

166

Table 81.--Potatoes: Monthly average price spreads of round whites 1/ sold in Boston, 1978 crop

Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1978	$13.25	$5.26	$3.82	29	$1.44	11	$7.99	60
October 1978	12.29	5.00	3.50	28	1.50	12	7.29	59
November 1978	13.25	5.24	3.36	25	1.88	14	8.01	60
December 1978	13.25	5.00	3.28	25	1.72	13	8.25	62
January 1979	13.25	5.50	3.46	26	2.04	15	7.75	58
February 1979	14.21	5.00	3.48	24	1.52	11	9.21	65
March 1979	14.21	5.50	3.84	27	1.66	12	8.71	61
April 1979	15.17	5.50	3.54	23	1.96	13	9.67	64
Average	13.82	5.29	3.53	25	1.76	13	8.53	62

1/ U.S. No. 1, Size A

Source: Compiled from statistics provided by the U.S. Department of Agriculture.

Table 82.--Potatoes: Monthly average price spreads of round whites 1/ sold in Boston, 1979 crop

Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1979	$17.09	$5.74	$4.04	24	$1.70	10	$11.35	66
October 1979	13.15	6.00	4.20	32	1.80	14	7.15	54
November 1979	12.28	5.75	3.36	27	2.39	19	6.53	53
December 1979	10.37	5.25	3.16	30	2.09	20	5.12	49
January 1980	11.33	4.75	4.34	38	0.41	4	6.57	58
February 1980	13.25	4.75	3.86	29	0.89	7	8.50	64
March 1980	10.37	4.75	3.86	37	0.89	9	5.62	54
April 1980	11.33	4.00	1.94	17	2.06	18	7.33	65
Average	11.92	5.02	2.98	25	2.04	17	6.90	58

1/ U.S. No. 1, Size A

Source: Compiled from statistics provided by the U.S. Department of Agriculture.

167

Table 83.--Potatoes: Monthly average price spreads of round whites 1/ sold in Boston, 1980 crop

Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1980	$14.21	$9.50	$5.00	35	$4.50	32	$4.71	33
October 1980	17.09	9.50	5.10	30	4.40	26	7.59	44
November 1980	16.13	9.50	4.32	27	5.18	32	6.63	41
December 1980	19.87	9.00	4.45	22	4.55	23	10.87	55
January 1981	22.83	12.00	4.44	21	7.56	33	10.83	47
February 1981	26.69	13.00	5.00	19	8.00	30	13.69	51
March 1981	25.73	12.00	5.65	22	6.35	25	13.73	53
April 1981	26.69	13.76	5.56	21	8.20	31	12.93	48
Average	22.57	11.53	4.94	22	6.59	29	11.04	49

1/ U.S. No. 1, Size A

Source: Compiled from statistics provided by the U.S. Department of Agriculture.

Table 84.--Potatoes: Monthly average price spreads of round whites 1/ sold in Boston, 1981 crop

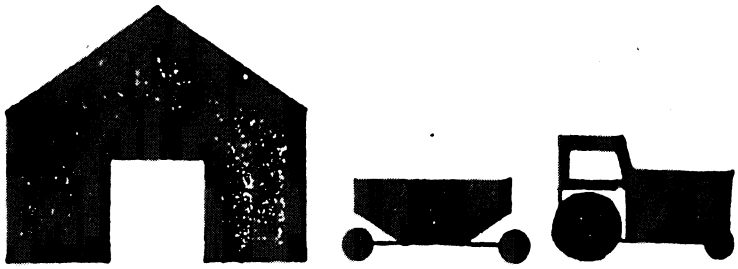
Month	Retail value per cwt.	Wholesale price per cwt.	Shipping-point price (grower return)		Shipping point-wholesale spread		Wholesale-retail spread	
			per cwt.	percentage of retail value	per cwt.	percentage of retail value	per cwt.	percentage of retail value
September 1981	$22.85	$8.25	$7.75	34	$0.50	2	$14.60	64
October 1981	19.97	9.25	8.25	41	1.00	5	10.72	54
November 1981	19.87	7.00	3.15	16	3.85	19	12.87	65
December 1981	19.97	6.50	3.08	15	3.42	17	13.47	67
January 1982	-	-	-	-	-	-	-	-
February 1982	-	-	-	-	-	-	-	-
March 1982	-	-	-	-	-	-	-	-
April 1982	-	-	-	-	-	-	-	-
Average	-	-	-	-	-	-	-	-

1/ U.S. No. 1, Size A

168

Appendix F

Copies of Independent Studies or Parts of Studies Relating to Costs of Production for Potatoes in Prince Edward Island(1980), New Brunswick(1981), and Ontario(1981)



PRINCE EDWARD ISLAND

POTATO ENTERPRISE STUDY

1980

DEPARTMENT OF AGRICULTURE & FORESTRY

Agriculture Canada

PRINCE EDWARD ISLAND

PRINCE EDWARD ISLAND
POTATO ENTERPRISE STUDY

1980

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ACKNOWLEDGMENTS

The authors gratefully acknowledge the co-operation of the twenty-two (22) potato growers who participated in this study. They further acknowledge the efforts of Heath Coles who collected the data, Remi Lemonie who analysed the data and Therese Falkenham and Susan Dunn who typed the report.

James C. Oxley
Agricultural Economist
Agriculture Canada

Rollin Andrew
Agricultural Economist
P.E.I. Dept. of Agriculture
and Forestry

TABLE OF CONTENTS

LIST OF TABLES

Page

INTRODUCTION

The purpose of this study was to examine and analyse the financial and production information of selected potato growers in Prince Edward Island. Twenty-two (22) farmers were surveyed for their 1980 crop year information.

The farmers selected derived more than seventy-five per cent of their farm income from potatoes. They were not chosen on a random basis, and therefore the results are not necessarily representative of all potato farmers in the province. However, the findings of this study may act as benchmark information for potato growers, farm management personnel, agricultural representatives and others. For example, comparing the average results with their own farm records may assist potato growers in identifying problems and making management decisions.

The report contains three sections. The first section presents and analyses the average financial and production information of all the farmers interviewed. The second section shows the results of the twelve (12) farmers who had under $600 per acre net income and the ten (10) farmers who had over $600 per acre net income. The third section presents the results of the ten (10) farmers whose potato yields were under 235 cwts per acre and the twelve (12) growers whose potato yields were over 235 cwts per acre. The reason for presenting the sub-grouping results is to illustrate factors that may influence yields and net returns. However, since the sampling technique was not statistically designed to examine these factors and since many influencing factors were not included in the study (such as soil classification, climate, machinery complement) no precise factors can be isolated.

SECTION I

AVERAGE RESULTS OF ALL SELECTED FARMS

The selected farmers managed an average of 548 acres, with 173 acres planted in potatoes, 249 in other crops and the remaining 226 acres in pasture and wood lots. (Table 1)

TABLE 1: Average Land Use by 22 Selected P.E.I. Potato Growers - 1980

	Acres
Potatoes (owned)	93
Potatoes (rented)	80
Other Crops (owned)	136
Other Crops (rented)	113
Pasture	33
Wood and Wasteland	94
Total Land Operated	548

Five different varieties of potatoes were produced; Belleisle, Kennebec, Netted Gem, Sebago and Superior. The average yield obtained for all varieties was 242 hundred weights per acre. The highest producing variety was Netted Gem having an average yield of 254 hundredweights, while the lowest yielding variety was Belleisle with an average of 160 hundredweights per acre. (Table 2)

TABLE 2: Potato Yields by Variety for 22 Selected P.E.I. Potato Growers - 1980

Variety	Yield (cwt/ac.)
Belleisle	160
Katahdin	-
Kennebec	231
Netted Gem	254
Red Pontiac	-
Sebago	238
Superior	226
Tobique	-
Other	-
Average Yield	242

The yields were obtained with plantings of 25 hundredweights per acre for round white potatoes and applying 1,000 pounds of 12-20-20 fertilizer; for Netted Gems, the planting rate averaged 13 hundredweights per acre and the fertilizer application rate was 1,000 pounds of 16-22-22. (Table 3)

TABLE 3: Seed Planting Rates and Fertilizer Application Rates by 22 Selected P.E.I. Potato Growers - 1980

Seed Planted:		(cwt/ac)
	Round Whites	24.6
	Netted Gems	13.0
Fertilizer Application Rates:		(lbs/ac)*
Round Whites -	Nitrogen	122
	Phosphorous	208
	Potassium	197
Netted Gems -	Nitrogen	160
	Phosphorous	215
	Potassium	215

* pounds of active ingredients

The average total investment was $324,567. Land was the largest investment representing 52 per cent of the total. Machinery and equipment accounted for 30 per cent. The values of land and buildings were estimated at fair market value while machinery and equipment were valued at cost less depreciation. (Table 4)

TABLE 4: Average Capital Investment by 22 Selected P.E.I. Potato Growers - 1980

	($)	(%)
Cropland	168,127	51.8
Buildings	43,924	13.5
Machinery & Equipment	96,369	29.7
Other	16,146	5.0
Total Investment	324,567	100.0

The combination of the resources used and the manage-management practices of this group of farmers resulted in an average gross farm revenue for the 1980 crop year of $276,019, of which $242,723 (or 88 per cent) was generated from potato sales. Tablestock and seed potato sales averaged 62 and 25 per cent of total potato revenue respectively. Processing potatoes accounted for 4 per cent, while seed retained for planting in 1981, valued at market prices, represented 9 per cent. The average revenue per hundred weight was $5.81. (Table 5).

TABLE 5: Average Gross Farm Revenue of 22 Selected P.E.I. Potato Growers - 1980

	($)	(%)
Potatoes - Tablestock	150,619	54.6
Seed Retained	20,378	7.4
Seed Marketed	61,024	22.1
Processing	10,702	3.9
TOTAL	242,723	87.9
Other Crops	17,943	6.5
Livestock	5,742	2.1
Government Assistance	6,179	2.2
Miscellaneous	3,433	1.2
TOTAL FARM REVENUE	276,019	100.0

The average total farm expenses incurred to generate the above revenues were $179,489. Since the majority of the selected farmers practice crop rotation for soil conservation and since it was difficult to isolate expenses associated with only potato production, all farm expenses were included.

Current expenses accounted for 87 per cent of total expenses. The largest were hired labour and fertilizer at 180
15.4 and 14.6 per cent respectively. Seed potato expenses,

both purchased and retained from the previous year's crop accounted for 9.5 per cent of total expenses. Depreciation, which was calculated at approximately 5 per cent for buildings and 20 per cent for machinery, amounted to $22,803 or 12.7 per cent. (Table 6)

TABLE 6: Average Farm Expenses of 22 Selected P.E.I. Potato Growers - 1980

	($)	($ / ac)*	($/cwt)	(%)
Fertilizer and Lime	26,231	151.91	.63	14.6
Spray Materials	14,402	83.40	.34	8.0
Seed Potatoes - Retained	9,371	54.27	.22	5.2
- Purchased	7,709	44.64	.18	4.3
Hired Labor	27,648	160.11	.66	15.4
Repairs, Vehicle & Machinery	15,719	91.03	.38	8.8
Repairs, Buildings	1,983	11.49	.05	1.1
Gas, Oil and Heating	7,097	41.10	.17	4.0
Electricity and Telephone	1,999	11.58	.05	1.1
Insurance, License and Registration	5,118	29.64	.12	2.9
Rent Building, Land, Equipment	5,807	33.63	.14	3.2
Trucking and Custom Work	2,198	12.73	.05	1.2
Property Taxes	983	5.69	.02	.6
Livestock and Their Supplies	12,039	69.72	.29	6.7
Interest on Operating Capital	6,695	38.77	.16	3.7
Interest on Capital Investment	6,160	35.67	.15	3.4
Miscellaneous	5,526	32.00	.13	3.1
TOTAL CURRENT EXPENSES	156,687	907.37	3.75	87.3
Building Depreciation	2.688	15.56	.06	1.5
Machinery Depreciation	20,115	116.49	.48	11.2
TOTAL DEPRECIATION	22,801	132.05	.55	12.7
TOTAL FARM EXPENSES	179,489	1039.42	4.30	100.0

* per potato acre

The resulting Net Cash Income for this group averaged $119,330 ($691 per potato acre) and ranged from a low of $9 per potato acre up to $1698 per potato acre. The Net Farm Income, which accounts for depreciation, was $96,530 or $559 per potato acre. (Table 7)

TABLE 7: Income Summary for 22 Selected P.E.I. Potato Growers - 1980

	($)	($/ac.)	($/cwt)
Total Farm Revenue	276,019	1,598.43	6.61
Total Current Expenses	156,687	907.37	3.75
Net Cash Income	119,333	691.06	2.86
Total Depreciation	22,803	132.05	.55
Net Farm Income	96,530	559.00	2.31
Interest on Capital Investment	6,160	35.67	.15
Opportunity Cost on Capital Investment	48,685	281.93	1.17
Operator Labour Charge	16,466	95.35	.39
Net Return to Management	37,539	217.39	.90

To derive the Net Returns to Management, a reasonable return for operator and unpaid family labour and a reasonable return (opportunity cost) for capital investment were subtracted from Net Farm Income. Operator labour was estimated to be $10,500 per person per year while family labour was estimated at $7,500. The opportunity cost of capital investment was valued at 15 per cent of the average total capital investment. This was the average interest rate earned in 1980 on Government bonds. Since some of the investment was financed by bank loans, the interest on capital investment was added back. The resulting Net Returns to

Management was $37,539 ($217.39 per potato acre).

The average cost of growing potatoes was also estimated for this group to be $1188 per acre or $ 4.91 per cwt. This was calcuated by subtracting the non-potato revenue from the total farm costs. The resulting figure includes all cash costs, depreciation, returns to capital investment and unpaid labour charges. The assumption was that all other farm enterprises had no associated profits or losses. (Table 8)

TABLE 8: Average Cost of Growing Potatoes For 22 Selected P.E.I. Growers - 1980

	($)	($/ac)	($/cwt)
Total Farm Expenses	179,489	1,039.42	4.30
Plus: Opportunity Cost on Investment	42,525	246.26	1.02
Plus: Operator Labour Charge	16,466	95.35	.39
TOTAL COSTS	238,480	1,381.03	5.71
Less: Non-Potato Revenues	33,297	192.97	.80
COST OF GROWING POTATOES	205,183	1,188.06	4.91

* per potato acre

SUMMARY

Twenty-two selected Prince Edward Island potato growers were surveyed for their 1980 crop financial and production information. The group's average results were presented, including; land use, potato varieties grown, seeding rates, fertilizer application rates, capital investment, gross farm revenues, expenses, and cost of growing potatoes.

Some of the more interesting results were that on average, each grower had a net farm income of $96,530 with a net return to management of $37,540. The average price received per hundredweight was $6.05. The cost of growing potatoes was estimated to be $4.91, including a reasonable return to investment and operator and family labour. 173 acres per farm was in potato production providing an average yield of 242 hundredweights per acre.

The selected growers were divided into two groups, those who had high net incomes per acre and those who had lower incomes. Each group had similar expenses per acre. However, there were significant differences in yields per acre. The result was that the higher net income group's cost of growing potatoes was $4.59 per hundredweight as compared to $5.30 for the other group. Net farm income figures were $169,009 and $36,130 respectively.

The above findings indicated that net farm income was sensitive to yields. However, four of the ten highest net income per acre growers had relatively low yields (under 235 hundredweights). This implied that marketing and management of costs were also important aspects in obtaining high net income.

As indicated by this study and by Provincial and Federal statistics, the 1980 crop year for potatoes was beneficial to most growers.

DEPARTMENT OF AGRICULTURE
AND
RURAL DEVELOPMENT
P.O. BOX 6000, FREDERICTON, N.B.
E3B 5H1

NEW BRUNSWICK
NOUVEAU-BRUNSWICK

MINISTÈRE DE L'AGRICULTURE
ET DE
L'AMÉNAGEMENT RURAL
C.P. 6000, FREDERICTON, N.-B.
E3B 5H1

Potato Production
Development Division

May 25, 1982

Mr. W. A. Daman
Executive Vice-President
Canadian Horticultural Council
1568 Carling Avenue
Ottawa, Ontario
K1Z 7M5

Dear Bill:

I have attached estimates on the cost of producing potatoes in New Brunswick. This can be supplied to the legal counsel for their use in preparing information for the 332-140 Investigation.

I have also attached some information obtained from the State of Maine officials on the Agricultural Limestone Program in the State of Maine.

I will continue to forward further information as it becomes available.

Yours very truly,

C. E. Smith
Executive Director

CES:ma

Encl.

N. B. PROCESSING POTATO BUDGET - ESTIMATED 1981

VARIABLE COSTS	COST/ACRE $
Potato Seed 12 cwt @ 7.27/cwt	$ 82.24
Potato Seed Cutting 12 cwt @ .75/cwt	9.00
Potato Seed Treatment 10 lbs @ 1.30/lb	13.00
Lime .36T @ 15.00/T	5.40
Fertilizer .55T @ 275.00/T	151.25
INSECTICIDE:	
Di-Syston 15G 12 lbs @ 65.00/50 lb	15.60
Furadan 48F .05 gal @ 57.60/gal	2.88
Pirimor 50 wp .34 kg @ 35.00/kg	11.90
Herbicide - Sencor 1 lb @ 72.10/5 lbs	14.42
Fungicide Dithane 9.1 kg @ 8.70/3 lb	26.39
Topkill-Reglone 2.3 litres @ 54.60/5 l	25.12
Crop Insurance	26.00
Interest Operating 18% on 100,000. for 6 months	90.00
Taxes	9.00
Building Repair & Maintenance	15.00
Machine Repair & Maintenance	50.00
Machine Fuel & Oil	80.00
Labour 25 hrs @ 5.00	125.00
Insurance	25.00
Utilities	15.00
Miscellaneous	10.00
TOTAL VARIABLE COSTS	$ 807.20
FIXED COSTS	
Depreciation:	
Buildings 5% (16,000.)	8.00
Equipment 10% (119,000.)	119.00
Management	53.00
Interest on Investment @ 14%	147.00
Buildings 16,000.	
Equipment 119,000.	
Land 75,000.	
TOTAL FIXED COSTS	$ 327.00
TOTAL COST	$1,134.20

N.B. TABLE POTATO BUDGET - ESTIMATED 1981

VARIABLE COSTS	COST/ACRE $
Potato Seed 25 cwt @ 6.00/cwt	$ 150.00
Seed Cutting 25% hand @ .75/cwt	5.25
75% machine .25/cwt	4.68
Seed treatment 22.5 lbs @ 1.30/lb	29.25
Lime .28T @ 15.00/T	4.20
Fertilizer .44T @ 275.00/T	121.00
INSECTICIDE:	
Di-Syston 15F 15 lbs @ 65.00/50 lb	19.50
Furadan 48F .1 gal @ 57.60/gal	5.76
Pirimor 50 wp .23 kg @ 35.00/kg	8.05
Herbicide-Sencor 1 lb @ 72.10/5 lb	14.42
Fungicide Dithane 18 lbs @ 8.70/3 lbs	52.20
Topkill-Reglone 2.3 l @ 54.60/5 l	25.12
Bags and ties	66.00
Crop Insurance	23.76
Interest operating @ 18%	90.00
Taxes	9.00
Building Repair & Maintenance	15.00
Machine Repair & Maintenance	50.00
Machine Fuel & Oil	80.00
Labour 25 hrs. @ $5.00	125.00
Insurance	25.00
Utilities	15.00
Miscellaneous	10.00
TOTAL VARIABLE COSTS	$ 948.19
FIXED COSTS	
Depreciation:	
Buildings 5% (16,000.)	8.00
Equipment 10% (119,000.)	119.00
Management	53.00
Interest on Investment @ 14%	147.00
Buildings 16,000.	
Equipment 119,000.	
Land 75,000.	
TOTAL FIXED COSTS	$ 327.00
TOTAL COSTS	$1,275.19

N.B. SEED POTATO BUDGET - ESTIMATED 1981

VARIABLE COSTS	COST/ACRE $
Potato Seed 12 cwt @ 12.00/cwt.	$ 144.00
Seed Cutting 10 cwt @ .75/cwt	7.50
Seed Treatment 10 lbs @ 1.30/lb	13.00
Lime .28T @ 15.00/T	4.20
Fertilizer .55T @ 275.00/T	151.25
INSECTICIDE:	
Di-Syston 12 lbs @ 65.00/50 lbs	15.60
Furadan .05 gal @ 57.60/gal	2.88
Monitor .57 litres @ 14.30/l	8.15
Herbicide-Sencor 1 lb. @ 72.10/5 lbs	14.42
Fungicide-Diathane 18 lbs @ 8.70/3 lbs	52.20
Topkill Reglone 2.3 litres @ 54.60/5 l	25.12
Crop Insurance	23.76
Disinfecting	42.00
Oil Spray	17.00
Rouging	45.00
Tuber units	50.00
Interest operating @ 18%	90.00
Taxes	9.00
Building Repair & Maintenance	15.00
Machine Repair & Maintenance	50.00
Machine Fuel & oil	80.00
Labour 25 hrs @ $5.00	125.00
Insurance	25.00
Utilities	15.00
Miscellaneous	10.00
TOTAL VARIABLE COSTS	$1,035.08
FIXED COSTS	
Depreciation:	
Buildings 5% (16,000.)	8.00
Equipment 10% (119,000.)	119.00
Management	53.00
Interest on Investment @ 14%	147.00
Buildings 16,000.	
Equipment 119,000.	
Land 75,000.	
TOTAL FIXED COSTS	$ 327.00
TOTAL COST	$1,362.08

LIMESTONE PROGRAM IN MAINE - 1982

Sponsored by:- Agricultural Stabilization and Conservation Service, U.S.D.A.

Co-ordinated by: Bob Bruce

Telephone: 1-207-764-4151

Program 1: Permanent Cover - Seeding to reduce soil Erosion - Fields to remain out of row crop production for a minimum of six (6) years.

Subsidies

- Land preparation & seeding $19.00/acre
- Lime application ($20.00/ton applied/acre
- Fertilizer application - $0.22 lb. N applied/acre
  - $0.20 lb. P_2O_5 applied/acre
  - $0.09 lb. K_2O applied/acre

Program 2: Four (4) Year Conservation Rotation Program - Fields with row crops to be followed by 2 years of cover crops.

Subsidies

- Land preparation & seeding - $22.00/acre
- Lime application - $30.00/ton - applied

Eligibility: Only growers who register for this program are eligible. Soil tests must be taken and the grower must follow the lime and fertilizer recommendations of the soil analyses.

R. P. Hinds
Potato Div.
N.B. Dept. of Agriculture
Fredericton
May 14, 1982

Economics Information

Ontario

ESTIMATED COST OF GROWING POTATOES 1981

By

Blair Campbell

ECONOMICS INFORMATION

ESTIMATED COST OF GROWING POTATOES, 1981

by
Blair Campbell

Economics Branch
Ontario Ministry of Agriculture and Food
Legislative Buildings, Queen's Park
Toronto, Ontario M7A 1B6
March 1982

TABLE OF CONTENTS

LIST OF TABLES

192

INTRODUCTION

The producer's need for timely and periodically updated cost information has long been recognized. This report covers estimates of late potato production costs and returns in Ontario, and reflects data at the 1981 level. Essentially this report is an update of a 1975 survey of 15 potato producers and a 1981 survey of 30 growers. The 1981 survey has been a joint undertaking between the Economics Branch, Ontario Ministry of Agriculture and Food, and the Ontario Potato Growers' Marketing Board. Cost estimates for 1981 were derived by identifying the production profiles of the 1975 potato enterprises and applying current prices to the ensuing data. Such a procedure should work well for most enterprises provided no major technological changes take place.

Plans are currently underway to monitor items such as cultural practices, use of farm machinery, sprays, fertilizers, and other inputs on a regular basis. The constant use of relatively recent farm survey data should do much to keep annual cost estimates in line with actual farm practices and conditions. It should be noted, however, this report and others that may follow, is intended to serve as an interim report between major crop and livestock studies traditionally undertaken by the Economics Branch.

The first section of the report outlines the methods used in updating costs; the second section provides 1981 cost estimates of growing potatoes; and the final section presents inputs and costs in metric form.

METHODS USED IN UPDATING COSTS

The first step in updating costs to 1981 was to establish a profile of typical producers with regard to production technology, types and quantities of inputs used. Surveys of producers were used almost exclusively to develop this profile. In determining typical field operations, practices recommended by potato specialists were taken into consideration.

Data on the type and frequency of operations performed were based on modal values that were used to represent the most frequently occurring operation practices among the sample farmers. Similarly, modal values were used to define the most typical machinery combinations and most frequently used sprays, fertilizers, and other materials.

Sample averages were used to define labor hours, fertilizer application rates, and other major cost items. Smaller items such as utilities, accounting fees, and general insurance were updated by indexing average costs from the study year to 1981.

MACHINERY

All machinery data was taken from the 1981 survey and represents a line of equipment that producers would own in terms of kind, new cost, age, size, and hours of use. Costs for 1981 were established by assigning a new purchase price to each machine, while keeping the age, size and hours of use constant. Annual costs are estimated in the following manner.

1. Depreciation was calculated by the declining balance method at the rate of 15 percent for powered machinery and 10 percent for others.

2. Growers were assumed to have a 70 percent equity in all equipment. Interest on equity was calculated at the rate of 15.5 percent of 70 percent of the remaining value. Interest on debt was calculated at the rate of 19.5 percent of 70 percent of the remaining value.

3. Housing and insurance were calculated at 1.5 percent of the remaining value.

4. Repairs were estimated from engineering formula and are based on age, new cost, and hours of use.

5. Fuel costs were determined on the basis of 26.4 cents per litre for diesel and 27.6 cents per litre for gasoline. An additional 15 percent was added to the hourly rate to account for oil and grease.

6. Hourly rates based on the above factors were estimated for each machine and then used to establish machinery costs for each field operation.

LABOR

Labor requirements are based on the 1981 study and represent the amount of time required to perform typical field operations. For 1981 a value of $6.00 was assigned to operator labor and an average of $5.11 per hour for hired labor.

MATERIALS

Quantities of seed, fertilizer, and sprays are based on the 1981 survey. They are representative of actual quantities used and prices paid.

LAND

Land values are based on producer estimates of market value. Land costs were calculated at 3.5 percent of market value.[1] Taxes are those actually paid by producers in 1975, and indexed to 1981 by means of the *Eastern Canada Farm Input Price Index*.

OTHER COSTS

Miscellaneous costs such as telephone, electricity, accounting fees, subscriptions, and general insurance were based on the 1975 study and updated to 1981 by means of the *Eastern Canada Farm Input Price Index*.

MANAGEMENT FEE

An allowance for management was calculated at the rate of 5 percent of the gross returns. Gross returns are defined as the amount of receipts that producers could reasonably expect during the course of a normal year.

[1]For a detailed account of the methods used in calculating land costs see: Gordon E. Framst, *A Method for Determining Enterprise Land Costs*, Economic Research (Toronto: Economics Branch, Ontario Ministry of Agriculture and Food, 1981).

INTEREST ON
OPERATING CAPITAL

Interest on operating capital was charged at the rate of 1.75 percent per month for a period of nine months.

POTATO PRODUCTION

The estimated potato production costs for 1981 are presented in Tables 1 through 5. Total costs including harvesting were estimated at $1,057.15 per acre, or $5.49 per hundredweight (based on an average yield of 193 hundredweight per acre). Any marketing costs such as grading, packing, etc., are not included in this estimate. In general, potato cost estimates listed below are representative of producers growing potatoes in Western Ontario.

Table 2 breaks down the 1981 machinery cost and labor hours by operation. Labor costs were charged at $6.00 per hour for operator, and an average of $5.11 per hour for hired labor.

Table 4 presents a breakdown of other cost items, including overhead items and imputed costs for management and interest on operating capital.

Table 1.—Estimated Potato Production Costs, Ontario, 1981[a]

	Per acre	Per cwt.[b]
	dollars	
Machinery:		
Preharvest	88.00	0.46
Harvest	109.31	0.57
Labor	110.30	0.57
Materials	453.43	2.35
Overhead:		
Land	96.94	0.50
Management fee	76.24	0.40
Interest on operating capital	96.71	0.50
Other	26.22	0.14
TOTAL	1,057.15	5.49

[a]Includes all costs including harvesting and loading into storage. Marketing costs such as grading and packing are not included. An allowance for risk is not included in this cost estimate. Crop insurance for 1981 averaged $35 per acre for those who insured.

[b]Based on an average yield of 193 hundredweight per acre.

Table 2.—Estimated Machinery and Labor Costs for Potato Production, Ontario, 1981

Operation	Times over	Tractors Fixed	Tractors Variable	Machinery Fixed	Machinery Variable	Labor
	no.	dollars per acre				hr./ac.
COVER CROP						
Fall plowing	1	2.80	3.60	1.34	0.39	0.33
Discing	2	2.55	3.28	0.84	0.47	0.30
Planting rye	1	1.42	1.62	3.50	0.30	0.20
Total		6.77	8.50	5.68	1.16	0.83
PREHARVEST						
Spring plowing	1	3.40	4.37	1.62	0.47	0.40
Discing	1	1.27	1.64	0.42	0.23	0.15
Field cultivating	1	1.27	1.64	0.60	0.16	0.15
Cutting seed	1	-	-	2.10	0.21	0.35
Haul fert. & water	1	-	-	1.32	0.44	1.00
Haul seed	1	-	-	1.86	0.44	1.00
Planting	1	3.30	5.66	7.60	3.50	1.75
Row cultivating	1	0.79	1.04	4.98	0.64	0.55
Hilling	1	0.48	0.62	0.27	0.10	0.33
Spraying:						
Herbicide	1	0.53	0.91	1.01	0.17	0.16
Insect. & fung.	6	2.18	3.74	2.42	0.95	0.66
Topkill, fung.	1	0.36	0.62	0.40	0.16	0.11
Total		13.58	20.24	24.60	7.47	6.61
HARVESTING						
Windrowing	1	8.49	10.92	3.89	2.51	1.00
Digging	1	7.09	8.11	10.03	6.16	3.00
Haul to storage	1	-	-	23.42	20.24	4.00
Load into storage	-[a]	-	-	6.02	2.43	4.00
Total		15.58	19.03	43.36	31.34	12.00
TOTAL MACHINERY COST & LABOR HOURS		35.93	47.77	73.64	39.97	19.44

LABOR COSTS	$/ac.
Operator, 6.09 hrs. @ $6.00	36.54
Hired, 13.35 hrs. @ $5.11	68.22
Employee benefits	5.54
Total	110.30

[a] Included in the haul to storage operation.

Table 3.—Estimated Material Costs and Rates for Potato Production,[a] Ontario, 1981

Item	Rate	Unit	Price, $	$/acre
SEED & SEED TREATMENT				
Potato seed	25	75-lb. bag	8.60/bag	215.00
Seed treatment	1	lb./cwt. seed	0.68/lb.	12.75
Rye seed	2	bu.	4.48/bu.	8.96
Total				236.71
FERTILIZER				
15-15-15	900	lb.	245.00/ton	110.25
SPRAYS				
Herbicide	2.8	lb.	6.15/lb.	17.22
Insecticide:				
1 application	20	lb.	2.15/lb.	43.00
1 application	1	pint	36.00/gal.	4.50
Fungicide:				
2 applications	2	kg	6.60/kg	13.20
4 applications	5/6	pint	37.75 gal./U.S.	18.75
Vinekiller	1	litre	49.00/5L	9.80
Total				106.47
TOTAL MATERIALS				453.43

[a]Considerable variation in the use of fertilizers, herbicides, insecticides, and fungicides can occur depending on whether the crop is early or late season, weather conditions, and variety grown.

Table 4.—Other Estimated Potato Production Costs, Ontario, 1981

Item	$/acre
Land:	
Interest, $2,645/acre @ 3.5%	92.58
Taxes, $4.36/acre	4.36
Total	96.94
Other costs:	
Telephone	1.58
Accounting fees	7.68
Membership fees	1.06
Insurance	8.18
Marketing Board fees @ 4¢ per cwt.	7.72
Total	26.22
Management fee	76.24
Interest on operating capital	96.71
TOTAL	296.11

Table 5.—Equipment Used on Potato Study, Ontario, 1981

Machinery	Size	Purchase price	Age	Use	Costs		
					Fixed	Variable	Total
		$	yr.	hr.	dollars per hour		
Tractor	130 HP	24,000	5	475	8.49	10.92	19.41
Tractor	95 HP	19,000	5	450	7.09	8.11	15.20
Tractor	70 HP	10,000	8	330	3.30	5.66	8.96
Tractor	60 HP	3,000	6	270	0.46	1.44	1.90
Plow	5 fur.	3,600	7	110	4.06	1.17	5.23
Disc	17 ft.	4,000	10	160	2.81	1.56	4.37
Grain drill		2,500	5	50	17.49	1.52	19.01
Field cultivator ...	21 ft.	2,700	6	110	4.02	1.05	5.07
Seed cutter		2,000	5	60	6.00	0.61	6.61
Potato planter	2 row	9,000	8	160	7.60	3.50	11.10
Row cultivator	4 row	3,000	2	80	9.06	1.17	10.23
Hiller cultivator ..	2 row	750	12	85	0.83	0.29	1.12
Weed sprayer	10 row	3,500	4	110	6.32	1.06	7.38
Potato sprayer	60 ft.	4,750	9	160	3.67	1.44	5.11
Potato windrower ...	2 row	5,550	7	210	3.89	2.51	6.40
Potato harvester ...	2 row	13,500	7	200	10.03	6.16	16.19
Bil piler		8,000	8	180	6.02	2.43	8.45
Truck		3,000	15	200	2.62	4.52	7.14
Truck		4,000	14	200	2.99	4.52	7.51
Truck		8,500	11	200	4.01	4.52	8.53
Truck		4,000	11	200	7.32	4.52	11.84
Bulk boxes[a] (4)	18 ft.	1,800	5	200	1.62	0.54	2.16

[a]There are four bulk boxes 18 feet in length with an original purchase price of $1,800.

Table 6.—Estimated Potato Production Costs (Metric Terms), Ontario, 1981[a]

Cost item	Per hectare	Per tonne[b]
	dollars	
Machinery:		
Preharvest	217.41	8.97
Harvest	269.75	11.14
Labor	272.44	11.25
Materials	1,119.97	46.24
Overhead:		
Land	239.44	9.89
Management fee	188.31	7.77
Interest on operating capital	238.87	9.86
Other	64.76	2.67
TOTAL	2,610.95	107.79

[a]Includes all costs including harvesting and loading into storage. Marketing costs such as grading and packing are not included.

[b]Based on an average yield of 24.22 t/ha.

Appendix G

Certified Seed Potatoes: Maine and Canadian Disease Standards

Certified seed potatoes: Maine and Canadian disease standards, 1981

Disease and varietal mixture	Percentage allowed on--			
	Maine		Canada	
	First inspection	Second inspection	First inspection	Second inspection
Spindle tuber	0.5	0.5	0	0
Witch's broom	No standard	No standard	0	0
Leaf roll	2.0	1.0	No standard 1/	No standard 1/
Mosaic	3.0	2.0	No standard 1/	No standard 1/
Any one virus	No standard	No standard	1.0	0.5
Total virus	5.0	3.0	2.0	1.0
Total wilts, blackleg, and viruses.	No standard	No standard	3.0	2.0
Bacterial ring rot	0	0	0	0
Varietal mixture	1.0	.25	1.0	0.1
Golden nematode	0	0	0	0
Root knot nematode	0	0	0	0
Columbia root knot nematode	0	0	0	0

1/ Canada does not have a standard explicitly for this disease. However, since it is a virus, it is included in the standard for any one virus and total virus.

Source: U.S. Department of Agriculture.