UNITED STATES TARIFF COMMISSION

# SUMMARIES OF TRADE AND TARIFF INFORMATION

**Prepared in Terms of the Tariff Schedules of the United States (TSUS)**

Schedule 1

Animal and Vegetable Products
(In 14 volumes)

VOLUME 5

Live Plants and Seeds

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# SUMMARIES OF TRADE AND TARIFF INFORMATION BY SCHEDULES

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(In 14 volumes)
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# FOREWORD

In an address delivered in Boston on May 18, 1917, Frank W. Taussig, distinguished first chairman of the Tariff Commission, delineated the responsibility of the newly established Commission to operate as a source of objective, factual information on tariffs and trade. He stated that the Commission was already preparing a catalog of tariff information--

> designed to have on hand, in compact and simple form, all available data on the growth, development and location of industries affected by the tariff, on the extent of domestic production, on the extent of imports, on the conditions of competition between domestic and foreign products.

The first such report was issued in 1920. Subsequently three series of summaries of tariff information on commodities were published--in 1921, 1929, and 1948-50. The current series, entitled Summaries of Trade and Tariff Information, presents the information in terms of the tariff items provided for in the eight tariff schedules of the Tariff Schedules of the United States (abbreviated to TSUS in these volumes), which on August 31, 1963, replaced the 16 schedules of the Tariff Act of 1930.

Through its professional staff of commodity specialists, economists, lawyers, statisticians, and accountants, the Commission follows the movement of thousands of articles in international commodity trade, and during the years of its existence, has built up a reservoir of knowledge and understanding, not only with respect to imports but also regarding products and their uses, techniques of manufacturing and processing, commercial practices, and markets. Accordingly, the Commission believes that, when completed, the current series of summaries will be the most comprehensive publication of its kind and will present benchmark information that will serve many interests. This project, although encyclopedic, attempts to conform with Chairman Taussig's admonition to be "exhaustive in inquiry, and at the same time brief and discriminating in statement."

This series is being published in 62 volumes of summaries, each volume to be issued as soon as completed. Although the order of publication may not follow the numerical sequence of the items in the TSUS, all items are to be covered. As far as practicable, each volume reflects the most recent developments affecting U.S. foreign trade in the commodities included.

SUMMARIES OF TRADE AND TARIFF INFORMATION

SCHEDULE 1

Volume 5

C O N T E N T S

## Numerical List of TSUS Items in This Volume

# INTRODUCTION

This volume (identified as volume 1:5) includes live plants and seeds provided for in part 6 of schedule 1 of the Tariff Schedules of the United States (TSUS). The complete list of live plants and seeds included in this portion of the TSUS are included in appendix A of this volume.

Part 6 of schedule 1 includes most live plants and seeds; it excludes certain bulbs 1/ (e.g., potatoes, onions, and garlic imported as vegetables) and seeds (e.g., grains, spice seeds, oil-bearing seeds, and certain vegetable seeds imported as vegetables, such as beans and peas). Summaries on these items are included in volumes 6, 7, 9, 12, and 14. Part 6 ordinarily includes garden and field seeds whether they are actually used for seeding or other purposes but does not cover seeds unfit for seeding purposes within the meaning of the Federal Seed Act (7 U.S.C. 1551-1610). A provision for live plants and seeds imported by the U.S. Department of Agriculture and the U.S. Botanic Garden is included in part 3 of schedule 8 of the TSUS--Special Classification Provisions.

It is estimated that in 1967 U.S. production of the commodities included in this volume amounted to approximately $500 million wholesale value. U.S. imports of these items in 1967 amounted to $27.0 million--equivalent to about 5 percent of domestic output. In that same year, U.S. exports of the items in this volume exceeded imports and amounted to $38.4 million.

Appendix A to this volume reproduces pertinent segments of the Tariff Schedules of the United States Annotated (TSUSA-1969) relating to the items discussed in this volume. It includes the general headnotes to the TSUS, a list of products covered by schedule 1, the headnotes to part 6 and relevant subparts, and the individual product descriptions. The shaded portions of appendix A denote those provisions not covered by this volume. Appendix A also shows the rates of duty applicable to the individual TSUS items, including the staged annual rate modifications that resulted from concessions granted by the United States in the sixth (Kennedy) round of trade negotiations under the General Agreement on Tariffs and Trade. Historical notes in the appendix document the changes in the text of the tariff schedules after these schedules went into effect on August 31, 1963.

Appendix B to this volume shows the value of U.S. imports in 1967 for the TSUS items included in this volume. The data also show for each item the percentage change from imports in 1966 and the three principal supplying countries.

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1/ See definition of bulbs on p. 3.

The articles included in this General Statement are:

| | TSUS item |
|---|---|
| Tulip bulbs | 125.01 |
| Hyacinth bulbs | 125.05 |
| Lily bulbs | 125.10 |
| Narcissus bulbs | 125.15 |
| Crocus corms | 125.20 |
| Lily of the valley pips | 125.25 |
| Other, imported for horticultural purposes: | |
| Iris bulbs | 125.30 (pt.) |
| Gladiolus corms | 125.30 (pt.) |
| Begonia tubers | 125.30 (pt.) |
| Other | 125.30 (pt.) |

The term "bulb", as used in this volume, includes bulbs and similar botanical structures such as corms, tubers, and rhizomes used for propagating (reproducing) plants which are used for landscape plantings, potted plants, and cut flowers.

Most bulbs (e.g., tulips and narcissus) are produced in areas having cool climates, which are protected from extreme summer and winter temperatures by winds from large, nearby bodies of water. The most important of these areas are located in the Pacific Northwest, the Great Lakes States, New York, and New Jersey. Some bulbs (e.g., caladiums) do best under warm, humid climatic conditions. Florida has become the most important center of production for such bulbs.

Data on U.S. bulb production are not complete. The latest available data, however, indicate that the trend of U.S. bulb acreage, except that of iris, is generally downward. Gladiolus are the leading U.S. bulb crop (in acreage) followed by narcissus and lilies. The United States is the world's leading producer of gladiolus.

Bulbs are grown commercially either by the bed method, in which the planting, cultivation, and harvesting are done by hand, or by the row method, in which machines both plant and harvest. In the bed method of producing tulips, for example, approximately 300,000 bulbs per acre are planted, whereas bulbs planted in rows number only about 150,000 per acre. The United States is the chief exponent of the row method, primarily because of the high cost of U.S. labor. Holland and Japan, on the other hand, generally utilize the bed method.

Data on U.S. exports of bulbs are not reported by individual species. It is known, however, that iris and narcissus bulbs account for the bulk of U.S. bulb exports. U.S. exports of tulip and lily bulbs are small and exports of hyacinth bulbs, crocus corms, lily of the valley pips, and begonia tubers are nil. The value of U.S. exports of bulbs increased each year during 1963-67, except in 1965 (table 1). The value of U.S. exports of bulbs increased from about $1.1 million in 1963 to about $2.3 million in 1967. Canada, the Netherlands, and the United Kingdom are the chief export markets.

In 1959 (the latest year for which complete data are available) imports accounted for 68 percent of domestic consumption of bulbs. During the period 1963-67, annual U.S. imports averaged 452 million bulbs, valued at $13.5 million (table 2); most of the imports came from the Netherlands. Bulbs imported into the United States are subject to plant quarantine regulations. Shipments of imported bulbs containing injurious pests must be treated; if the pests are not destroyed, the bulbs will not be allowed to enter the United States. Under Plant Quarantine Regulation No. 37, the United States has five inspectors--one each in Holland, Belgium, West Germany, Italy, and France--to inspect bulbs that will be shipped to the United States. Shipments from other countries are inspected on arrival in the United States.

The Netherlands is the world's leading producer of bulbs. The Netherlanders have developed a system of limiting production and controlling prices of their bulbs (also trees, nursery stock, and flowers). A regulatory body--Produktschap voor Siergewassen (P.V.S.) (Commodity Marketing Board for Ornamental Horticultural Products)-- is administered and financed by the horticulture industry, under the supervision of the Minister of Agriculture. The board's 24 members represent every segment of the industry. The P.V.S. establishes acreage controls, minimum prices, and levies.

The Japanese bulb industry is expanding rapidly after suffering setbacks during World War II. Tulip bulb acreage in Japan nearly doubled every 4 years during the 1950's; the acreage planted to most other bulbs has been increasing at a somewhat slower rate. Other major bulb-producing countries are Belgium, West Germany, Italy, and France.

Table 1.--Bulbs, corms, pips, tubers, rhizomes, and roots, except vegetable: U.S. exports of domestic merchandise, by principal markets, 1963-67

(In thousands of dollars)

| Market | 1963 | 1964 | 1965 | 1966 | 1967 |
|---|---|---|---|---|---|
| Netherlands | 283 | 502 | 411 | 634 | 671 |
| United Kingdom | 95 | 186 | 244 | 315 | 272 |
| Canada | 256 | 179 | 394 | 618 | 724 |
| Japan | 125 | 125 | 33 | 16 | 10 |
| Sweden | 20 | 104 | 30 | 26 | 25 |
| West Germany | 46 | 84 | 66 | 135 | 76 |
| Italy | 34 | 45 | 24 | 52 | 74 |
| France | 18 | 43 | 17 | 24 | 32 |
| Republic of South Africa | 31 | 40 | 21 | 27 | 29 |
| All other | 200 | 227 | 199 | 260 | 359 |
| Total | 1,108 | 1,535 | 1,436 | 2,107 | 2,272 |

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

Table 2.--Bulbs, roots, rootstocks, clumps, corms, tubers, and herbaceous perennials: U.S. imports for consumption, by type, 1963-67

| Type | 1963 | 1964 | 1965 | 1966 | 1967 |
|---|---|---|---|---|---|
| | Quantity (thousands) | | | | |
| Tulip bulbs | 135,590 | 142,375 | 153,064 | 155,521 | 153,682 |
| Hyacinth bulbs | 22,222 | 21,399 | 22,410 | 21,565 | 21,553 |
| Lily bulbs | 4,853 | 4,078 | 3,377 | 3,814 | 2,989 |
| Narcissus bulbs | 20,245 | 19,548 | 19,637 | 21,721 | 21,073 |
| Crocus corms | 41,886 | 44,048 | 45,833 | 49,136 | 44,537 |
| Lily of the valley pips | 2,517 | 2,507 | 1,537 | 2,662 | 3,044 |
| Other | 188,101 | 200,469 | 227,893 | 221,336 | 213,421 |
| Total | 415,414 | 434,424 | 473,751 | 475,755 | 460,299 |
| | Value (1,000 dollars) | | | | |
| Tulip bulbs | 4,948 | 5,323 | 5,382 | 5,927 | 5,563 |
| Hyacinth bulbs | 1,750 | 1,708 | 1,551 | 1,677 | 1,742 |
| Lily bulbs | 385 | 375 | 307 | 369 | 289 |
| Narcissus bulbs | 1,180 | 1,121 | 1,132 | 1,314 | 1,232 |
| Crocus corms | 459 | 460 | 447 | 533 | 520 |
| Lily of the-valley pips | 108 | 84 | 68 | 75 | 97 |
| Other | 3,923 | 4,124 | 4,122 | 4,453 | 4,580 |
| Total | 12,753 | 13,195 | 13,009 | 14,348 | 14,023 |
| | Unit value (cents per bulb) | | | | |
| Tulip bulbs | 3.6 | 3.7 | 3.5 | 3.8 | 3.6 |
| Hyacinth bulbs | 7.9 | 8.0 | 6.9 | 7.8 | 8.1 |
| Lily bulbs | 7.9 | 9.2 | 9.1 | 9.7 | 9.7 |
| Narcissus bulbs | 5.8 | 5.7 | 5.8 | 6.0 | 5.8 |
| Crocus corms | 1.1 | 1.0 | 1.0 | 1.1 | 1.2 |
| Lily of the valley pips | 4.3 | 3.4 | 4.4 | 2.8 | 3.2 |
| Other | 2.1 | 2.1 | 1.8 | 2.0 | 2.1 |
| Average | 3.1 | 3.0 | 2.7 | 3.0 | 3.0 |

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

| Commodity | TSUS item |
|---|---|
| Tulip bulbs---------- | 125.01 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

Imports supply all but a small part of the tulip bulbs consumed in the United States. U.S. exports of tulip bulbs are negligible.

## Description and uses

Tulip bulbs are used in outdoor plantings and in the production of potted plants and cut flowers. The bulbs are graded according to circumference. Generally, bulbs measuring 11 centimeters or more in circumference are used by commercial florists; those measuring 9 to 11 centimeters are sold to gardeners; those 8 to 9 centimeters are used as planting stock by bulb growers; and the smaller bulbs are discarded.

## U.S. tariff treatment and other import requirements

The column 1 (trade-agreement) rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) is as follows:

| TSUS item | Commodity | Rate of duty |
|---|---|---|
| 125.01 | Tulip bulbs---------- | $1.40 per 1,000 |

This rate, which reflects the final stage of a concession negotiated under the General Agreement on Tariffs and Trade (GATT) in 1960-62, has been in effect since July 1, 1963. The duty was not affected by the sixth round of trade negotiations under the GATT.

The average ad valorem equivalent of the rate of duty in effect on December 31, 1967, based on dutiable imports in 1967, was 3.9 percent. The ad valorem equivalent for imports from the Netherlands, the principal supplier, was 3.5 percent, and the range was from 2.7 percent for imports from the Philippines to 19.4 percent for those from Turkey.

All importations of tulip bulbs are subject to permit and inspection requirements of the Plant Quarantine Division, U.S. Department of Agriculture (see General Statement on Bulbs).

## U.S. consumption

In 1959 and 1964 (the latest years for which complete data are available) imports accounted for about 95 percent of U.S. consumption of tulip bulbs. Imported bulbs, particularly those from the Netherlands, have a certain reputation of quality, making them more popular with most home gardeners than domestic tulip bulbs. On the other hand, domestic tulip bulbs are preferred by most commercial flower growers because they can be obtained and brought into flower somewhat earlier than imported tulip bulbs.

## U.S. producers and production

The 1959 United States Census of Agriculture reported a total of 89 U.S. establishments producing nearly 9.8 million tulip bulbs (table 1) on 417 acres. It is estimated that in 1965 about 5.6 million tulip bulbs were harvested from 245 acres. Washington was the chief producing State, accounting for nearly 85 percent of domestic production in 1964. The value of the tulip bulbs grown in that State in 1959 was about $200,000.

## U.S. exports and imports

Although U.S. exports of tulip bulbs are not separately reported, it is believed that they are small.

Annual U.S. imports of tulip bulbs averaged 148 million bulbs, valued at $5.4 million, during the 5-year period 1963-67 (table 2). In the preceding 5-year period annual imports averaged 168 million bulbs, valued at $5.4 million. On the average, the Netherlands, the world's principal producing country, accounts for more than 90 percent of the value of U.S. imports of tulip bulbs.

Table 1.--Tulip bulbs: U.S. production, imports for consumption, and apparent consumption, 1959 and 1963-67

| Year | Production | Imports | Apparent consumption | Ratio of imports to consumption |
|---|---|---|---|---|
| | 1,000 bulbs | 1,000 bulbs | 1,000 bulbs | Percent |
| 1959 | 9,776 | 179,255 | 189,031 | 95 |
| 1963 | 1/ | 135,590 | 1/ | 1/ |
| 1964 | 1/ | 142,375 | 1/ | 1/ |
| 1965 | 2/ 5,600 | 153,064 | 158,664 | 96 |
| 1966 | 1/ | 155,521 | 1/ | 1/ |
| 1967 | 1/ | 153,682 | 1/ | 1/ |

1/ Not available.
2/ Estimated.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Note.--Exports are not separately reported but are believed to be small.

Table 2.--Tulip bulbs: U.S. imports for consumption, by principal sources, 1959 and 1963-67

| Source | 1959 | 1963 | 1964 | 1965 | 1966 | 1967 |
|---|---|---|---|---|---|---|
| | Quantity (1,000 bulbs) | | | | | |
| Netherlands | 166,866 | 112,731 | 117,147 | 132,477 | 143,060 | 133,047 |
| Japan | 10,261 | 21,005 | 23,175 | 18,197 | 10,212 | 18,346 |
| Denmark | 1,806 | - | 514 | 1,208 | 2,009 | 1,083 |
| All other | 322 | 1,854 | 1,539 | 1,182 | 240 | 1,206 |
| Total | 179,255 | 135,590 | 142,375 | 153,064 | 155,521 | 153,682 |
| | Value (1,000 dollars) | | | | | |
| Netherlands | 5,245 | 4,550 | 4,881 | 5,015 | 5,712 | 5,257 |
| Japan | 134 | 333 | 387 | 333 | 193 | 273 |
| Denmark | 11 | - | 5 | 12 | 17 | 11 |
| All other | 10 | 65 | 50 | 22 | 5 | 22 |
| Total | 5,400 | 4,948 | 5,323 | 5,382 | 5,927 | 5,563 |
| | Unit value (cents per bulb) | | | | | |
| Netherlands | 3.1 | 4.0 | 4.2 | 3.8 | 4.0 | 4.0 |
| Japan | 1.3 | 1.6 | 1.7 | 1.8 | 1.9 | 1.5 |
| Denmark | .6 | - | 1.0 | 1.0 | .8 | 1.0 |
| All other | 3.1 | 3.5 | 3.2 | 1.9 | 2.1 | 1.8 |
| Average | 3.0 | 3.6 | 3.7 | 3.5 | 3.8 | 3.6 |

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

| Commodity | TSUS item |
|---|---|
| Hyacinth bulbs---------- | 125.05 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

The United States depends on imports to supply virtually all domestic needs for hyacinth bulbs. U.S. exports are nil.

## Comment

Hyacinth bulbs are used for the production of hyacinth plants which have showy, fragrant, flower spikes. They are used in outdoor plantings and are brought into flower out of season for sale as potted plants.

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 125.05 | Hyacinth bulbs---------- | 75¢ per 1,000 | 69¢ per 1,000 | 60¢ per 1,000 |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the five annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the rate of duty in effect on December 31, 1967, based on dutiable imports during 1967, averaged 0.9 percent. The ad valorem equivalent for imports from individual countries in that year ranged from 0.7 percent for the Philippines to 6.3 percent for West Germany.

All importations of hyacinth bulbs are subject to permit and inspection requirements of the Plant Quarantine Division, U.S. Department of Agriculture.

U.S. production and exports of hyacinth bulbs are negligible; therefore, domestic consumption and imports are nearly equal. In 1963-67, annual imports ranged from 21.4 million to 22.4 million bulbs. The Netherlands, the world's major producing country, has, in recent years, supplied virtually all of the U.S. imports of hyacinth bulbs (see accompanying table).

Hyacinth bulbs: U.S. imports for consumption, by principal sources, 1963-67

| Source | 1963 | 1964 | 1965 | 1966 | 1967 |
|---|---|---|---|---|---|
| | Quantity (1,000 bulbs) | | | | |
| Netherlands | 21,881 | 21,137 | 22,233 | 21,461 | 21,348 |
| Japan | 25 | 48 | 103 | 37 | 25 |
| France | 252 | 136 | 41 | 48 | 52 |
| West Germany | - | - | 15 | - | 41 |
| All other | 64 | 78 | 18 | 19 | 87 |
| Total | 22,222 | 21,399 | 22,410 | 21,565 | 21,553 |
| | Value (1,000 dollars) | | | | |
| Netherlands | 1,726 | 1,692 | 1,543 | 1,671 | 1,730 |
| Japan | 1 | 2 | 3 | 1 | 1 |
| France | 18 | 11 | 3 | 4 | 4 |
| West Germany | - | - | 1 | - | 2 |
| All other | 5 | 3 | 1 | 1 | 5 |
| Total | 1,750 | 1,708 | 1,551 | 1,677 | 1,742 |
| | Unit value (cents per bulb) | | | | |
| Netherlands | 7.9 | 8.0 | 6.9 | 7.8 | 8.1 |
| Japan | 4.0 | 4.2 | 2.9 | 2.7 | 4.0 |
| France | 7.1 | 8.1 | 7.3 | 8.3 | 7.7 |
| West Germany | - | - | 6.7 | - | 4.9 |
| All other | 7.8 | 3.8 | 5.6 | 5.3 | 4.6 |
| Average | 7.9 | 8.0 | 6.9 | 7.8 | 8.1 |

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

| Commodity | TSUS item |
|---|---|
| Lily bulbs---------- | 125.10 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

Imports supply about one-fifth of the lily bulbs consumed in the United States. It is believed that exports of lily bulbs are small.

## Description and uses

Lily bulbs are used for the production of lily plants. The genus Lilium, which is characterized by trumpet-shaped flowers, includes more than 80 species. Easter lilies (L. longiflorum) constitute a major part of the lilies produced in the United States. These lilies are used commercially almost exclusively for potted plants and cut flowers. Other species are grown mainly as outdoor ornamental plants.

## U.S. tariff treatment and other import requirements

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 125.10 | Lily bulbs---------- | $1.75 per 1,000 bulbs | $1.40 per 1,000 bulbs | $.87 per 1,000 bulbs |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only

the second (that in effect during 1969) and final stages of the five annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

All importations of lily bulbs are subject to permit and inspection requirements of the Plant Quarantine Division, U.S. Department of Agriculture (see General Statement on Bulbs).

The average ad valorem equivalent of the rate of duty in effect on December 31, 1967, based on dutiable imports during 1967, was 1.8 percent. The ad valorem equivalents for individual countries ranged from 1.1 percent for imports from France to 1.9 percent for imports from Japan, the principal supplier.

U.S. consumption and production

While specific data are not available on the annual U.S. consumption of lily bulbs, it is known that domestic growers supply a major part of the lily bulbs used in the United States each year.

The 1959 United States Census of Agriculture indicated that 13.5 million lily bulbs were produced in the United States in that year. It is estimated that about 13 million lily bulbs were produced in the United States in 1965.

Production of lily bulbs in the United States is concentrated in northern California and southern Oregon. This area alone accounted for 628 of the 813 acres planted with lily bulbs in 1959. Easter lilies were planted on 466 acres or 57 percent of the total lily acreage.

Production of lily bulbs ranks third in U.S. bulb production, after production of gladiolus and iris bulbs. In 1959 about 100 establishments reported production of lily bulbs.

U.S. exports and imports

U.S. exports of lily bulbs are not separately reported, but are believed to be small.

Imports of lily bulbs into the United States declined in the 5 years 1963-67 (see accompanying table). In 1963 imports amounted to about 4.9 million lily bulbs valued at $385,000; in 1967 about 3.0 million lily bulbs, with a value of $289,000, were imported.

During 1963-67, Japan and the Netherlands together supplied 89 percent of the imported lily bulbs. The average value of imported lily bulbs ranged from 7.9 cents per bulb in 1963 to 9.7 cents per bulb in 1966 and 1967.

Lily bulbs: U.S. imports for consumption, by principal sources, 1963-67

| Source | 1963 | 1964 | 1965 | 1966 | 1967 |
|---|---|---|---|---|---|
| | Quantity (1,000 bulbs) | | | | |
| Japan | 2,577 | 2,639 | 2,397 | 2,954 | 2,329 |
| Netherlands | 1,895 | 1,265 | 608 | 726 | 541 |
| France | 248 | 118 | 132 | 109 | 111 |
| All other | 133 | 56 | 240 | 25 | 8 |
| Total | 4,853 | 4,078 | 3,377 | 3,814 | 2,989 |
| | Value (1,000 dollars) | | | | |
| Japan | 194 | 235 | 204 | 274 | 209 |
| Netherlands | 156 | 121 | 78 | 75 | 62 |
| France | 21 | 14 | 17 | 17 | 17 |
| All other | 14 | 5 | 8 | 3 | 1 |
| Total | 385 | 375 | 307 | 369 | 289 |
| | Unit value (cents per bulb) | | | | |
| Japan | 7.5 | 8.9 | 8.5 | 9.3 | 9.0 |
| Netherlands | 8.2 | 9.6 | 12.8 | 10.3 | 11.5 |
| France | 8.5 | 11.9 | 12.9 | 15.6 | 15.3 |
| All other | 10.5 | 8.9 | 3.3 | 12.0 | 12.5 |
| Average | 7.9 | 9.2 | 9.1 | 9.7 | 9.7 |

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

| Commodity | TSUS item |
|---|---|
| Narcissus bulbs---------- | 125.15 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

The United States imports a major part of the narcissus bulbs consumed annually. U.S. exports are small.

## Description and uses

Narcissus (daffodil) bulbs are used for the production of narcissus plants which are used for landscape plantings, potted plants, and cut flowers. The several types of narcissus are differentiated according to the length of the trumpet in relation to the petals of the flower. Jonquils are a type of narcissus distinguished by narrow, grass-like leaves.

## U.S. tariff treatment and other import requirements

The column 1 (trade-agreement) rate of duty applicable to imports (see general headnote 3 of the TSUSA-1969) is as follows:

| TSUS item | Commodity | Rate of duty |
|---|---|---|
| 125.15 | Narcissus bulbs---------- | $2.10 per 1,000 |

This rate, which became effective July 1, 1963, reflects the final stage of a concession negotiated under the General Agreement on Tariffs and Trade (GATT) during 1960-62. This rate was not changed in the sixth round of trade negotiations under the GATT. The average ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports during 1967, was 3.6 percent. The ad valorem equivalent for imports from individual sources in that year ranged from 0.5 percent for narcissus bulbs from Hong Kong to 6.5 percent for those from Japan.

All imports are subject to permit and inspection requirements of the Plant Quarantine Division, U.S. Department of Agriculture (see General Statement on Bulbs).

U.S. consumption and production

It is estimated that in 1959 the U.S. consumption of narcissus bulbs amounted to about 45.5 million bulbs, about 40 percent of which were grown domestically. It is estimated that in 1965 about 30 million narcissus bulbs were consumed in the United States. Domestic production supplied about 33 percent of domestic consumption.

U.S. production of narcissus bulbs is concentrated in Washington and Oregon. The 1959 United States Census of Agriculture indicated that 57 of the 110 growers of narcissus bulbs were situated in these two States and produced 16.7 million of the 18.6 million bulbs grown in the United States in that year. It is estimated that in 1965, about 10 million narcissus bulbs were produced in the United States.

U.S. exports and imports

Data on U.S. exports of narcissus bulbs are not separately reported; it is known, however, that narcissus bulbs account for a sizable portion of total annual U.S. exports of bulbs (see General Statement on Bulbs).

Annual U.S. imports of narcissus bulbs averaged about 20.4 million bulbs, with an average value of $1.2 million, in the 5-year period 1963-67. During that period the Netherlands supplied about 91 percent of total U.S. imports of narcissus bulbs (see table).

Narcissus bulbs: U.S. imports for consumption, by principal sources, 1959 and 1963-67

| Source | 1959 | 1963 | 1964 | 1965 | 1966 | 1967 |
|---|---|---|---|---|---|---|
| | Quantity (1,000 bulbs) | | | | | |
| Netherlands | 24,571 | 18,050 | 17,584 | 18,022 | 20,117 | 19,568 |
| Italy | 1,103 | 1,078 | 791 | 692 | 736 | 690 |
| France | 617 | 682 | 642 | 340 | 418 | 432 |
| Japan | 365 | 262 | 218 | 249 | 303 | 206 |
| Canada | 36 | 15 | 150 | 249 | 125 | 118 |
| United Kingdom | 11 | 1/ | 96 | 16 | - | - |
| Israel | 224 | 152 | 65 | 34 | 9 | - |
| All other | 15 | 6 | 2 | 35 | 13 | 59 |
| Total | 26,942 | 20,245 | 19,548 | 19,637 | 21,721 | 21,073 |
| | Value (1,000 dollars) | | | | | |
| Netherlands | 1,229 | 1,088 | 1,041 | 1,069 | 1,248 | 1,165 |
| Italy | 34 | 38 | 29 | 26 | 26 | 26 |
| France | 30 | 37 | 33 | 18 | 26 | 27 |
| Japan | 9 | 8 | 6 | 7 | 9 | 7 |
| Canada | 2 | 1 | 4 | 9 | 4 | 4 |
| United Kingdom | 1 | 2/ | 5 | 1 | - | - |
| Israel | 5 | 7 | 3 | 1 | 2/ | - |
| All other | 3 | 1 | 2/ | 1 | 1 | 3 |
| Total | 1,313 | 1,180 | 1,121 | 1,132 | 1,314 | 1,232 |
| | Unit value (cents per bulb) | | | | | |
| Netherlands | 5.0 | 6.0 | 5.9 | 5.9 | 6.2 | 6.0 |
| Italy | 3.1 | 3.5 | 3.7 | 3.8 | 3.5 | 3.8 |
| France | 4.9 | 5.4 | 5.1 | 5.3 | 6.2 | 6.2 |
| Japan | 2.5 | 3.1 | 2.8 | 2.8 | 3.0 | 3.4 |
| Canada | 5.6 | 6.7 | 2.7 | 3.6 | 3.2 | 3.4 |
| United Kingdom | 9.1 | 3/ 2.8 | 5.2 | 6.2 | - | - |
| Israel | 2.2 | 4.6 | 4.6 | 2.9 | 3/ 3.3 | - |
| All other | 20.0 | 16.7 | 3/ 7.3 | 2.9 | 7.7 | 5.1 |
| Average | 4.9 | 5.8 | 5.7 | 5.8 | 6.0 | 5.8 |

1/ Less than 500 bulbs.
2/ Less than $500.
3/ Calculated on unrounded figures.

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

| Commodity | TSUS item |
|---|---|
| Crocus corms---------- | 125.20 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The United States relies almost entirely on imports for its supply of crocus corms. Exports are estimated to be negligible.

Comment

Crocus corms are used for the propagation of crocuses, which are flowering plants used in the United States mainly for outdoor landscaping purposes and to a lesser extent as novelty potted plants. Saffron (see summary on items 470.10 and 470.15), a flavoring and coloring agent, is made from the stigmas of the saffron crocus.

The column 1 (trade-agreement) rate of duty applicable to imports (see general headnote 3 of the TSUSA-1969) is as follows:

| TSUS item | Commodity | Rate of duty |
|---|---|---|
| 125.20 | Crocus corms---------- | 30¢ per 1,000 |

This rate has been in effect since July 1, 1963, and is the result of a concession granted by the United States in the General Agreement on Tariffs and Trade (GATT) during 1960-62. This rate was not changed during the sixth round of trade negotiations under the GATT. The average ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports in 1967, was 2.6 percent; the ad valorem equivalent ranged from 2.1 percent for imports from Switzerland to 3.8 percent for imports from Japan.

All imports of crocus corms are subject to permit and inspection requirements of the Plant Quarantine Division, U.S. Department of Agriculture (see General Statement on Bulbs).

Nearly all of the domestic consumption of crocus corms is supplied from imports. Annual U.S. imports averaged about 45 million corms valued at $484,000, during the 5-year period 1963-67 (see table). The Netherlands supplied virtually all of these corms.

U.S. exports are not separately reported but are estimated to be negligible.

Crocus corms: U.S. imports for consumption, by principal sources, 1963-67

| Source | 1963 | 1964 | 1965 | 1966 | 1967 |
|---|---|---|---|---|---|
| | Quantity (1,000 corms) | | | | |
| Netherlands | 41,051 | 43,673 | 45,603 | 49,003 | 43,700 |
| West Germany | - | - | 49 | - | 132 |
| France | 370 | 198 | 144 | - | 151 |
| All other | 465 | 177 | 37 | 133 | 554 |
| Total | 41,886 | 44,048 | 45,833 | 49,136 | 44,537 |
| | Value (1,000 dollars) | | | | |
| Netherlands | 450 | 455 | 443 | 532 | 512 |
| West Germany | - | - | 1 | - | 2 |
| France | 5 | 3 | 2 | - | 1 |
| All other | 4 | 2 | 1 | 1 | 5 |
| Total | 459 | 460 | 447 | 533 | 520 |
| | Unit Value (cents per corm) | | | | |
| Netherlands | 1.1 | 1.0 | 1.0 | 1.1 | 1.2 |
| West Germany | - | - | 1.4 | - | 1.5 |
| France | 1.4 | 1.5 | 2.0 | - | .7 |
| All other | .9 | 1.1 | 2.7 | .8 | .9 |
| Average | 1.1 | 1.0 | 1.0 | 1.1 | 1.2 |

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

| Commodity | TSUS item |
|---|---|
| Lily of the valley pips---------- | 125.25 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The United States imports the majority of the lily of the valley pips consumed each year. Domestic production and exports are nil.

Comment

Lily of the valley pips are small detachable buds formed on runners of lily of the valley plants. These pips are used to propagate new plants. Lillies of the valley are grown outdoors as ornamental plants and as forced 1/ cut flowers and potted plants. The pips are of two types--"new-crop pips" used for forcing from January through May, and "late-forcing pips" used for forcing from May until the following January. The flowers of the lily of the valley are white, bell-shaped flowers which are borne on one side of the stem.

The column 1 (trade-agreement) rate of duty applicable to imports (see general headnote 3 of the TSUSA-1969) is as follows:

| TSUS item | Commodity | Rate of duty |
|---|---|---|
| 125.25 | Lily of the valley pips------ | $2.25 per 1,000 |

This rate has been in effect since July 1, 1963; it reflects the final stage of a concession granted by the United States in the General Agreement on Tariffs and Trade (GATT) negotiated during 1960-62. This rate was not changed during the sixth round of trade negotiations under the GATT. The ad valorem equivalent of the specific rate of duty based on dutiable imports in 1967 ranged from 5.4 percent for imports from Japan to 7.6 percent for those from the Netherlands, with an overall average of 7.1 percent, which coincides with that for imports from the principal supplier, West Germany.

1/ Brought into flower out of season.

All imports of lily of the valley pips are subject to permit and inspection requirements of the Plant Quarantine Division, U.S. Department of Agriculture (see General Statement on Bulbs).

Virtually all of the lily of the valley pips used by commercial growers in the United States are supplied from imports. U.S. production and exports are not separately reported but are estimated to be nil. Imports have come mainly from West Germany and the Netherlands. During 1963-67 imports ranged from about 1.5 million pips, valued at $68,000, in 1965 to 3 million pips, valued at $97,000, in 1967 (see table).

Lily of the valley pips: U.S. imports for consumption, by sources, 1963-67

| Source | 1963 | 1964 | 1965 | 1966 | 1967 |
|---|---|---|---|---|---|
| | Quantity (1,000 pips) | | | | |
| West Germany | 1,885 | 1,136 | 1,187 | 1,661 | 2,431 |
| Netherlands | 527 | 1,296 | 255 | 986 | 529 |
| Japan | 105 | 75 | 95 | 15 | 84 |
| Total | 2,517 | 2,507 | 1,537 | 2,662 | 3,044 |
| | Value (1,000 dollars) | | | | |
| West Germany | 96 | 65 | 61 | 59 | 77 |
| Netherlands | 9 | 16 | 4 | 15 | 16 |
| Japan | 3 | 3 | 3 | 1 | 4 |
| Total | 108 | 84 | 68 | 75 | 97 |
| | Unit value (cents per bulb) | | | | |
| West Germany | 5.1 | 5.7 | 5.1 | 3.6 | 3.2 |
| Netherlands | 1.7 | 1.2 | 1.6 | 1.5 | 3.0 |
| Japan | 2.9 | 4.0 | 3.2 | 6.7 | 4.8 |
| Total | 4.3 | 3.4 | 4.4 | 2.8 | 3.2 |

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

| Commodity | TSUS item |
|---|---|
| Bulbs and herbaceous perennials, not elsewhere enumerated | 125.30 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

The United States produces substantial quantities of the bulbs and herbaceous perennials of kinds not specially named in the tariff schedules. Imports supply about half of U.S. consumption of such bulbs and an insignificant portion of such herbaceous perennials. Exports are thought to be small compared with imports.

## Description and uses

This summary includes bulbs, roots, rootstocks, clumps, corms, tubers, and herbaceous perennials, not elsewhere enumerated in the TSUS. Gladiolus corms, iris bulbs, and begonia tubers account for the bulk of the imports and a significant portion of the domestic production in this category. All of the items included are used for horticultural purposes--e.g., forcing (for pot plants and cut flowers) and propagating stock, and landscape planting.

## U.S. tariff treatment

The column 1 (trade-agreement) rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) is as follows:

| TSUS item | Commodity | Rate of duty |
|---|---|---|
| 125.30 | Bulbs and herbaceous perennials, not specially provided for. | 5.5% ad val. |

This rate, which became effective on July 1, 1963, reflects the final stage of a concession negotiated under the General Agreement on Tariffs and Trade (GATT) in 1960-62. No change was made in this rate during the sixth round of trade negotiations under the GATT.

U.S. consumption and production

U.S. consumption figures for the articles included in this summary are not available. It is estimated, however, that bulbs account for a large part of the domestic consumption of such articles.

The following tabulation shows the U.S. production, number of establishments, acreage, and principal areas of production of bulbs as reported in the 1959 United States Census of Agriculture:

| Kind of bulbs | U.S. production | | Establishments | Acres | Principal areas of production |
|---|---|---|---|---|---|
| | Quantity | Value | | | |
| | 1,000 bulbs | 1,000 dollars | Number | Number | |
| Gladiolus corms. | 178,531 | 2,716 | 340 | 4,897 | Mich., Oreg., Ill. |
| Iris: | | | | | |
| Bulbs | 24,628 | 436 | 57 | 416 | Wash. |
| Rhizomes | 2,219 | 759 | 85 | 251 | Oreg., Wash., Calif. |
| Caladium tubers. | 9,949 | 777 | 57 | 503 | Fla. |
| Dahlia tubers. | 3,972 | 446 | 77 | 486 | Mich., N.Y. |
| Peony tubers. | 1,128 | 411 | 133 | 649 | Iowa, Mo., Mich. |
| Other bulbs | 1/ | 1,098 | 107 | 581 | Calif. |
| Total | 220,427 | 6,643 | 856 | 7,783 | |

1/ Not available.

The production of the bulbs listed above, on the whole, decreased about 15 percent from 1949 to 1959; only production of caladium tubers and iris bulbs increased in that period. No data on the production of herbaceous perennials are available; it is known, however, that domestic production supplies the bulk of U.S. consumption of herbaceous perennials.

U.S. exports and imports

U.S. exports of the articles included in this summary are not separately reported but are estimated to be small compared with U.S. imports. It is known that gladiolus corms and iris bulbs account for a substantial portion of all U.S. export of bulbs.

During 1963-67, annual U.S. imports of bulbs and herbaceous perennials, not elsewhere enumerated, averaged 210 million in number, valued at $4.2 million (table 1). This quantity was about equal to the volume of U.S. production (bulbs only) in this category in 1959--the most recent year for which production data are available. In 1967, gladiolus corms accounted for 41 percent of the imports in this category; iris bulbs, for 18 percent; and begonia tubers, for 8 percent. The remaining 33 percent consisted of many species of bulbs and herbaceous perennials. In 1963-67, imports from the Netherlands accounted for more than three-fourths of the total quantity of U.S. imports in this category (table 2). The Netherlands is the principal source of U.S. imports of gladiolus corms and iris bulbs, while most of the imported begonia tubers come from Belgium and Luxembourg.

Table 1.--Bulbs and herbaceous perennials not elsewhere enumerated: U.S. imports for consumption, by principal kinds, 1963-67

| Year | Gladiolus | Iris | Begonia | Other | Total |
|---|---|---|---|---|---|
| | Quantity (thousands) | | | | |
| 1963 | 71,911 | 1/ 22,625 | 1/ 3,314 | 90,251 | 188,101 |
| 1964 | 86,248 | 26,227 | 12,426 | 75,568 | 200,469 |
| 1965 | 127,662 | 23,566 | 10,284 | 66,381 | 227,893 |
| 1966 | 115,526 | 21,837 | 13,570 | 70,403 | 221,336 |
| 1967 | 86,617 | 38,835 | 16,433 | 71,535 | 213,420 |
| | Value (1,000 dollars) | | | | |
| 1963 | 887 | 1/ 231 | 1/ 289 | 2,516 | 3,923 |
| 1964 | 999 | 304 | 1,099 | 1,722 | 4,124 |
| 1965 | 1,326 | 266 | 898 | 1,632 | 4,122 |
| 1966 | 919 | 241 | 1,281 | 2,012 | 4,453 |
| 1967 | 909 | 276 | 1,405 | 1,990 | 4,580 |
| | Unit value (cents each) | | | | |
| 1963 | 1.2 | 1.0 | 8.7 | 2.8 | 2.1 |
| 1964 | 1.2 | 1.2 | 8.8 | 2.3 | 2.1 |
| 1965 | 1.0 | 1.1 | 8.7 | 2.5 | 1.8 |
| 1966 | .8 | 1.1 | 9.4 | 2.8 | 2.0 |
| 1967 | 1.0 | .7 | 8.5 | 2.8 | 2.1 |

1/ September-December; import statistics were not separately reported before Aug. 31, 1963.

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

Table 2.--Bulbs and herbaceous perennials not elsewhere enumerated: U.S. imports for consumption, by principal sources, 1963-67

| Source | 1963 | 1964 | 1965 | 1966 | 1967 |
|---|---|---|---|---|---|
| | Quantity (thousands) | | | | |
| Netherlands | 152,701 | 152,563 | 180,278 | 181,821 | 174,973 |
| Belgium and Luxembourg | 12,223 | 10,583 | 9,396 | 12,156 | 17,020 |
| Japan | 9,561 | 17,816 | 10,301 | 8,458 | 10,805 |
| All other | 13,616 | 19,507 | 27,918 | 18,901 | 10,622 |
| Total | 188,101 | 200,469 | 227,893 | 221,336 | 213,420 |
| | Value (1,000 dollars) | | | | |
| Netherlands | 2,481 | 2,572 | 2,735 | 2,656 | 2,671 |
| Belgium and Luxembourg | 1,015 | 982 | 765 | 1,116 | 1,159 |
| Japan | 138 | 213 | 144 | 186 | 166 |
| All other | 289 | 357 | 478 | 495 | 584 |
| Total | 3,923 | 4,124 | 4,122 | 4,453 | 4,580 |
| | Unit value (cents each) | | | | |
| Netherlands | 1.6 | 1.7 | 1.5 | 1.5 | 1.5 |
| Belgium and Luxembourg | 8.3 | 9.3 | 8.1 | 9.2 | 6.8 |
| Japan | 1.4 | 1.2 | 1.4 | 2.2 | 1.5 |
| All other | 2.1 | 1.8 | 1.7 | 2.6 | 5.5 |
| Average | 2.1 | 2.1 | 1.8 | 2.0 | 2.1 |

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

| Commodity | TSUS item |
|---|---|
| Fruit-tree seedlings, layers, and cuttings | 125.40 |
| Grafted or budded fruit trees, and cuttings and seedlings of fruit plants (except trees) | 125.50 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

U.S. production of fruit-tree stocks, budded or grafted fruit trees, and seedlings and cuttings of fruit plants supplies nearly all of the domestic consumption of these items; in recent years, both imports and exports have been small, but exports have substantially exceeded imports.

## Description and uses

Most fruit trees are propagated by budding or grafting the buds or scions (cuttings prepared for grafting) of desired varieties upon an understock (portion of plant upon which a graft is made). This method of propagation is necessitated by the fact that fruit tree seeds normally do not produce plants having the same characteristics as the parent tree. The understock may be a seedling, a rooted cutting, or a layer (a portion of a plant which has been rooted while attached to the parent plant by covering it with earth). In the commercial propagation of fruit trees, seedlings 1 or 2 years old are most commonly used for the understocks.

Fruit plants (except trees) are propagated commercially by means of seedlings, cuttings, and layers. Included in this category are such fruit plants as strawberry, grape, currant, blackberry, and raspberry.

U.S. tariff treatment and other requirements

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 125.40 | Seedlings, layers, and cuttings of apple, cherry, pear, plum, quince, and other fruit-tree stocks. | $2 per 1,000 | $1.20 per 1,000 | Free |
| 125.50 | Grafted or budded fruit trees, cuttings and seedlings of grape, currant, gooseberry, or other fruit plants (except trees). | 10% ad val. | 8% ad val. | 5% ad val. |

The tabulation above shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the five annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rates shown above did not change.

The average ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports of fruit-tree seedlings, layers, and cuttings during 1967, was 1.0 percent. On entries from Canada, which supplied nearly all of the imports, the ad valorem equivalent was 0.9 percent; on those from other supplying countries, it ranged from 1.2 percent to 2.0 percent.

Imported fruit-tree seedlings, layers, and cuttings, budded or grafted fruit trees, and cuttings and seedlings of fruit plants (collectively referred to here as fruit stocks) are subject to plant quarantine regulations, which generally require an import permit and inspection of the plants before entry, and for some of them, fumigation or other treatment. Imports from certain countries are prohibited

because of plant pests which are common in those countries. Fruit stocks except vegetatively produced understocks are prohibited from all foreign countries except Canada. Items which are allowed to be imported from countries other than Canada (and some from Canada) cannot be officially released for distribution in the United States until they have been grown in a United States postentry zone for two seasons to determine that they do not harbor injurious plant pests.

U.S. consumption and production

Current statistics on U.S. consumption of fruit-tree stocks, budded or grafted fruit trees, and seedlings and cuttings of fruit plants are not available. It is known, however, that U.S. production supplies nearly all of domestic consumption; both imports and exports are small.

According to the 1959 United States Census of Agriculture, 51 establishments reported sales of deciduous fruit-tree stocks in 1959; Washington and Oregon were the principal States in which deciduous fruit-tree stocks were grown. In the same year, 42 establishments reported sales of citrus fruit-tree stocks; California and Florida were the States producing the largest quantities of such stocks.

Approximately 3,500 establishments reported sales of deciduous fruit trees in 1959. The principal States producing these trees were as follows: Peach trees--Tennessee and California; apple trees--Oklahoma and Tennessee; pear trees--California, Washington, and Oregon; plum and prune trees--California, Oregon, and New York; and cherry trees--New York, Tennessee, and Oregon. About 1,200 establishments reported sales of citrus fruit trees; nearly all of these were situated in Florida, California, and Texas.

In 1959 about 1,100 establishments reported sales of fruit plants (primarily strawberry, raspberry, blueberry, and grape). California was the principal State producing strawberry and grape plants, while Michigan and New York were the principal producers of raspberry and blueberry plants.

U.S. sales (somewhat less than actual production) of all these items were substantially higher in 1959 than in 1949 as shown by the following data obtained from the United States Census of Agriculture for those years:

| Commodity | 1949 | | 1959 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| | 1,000 plants | 1,000 dollars | 1,000 plants | 1,000 dollars |
| Fruit-tree stocks: | | | | |
| Deciduous | 14,029 | 384 | 18,780 | 512 |
| Citrus | 208 | 19 | 2,043 | 177 |
| Total | 14,237 | 403 | 20,823 | 689 |
| Grafted or budded fruit trees and fruit plants: | | | | |
| Deciduous trees | 11,988 | 4,961 | 14,966 | 8,673 |
| Citrus and subtropical fruit trees | 1,348 | 1,795 | 4,314 | 7,410 |
| Fruit plants | 183,628 | 2,870 | 308,704 | 4,750 |
| Total | 196,964 | 9,626 | 327,984 | 20,833 |
| Grand total | 211,201 | 10,029 | 348,807 | 21,522 |

Sales of fruit-tree stocks consisted primarily of deciduous fruit-tree stocks; most of the citrus fruit-tree stocks were grown by nurserymen for their own use and were not reported. The reported sales of deciduous fruit trees in 1959 consisted of peach (43 percent of the total quantity), apple (25 percent), pear (11 percent), plum and prune (10 percent), and cherry trees (11 percent). Sales of citrus and subtropical fruit trees consisted of orange (82 percent), grapefruit (9 percent), lemon (6 percent), and avocado trees (3 percent). Sales of small fruit plants consisted of strawberry plants (95 percent), grape seedlings (3 percent), and raspberry, blueberry, and other fruit plants (2 percent).

U.S. exports and imports

Statistics on U.S. exports of the items dealt with in this summary are not separately reported; it is estimated, however, that the value of these items exported from the United States has not exceeded $2.5 million in most years. Canada and Mexico have probably been the principal foreign markets for U.S. exports of fruit-tree stocks, budded or grafted fruit trees, and seedlings and cuttings of fruit plants.

Aggregate U.S. imports of fruit-tree seedlings, layers, cuttings, and other stocks, of grafted or budded fruit trees, and of cuttings and seedlings of fruit plants have been small in relation to domestic production or consumption of these items and have consisted chiefly of

varieties not available in the United States. During 1953-57 annual U.S. imports of fruit-tree seedlings, layers, and cuttings averaged about 160,000 plants, valued at $12,000; in 1963-67 annual imports averaged 479,000 plants, valued at $69,000 (table 1). Imports in this category consisted largely of apple rootstocks from Canada.

U.S. imports of grafted or budded fruit trees and of cuttings and seedlings of fruit plants decreased from an annual average of 1.7 million plants, valued at $59,000, during 1953-57 to an annual average of 118,000 plants, valued at $30,000, during 1963-67 (table 2); the decline was at least partly due to decreased imports of pineapple slips from the Dominican Republic since 1958. In recent years imports in this category consisted chiefly of apple trees and grape cuttings and seedlings from Canada.

Table 1.--Fruit-tree seedlings, layers, and cuttings: U.S. imports for consumption, 1959 and 1963-67

| Year | Quantity | Value | Unit value |
|---|---|---|---|
| | Thousands | 1,000 dollars | Cents each |
| 1959 | 301 | 29 | 9.6 |
| 1963 | 442 | 55 | 12.4 |
| 1964 | 473 | 64 | 13.5 |
| 1965 | 507 | 67 | 13.2 |
| 1966 | 600 | 87 | 14.5 |
| 1967 | 375 | 74 | 19.7 |

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

Note.--Complete statistics on production are not available; sales of deciduous and citrus fruit-tree stocks in 1959, as reported in the 1959 United States Census of Agriculture, totaled 20,823 thousand, valued at 689 thousand dollars. Statistics on exports are not available, but are estimated to have been small.

Table 2.--Grafted or budded fruit trees, and cuttings and seedlings of fruit plants: U.S. imports for consumption, 1959 and 1963-67

| Year | Quantity | Value | Unit value |
|---|---|---|---|
| | Thousands | 1,000 dollars | Cents each |
| 1959 | 105 | 51 | 48.6 |
| 1963 | 70 | 31 | 44.3 |
| 1964 | 87 | 25 | 28.7 |
| 1965 | 271 | 39 | 14.4 |
| 1966 | 81 | 13 | 16.0 |
| 1967 | 83 | 41 | 49.4 |

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

Note.--Complete statistics on production are not available; sales of grafted or budded fruit trees and fruit plants in 1959, as reported in the 1959 United States Census of Agriculture, totaled 327,984 thousand, valued at 20,833 thousand dollars. Statistics on exports are not available, but are estimated to have been small.

| Commodity | TSUS item |
|---|---|
| Rose stocks | 125.60 |
| Rose plants | 125.65 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

Nearly all of the rose stocks and rose plants consumed in the United States in recent years have been of domestic origin. U.S. exports of rose stocks are estimated to have been negligible and those of rose plants have been small.

## Description and uses

This summary concerns seedlings and cuttings of Manetti, multiflora, brier, rugosa, and other rose stocks and rose plants, budded, grafted, or grown on their own roots. Rose stocks consist of either rose seedlings or cuttings. These cuttings are usually short sections of 1-year-old rose canes which are set out in the spring, usually after having been buried in sand or soil over the winter. This stock is generally held or sold to wholesale and retail nurserymen to hold until large enough to be sold as mature plants.

Rose plants are produced for garden and greenhouse use. The most common method of propagating garden or greenhouse rose plants is budding or grafting the buds or scions of desired varieties on rose stocks (seedlings or cuttings). They may, however, be propagated from seed, root sprouts, suckers, or layers.

U.S. tariff treatment and other import requirements

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 125.60 | Seedlings and cuttings of Manetti, multiflora, brier, rugosa, and other rose stock. | 20¢ per 1,000 | 18¢ per 1,000 | 15¢ per 1,000 |
| 125.65 | Rose plants, budded, grafted, or grown on their own roots. | 2¢ each | 1.5¢ each | 1¢ each 1/ |

1/ Becomes effective January 1, 1971.

The tabulation above shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect in 1969) and final stages of the annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rates shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on TSUS item 125.60 on December 31, 1967, based on dutiable imports during 1967, all of which were from the Netherlands, was 0.6 percent. The comparable ad valorem equivalent for the rate on item 125.65 averaged 1.6 percent, the ad valorem equivalents for individual countries ranging from 1.4 percent to 1.7 percent.

Imported rose stocks and rose plants are subject to plant quarantine regulations, which require entry under an import permit and fumigation and inspection before entry. Before imported rose plants (except those from Canada) can be officially released for distribution in the United States, they must be grown in a U.S. postentry zone for two growing seasons to prevent introduction of injurious insects and diseases. Rose imports from Australia, New Zealand, and Italy are prohibited because of a disease (rose wilt virus) which is common in those countries.

U.S. consumption

Domestic rose stocks rarely enter trade channels as such; most rose stocks are used for propagating rose plants on the farms where they are grown. The rose plants are then shipped to nurserymen and florists near urban areas, where most of the rose plants are purchased and used. It can be assumed that U.S. consumption of rose stocks has been nearly equal to the consumption of rose plants. In 1959 about 46 million rose plants were consumed in the United States; consumption of rose plants has probably remained fairly stable in recent years.

U.S. producers and production

In 1959 about 20 establishments reported sales of rose stocks, and 926 establishments reported sales of rose plants, according to the 1959 United States Census of Agriculture. Approximately 38 percent of the rose stocks sold in that year were produced in the East North Central States, and 33 percent, in the Pacific Coast States. In 1959 Texas and California accounted for about 75 percent of the sales of rose plants.

In recent years nearly all of the U.S. requirements for rose stocks and rose plants have been supplied by U.S. production. Because statistics on U.S. production of rose stocks and rose plants are not available, the figures presented herein are based on statistics on sales reported in the 1959 United States Census of Agriculture, which are smaller than actual production. In 1959 about 5.4 million seedlings and cuttings of rose stocks, valued at $103,000, were produced in the United States (table 1). Since most of the rose stocks are used for propagating rose plants on the farms where they are grown, the actual production of rose stocks is nearly equal to the production of rose plants. Approximately 47.8 million rose plants, valued at $15.8 million, were sold in the United States in 1959 (table 2). It is estimated that 50 million rose plants were sold annually during the 1963-67 period.

U.S. exports and imports

Statistics on U.S. exports of rose stocks and rose plants are not separately reported. Exports of rose stocks are estimated to have been negligible. The bulk of the U.S. exports of rose plants have gone to Canada. Based on import statistics of Canada, annual U.S. exports of rose plants to that country ranged from 1.6 million to 2.5 million plants during 1963-67.

U.S. imports of rose stocks and rose plants consist almost entirely of rose stocks. Imports of rose stocks have been declining since the late 1920's; during 1963-67, U.S. imports of rose stocks ranged from 44,000 plants (valued at $2,000) in 1965 to 908,000 plants (valued at $31,000) in 1966 (table 1). During the same period U.S. imports of rose plants averaged under 1,000 plants a year. The Netherlands and Canada have been the principal suppliers of U.S. imports of rose stocks and rose plants.

Table 1.--Rose stocks: U.S. sales 1/ and imports for consumption, 1959 and 1963-67

| Year | Quantity | | Value | | Unit value | |
|---|---|---|---|---|---|---|
| | Sales | Imports | Sales 2/ | Imports | Sales | Imports |
| | 1,000 units | 1,000 units | 1,000 dollars | 1,000 dollars | Cents each | Cents each |
| 1959 | 5,414 | 1,011 | 103 | 25 | 1.9 | 2.5 |
| 1963 | 3/ 6,000 | 473 | 4/ | 13 | 4/ | 2.7 |
| 1964 | 3/ 6,000 | 168 | 4/ | 6 | 4/ | 3.6 |
| 1965 | 3/ 6,000 | 44 | 4/ | 2 | 4/ | 4.5 |
| 1966 | 3/ 6,000 | 908 | 4/ | 31 | 4/ | 3.4 |
| 1967 | 3/ 6,000 | 402 | 4/ | 14 | 4/ | 3.5 |

1/ Sales of products grown, as reported in the 1959 United States Census of Agriculture.
2/ Wholesale value.
3/ Estimated. 4/ Not available.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Note.--Data on U.S. exports are not available, but exports are estimated to have been negligible in most years.

Table 2.--Rose plants: U.S. sales, imports for consumption, and exports of domestic merchandise, 1959 and 1963-67

| Year | Sales 1/ | Imports | Exports 2/ |
|---|---|---|---|
| | Quantity (1,000 plants) | | |
| 1959 | 47,757 | 1 | 1,240 |
| 1963 | 3/ 50,000 | - | 1,566 |
| 1964 | 3/ 50,000 | 3 | 1,806 |
| 1965 | 3/ 50,000 | 1 | 2,010 |
| 1966 | 3/ 50,000 | - | 2,272 |
| 1967 | 3/ 50,000 | 1 | 2,448 |
| | Value (1,000 dollars) | | |
| 1959 | 15,815 | 1 | 387 |
| 1963 | 4/ | - | 460 |
| 1964 | 4/ | 2 | 467 |
| 1965 | 4/ | 5/ | 568 |
| 1966 | 4/ | - | 737 |
| 1967 | 4/ | 1 | 805 |
| | Unit value (each) 6/ | | |
| 1959 | $0.33 | $0.79 | $0.31 |
| 1963 | 3/ | - | .29 |
| 1964 | 3/ | .56 | .26 |
| 1965 | 3/ | .50 | .28 |
| 1966 | 3/ | - | .32 |
| 1967 | 3/ | 1.21 | .33 |

1/ Sales of products grown, as reported in the 1959 United States Census of Agriculture.

2/ U.S. exports to Canada, based on import data of Canada; in recent years such exports have accounted for nearly all of total U.S. exports of rose plants.

3/ Estimated. 4/ Not available.

5/ Less than $500.

6/ Calculated from the unrounded figures.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

| Commodity | TSUS item |
|---|---|
| Seed potato eyes | 125.67 |
| Live plants, not elsewhere enumerated | 125.80 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

U.S. production of seed potato eyes is large but nearly all such production has been consumed on the farms where produced. The production and consumption of live plants not elsewhere enumerated are very large. U.S. exports of live plants not elsewhere enumerated are estimated to have been small in recent years; imports of such plants have been equivalent to less than 1 percent of domestic output.

## Description and uses

Seed potato eyes, which hereafter in this summary are referred to as seed potato pieces, consist of pieces cut from seed potatoes; typically each piece weighs about 1 1/2 to 2 ounces and includes one or more buds (eyes). The seed potato pieces discussed herein are used for propagation. Most of the potatoes used for seed purposes are shipped whole. The larger of these are cut into pieces on the farm before planting.

Among the items included in item 125.80, "live plants, not elsewhere enumerated," are deciduous (except fruit) and evergreen trees, shrubs and vines (except fruit, berry, and rose), and certain nursery stock not elsewhere enumerated in the TSUS. Related articles included in other summaries are potatoes (items 137.20 to 137.29), "bulbs, . . . Other, imported for horticultural purposes" (includes herbaceous perennials -- item 125.30), fruit-tree seedlings, layers, and cuttings, and grafted or budded fruit trees and fruit plants (items 125.40 and 125.50, rose stock and rose plants (items 125.60 and 125.65), and cut evergreen Christmas trees (item 192.10).

## U.S. tariff treatment

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 125.67 | Seed potato eyes | 10% ad val. | 8% ad val. | 5% ad val. |
| 125.80 | Live plants suitable for planting, not specially provided for. | 10% ad val. | 9% ad val. 1/ | 7.5% ad val. |

1/ The first staged rate which became effective Jan. 1, 1968 continues in effect until Jan. 1, 1970.

The tabulation above shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the current and final stages of the annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rates shown above did not change.

All importations of live plants are subject to permit and inspection requirements of the Plant Quarantine Division, U.S. Department of Agriculture.

## U.S. consumption and production

Potatoes produced domestically are grown from small whole seed potatoes or from seed potato pieces which have been cut from larger seed potatoes on the farm prior to planting. While the production of seed potato pieces is large, nearly all of the output is consumed on the farms where produced.

The production of live plants not elsewhere enumerated is very large and supplies virtually all of domestic consumption. The following tabulation, based on data reported in the 1959 United States Census of Agriculture, indicates the number of growers and the volume and value of sales of live plants produced in the United States in 1959:

| Description | Growers reporting | Sales | |
|---|---|---|---|
| | | Quantity | Wholesale value |
| | Number | 1,000 plants | 1,000 dollars |
| Lining out stock: 1/ | | | |
| Ornamental evergreens | 558 | 33,982 | 5,051 |
| Deciduous trees and shrubs | 255 | 28,464 | 1,716 |
| Ornamental plants: | | | |
| Coniferous evergreens | 4,081 | 18,505 | 36,368 |
| Broad-leaved evergreens | 3,729 | 32,673 | 33,592 |
| Deciduous trees and flowering trees | 3,278 | 7,541 | 16,879 |
| Deciduous shrubs (except roses) | 2,941 | 16,220 | 9,083 |
| Forest tree seedlings | 190 | 156,294 | 3,277 |
| Woody vines (except grape) | 527 | 7,327 | 1,039 |
| All other (excludes herbaceous plants, roses, and grape vines) | 967 | 2/ | 5,590 |
| Total | 3/ 16,526 | 301,006 | 112,595 |

1/ Young plants intended to be set out in rows (lined out) to mature.
2/ Not available.
3/ Includes some duplication in individual items.

The sales listed above are believed to account for a substantial part of the total production of live plants covered here. Additional quantities of live plants are produced for use by the grower but such plants do not enter commercial trade.

U.S. exports and imports

U.S. trade in seed potato pieces has been negligible. U.S. exports of live plants not elsewhere enumerated are not separately reported but are estimated to have been small. U.S. imports of such live plants have fluctuated downward since the early 1950's. The quantity and value of such imports for consumption during 1963-67, as reported by the U.S. Department of Commerce, are as follows:

| Year | Quantity | Value | Unit value |
|---|---|---|---|
| | 1,000 plants | 1,000 dollars | Cents each |
| 1963 | 1,581 | 278 | 17.6 |
| 1964 | 1,655 | 337 | 20.4 |
| 1965 | 828 | 293 | 35.4 |
| 1966 | 1,113 | 396 | 35.6 |
| 1967 | 1,005 | 360 | 35.8 |

These imports consist primarily of stocks of trees and shrubs, many of which are not normally propagated in the United States. The Netherlands, Canada, and Japan have been the principal sources of U.S. imports of live plants not elsewhere enumerated.

| Commodity | TSUS item |
|---|---|
| Orchid plants | 125.70 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

Domestic producers supply most of the orchid plants consumed in the United States. U.S. exports of orchid plants are small compared with domestic production and are usually limited to new varieties developed in the United States.

## Description and uses

Orchids are herbaceous plants with flowers composed of three sepals, two of which may be united, and three petals. Two of the petals are the same color as the sepals and the third usually forms a darker saclike labellum or lip. There are more than 10,000 species of orchids, but only a few are grown commercially. Of these species of orchids the Cattleya, which produces a large showy flower, and the Cymbidium, which produces medium-sized flowers in long sprays, are most important.

Orchids grow in all parts of the world except the polar and desert regions. About 85 percent of the species are found in tropical and subtropical climates. Orchids grow either in the ground or as epiphytes (i.e., having aerial roots and growing nonparasitically upon other plants or upon other objects). Orchids that are grown commercially are grown either in osmunda fiber or in white-fir bark. Commercial orchid culture is very technical; therefore, orchids are usually grown by specialists. Many of the establishments which produce orchids specialize in orchid production.

U.S. tariff treatment and other import requirements

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1971 |
| 125.70 | Orchid plants | 5.5% ad val. | 4.5% ad val. | 4% ad val. |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and the modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the three rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rates shown above did not change.

All imports of orchid plants are subject to plant quarantine regulations. These regulations require inspection of the plants and, for some of them, fumigation before entry.

U.S. consumption and production

The most recently published figures on U.S. production of orchid plants are those reported in the 1959 United States Census of Agriculture. The establishments reporting sales of orchids in 1959 reported selling 465,000 plants, with a wholesale value of $1.8 million. 1/ In that year, California, Tennessee, and Florida accounted for two-thirds of the sales of orchid plants, based on wholesale value.

Although statistics on consumption of orchid plants are not available, it is known from trade sources that U.S. production of orchid plants supplies most of the domestic consumption.

1/ Not including Hawaiian production.

U.S. exports and imports

Statistics on U.S. exports of orchid plants are not separately reported, but exports are known to be small compared with U.S. production. The plants that are exported are mostly new varieties that have been developed in the United States.

Annual U.S. imports of orchid plants averaged about 86,000 plants, valued at $80,000, during the 1963-67 period (see accompanying table). While the quantity of orchids imported fluctuated during the 5-year period 1963-67, imports have shown a marked increase since 1965, due mainly to increased imports from France resulting from an improved method of propagation.

Orchid plants: U.S. imports for consumption, by principal sources, 1963-67

| Source | 1963 | 1964 | 1965 | 1966 | 1967 |
|---|---|---|---|---|---|
| | Quantity (number of plants) | | | | |
| France | 2,254 | 13,453 | 23,238 | 94,253 | 99,000 |
| United Kingdom | 4,585 | 5,377 | 2,275 | 299 | 174 |
| Thailand | 4,439 | 4,258 | 1,804 | 3,387 | 2,078 |
| Brazil | 3,068 | 4,087 | 2,381 | 3,565 | 6,798 |
| India | 3,873 | 8,679 | 8,042 | 4,627 | 5,637 |
| Guatemala | 11,182 | 1,861 | 4,729 | 438 | 1,084 |
| Colombia | 4,330 | 19,932 | 4,208 | 438 | 942 |
| All other | 9,169 | 35,366 | 7,708 | 4,831 | 12,817 |
| Total | 42,900 | 93,013 | 54,385 | 111,838 | 128,530 |
| | Value | | | | |
| France | $2,286 | $14,110 | $26,322 | $100,000 | $83,587 |
| United Kingdom | 17,736 | 14,259 | 9,081 | 2,217 | 1,305 |
| Thailand | 4,233 | 4,666 | 4,018 | 7,299 | 5,146 |
| Brazil | 3,282 | 5,367 | 3,962 | 5,410 | 7,911 |
| India | 2,221 | 5,548 | 3,494 | 1,580 | 1,881 |
| Guatemala | 2,284 | 823 | 1,585 | 587 | 1,773 |
| Colombia | 1,030 | 4,117 | 1,274 | 674 | 1,355 |
| All other | 19,056 | 8,687 | 4,459 | 5,297 | 10,184 |
| Total | 52,128 | 57,577 | 54,195 | 123,064 | 113,142 |
| | Unit value (per plant) | | | | |
| France | $1.01 | $1.05 | $1.13 | $1.06 | $0.84 |
| United Kingdom | 3.87 | 2.65 | 3.99 | 7.41 | 7.50 |
| Thailand | .95 | 1.10 | 2.23 | 2.16 | 2.48 |
| Brazil | 1.07 | 1.31 | 1.66 | 1.52 | 1.16 |
| India | .57 | .64 | .43 | .34 | .33 |
| Guatemala | .20 | .44 | .34 | 1.34 | 1:64 |
| Colombia | .24 | .21 | .30 | 1.54 | 1.44 |
| All other | 2.08 | .25 | .58 | 1.10 | .79 |
| Average | 1.22 | .62 | 1.00 | 1.10 | .88 |

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

Note.--Statistics on U.S. production have not been available since 1959, when production in the continental United States totaled 464,725 plants. U.S. export statistics are not separately reported.

The articles of concern in this general statement are as follows:

| Commodity | TSUS item |
|---|---|
| Field seeds: | |
| Alfalfa | 126.01 |
| Alsike clover | 126.23 |
| Crimson clover | 126.25 |
| Red clover | 126.27 |
| Sweet clover | 126.29 |
| White and ladino clover | 126.31 |
| Other clover | 126.33 |
| Millet | 126.57 |
| Orchard grass | 126.63 |
| Sesbania | 126.79 |
| Tall oat | 126.83 |
| Timothy | 126.85 |
| Hairy vetch | 126.91 |
| Other vetch | 126.93 |
| Wheat grass | 126.95 |
| Grass seeds and other forage crop seeds, not specially provided for | 127.01 |

Forage seeds are used principally for planting hay, pasture, or cover crops. Certain ones (e.g., bluegrass) are also used for lawn grass (see the summaries on lawn-grass seed). Forage crops are of two principal kinds, legumes and grasses. Legumes when inoculated with certain nitrogen-fixing bacteria are able to utilize nitrogen from the air and add the nitrogen to the soil in a form which can be used by plants. The principal forage legumes grown in the United States are alfalfa, red clover, vetch, sweet clover, and lespedeza. The principal forage grasses are millet, sudan grass, and timothy.

Farmers and ranchers purchase specific kinds of forage seed or mixtures of various kinds of seeds for a particular use (e.g., hay, pasture, or cover crop). A certain type of forage seed may be preferred for a particular use. One type of seed is often substituted for another, depending on such factors as their prices or yields of forage.

Farms producing forage seed include farms that produce seed only, general crop farms that produce an occasional crop of seed, and farms that produce seed primarily but also have other crops and livestock to supplement or complement the production of seed. Generally, the marketing of such seed involves a grower, a wholesaler, and a retailer; appreciable quantities of seed are sold directly by farmers to their neighbors.

A comparison of data for certain years from 1940 to 1966 (tables 1 to 5) indicates that annual U.S. consumption of forage seeds rose from slightly over 500 million pounds in 1940 to about 900 million pounds in 1955; by 1966 it had declined to approximately the 1940 level. 1/ Whereas imports and exports were small in relation to production, production and consumption were about equal. During this same period, acreage was reduced by more than half, accompanied by increased yields per acre.

The domestic production of many forage seeds has shifted from the Midwest to the Western States in the past 20 years. Seed production in the Western States is specialized; the favorable climate coupled with controlled irrigation in those States make conditions well adapted to seed production.

## Seed laws, plant quarantine regulations, and seed certification

The Federal Seed Act and State seed laws have been enacted to insure that imported and domestic seed are labeled properly and that they meet standards of germination and weed seed content. Plant quarantine regulations, exercise control over the importation, exportation, and interstate movement of seeds to prevent the spread of disease and insect pests.

Certified seed is seed of known genetic identity which is high in germination and purity. The production of this seed is controlled by crop improvement associations composed of cooperating farmers and the staff of agricultural experiment stations. The production of certified seed generally requires more labor and better management than does ordinary seed. Most certified forage seed is used for seed production rather than for production of forage. Certification is a significant factor in imports and exports of certain seeds (e.g., U.S. exports of alfalfa seed).

1/ The data in the tables do not include statistics on certain seeds in all years shown.

Table 1.--Forage seeds: U.S. apparent consumption, specified crop years 1940 to 1966

(In thousands of pounds)

| Kind of seed 1/ | Year beginning July 1-- | | | | | |
|---|---|---|---|---|---|---|
| | 1940 | 1950 | 1955 | 1960 | 1965 2/ | 1966 2/ |
| Legumes: | | | | | | |
| Alfalfa | 77,715 | 117,836 | 198,684 | 128,965 | 116,513 | 101,934 |
| Alsike clover | 16,952 | 13,785 | 13,210 | 7,341 | 3/ | 3/ |
| Crimson clover 4/ | 6,040 | 32,430 | 14,741 | 16,493 | 3/ | 3/ |
| Red clover | 100,624 | 150,219 | 84,966 | 4/ 93,450 | 63,974 | 64,358 |
| Sweet clover 4/ | 49,710 | 102,701 | 60,991 | 38,087 | 26,536 | 24,883 |
| White and ladino | 1,476 | 15,514 | 9,349 | 7,081 | 6,753 | 6,095 |
| Sesbania 5/ | - | 499 | 474 | 92 | 3/ | 3/ |
| Vetch | 47,967 | 98,860 | 4/ 46,744 | 6/ 38,502 | 7/ 12,709 | 7/ 14,728 |
| Total | 300,484 | 531,844 | 429,159 | 330,011 | 3/ | 3/ |
| Grasses: | | | | | | |
| Millet | 3/ | 3/ | 6/115,297 | 6/169,410 | 6/199,000 | 3/ |
| Orchard grass | 1,911 | 13,998 | 17,388 | 18,086 | 17,027 | 14,583 |
| Timothy | 42,650 | 57,816 | 52,476 | 43,103 | 23,370 | 28,110 |
| Wheat grass 4/ | 1,558 | 5,926 | 2,309 | 3,983 | 3/ | 3/ |
| Total | 3/ | 3/ | 187,470 | 234,582 | 3/ | 3/ |
| All other 8/ | 4/161,014 | 4/187,191 | 4/264,970 | 122,437 | 6/ 69,442 | 6/ 52,601 |
| Grand total | 3/ | 3/ | 881,599 | 687,030 | 3/ | 3/ |

1/ No data on consumption of "other clover" seed or tall oat grass seed are available for the years shown.
2/ Based on data in the individual summaries.
3/ Not available.
4/ Does not take into account exports of such seed, which are estimated to be small.
5/ Imports only.
6/ Partly estimated.
7/ Consumption of hairy vetch seed; data on other vetch seeds are not available for years after 1964.
8/ Production of lespedeza and sudan grass seed plus imports of "grass seeds and other forage crop seeds, n.s.p.f." minus estimated exports, except as noted.

Source: From statistics of the U.S. Department of Agriculture and the U.S. Department of Commerce as compiled in tables 2, 4, and 5 of this general statement, except as noted.

Note.--Calculation of apparent consumption generally took into account changes in stocks.

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1:5

Table 2.--Forage seeds: U.S. production, 1/ specified crop years 1940 to 1966

(In thousands of pounds)

| Kind of seed 2/ | Year beginning July 1-- | | | | | |
|---|---|---|---|---|---|---|
| | 1940 | 1950 | 1955 | 1960 | 1965 | 1966 |
| Legumes: | | | | | | |
| Alfalfa | 77,150 | 108,339 | 212,390 | 136,458 | 120,337 | 117,984 |
| Alsike clover | 19,286 | 14,096 | 9,854 | 4,732 | 3/ | 3/ |
| Crimson clover | 6,040 | 19,080 | 9,570 | 16,493 | 8,670 | 8,214 |
| Red clover | 101,413 | 149,074 | 81,402 | 88,483 | 64,832 | 64,119 |
| Sweet clover | 49,210 | 84,451 | 48,292 | 27,694 | 17,206 | 15,437 |
| White and ladino | 1,395 | 12,071 | 9,622 | 8,469 | 8,956 | 7,845 |
| Other clover | 3/ | 3/ | 4/ 3,000 | 4/ 3,000 | 2,500 | 3/ |
| Vetch | 48,940 | 103,950 | 45,715 | 38,475 | 5/ 11,960 | 5/ 19,480 |
| Total | 3/ | 3/ | 419,845 | 323,804 | 234,461 | 3/ |
| Grasses: | | | | | | |
| Millet | 3/ | 3/ | 4/115,000 | 4/170,000 | 4/196,000 | 3/ |
| Orchard grass | 4,410 | 14,050 | 10,240 | 13,320 | 13,490 | 10,010 |
| Timothy | 50,490 | 63,915 | 49,952 | 45,845 | 33,082 | 35,036 |
| Wheat grass | 500 | 5,850 | 2,190 | 2,547 | 3/ | 3/ |
| Total | 3/ | 3/ | 177,382 | 231,712 | 3/ | 3/ |
| All other 6/ | 160,340 | 183,800 | 258,340 | 120,261 | 7/ 67,687 | 7/ 52,035 |
| Grand total | 3/ | 3/ | 855,567 | 675,777 | 3/ | 3/ |

1/ Seed harvested.
2/ No data on production of sesbania seed and tall oat seed are available for the years shown.
3/ Not available.
4/ Estimated production for 1955, 1960 and 1965 based on the United States Census of Agriculture for 1954, 1959 and 1964, respectively.
5/ Production of hairy vetch seed; data on other vetch seeds are not available after 1964.
6/ Lespedeza and sudan grass only for 1940, 1950, 1955, and 1960.
7/ Lespedeza only.

Source: Compiled from official statistics of the U.S. Department of Agriculture, except as noted.

Table 3.--Forage seeds: U.S. acres harvested, specified crop years 1940 to 1966

(In thousands of acres)

| Kind of seed 1/ | Year beginning July 1-- | | | | | |
|---|---|---|---|---|---|---|
| | 1940 | 1950 | 1955 | 1960 | 1965 | 1966 |
| Legumes: | | | | | | |
| Alfalfa | 966 | 937 | 1,392 | 710 | 610 | 529 |
| Alsike clover | 165 | 95 | 54 | 22 | 2/ | 2/ |
| Crimson clover | 27 | 164 | 68 | 73 | 38 | 35 |
| Red clover | 2,047 | 2,564 | 1,315 | 1,017 | 650 | 685 |
| Sweet clover | 351 | 550 | 254 | 131 | 78 | 73 |
| White and ladino | 19 | 100 | 51 | 53 | 36 | 31 |
| Vetch | 145 | 392 | 175 | 162 | 3/ 91 | 3/ 90 |
| Total | 3,720 | 4,802 | 3,309 | 2,168 | 1,503 | 1,443 |
| Grasses: | | | | | | |
| Orchard grass | 33 | 70 | 51 | 59 | 55 | 43 |
| Timothy | 398 | 445 | 310 | 288 | 196 | 221 |
| Wheat grass | 6 | 69 | 24 | 32 | 2/ | 2/ |
| Total | 437 | 584 | 385 | 379 | 251 | 264 |
| All other | 4/ 877 | 828 | 1,038 | 4/ 438 | 5/ 300 | 5/ 239 |
| Grand total | 5,034 | 6,214 | 4,732 | 2,985 | 2,054 | 1,946 |

1/ Data on acreage harvested for "other clover" seed, sesbania seed, millet seed and tall oat seed, not available for the years shown.

2/ Not available.

3/ Acreage of hairy vetch seed; data on other vetch seeds are not available after 1964.

4/ Lespedeza and sudan grass only.

5/ Lespedeza only.

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

Table 4.--Forage seeds: U.S. exports of domestic merchandise, specified crop years 1940 to 1966

(In thousands of pounds)

| Kind of seed 1/ | Year beginning July 1-- | | | | | |
|---|---|---|---|---|---|---|
| | 1940 | 1950 | 1955 | 1960 | 1965 | 1966 |
| Legumes: | | | | | | |
| Alfalfa | 958 | 3,258 | 14,065 | 9,250 | 15,686 | 17,701 |
| Alsike clover | 2,334 | 665 | 119 | 611 | 2/ | 2/ |
| Red clover | 790 | 500 | 2,500 | 2/ | 4,334 | 2,232 |
| Ladino | - | 120 | 1,750 | 1,454 | 3,259 | 3,373 |
| Other clover | 3/1,276 | 3/ 585 | 3/3,657 | 4/6,515 | 2/ | 2/ |
| Vetch | 1,000 | 5,118 | 2/ | 2/ | 2/ | 2/ |
| Total | 6,358 | 10,246 | 22,091 | 17,830 | 23,279 | 23,306 |
| Grasses: | | | | | | |
| Millet | 2/ | 2/ | 2/ | 5/ 600 | 2/ | 2/ |
| Orchard grass | 2,500 | 564 | 79 | 199 | 1/ | 1/ |
| Timothy | 7,841 | 6,131 | 750 | 3,736 | 6,349 | 1,489 |
| Total | 10,341 | 6,695 | 829 | 4,535 | 6,349 | 1,489 |
| All other | 2/ | 2/ | 2/ | 5/2,000 | 2/ | 2/ |
| Grand total | 16,699 | 16,941 | 22,920 | 24,365 | 29,628 | 24,795 |

1/ Data on exports of crimson clover, sweet clover, sesbania, tall oat and wheat grass seed are not available for the years shown.
2/ Not available.
3/ All clover seed except red and alsike, as reported by the U.S. Department of Commerce.
4/ All clover seed except alsike and ladino.
5/ Estimated.

Source: Compiled from official statistics of the U.S. Department of Agriculture, except as noted.

Table 5.--Forage seeds: U.S. imports, 1/ specified crop years 1940 to 1966

(In thousands of pounds)

| Kind of seed | Year beginning July 1-- | | | | | |
|---|---|---|---|---|---|---|
| | 1940 | 1950 | 1955 | 1960 | 1965 2/ | 1966 2/ |
| Legumes: | | | | | | |
| Alfalfa | 1,523 | 12,755 | 359 | 1,757 | 59 | 25 |
| Alsike clover | - | 354 | 3,475 | 3,220 | 5,494 | 4,496 |
| Crimson clover | - | 13,350 | 5,171 | - | 45 | - |
| Red clover | 1 | 1,645 | 6,064 | 4,967 | 1,298 | 3,676 |
| Sweet clover | 500 | 18,250 | 12,699 | 10,393 | 7,071 | 10,430 |
| White and ladino | 81 | 3,563 | 1,477 | 66 | 84 | 526 |
| Other clover | 34 | 209 | 92 | 201 | 333 | 438 |
| Sesbania | - | 499 | 474 | 92 | 3/ | 3/ |
| Vetch | 27 | 28 | 1,029 | 27 | 50 | 8 |
| Total | 2,166 | 50,653 | 30,840 | 20,723 | 14,434 | 19,599 |
| Grasses: | | | | | | |
| Millet | 51 | 566 | 297 | 10 | 691 | 883 |
| Orchard grass | 1 | 512 | 7,227 | 4,965 | 3,795 | 5,477 |
| Tall oat | - | - | - | - | 3/ | 3/ |
| Timothy | 1 | 32 | 3,274 | 994 | 327 | 2,974 |
| Wheat grass | 1,058 | 76 | 119 | 1,436 | 917 | 752 |
| Total | 1,111 | 1,186 | 10,917 | 7,405 | 5,730 | 10,086 |
| All other 4/ | 674 | 3,391 | 6,630 | 7,176 | 4,355 | 3,166 |
| Grand total | 3,951 | 55,230 | 48,387 | 35,304 | 24,519 | 32,851 |

1/ Seed offered for importation under the Federal Seed Act.
2/ Based on data in the individual summaries.
3/ Not available.
4/ Official statistics of the U.S. Department of Commerce.

Source: Compiled from official statistics of the U.S. Department of Agriculture, except as noted.

| Commodity | TSUS item |
|---|---|
| Alfalfa seed---------- | 126.01 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

The United States is probably the world's leading producer and consumer of alfalfa seed. Nearly all of the U.S. consumption is supplied from domestic production. Annual exports are equivalent to about 5 to 10 percent of production.

## Description and uses

Alfalfa seed is used in the production of one of the most widely grown cultivated forage legumes. The plant is a long-lived perennial legume which is high in digestible protein. The long tap roots of alfalfa, which may penetrate the soil to a depth of 25 feet, improve soil texture. Alfalfa is grown separately or with other legumes and grasses as a pasture, hay, silage, and soil-improving crop; some is dehydrated to produce alfalfa meal pellets.

Alfalfa is grown for forage in nearly every State, but principally in the North Central States. The seed is produced in the Midwest and in California and other Western States.

## U.S. tariff treatment and other import requirements

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1970 |
| 126.01 | Alfalfa seed---------- | 2¢ per lb. | 1.8¢ per lb. | 1.5¢ per lb. |

December 1968
1:5

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the three annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, for imports of alfalfa seed, based on dutiable imports in 1967, 1/ averaged 7.7 percent. The ad valorem equivalent for imports from Argentina, the principal supplier, was 8.2 percent, and the ad valorem equivalents for imports from individual countries ranged from 0.9 to 9.4 percent.

The Federal Seed Act requires that imported alfalfa seed be stained to identify its origin; such seed imported from countries other than Canada is listed in that act as being "unadapted for general agricultural use in the United States." Ten percent of the alfalfa seed in each container imported from sources other than Canada or South America must be stained red, 10 percent of such seed from South America must be stained orange red, and 1 percent of such seed from Canada must be stained violet.

U.S. consumption

Annual U.S. consumption of alfalfa seed increased sharply in the mid-1950's, reaching a high of 180 million pounds in 1955. The increase was due in part to the increased production of alfalfa seed, accompanied by lower prices, which made alfalfa seed more competitive with the seeds of other legumes and grasses. In succeeding years consumption declined, averaging about 121 million pounds a year during the period 1962-66 (table 1).

1/ In this summary the ad valorem equivalent is computed on a calendar year basis; all other years are crop years beginning July 1, except as noted.

U.S. producers and production

In the past 20 years, the domestic production of alfalfa seed has shifted from the Midwest to the Pacific Coast States. The climate on the Pacific coast is favorable for seed production and harvesting. In recent years California has been the leading producer, accounting for more than 35 percent of the U.S. production. In 1964, alfalfa seed was harvested from 675,000 acres on about 22,600 farms in the United States.

The United States is probably the world's leading producer of alfalfa seed; Italy and France are also large producers. U.S. production of alfalfa seed attained a high of more than 212 million pounds in 1955. This peak was followed by a decline in production to 115 million pounds in 1967.

U.S. exports

In all years since 1952 except 1962, U.S. foreign trade in alfalfa seed has been on a net export basis. Following 3 years of high production, U.S. exports of alfalfa seed reached a high of more than 18 million pounds in 1957. Thereafter, exports declined to an annual average of 6.9 million pounds of certified seed and 4.0 million pounds of uncertified seed, valued at $3.0 million and $1.3 million, respectively, during the period 1962-66. Canada is the major market for U.S. exports of certified alfalfa seed (table 2), while Mexico and Italy are the principal markets for U.S. exports of uncertified alfalfa seed (table 3).

U.S. imports

U.S. imports of alfalfa seed have fluctuated considerably, increasing in some years when domestic production was low. In the period 1962-66, imports of alfalfa seed ranged downward from 6.3 million pounds in 1962 to 25,000 pounds in 1966. Most of the imported seed came from Canada.

Table 1.—Alfalfa seed: U.S. production, imports for consumption, exports of domestic merchandise, beginning stocks, and apparent consumption, crop years 1962-67

| Year beginning July 1— | Production | Imports | Exports | | Beginning stocks | Apparent consumption 1/ |
|---|---|---|---|---|---|---|
| | | | Certified | Uncertified | | |
| | Quantity (1,000 pounds) | | | | | |
| 1962 | 119,868 | 6,336 | 2,801 | 2,451 | 29,632 | 122,368 |
| 1963 | 159,196 | 1,088 | 4,705 | 2,501 | 28,216 | 138,240 |
| 1964 | 140,142 | 317 | 6,107 | 3,155 | 43,054 | 127,131 |
| 1965 | 120,337 | 59 | 9,395 | 6,291 | 47,120 | 116,513 |
| 1966 | 117,984 | 25 | 11,664 | 6,037 | 35,317 | 101,934 |
| 1967 | 114,814 | 2/ | 2/ | 2/ | 33,691 | 2/ |
| | Value (1,000 dollars) | | | | | |
| 1962 | 49,085 | 2,217 | 1,402 | 795 | 2/ | 2/ |
| 1963 | 49,196 | 283 | 2,143 | 875 | 2/ | 2/ |
| 1964 | 43,607 | 145 | 2,762 | 939 | 2/ | 2/ |
| 1965 | 39,480 | 48 | 3,657 | 1,927 | 2/ | 2/ |
| 1966 | 41,629 | 12 | 5,115 | 2,071 | 2/ | 2/ |
| 1967 | 47,870 | 2/ | 2/ | 2/ | 2/ | 2/ |
| | Unit value (cents per pound) | | | | | |
| 1962 | 40.9 | 35.0 | 50.1 | 32.4 | 2/ | 2/ |
| 1963 | 30.0 | 26.0 | 45.5 | 35.0 | 2/ | 2/ |
| 1964 | 31.1 | 45.7 | 45.2 | 29.8 | 2/ | 2/ |
| 1965 | 32.8 | 81.4 | 38.9 | 30.6 | 2/ | 2/ |
| 1966 | 35.3 | 48.0 | 43.9 | 34.3 | 2/ | 2/ |
| 1967 | 41.7 | 2/ | 2/ | 2/ | 2/ | 2/ |

1/ Consumption takes into account changes in beginning stocks.
2/ Not available.

Source: Production and beginning stocks compiled from official statistics of the U.S. Department of Agriculture; imports and exports compiled from official statistics of the U.S. Department of Commerce.

Table 2.--Alfalfa seed, certified: U.S. exports of domestic merchandise, by principal markets, crop years, 1962-66

| Market | Year beginning July 1-- | | | | |
|---|---|---|---|---|---|
| | 1962 | 1963 | 1964 | 1965 | 1966 |
| | Quantity (1,000 pounds) | | | | |
| Canada | 1,728 | 2,828 | 3,688 | 2,761 | 4,001 |
| Chile | 198 | 730 | 22 | 22 | 220 |
| West Germany | 213 | 219 | 605 | 2,108 | 3,515 |
| Mexico | 278 | 206 | 305 | 1,417 | 1,384 |
| Greece | 245 | 187 | 196 | 89 | 75 |
| Denmark | 54 | 65 | - | 47 | 242 |
| All other | 85 | 470 | 1,291 | 1/ 2,951 | 2/ 2,227 |
| Total | 2,801 | 4,705 | 6,107 | 9,395 | 11,664 |
| | Value (1,000 dollars) | | | | |
| Canada | 954 | 1,334 | 1,732 | 1,298 | 1,776 |
| Chile | 88 | 327 | 8 | 6 | 97 |
| West Germany | 82 | 98 | 281 | 938 | 1,666 |
| Mexico | 100 | 85 | 99 | 419 | 516 |
| Greece | 114 | 83 | 95 | 39 | 33 |
| Denmark | 22 | 32 | - | 21 | 112 |
| All other | 42 | 184 | 547 | 1/ 936 | 2/ 915 |
| Total | 1,402 | 2,143 | 2,762 | 3,657 | 5,115 |
| | Unit value (cents per pound) | | | | |
| Canada | 55.2 | 47.2 | 47.0 | 47.0 | 44.4 |
| Chile | 44.4 | 44.8 | 36.4 | 27.3 | 44.1 |
| West Germany | 38.5 | 44.7 | 46.4 | 44.5 | 47.4 |
| Mexico | 36.0 | 41.3 | 32.5 | 29.6 | 37.3 |
| Greece | 46.5 | 44.4 | 48.5 | 43.8 | 44.0 |
| Denmark | 40.7 | 49.2 | - | 44.7 | 46.3 |
| All other | 49.4 | 39.1 | 42.4 | 31.7 | 41.1 |
| Average | 50.1 | 45.5 | 45.2 | 38.9 | 43.9 |

1/ Includes 557 thousand pounds, valued at 509 thousand dollars, exported to Italy.

2/ Includes 557 thousand pounds, valued at 165 thousand dollars, exported to Italy.

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

Table 3.--Alfalfa seed, uncertified: U.S. exports of domestic merchandise, by principal markets, crop years 1962-66

| Market | Year beginning July 1-- | | | | |
|---|---|---|---|---|---|
| | 1962 | 1963 | 1964 | 1965 | 1966 |
| | Quantity (1,000 pounds) | | | | |
| Mexico | 1,980 | 1,702 | 2,533 | 2,239 | 1,965 |
| Netherlands | 204 | 354 | - | - | 44 |
| Egypt | - | 177 | - | 149 | 286 |
| Canada | - | 116 | 253 | 444 | 183 |
| West Germany | 83 | 59 | - | 93 | 77 |
| All other | 184 | 93 | 369 | 1/ 3,366 | 2/ 3,482 |
| Total | 2,451 | 2,501 | 3,155 | 6,291 | 6,037 |
| | Value (1,000 dollars) | | | | |
| Mexico | 609 | 574 | 755 | 676 | 674 |
| Netherlands | 75 | 141 | - | - | 14 |
| Egypt | - | 56 | - | 56 | 130 |
| Canada | - | 39 | 88 | 180 | 76 |
| West Germany | 35 | 28 | - | 43 | 37 |
| All other | 76 | 37 | 96 | 1/ 972 | 2/ 1,140 |
| Total | 795 | 875 | 939 | 1,927 | 2,071 |
| | Unit value (cents per pound) | | | | |
| Mexico | 30.8 | 33.7 | 29.8 | 30.2 | 34.3 |
| Netherlands | 36.8 | 39.8 | - | - | 31.8 |
| Egypt | - | 31.6 | - | 37.6 | 45.5 |
| Canada | - | 33.6 | 34.8 | 40.5 | 41.5 |
| West Germany | 42.2 | 47.5 | - | 46.2 | 48.1 |
| All other | 41.3 | 39.8 | 26.0 | 28.9 | 32.7 |
| Average | 32.4 | 35.0 | 29.8 | 30.6 | 34.3 |

1/ Includes 2,656 thousand pounds, valued at 692 thousand dollars exported to Italy.

2/ Includes 3,142 thousand pounds, valued at 1,006 thousand dollars, exported to Italy.

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

| Commodity | TSUS item |
|---|---|
| Alsike clover seed---------- | 126.23 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

U.S. production and consumption of alsike clover seed have decreased sharply in the past decade. In recent years, most of the domestic consumption of alsike clover seed has been supplied from imports.

## Description and uses

Alsike clover seed is used in the production of a perennial seed and forage legume grown in the Midwest and the Pacific Northwest. The plant is well adapted to cool climates and wet soils; it will tolerate soils higher in acidity or alkalinity than most other clovers. Alsike clover is often grown in mixtures with other legumes and/or grasses as a hay and pasture crop. It produces hay equal to red clover in feeding value, but unlike red clover it generally produces only one cutting (of hay) a year.

## U.S. tariff treatment

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 126.23 | Alsike clover seed-------- | 2¢ per lb. | 1.6¢ per lb. | 1¢ per lb. |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade

negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the five annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, on alsike clover seed, based on dutiable imports in 1967, 1/ was 15.1 percent.

U.S. consumption

U.S. consumption of alsike clover seed has decreased sharply in recent years. The average annual consumption for the period 1958-63 was about 8 million pounds, which is about 55 percent of the 1948-53 average. Consumption data for years subsequent to 1963 are not available; however, annual consumption in the period 1964-66 probably averaged less than 5 million pounds. The decline in consumption has been due primarily to a decrease in the use of alsike clover as a hay and cover crop. The North Central States formerly were the largest consuming areas; the draining, fertilizing, and liming of wet and acid soils in those States has led farmers to shift to more productive forage crops. Alfalfa, ladino clover, birdsfoot trefoil, and red clover are some of the legumes that compete with alsike clover seed for use on other than wet, acid soils. Alsike clover, when grown for hay, yields only one cutting a year, while alfalfa, for example, yields two or more cuttings a year, depending on the climate.

U.S. producers

In 1959 alsike clover seed was harvested from 26,366 acres on 1,053 U.S. farms. In 1964 the acreage had decreased to 4,313 and the number of U.S. farms producing alsike clover seed had decreased to 181. In 1964 four States (Minnesota, Idaho, Ohio, and Illinois) accounted for about 85 percent of the production of alsike clover seed.

Alsike clover, even when it is cultivated primarily for the seed, is generally grown in rotation with other crops and is not the primary source of income for most producers. The price received by producers for alsike clover seed declined from an annual average of $29.26 per 100 pounds in the years 1942-51 to one of $17.94 per 100 pounds in the years 1958-63.

1/ Ad valorem equivalents are computed on a calendar year basis; all other years in this summary are crop years beginning July 1, except as noted.

U.S. production

Average annual U.S. production of alsike clover seed decreased from 13 million pounds in the period 1948-53 to about 4 million pounds in the 1958-64 period. In the latter period annual production continued to decrease; output in 1964 (the most recent year for which data are available) was about 700,000 pounds (see table), compared with production of nearly 9 million pounds in 1958. The rapid decline since 1959 in acreage of alsike clover seed harvested parallels the decline in production of such seed. The acreage in 1960 was about 65 percent of the 1959 acreage. Acreage continued to decline in subsequent years and in 1964 amounted to about 13 percent of what it was in 1959.

U.S. exports

Annual U.S. exports of alsike clover seed averaged about 250,000 pounds during 1958-63. France, West Germany, the Netherlands, and Japan were the principal foreign markets. Data on exports since the 1963 crop year are not available.

U.S. imports

Annual U.S. imports of alsike clover seed amounted to about 2.5 million pounds in 1948-54 and to about 4.4 million pounds in 1962-66. Owing to the decline in domestic production of alsike clover seed, imports have supplied an increasing share of domestic consumption. In recent years, Canada has been the sole source of imported alsike clover seed; Canadian seed is equal to domestic seed in quality. Alsike clover seed production is well adapted to the soil, climate, and crop rotations of western Canada--particularly Alberta.

The Tariff Commission has twice investigated alsike clover seed under under the escape-clause procedure of section 7, Trade Agreements Extension Act of 1951, as amended. Following the Commission's first investigation, 1/ the President, by proclamation dated June 30, 1954, provided for a tariff quota on alsike clover seed of 1.5 million pounds during the 1954 crop year. The quota was increased to 2.5 million pounds for each of the years 1955 and 1956, and then to 3 million pounds a year for 1957 and 1958. All imports within the quota were dutiable

1/ U.S. Tariff Commission, Alsike Clover Seed: Report to the President on Escape-Clause Investigation No. 7-31 ..., 1954; Alsike Clover Seed: Supplementary Report to the President on Escape-Clause Investigation No. 7-31 ..., 1955.

at 2 cents per pound, and imports over the quota were dutiable at 6 cents per pound. Effective July 1, 1959, the tariff quota expired and all imports became dutiable at 2 cents per pound.

In the Tariff Commission's 1961 report to the President on its second escape-clause investigation of alsike clover seed, 1/ 2 Commissioners recommended that no additional restrictions be imposed on imports and 2 Commissioners recommended the establishment of an annual tariff quota of 1.5 million pounds for an indefinite period beginning July 1, 1961. The President accepted the finding of the 2 Commissioners who recommended that no additional restrictions be imposed on imports.

1/ U.S. Tariff Commission, Alsike Clover Seed: Report to the President on Escape-Clause Investigation No. 7-103..., T.C. Publication 29, 1961.

Alsike clover seed: U.S. production, imports for consumption, exports of domestic merchandise and apparent consumption, crop years 1962-66

| Year beginning July 1-- | Production | Imports | Exports | Apparent consumption |
|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | |
| 1962 | 844 | 5,554 | 327 | 6,071 |
| 1963 | 408 | 4,465 | 403 | 4,470 |
| 1964 | 1/ 714 | 2,193 | 2/ 86 | 3/ |
| 1965 | 3/ | 5,494 | 3/ | 3/ |
| 1966 | 3/ | 4,496 | 3/ | 3/ |
| | Value (1,000 dollars) | | | |
| 1962 | 137 | 836 | 57 | 3/ |
| 1963 | 67 | 746 | 138 | 3/ |
| 1964 | 1/ 121 | 406 | 2/ 21 | 3/ |
| 1965 | 3/ | 861 | 3/ | 3/ |
| 1966 | 3/ | 587 | 3/ | 3/ |
| | Unit value (cents per pound) | | | |
| 1962 | 16.2 | 15.1 | 17.4 | 3/ |
| 1963 | 16.4 | 16.7 | 34.2 | 3/ |
| 1964 | 16.9 | 18.5 | 24.4 | 3/ |
| 1965 | 3/ | 15.7 | 3/ | 3/ |
| 1966 | 3/ | 13.1 | 3/ | 3/ |

1/ As reported by the 1964 United States Census of Agriculture.
2/ July-December 1964. Not available after Dec. 31, 1964.
3/ Not available.

Source: Production and beginning stocks compiled from official statistics of the U.S. Department of Agriculture, except as noted; imports and exports compiled from official statistics of the U.S. Department of Commerce.

| Commodity | TSUS item |
|---|---|
| Crimson clover seed---------- | 126.25 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

Since 1959 nearly all of the U.S. consumption of crimson clover seed has been supplied from domestic production. U.S. exports are estimated to be small.

## Comment

Crimson clover seed is used in the production of an annual legume grown primarily in the Southern and Pacific Coast States as a winter annual and to a small extent in the New England States as a summer annual. The plant provides pasture at lower temperatures than most other clovers. In the Southern States crimson clover can be grazed during the winter and harvested for seed later; it is also used as a hay, silage, and green-manure crop.

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 126.25 | Crimson clover seed--------- | 0.8¢ per lb. | 0.45¢ per lb. | Free |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the five annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports in 1965, 1/ (the latest year in which there were imports) averaged 11.4 percent. For products of Hungary, which has supplied imports of crimson clover seed in some years, the rate of duty is (as indicated in part e of general headnote 3 mentioned above) the column 2 rate of 2 cents per pound.

U.S. consumption of crimson clover seed increased in the 1940's largely as a result of the Government soil conservation programs and the development of varieties which reseed themselves--thus making crimson clover a more desirable crop. Annual domestic consumption averaged about 30 million pounds during 1951-54 but declined to an average of 11.3 million pounds during the period 1962-66 (see table).

Domestic production of crimson clover seed is centered in the Pacific coast area and the South; Oregon is the leading producing State, with about 70 percent of the output. In 1964, crimson clover seed was harvested from about 45,500 acres on 1,730 U.S. farms. Annual U.S. production of crimson clover seed decreased from an average of 24 million pounds during 1951-54 to an average of about 10.7 million pounds during 1962-66.

Statistics on U.S. exports of crimson clover seed are not available. It is estimated, however, that exports of such seed have been small in recent years.

U.S. imports declined from a high of about 14 million pounds in 1951 to virtually none in years subsequent to 1961. During the period 1962-66, annual U.S. imports averaged 24,400 pounds, with an average value of $2,600, and accounted for a negligible portion of U.S. consumption. Prior to 1960, Italy, France, and West Germany were large suppliers of imported crimson clover seed. Beginning in 1960, Hungary, Canada, and India accounted for the small imports.

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1/ In this summary the ad valorem equivalent is computed on a calendar year basis; all other years are crop years beginning July 1, except as noted.

Crimson clover seed: U.S. production, imports for consumption beginning stocks, and apparent consumption, crop years 1962-67

| Year beginning July 1-- | Production | | Imports | | Beginning stocks | Consumption 1/ |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | | |
| | 1,000 pounds | 1,000 dollars | 1,000 pounds | 1,000 dollars | 1,000 pounds | 1,000 pounds |
| 1962 | 13,105 | 1,951 | 21 | 4 | 2,913 | 13,524 |
| 1963 | 10,616 | 2,149 | 45 | 4 | 2,515 | 10,557 |
| 1964 | 12,699 | 1,822 | 11 | 2 | 2,619 | 11,729 |
| 1965 | 8,670 | 1,641 | 45 | 3 | 3,600 | 10,360 |
| 1966 | 8,214 | 1,713 | - | - | 1,955 | 9,832 |
| 1967 | 7,905 | 1,768 | 2/ | 2/ | 337 | 2/ |

1/ Consumption includes changes in beginning stocks but does not take into account U.S. exports which are estimated to be small.
2/ Not available.

Source: Production and beginning stocks compiled from official statistics of the U.S. Department of Agriculture; imports compiled from official statistics of the U.S. Department of Commerce.

| Commodity | TSUS item |
|---|---|
| Red clover seed---------- | 126.27 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

The United States accounts for a large part of the world production of red clover seed. U.S. imports of red clover seed generally account for less than 5 percent of consumption, and exports are small.

## Description and uses

Red clover seed is used in growing a perennial legume which generally grows as a biennial or short-lived perennial owing to the adverse effect of diseases and severe winter weather. Red clover is the most widely grown of all clovers in the United States; in the Midwest it is second as a forage crop only to alfalfa. Red clover is grown as hay, as pasture, and as a soil-improving crop, usually in combination with other legumes and grasses.

## U.S. tariff treatment and other import requirements

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 126.27 | Red clover seed---------- | 2¢ per lb. | 1.5¢ per lb. | 1¢ per lb. |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the five annual rate modifications are shown above (see the TSUSA-1969 for all

the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports in 1967, 1/ averaged 13.2 percent. The ad valorem equivalents for imports from individual countries ranged from 1.3 percent for imports from the United Kingdom to 13.3 percent for those from Canada, the principal supplier.

The Federal Seed Act requires that imported red clover seed be stained to identify its origin; such seed imported from countries other than Canada is listed in that Act as being "unadapted for general agricultural use in the United States." Ten percent of the red clover seed in each container imported from sources other than Canada or South America must be stained red, 10 percent of such seed from South America must be stained orange red, and 1 percent of such seed from Canada must be stained violet.

## U.S. consumption

U.S. consumption of red clover seed decreased from a high of about 113 million pounds in 1950 to approximately 80 million pounds in the mid-1950's and has declined slowly since then. During the period 1962-66, annual consumption of red clover seed averaged about 70 million pounds.

## U.S. producers and production

It is estimated that the United States produces more than 40 percent of the world production of red clover seed; France, Canada, and Italy are also large producers. Most of the domestic red clover seed is produced in the Midwest; that area accounts for about 75 percent of U.S. production in most years. In 1964 red clover seed was harvested from 822,500 acres on 57,415 U.S. farms.

Following the record output of 149 million pounds in 1950, domestic production of red clover seed ranged from 99 million pounds downward to 46 million pounds--the latter in 1967. During the 5-year period 1963-67, annual production averaged about 66 million pounds.

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1/ The ad valorem equivalent is computed on a calendar year basis; all other years in this summary are crop years beginning July 1, except as noted.

U.S. exports and imports

Separate export statistics were not available for red clover seed prior to January 1, 1965. For the 2-year period July 1, 1965-June 30, 1967, annual exports of red clover seed averaged about 3.3 million pounds, with an average value of $936,000. In recent years, Italy, Japan, and Australia have been the principal foreign markets for such U.S. seed.

U.S. imports of red clover seed declined from a postwar high of 9.5 million pounds in 1961 to a low of 1.3 million pounds in 1965. During the 1962-66 period, annual imports of red clover seed averaged 2.7 million pounds, valued at $628,000; on the average such imports were equivalent to about 4 percent of consumption and of production. Nearly all of the imported red clover seed comes from Canada.

Red clover seed: U.S. production, imports for consumption, exports of domestic merchandise, beginning stocks, and apparent consumption, crop years 1962-67

| Year beginning July 1-- | Production | Imports | Exports | Beginning stocks | Apparent consumption 1/ |
|---|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | | |
| 1962 | 70,819 | 4,138 | 2/ | 21,876 | 76,215 |
| 1963 | 75,132 | 2,710 | 2/ | 20,618 | 75,547 |
| 1964 | 80,755 | 1,459 | 3/ 706 | 22,913 | 71,223 |
| 1965 | 64,832 | 1,298 | 4,334 | 33,198 | 63,974 |
| 1966 | 64,119 | 3,676 | 2,232 | 31,020 | 64,358 |
| 1967 | 45,994 | 2/ | 2/ | 32,225 | 2/ |
| | Value (1,000 dollars) | | | | |
| 1962 | 22,447 | 1,161 | 2/ | 2/ | 2/ |
| 1963 | 24,294 | 764 | 2/ | 2/ | 2/ |
| 1964 | 19,197 | 339 | 3/ 228 | 2/ | 2/ |
| 1965 | 14,774 | 268 | 1,272 | 2/ | 2/ |
| 1966 | 14,551 | 609 | 601 | 2/ | 2/ |
| 1967 | 11,815 | 2/ | 2/ | 2/ | 2/ |
| | Unit value (cents per pound) | | | | |
| 1962 | 31.7 | 28.1 | 2/ | 2/ | 2/ |
| 1963 | 32.3 | 28.2 | 2/ | 2/ | 2/ |
| 1964 | 23.8 | 23.2 | 32.3 | 2/ | 2/ |
| 1965 | 22.8 | 20.6 | 29.3 | 2/ | 2/ |
| 1966 | 22.7 | 16.6 | 26.0 | 2/ | 2/ |
| 1967 | 25.7 | 2/ | 2/ | 2/ | 2/ |

1/ Consumption takes into account beginning stocks and excludes exports when available.

2/ Not available. 3/ For January-June 1965.

Source: Production and beginning stocks compiled from official statistics of the U.S. Department of Agriculture; imports and exports compiled from official statistics of the U.S. Department of Commerce.

Note.--In crop years 1962-66 the ratio of imports to consumption, based on quantity, ranged from 2.0 to 5.7 percent.

| Commodity | TSUS item |
|---|---|
| Sweet clover seed---------- | 126.29 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

There has been a downward trend in the domestic production and consumption of sweet clover seed since 1950. In recent years imports of sweet clover seed have accounted for about 35 percent of consumption; exports of such seed are believed to be small.

## Description and uses

Most sweet clover seed is used in growing biennial legumes, but some annual forms are also grown. These legumes are among the more important soil-improving crops, but they are also used for pasture and hay. Sweet clovers have long tap roots, similar to those of alfalfa. These clovers are hardy and drought resistant, growing well under a wide range of soil and climatic conditions. In the United States sweet clovers are grown primarily in the Corn Belt and the Plains States.

## U.S. tariff treatment

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969), are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 126.29 | Sweet clover seed--------- | 0.8¢ per lb. | 0.64¢ per lb. | 0.4¢ per lb. |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the five

annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on imports in 1967, 1/ was 10.7 percent. All the imports were from Canada.

U.S. consumption

U.S. consumption of sweet clover seed declined steadily after 1950. In that year domestic consumption amounted to about 77 million pounds, compared with an annual average of 29.9 million pounds during the period 1962-66. The domestic consumption of such seed is concentrated in the Central States. The declining consumption of sweet clover seed has resulted primarily from farmers in those States shifting production to more profitable cash crops (e.g., corn and soybeans) and to other forage crops.

U.S. producers and production

In 1964, sweet clover seed was harvested from about 111,000 acres, on about 5,600 U.S. farms; about 85 percent of these farms were in the North Central States. In that year domestic producers of sweet clover seed harvested an average per farm of about 20 acres of such seed, valued at about $280. Production of sweet clover seed is a minor source of income for most producers.

The domestic production of sweet clover seed declined from a high of 84 million pounds in 1950 to an annual average of 21 million pounds during the years 1962-66 (see table). The number of acres devoted to the production of such seed declined from 550,000 in 1950 to an annual average of about 105,000 during 1962-66.

1/ In this summary the ad valorem equivalent is computed on a calendar year basis; all other years are crop years beginning July 1, except as noted.

U.S. exports and imports

Separate statistics on U.S. exports are not available for sweet clover seed, but exports are believed to be small.

In the years since 1950, annual imports of sweet clover seed have ranged from 7 to 15 million pounds. During the period 1962-66, such imports averaged 10.2 million pounds, with an average value of $1.1 million. Imports in that period were equivalent to about 35 percent of consumption and 50 percent of production. Nearly all of the U.S. imports of sweet clover seed come from Canada.

Sweet clover seed: U.S. production, imports for consumption, beginning stocks, and apparent consumption, crop years 1962-67

| Year beginning July 1-- | Production | Imports | Beginning stocks | Apparent consumption 1/ |
|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | |
| 1962 | 20,395 | 11,058 | 5,751 | 29,131 |
| 1963 | 27,507 | 13,051 | 8,073 | 36,530 |
| 1964 | 24,575 | 9,199 | 12,101 | 32,348 |
| 1965 | 17,206 | 7,071 | 13,527 | 26,536 |
| 1966 | 15,437 | 10,430 | 11,275 | 24,883 |
| 1967 | 12,356 | 2/ | 12,259 | 2/ |
| | Value (1,000 dollars) | | | |
| 1962 | 2,577 | 1,802 | 2/ | 2/ |
| 1963 | 2,984 | 1,450 | 2/ | 2/ |
| 1964 | 1,694 | 719 | 2/ | 2/ |
| 1965 | 1,219 | 580 | 2/ | 2/ |
| 1966 | 1,059 | 774 | 2/ | 2/ |
| 1967 | 803 | 2/ | 2/ | 2/ |
| | Unit value (cents per pound) | | | |
| 1962 | 12.6 | 16.3 | 2/ | 2/ |
| 1963 | 10.8 | 11.1 | 2/ | 2/ |
| 1964 | 6.9 | 7.8 | 2/ | 2/ |
| 1965 | 7.1 | 8.2 | 2/ | 2/ |
| 1966 | 6.9 | 7.4 | 2/ | 2/ |
| 1967 | 6.5 | 2/ | 2/ | 2/ |

1/ Consumption does not take into account exports, which are believed to be small.

2/ Not available.

Source: Production and beginning stocks compiled from official statistics of the U.S. Department of Agriculture; imports compiled from official statistics of the U.S. Department of Commerce.

Note.--In crop years 1962-66 the ratio of imports to consumption, based on quantity, was as follows: 1962--38.0 percent; 1963--35.7 percent; 1964--28.4 percent; 1965--26.6 percent; and 1966--41.9 percent.

| Commodity | TSUS item |
|---|---|
| White and ladino clover seed---------- | 126.31 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

Nearly all of the U.S. consumption of white and ladino clover seed is supplied from domestic production. U.S. imports of such seed consist almost entirely of white clover seed, while nearly all of the U.S. exports are of ladino clover seed.

## Description and uses

White clover seed is used in growing a perennial legume found in a number of different forms. Ladino clover is a type of white clover similar to common white, but two to four times as large. White and ladino clover propagate either by seed or by creeping stems which root at the nodes. Various forms of white clover are used throughout the world for pasture legumes, cover crops, and lawns. When grown in mixtures with grasses and other legumes, they are often used as hay or silage crops.

## U.S. tariff treatment

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 126.31 | White and ladino clover seed. | 3.2¢ per lb. | 2.5¢ per lb. | 1.6¢ per lb. |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the five

annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the speicfic rate of duty in effect on December 31, 1967, based on imports in 1967, 1/ averaged 12.1 percent. The ad valorem equivalents for imports from individual countries ranged from 1.6 percent for imports from the United Kingdom to 12.6 percent for those from Canada, the principal supplier.

## U.S. consumption

The aggregate U.S. consumption of white and ladino clover seed reached a high of nearly 15 million pounds in 1952. After that year, consumption of such seed fluctuated downward to an annual average of 7.2 million pounds during 1962-66. In that 5-year period white clover seed accounted for more than 65 percent of consumption.

## U.S. producers

White clover seed was produced on 454 farms in the United States in 1964. Idaho was the principal producing State; farms in that State accounted for more than 65 percent of the U.S. production of such seed in 1964, and an average of more than 60 acres of white clover seed per farm was harvested.

In 1964 ladino clover seed was produced on 176 farms in the United States. More than 65 percent of these farms were in California; the California farms produced 99 percent of the U.S. output, and an average of 119 acres of such seed per farm was harvested. Ladino clover seed is probably the primary source of income for most producers of such seed in California.

## U.S. production

The aggregate U.S. output of white and ladino clover seed reached a high of 18 million pounds in 1951 and 1952. In succeeding years annual production fluctuated between 5 million and 14 million pounds. During the period 1962-66 the average annual production of white and ladino clover seed amounted to about 10 million pounds (see table); on the average, white clover seed and ladino clover seed each accounted for about half of the total.

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1/ The ad valorem equivalent is computed on a calendar year basis; all other years in this summary are crop years beginning July 1, except as noted.

U.S. exports

Separate statistics are not available on U.S. exports of white clover seed, but such exports are believed to be negligible. After 1957, U.S. exports of ladino clover seed increased steadily until they reached a high of 3.6 million pounds, valued at $1.9 million, in 1963. In the 5-year period 1962-66, annual exports of such seed averaged 3.0 million pounds, valued at $1.7 million. In recent years the principal export markets have been Italy, Japan, Canada and Australia.

U.S. imports

U.S. imports of white and ladino clover seed consist almost entirely of white clover seed. From 1956 until 1966, such imports amounted to less than 500,000 pounds in any year. In the period 1962-66, annual U.S. imports of white and ladino clover seed averaged 297,000 pounds, with an average value of $116,800, equivalent (on a quantity basis) to about 4 percent of domestic consumption during that period. New Zealand and Canada were the principal sources of the imported seed.

White and ladino clover seed: U.S. production, imports for consumption, exports of domestic merchandise, beginning stocks, and apparent consumption, crop years 1962-67

| Year beginning July 1-- | Production | Imports | Exports 1/ | Beginning stocks | Apparent consumption |
|---|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | | |
| 1962 | 9,426 | 237 | 2,448 | 4,519 | 7,685 |
| 1963 | 13,733 | 390 | 3,575 | 4,049 | 8,766 |
| 1964 | 10,722 | 248 | 2,570 | 5,831 | 6,906 |
| 1965 | 8,956 | 84 | 3,259 | 7,325 | 6,753 |
| 1966 | 7,845 | 526 | 3,373 | 6,397 | 6,095 |
| 1967 | 4,921 | 2/ | 2/ | 5,300 | 2/ |
| | Value (1,000 dollars) | | | | |
| 1962 | 5,684 | 113 | 1,589 | 2/ | 2/ |
| 1963 | 5,692 | 209 | 1,943 | 2/ | 2/ |
| 1964 | 4,632 | 90 | 1,456 | 2/ | 2/ |
| 1965 | 3,679 | 46 | 1,699 | 2/ | 2/ |
| 1966 | 3,362 | 126 | 1,845 | 2/ | 2/ |
| 1967 | 2,773 | 2/ | 2/ | 2/ | 2/ |
| | Unit value (cents per pound) | | | | |
| 1962 | 60.3 | 47.7 | 64.9 | 2/ | 2/ |
| 1963 | 41.4 | 53.6 | 54.3 | 2/ | 2/ |
| 1964 | 43.2 | 36.3 | 56.7 | 2/ | 2/ |
| 1965 | 41.1 | 54.8 | 52.1 | 2/ | 2/ |
| 1966 | 42.9 | 24.0 | 54.7 | 2/ | 2/ |
| 1967 | 56.4 | 2/ | 2/ | 2/ | 2/ |

1/ Statistics are for ladino clover seed only; exports of white clover seed are believed to be small.
2/ Not available.

Source: Production and beginning stocks compiled from official statistics of the U.S. Department of Agriculture; imports and exports compiled from official statistics of the U.S. Department of Commerce.

| Commodity | TSUS item |
|---|---|
| Other clover seeds---------- | 126.33 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

Other clover seeds are of minor importance as forage crop seeds. U.S. imports of these seeds have been small in most years.

## Comment

The item other clover seeds includes all clover seeds except alsike, crimson, red, sweet, and white and ladino clovers, which are separately provided for. The principal species of clover included in this item are alyce, berseem, hop, Persian, strawberry, and subterranean.

Alyce clover is a summer annual grown in the gulf coast area for hay and soil improvement. Berseem clover is a winter annual grown in the Southwest for pasture, hay, and silage. Hop clover, a winter annual, is used in the South and on the Pacific coast, principally for pasture. Persian clover, also a winter annual, is grown for pasture, hay, and soil improvement in the South. Strawberry clover, a long-lived perennial, is a pasture crop grown principally in the Western States. Subterranean clover, an annual, is used principally for pasture in Pacific coast areas.

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1971 |
| 126.33 | Other clover seeds------- | 2¢ per lb. | 1.5¢ per lb. | 1¢ per lb. |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the

second (that in effect during 1969) and final stages of the four annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on imports in 1967, 1/ averaged 6.6 percent. The ad valorem equivalents for imports from individual countries ranged from 6.0 percent for imports from Australia, the largest supplier, to 17.2 percent for those from Canada.

On the basis of production figures in the 1964 United States Census of Agriculture, it is estimated that annual U.S. production of other clover seeds has declined to about 2 million pounds in recent years.

Figures on the domestic consumption of other clover seeds are not available. However, over a period of several years, average annual consumption has probably been about equal to the average annual production of such seed.

Domestic production of most of the seeds in this category is scattered throughout the Southern and Pacific Coast States, generally in the same areas where the seeds are used for the production of forage.

Statistics on U.S. exports of other clover seeds are not available. It is estimated that exports of such seeds have been equal to or have slightly exceeded the U.S. imports of other clover seeds in most years. According to informed sources in the seed trade, exports of other clover seeds consist in large part of berseem clover seed.

U.S. imports of other clover seeds fluctuate a good deal from year to year. During the period 1962-66 such imports ranged from about 700,000 pounds in 1962 to about 200,000 pounds in 1963, and averaged 416,000 pounds a year (see table). Much of the imported seed in this class is subterranean clover seed from Australia.

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1/ The ad valorem equivalent is computed on a calendar year basis; all other years in this summary are crop years beginning July 1, except as noted.

"Other clover seeds": U.S. imports for consumption, crop years 1962-66

| Year beginning July 1-- | Quantity | Value | Unit value |
|---|---|---|---|
| | 1,000 pounds | 1,000 dollars | Cents per pound |
| 1962 | 698 | 165 | 23.6 |
| 1963 | 196 | 56 | 28.6 |
| 1964 | 416 | 228 | 54.8 |
| 1965 | 333 | 124 | 37.2 |
| 1966 | 438 | 141 | 32.2 |

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

| Commodity | TSUS item |
|---|---|
| Millet seed---------- | 126.57 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

Nearly all of U.S. consumption of millet seed is supplied from domestic production. U.S. imports have been small, estimated to be equivalent to about 1 percent of domestic production; exports have been considerably less than imports.

Comment

Millet seeds are used in growing annual forages for use as hay and pasture crops or for grain. The principal types of millet grown in the United States are proso, foxtail, Japanese, and pearl. Proso millet is grown mainly in Colorado and Nebraska and is used as a feed grain and as bird food. Foxtail millet is grown primarily in the Great Plains as a hay and pasture crop. Japanese millet is grown in the North Atlantic States for pasture and silage. Pearl millet is used primarily for pasture, particularly in the South. Much of the imported millet seed arrives still attached to the seed stalk; in this form, it is called millet spray and is used for bird food. Millet spray is not produced in large quantities in the United States because of the high costs entailed, since it requires much labor and special handling, but some is imported in bulk and prepared in retail-size packages for the pet shop trade.

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concession granted in 1964-67 trade conference (Kennedy Round), effective Jan. 1, 1968 |
|---|---|---|---|
| 126.57 | Millet seed---------- | 0.4¢ per lb. | 0.3¢ per lb. |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and the modification therein as a result of a concession granted by the United States in the sixth round of trade

negotiations under the General Agreement on Tariffs and Trade. During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The specific rate of duty in effect on December 31, 1967 on item 126.57 was equivalent to 0.6 percent ad valorem, based on dutiable imports of this item in 1967. 1/ The ad valorem equivalents for imports from individual countries ranged from 0.4 percent for imports from Canada to 2.5 percent for those from Italy.

Nearly all of U.S. consumption of millet seed is supplied from domestic production. Annual consumption of millet seed is estimated to be about 220 million pounds. Approximately 90 percent of the estimated production and consumption of millet seed is proso millet, which is used as a feed grain and as bird food.

Data on U.S. production of all types of millet seed are not available. According to the United States Census of Agriculture, however, domestic production of foxtail and proso millet seed in 1964 totaled approximately 196 million pounds, compared with 170 million pounds in 1959 (see table).

In 1964 seed of foxtail and proso millet (which two types of millet probably account for more than 90 percent of the domestic production of millet seed) was harvested on about 442 and 5,424 farms, respectively. About 10,000 acres of foxtail millet seed were harvested, yielding a crop valued at $0.5 million; approximately 238,000 acres of proso millet seed were harvested, yielding a crop valued at $3.7 million. Georgia, Arizona, and Texas supplied large quantities of foxtail millet seed; North Dakota, South Dakota, and Colorado supplied most of the proso millet seed.

Official statistics are not available for U.S. exports of millet seed. Canada is believed to be the principal market for such exports. According to Canadian import data, annual U.S. exports of such seed to Canada ranged from 413,000 to 750,000 pounds during 1962-66 and averaged 523,000 pounds.

Since the early 1950's, U.S. imports of millet seed have fluctuated downward, except for a slight upward trend after 1960. Imports ranged from 12.8 million pounds in 1952 to 0.7 million pounds in 1965. Annual U.S. imports of millet (all types) averaged about 1.3 million pounds during 1962-66, equivalent to about 1 percent of domestic production. During these years, an annual average of approximately 275,000 pounds was imported for seed under the Federal Seed Act for

1/ Ad valorem equivalents are computed on a calendar year basis; all other years in this summary are crop years beginning July 1.

planting purposes. As previously stated, all but a small part of the imported seed is used for bird food, and most of it arrives in the form of millet spray. In recent years, France and Canada have been the principal sources. Bird food from France is usually in bulk; whereas that from Canada is in retail packages. As a consequence of the high packaging costs, imports from Canada have an average value nearly double that of imports from France.

Millet seed: U.S. production and imports for consumption, crop years 1959 and 1962-66

| Year beginning July 1-- | Production | Imports | |
|---|---|---|---|
| | | All types | For seed purposes 1/ |
| | Quantity (1,000 pounds) | | |
| 1959 | 2/ 169,610 | 1,701 | 158 |
| 1962 | 3/ | 1,006 | 40 |
| 1963 | 3/ | 1,499 | 510 |
| 1964 | 2/ 195,850 | 2,546 | 717 |
| 1965 | 3/ | 691 | 102 |
| 1966 | 3/ | 883 | 3/ |
| | Value (1,000 dollars) | | |
| 1959 | 2/ 4,162 | 382 | 3/ |
| 1962 | 3/ | 627 | 3/ |
| 1963 | 3/ | 550 | 3/ |
| 1964 | 2/ 4,165 | 670 | 3/ |
| 1965 | 3/ | 380 | 3/ |
| 1966 | 3/ | 506 | 3/ |
| | Unit value (cents per pound) | | |
| 1959 | 2.5 | 22.5 | 3/ |
| 1962 | 3/ | 62.3 | 3/ |
| 1963 | 3/ | 36.7 | 3/ |
| 1964 | 2.1 | 26.3 | 3/ |
| 1965 | 3/ | 55.0 | 3/ |
| 1966 | 3/ | 57.3 | 3/ |

1/ Seed offered for importation under the Federal Seed Act, for seed purposes.

2/ Complete statistics are not available; figures shown are for foxtail millet and proso millet seed, as reported in the 1964 United States Census of Agriculture.

3/ Not available.

| Commodity | TSUS item |
|---|---|
| Orchard grass seed---------- | 126.63 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

U.S. consumption of orchard grass seed has declined in recent years. Imports have supplied about one-third of domestic consumption. U.S. exports of orchard grass seed have been small.

## Comment

Orchard grass seed is used in growing a tall, perennial, bunch type of grass. The grass is tolerant of shade and may therefore be grown in orchards and other shaded areas; it is less winter hardy than most of the major grasses. Orchard grass is usually grown in mixtures with other grasses or legumes in nearly every section of the United States; however, it is grown principally in the States north and east of Arkansas.

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 126.63 | Orchard grass seed-------- | 2.5¢ per lb. | 2¢ per lb. | 1.2¢ per lb. |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the five annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the

TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on imports in 1967, 1/ averaged 19.2 percent. The ad valorem equivalents for imports from individual countries ranged from 4.5 percent for imports from Canada to 19.5 percent for those from Denmark, the leading supplier.

U.S. consumption of orchard grass seed increased sharply in the 1940's and reached a high of more than 19 million pounds in the early 1950's. After a short decline, consumption again increased in the late 1950's and early 1960's reaching a peak of 20.3 million pounds in 1962 and then declined to 14.6 million pounds in 1966. Consumption averaged about 17.5 million pounds a year during 1962-66 (see table). The rise in consumption of orchard grass seed resulted largely from its increased use in mixtures with other grasses or legumes for hay and pasture.

Nearly all of the U.S. output of orchard grass seed is grown in Virginia, Oregon, Kentucky, and Missouri. In 1964 about 3,500 U.S. farms produced orchard grass seed, and an average of about 20 acres per farm was harvested.

The domestic output of orchard grass seed has fluctuated considerably from year to year. Since 1950, annual production of such seed has ranged from 6 million pounds to 16 million pounds. The average annual production during 1962-66 amounted to nearly 13 million pounds.

During 1950-64, annual U.S. exports of orchard grass seed averaged less than 500,000 pounds; in 1961-63 (the latest years for which complete data are available) annual exports of such seed averaged about 110,000 pounds, valued at $30,000. Japan and Canada have been the principal foreign markets for the small U.S. exports of orchard grass seed.

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1/ The ad valorem equivalent is computed on a calendar year basis; all other years in this summary are crop years beginning July 1, except as noted.

Following a reduction in the rate of duty (from 5 cents per pound to 2.5 cents per pound) in May 1950, U.S. imports of orchard grass seed increased sharply, from a negligible amount to an average of 4.5 million pounds annually during 1951-54. The increase may be attributable, in part, to the reduction in the rate of duty and, in part, to a substantial increase in domestic demand. During 1962-66, such imports averaged 5.5 million pounds, valued at $1.1 million, a year and were equivalent, in terms of quantity, to about one-third of domestic consumption. Denmark is the principal foreign supplier of orchard grass seed, accounting for more than three-fourths of U.S. imports in most recent years.

Orchard grass seed: U.S. production, imports for consumption, exports of domestic merchandise, beginning stocks, and apparent consumption, crop years 1962-67

| Year beginning July 1-- | Production | Imports | Exports | Beginning stocks | Apparent consumption 1/ |
|---|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | | |
| 1962 | 15,865 | 5,159 | 110 | 3,541 | 20,323 |
| 1963 | 8,680 | 7,553 | 37 | 4,132 | 17,482 |
| 1964 | 14,940 | 5,370 | 2/ 134 | 2,846 | 17,973 |
| 1965 | 13,490 | 3,795 | 3/ | 5,049 | 17,027 |
| 1966 | 10,010 | 5,477 | 3/ | 5,307 | 14,583 |
| 1967 | 6,880 | 3/ | 3/ | 6,211 | 3/ |
| | Value (1,000 dollars) | | | | |
| 1962 | 2,725 | 1,114 | 32 | 3/ | 3/ |
| 1963 | 2,077 | 1,997 | 16 | 3/ | 3/ |
| 1964 | 2,411 | 966 | 2/ 33 | 3/ | 3/ |
| 1965 | 2,094 | 699 | 3/ | 3/ | 3/ |
| 1966 | 1,501 | 793 | 3/ | 3/ | 3/ |
| 1967 | 1,051 | 3/ | 3/ | 3/ | 3/ |
| | Unit value (cents per pound) | | | | |
| 1962 | 17.2 | 21.6 | 29.1 | 3/ | 3/ |
| 1963 | 23.9 | 26.4 | 43.2 | 3/ | 3/ |
| 1964 | 16.1 | 18.0 | 2/ 24.6 | 3/ | 3/ |
| 1965 | 15.5 | 17.6 | 3/ | 3/ | 3/ |
| 1966 | 15.0 | 14.5 | 3/ | 3/ | 3/ |
| 1967 | 15.3 | 3/ | 3/ | 3/ | 3/ |

1/ Consumption takes into account changes in stocks.

2/ Figure for July 1, 1964, through Dec. 31, 1964; no data available for period since Dec. 31, 1964.

3/ Not available.

Source: Production and beginning stocks compiled from official statistics of the U.S. Department of Agriculture; imports and exports compiled from official statistics of the U.S. Department of Commerce.

Note.--In crop years 1962-66 the ratio of imports to consumption, based on quantity, was as follows: 1962--25.4 percent; 1963--43.2 percent; 1964--29.9 percent; 1965--22.3 percent; and 1966--37.6 percent.

| Commodity | TSUS item |
|---|---|
| Sesbania seed | 126.79 |
| Hairy vetch seed | 126.91 |
| Other vetch seed | 126.93 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

U.S. production and consumption of sesbania seed has been negligible in recent years. Domestic production of vetch seed is substantial and has supplied nearly all of the U.S. requirements. U.S. imports and exports of vetch seed have been negligible.

## Comment

Sesbania seed is used in growing an annual subtropical legume which reaches a height of 6 to 8 feet. The legume is occasionally used as a green-manure crop or as a cover crop in orchards in the Southern States. Since livestock dislike sesbania, it has little value as a forage crop. Vetch seed produce semi-viny, leguminous plants. Hairy vetch is a biennial, whereas most of the other vetches are winter annuals. The principal species of vetch included in the other vetch seed category are common, Hungarian, purple, and smooth vetch. The vetches are used for cover crops in orchards, for temporary pasture, or for hay or silage, primarily in the Southern and Western States.

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 126.79 | Sesbania | 2¢ per lb. | 1/ | 1/ |
| 126.91 | Hairy vetch | 3¢ per lb. | 2.4¢ per lb. | 1.5¢ per lb. |
| 126.93 | Other vetch | 1¢ per lb. | 0.8¢ per lb. | 0.5¢ per lb. |

1/ Duty status not affected by trade conference.

The tabulation above shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the five annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rates shown above did not change.

The ad valorem equivalents 1/ of the specific duties in effect on December 31, 1967, on items 126.79 and 126.91, based on dutiable imports in 1966, the latest year of importation of these items, were 25.0 percent and 31.1 percent, respectively. The ad valorem equivalent of the specific duty in effect on the same date on item 126.93, based on dutiable imports in 1967, was 18.7 percent.

U.S. imports of sesbania seed have been small or nil in recent years, and domestic production is believed to be negligible. There probably are a few producers of sesbania seed in Arizona and California; data on their operations are not available.

1/ Ad valorem equivalents are computed on a calendar year basis; all other years in this summary are crop years beginning July 1, except as noted.

There were imports of sesbania seed into the United States in calendar years 1963 and 1966, when 38,383 pounds, valued at $1,309, and 9,790 pounds, valued at $783, respectively, were entered from Mexico.

U.S. consumption of vetch seed has fluctuated considerably from year to year. During 1962-64 consumption of all vetch seed increased from 35 million pounds in 1962 to 43 million pounds in 1963 then declined to 39 million pounds in 1964 (see table). In 1965 and 1966 available data indicates that consumption of hairy vetch seed increased from 13 million pounds to 15 million pounds.

In 1964 vetch seed was harvested from 110,000 acres on 2,435 U.S. farms. Texas, the leader among the States producing this seed, accounted for more than 45 percent of domestic production.

On the whole, U.S. production of vetch seed has been declining for many years. Annual production of vetch seed reached a high of 104 million pounds in 1950 but averaged only 38 million pounds during 1962-64 (the latest years for which complete data are available). Annual production of hairy vetch seed averaged 15.3 million pounds in 1965-67.

It is estimated that annual U.S. exports of vetch seed in recent years have approximated 100,000 pounds. U.S. imports of vetch seed have been negligible in most years; they averaged less than 350,000 pounds a year during 1962-66. Imports of vetch seed in 1965 and 1966 consisted entirely of hairy vetch seed from West Germany and Italy. When imported, other vetch seed (most common vetch) has been entered from Lebanon and Spain.

Vetch seed: U.S. production, imports for consumption, beginning stocks, and apparent consumption, crop years 1962-67

| Year beginning July 1-- | Production | Imports | Beginning stocks | Apparent consumption 1/ |
|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | |
| 1962 | 34,680 | 1,173 | 3,666 | 35,244 |
| 1963 | 42,660 | 453 | 4,275 | 43,258 |
| 1964 | 37,134 | - | 4,130 | 38,918 |
| 1965 2/ | 11,960 | 50 | 2,346 | 12,709 |
| 1966 2/ | 19,480 | 8 | 1,647 | 14,728 |
| 1967 2/ | 14,595 | 3/ | 6,407 | 3/ |
| | Value (1,000 dollars) | | | |
| 1962 | 3,753 | 122 | 3/ | 3/ |
| 1963 | 4,190 | 23 | 3/ | 3/ |
| 1964 | 3,722 | - | 3/ | 3/ |
| 1965 2/ | 1,687 | 4 | 3/ | 3/ |
| 1966 2/ | 2,301 | 2 | 3/ | 3/ |
| 1967 2/ | 1,241 | 3/ | 3/ | 3/ |
| | Unit value (cents per pound) | | | |
| 1962 | 10.8 | 10.4 | 3/ | 3/ |
| 1963 | 9.8 | 5.1 | 3/ | 3/ |
| 1964 | 10.0 | - | 3/ | 3/ |
| 1965 2/ | 14.1 | 8.0 | 3/ | 3/ |
| 1966 2/ | 11.8 | 25.0 | 3/ | 3/ |
| 1967 2/ | 8.5 | 3/ | 3/ | 3/ |

1/ Consumption takes into account changes in stocks but does not exclude U.S. exports, which are estimated to be small.
2/ Hairy vetch seed only.
3/ Not available.

Source: Production and beginning stocks compiled from official statistics of the U.S. Department of Agriculture; imports compiled from official statistics of the U.S. Department of Commerce.

| Commodity | TSUS item |
|---|---|
| Tall oat seed---------- | 126.83 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

Beginning in 1959, all U.S. consumption of tall oat grass seed has been supplied from domestic production; before that year, U.S. imports were small. U.S. exports of this seed have been negligible.

## Comment

Tall oat grass is of minor importance in the United States and is grown primarily in the Pacific Northwest. Under favorable growing conditions, it is a long-lived perennial, adapted to a cool, moist climate. Tall oat grass seed has been used successfully in mixtures with seeds of legumes and other grasses as a pasture and green-manure crop. When grown for seed, it is difficult to harvest and clean.

The column 1 (trade-agreement) rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) is as follows:

| TSUS item | Commodity | Rate of duty |
|---|---|---|
| 126.83 | Tall oat seed---------- | 2.5¢ per lb. |

The United States granted no concession on item 126.83 in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. The rate shown above has been in effect since April 30, 1950. The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on imports entered during 1959 (the latest year in which tall oat grass seed was imported in significant quantities) averaged 28.5 percent.

Annual U.S. consumption of tall oat grass seed is estimated to have averaged 100,000 pounds in recent years, virtually all supplied from domestic production. Nearly all of the tall oat grass seed produced in the United States is grown in Virginia, West Virginia, and the Pacific Northwest.

U.S. exports of tall oat grass seed are believed to be negligible. U.S. imports of this seed also have been negligible; in 1966 the only recent year in which such imports entered, about 200 pounds of tall oat grass seed, valued at $97, was imported from the Netherlands.

| Commodity | TSUS item |
|---|---|
| Timothy seed---------- | 126.85 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The use of timothy seed in the United States has been declining for many years. Nearly all of the U.S. consumption of such seed is supplied from domestic production. In recent years, U.S. exports of timothy seed have averaged about 15 percent of domestic production; average imports have been equivalent to about 5 percent of consumption.

Comment

Timothy seed is used to produce a short-lived, perennial grass of the bunch type which has a cylindrical seed head, and grows to a height of 2 to 3 feet. This grass is adapted to a cool, humid climate, and the seed is generally used in mixtures with alfalfa or clover in planting hay or pasture crops. Timothy for the production of both forage and seed is grown primarily in the northern part of the United States, east of the Missouri River.

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1971 |
| 126.85 | Timothy seed---------- | 0.5¢ per lb. | 0.3¢ per lb. | Free |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade

negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the four annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports in 1967, 1/ averaged 3.6 percent.

There has been a long term decline in U.S. consumption of timothy seed since the 1940's. The decline in consumption of this seed reflects, in large part, the reduced number of horses on farms, since timothy is used principally as a hay and pasture grass for horses. Annual apparent consumption of timothy seed averaged 25 million pounds during 1962-66 (see table).

Missouri, Ohio, and Minnesota have been the leading States in the production of timothy seed. In 1964 timothy seed was harvested from 201,000 acres on about 12,000 U.S. farms.

Domestic production of timothy seed has been declining since the 1930's. Production of such seed generally varies widely from year to year, depending on the weather conditions at the time of harvest and the demand for the timothy as a seed crop, compared with the demand for its use as a hay and pasture crop. During the period 1962-66, annual U.S. production fluctuated between 21 million and 35 million pounds and averaged 28 million pounds.

U.S. exports of timothy seed have generally exceeded imports. In 1962-66 annual exports averaged 4.2 million pounds, with an average value of $813,000. Canada and Japan have been the principal foreign markets for U.S. timothy seed.

In 1962-66 annual U.S. imports of timothy seed averaged about 1.2 million pounds, valued at $284,000, equivalent to about 5 percent of domestic consumption. Nearly all U.S. imports of timothy seed have been supplied by Canada.

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1/ The ad valorem equivalent is computed on a calendar year basis; all other years in this summary are crop years beginning July 1, except as noted.

Timothy seed: U.S. production, imports for consumption, exports of domestic merchandise, beginning stocks, and apparent consumption, crop years 1962-67

| Year beginning July 1-- | Production | Imports | Exports | Beginning stocks | Apparent consumption 1/ |
|---|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | | |
| 1962 | 21,998 | 1,058 | 4,999 | 14,278 | 27,714 |
| 1963 | 20,998 | 1,643 | 3,444 | 6,621 | 21,512 |
| 1964 | 29,313 | 407 | 4,834 | 4,306 | 22,552 |
| 1965 | 33,082 | 327 | 6,349 | 6,640 | 23,370 |
| 1966 | 35,036 | 2,974 | 1,489 | 10,330 | 28,110 |
| 1967 | 25,765 | 2/ | 2/ | 18,741 | 2/ |
| | Value (1,000 dollars) | | | | |
| 1962 | 2,278 | 256 | 812 | 2/ | 2/ |
| 1963 | 3,877 | 486 | 793 | 2/ | 2/ |
| 1964 | 4,549 | 135 | 1,016 | 2/ | 2/ |
| 1965 | 4,811 | 93 | 1,236 | 2/ | 2/ |
| 1966 | 3,387 | 452 | 209 | 2/ | 2/ |
| 1967 | 1,460 | 2/ | 2/ | 2/ | 2/ |
| | Unit value (cents per pound) | | | | |
| 1962 | 10.4 | 24.2 | 16.2 | 2/ | 2/ |
| 1963 | 18.5 | 29.6 | 23.0 | 2/ | 2/ |
| 1964 | 15.5 | 33.2 | 21.0 | 2/ | 2/ |
| 1965 | 14.5 | 28.4 | 19.5 | 2/ | 2/ |
| 1966 | 9.7 | 15.2 | 14.0 | 2/ | 2/ |
| 1967 | 5.7 | 2/ | 2/ | 2/ | 2/ |

1/ Consumption takes into account changes in stocks.
2/ Not available.

Source: Production and beginning stocks compiled from official statistics of the U.S. Department of Agriculture; imports and exports compiled from official statistics of the U.S. Department of Commerce.

| Commodity | TSUS item |
|---|---|
| Wheat grass seed---------- | 126.95 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

U.S. consumption of wheat grass seed is supplied mostly from domestic production. In 1962-64 (the latest period for which complete data are available) annual U.S. imports of wheat grass seed averaged about 15 percent of estimated domestic consumption; U.S. exports of such seed were negligible.

Comment

Some 30 species of wheat grass are native to North America, the most important being western, bluebunch, and slender. The most important species introduced into the United States are crested, tall, and intermediate wheat grass, which originated in the U.S.S.R. All of the important wheat grasses are hardy, cool-season, drought-resistant perennials.

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1971 |
| 126.95 | Wheat grass seed-------- | 0.4¢ per lb. | 0.2¢ per lb. | Free |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the four annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the

TSUS became effective, to December 31, 1967, the prior rate shown above did not change. The ad valorem equivalent of the specific duty in effect on December 31, 1967, based on dutiable imports entered during 1967, was 1.0 percent. 1/

Annual U.S. consumption of crested wheat grass seed is estimated to have averaged approximately 3.2 million pounds during 1962-64, about 10 percent above the annual average for all wheat grass seed in 1951-54. Crested wheat grass seed accounted for about half of the estimated total consumption.

Wheat grass seed is produced predominantly in the central and northern Great Plains and in the Rocky Mountain region for local use in reseeding crop and range land. About 940 U.S. farms harvested wheat grass seed in 1964, on an average 43 acres. In most recent years annual U.S. production of crested wheat grass seed has ranged from 2 million to 3 million pounds; crested wheat grass seed accounts for approximately half of the wheat grass seed harvested.

It is known that Canada is the primary market for U.S. exports of wheat grass seed. According to Canadian data, annual U.S. exports of wheat grass seed to Canada averaged 17,000 pounds during 1962-66.

During 1950-64 annual U.S. imports of wheat grass seed fluctuated from 33,000 pounds in 1957 to 1.8 million pounds in 1963 (see table). During 1961-64, imports of this seed constituted about 15 percent of estimated U.S. consumption. Nearly all of the wheat grass seed imported into the United States has come from Canada.

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1/ The ad valorem equivalent is computed on a calendar year basis; all other years are crop years beginning July 1, except as noted.

Wheat grass seed: U.S. production, imports for consumption, beginning stocks, and apparent consumption, crop years 1962-66

| Year beginning July 1-- | Production 1/ | Imports | Beginning stocks 1/ | Apparent consumption 2/ |
|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | |
| 1962 | 3,330 | 692 | 2,789 | 2,464 |
| 1963 | 2,099 | 1,797 | 4,347 | 4,752 |
| 1964 | 1,536 | 929 | 3,491 | 3/ 2,456 |
| 1965 | 4/ | 917 | 4/ | 4/ |
| 1966 | 4/ | 752 | 4/ | 4/ |
| | Value (1,000 dollars) | | | |
| 1962 | 385 | 104 | 4/ | 4/ |
| 1963 | 249 | 253 | 4/ | 4/ |
| 1964 | 168 | 154 | 4/ | 4/ |
| 1965 | 4/ | 158 | 4/ | 4/ |
| 1966 | 4/ | 259 | 4/ | 4/ |
| | Unit value (cents per pound) | | | |
| 1962 | 11.6 | 15.0 | 4/ | 4/ |
| 1963 | 11.9 | 14.1 | 4/ | 4/ |
| 1964 | 10.9 | 16.6 | 4/ | 4/ |
| 1965 | 4/ | 17.2 | 4/ | 4/ |
| 1966 | 4/ | 34.4 | 4/ | 4/ |

1/ Crested wheat grass seed only. Total production of all species of wheat grass is estimated to be about twice as large as the figures shown.

2/ Consumption takes into account changes in stocks, but does not exclude exports, which are estimated to be small. Consumption of wheat grass seed is estimated to be about twice the figures shown, which are based on domestic production of crested wheat grass only.

3/ Estimated.

4/ Not available.

Source: Production and beginning stocks compiled from official statistics of the U.S. Department of Agriculture; imports compiled from official statistics of the U.S. Department of Commerce.

| Commodity | TSUS item |
|---|---|
| Grass seeds and other forage crop seeds, not elsewhere enumerated--- | 127.01 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

Lespedeza seed accounts for a very large part of U.S. consumption of the seeds in this basket category. In 1962-66, U.S. imports of these seeds were equal to about 7 percent of domestic production; exports were comparatively insignificant.

## Description and uses

The grass seeds and other forage crop seeds covered by this summary include all grass and forage crop seeds not specially provided for in the TSUS (see the headnote to part 6 of schedule 1 in the TSUSA-1969). The principal types of such seeds produced in the United States are lespedeza, bromegrass, and sudan grass. The primary species of imported seeds are birdsfoot trefoil, bromegrass, Dallis grass, and Russian wild rye. Other grass seeds included in this category are Bermuda grass, Rhodes grass, carpet grass, and black medic.

Both annual and perennial forms of lespedeza exist; they are grown for pasture and hay. Bromegrass, a perennial grass, is grown alone or in mixture with legumes for hay and pasture in the northern half of the United States. Sudan grass, an annual grass, is grown for hay and pasture throughout the United States.

Dallis grass, Bermuda grass, and Rhodes grass are all perennial grasses grown in the Southern States for pasture and hay. Russian wild rye is a perennial grass grown for pasture in the Plains and Pacific Coast States. Carpet grass, a perennial grass, is grown for pasture, hay, or lawns in the Gulf Coast States. Black medic is an annual legume grown for pasture or green manure in the Southern States. Birdsfoot trefoil, a perennial legume, is grown alone or in mixtures with grasses for pasture and hay.

## U.S. tariff treatment

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1971 |
| 127.01 | Grass seeds and other forage seeds not specially provided for. | 0.4¢ per lb. | 0.2¢ per lb. | Free |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the four annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change. The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports in 1967, averaged 1.5 percent.

U.S. consumption

Complete statistics on annual U.S. consumption of grass seeds and other forage crop seeds, not elsewhere enumerated, are not available. It is estimated, however, that about 180 million pounds of such seed was consumed annually in the United States before the 1960 crop year. During 1962-66, domestic consumption of these seeds declined to an estimated annual level slightly above 100 million pounds.

In recent years lespedeza seed has probably accounted for about 50 percent of U.S. consumption of grass seeds and other forage crop seeds, not elsewhere enumerated. The remainder has consisted of many different species of grass and forage seeds.

U.S. producers and production

U.S. production of the grass seeds and other forage crop seeds, not elsewhere enumerated, for which data are available amounted to about 173 million pounds in 1959 and declined to 116 million pounds in 1964 (table 1). In the latter year, more than 21,000 U.S. farms harvested such seed, which was valued at about $14 million.

In 1959 about 95 percent of U.S. production of seeds in this category consisted of lespedeza, sudan grass, and bromegrass seed. In 1964 these same three kinds of seed accounted for about 90 percent of production of the seeds in this category. Although domestic production of these three kinds fluctuated materially from year to year, aggregate annual production had remained fairly constant for many years prior to the 1960's. The domestic output of lespedeza, sudan grass, and bromegrass seed declined from 160 million pounds in 1961 to 106 million pounds in 1964 and is believed to have declined much further since 1964.

U.S. exports and imports

U.S. foreign trade in grass seeds and other forage crop seeds, not elsewhere enumerated, has been small compared with domestic production. Based on 1964 statistics, imports and estimated U.S. exports of these seeds were equivalent to about 7 percent and 3 percent, respectively, of the quantity of domestic production.

It is estimated that U.S. exports of seeds in this basket category amounted to between 2 million and 3 million pounds in most recent years (table 2). The major portion of these exports probably have consisted of lespedeza and sudan grass seed, and more recently, of only lespedeza seed.

During 1962-66 annual U.S. imports of grass seeds and other forage crop seeds, not elsewhere enumerated, ranged from about 3 million to 16 million pounds and were equivalent to about 6 percent of apparent domestic consumption. In this classification, bromegrass seed is the only seed imported in significant quantity; Dallis grass, birdsfoot trefoil, and other miscellaneous grass seeds are imported in very small amounts. Canada, France, and Australia have been the principal supplying countries.

Table 1.--Grass seeds and other forage crop seeds, not elsewhere enumerated: U.S. production and imports of specified seeds, crop years beginning July 1, 1959, and 1964

| Kind | Production 1/ | | Imports 2/ | |
|---|---|---|---|---|
| | 1959 | 1964 | 1959 | 1964 |
| | Quantity (1,000 pounds) | | | |
| Lespedza | 109,450 | 55,600 | - | - |
| Sudan grass | 43,338 | 40,305 | - | 2 |
| Bromegrass | 4,943 | 13,194 | 8,150 | 1,935 |
| Bermuda grass | 4,375 | 8,617 | - | - |
| Birdsfoot trefoil | 1,258 | 1,419 | 616 | 548 |
| Carpet grass | 215 | 84 | 67 | 207 |
| Dallis grass | 26 | 9 | 1,350 | 167 |
| Total | 163,605 | 119,228 | 10,183 | 2,859 |
| | Value (1,000 dollars) | | | |
| Lespedeza | 10,609 | 8,236 | 3/ | 3/ |
| Sudan grass | 2,114 | 2,004 | 3/ | 3/ |
| Bromegrass | 755 | 1,099 | 3/ | 3/ |
| Bermuda grass | 656 | 2,312 | 3/ | 3/ |
| Birdsfoot trefoil | 1,036 | 1,027 | 3/ | 3/ |
| Carpet grass | 64 | 5 | 3/ | 3/ |
| Dallis grass | 9 | 4 | 3/ | 3/ |
| Total | 15,243 | 14,687 | 3/ | 3/ |
| | Unit value (cents per pound) | | | |
| Lespedeza | 10.0 | 14.8 | 3/ | 3/ |
| Sudan grass | 4.9 | 5.0 | 3/ | 3/ |
| Bromegrass | 15.3 | 8.3 | 3/ | 3/ |
| Bermuda grass | 15.0 | 26.8 | 3/ | 3/ |
| Birdsfoot trefoil | 82.4 | 72.4 | 3/ | 3/ |
| Carpet grass | 29.8 | 6.0 | 3/ | 3/ |
| Dallis grass | 34.6 | 44.4 | 3/ | 3/ |
| Average | 9.3 | 12.3 | 3/ | 3/ |

1/ Data on seeds other than lespedeza and sudan grass seed from 1959 and 1964 United States Census of Agriculture.

2/ Seed offered for importation under the Federal Seed Act.

3/ Not available.

Source: Compiled from official statistics of the U.S. Department of Agriculture, except as noted.

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1:5

Table 2.--Grass seeds and other forage crop seeds, not elsewhere enumerated: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, crop years 1959 and 1962-67

(Quantity in thousands of pounds, value in thousands of dollars)

| Year beginning July 1-- | Production | Imports | Exports 1/ | Apparent consumption | Ratio (percent) of imports to consumption |
|---|---|---|---|---|---|
| | Quantity | | | | |
| 1959 | 2/ 163,605 | 13,197 | 1,600 | 175,202 | 7.1 |
| 1962 | 3/ 139,193 | 15,709 | 2,700 | 152,202 | 10.3 |
| 1963 | 3/ 121,556 | 8,551 | 2,800 | 127,307 | 6.7 |
| 1964 | 2/ 119,228 | 5,113 | 2,600 | 121,741 | 4.2 |
| 1965 | 4/ 67,687 | 4,355 | 2,600 | 5/ | 5/ |
| 1966 | 4/ 52,035 | 3,166 | 2,600 | 5/ | 5/ |
| 1967 | 4/ 40,442 | 5/ | 5/ | 5/ | 5/ |
| | Value | | | | |
| 1959 | 15,243 | 5/ | 5/ | 5/ | 5/ |
| 1962 | 15,344 | 1,804 | 5/ | 5/ | 5/ |
| 1963 | 13,409 | 1,790 | 5/ | 5/ | 5/ |
| 1964 | 14,687 | 1,086 | 5/ | 5/ | 5/ |
| 1965 | 7,958 | 1,040 | 5/ | 5/ | 5/ |
| 1966 | 7,462 | 817 | 5/ | 5/ | 5/ |
| 1967 | 5,497 | 5/ | 5/ | 5/ | 5/ |

1/ Estimated.
2/ Production of seeds (specified in table 1) as reported in the 1959 and 1964 United States Census of Agriculture, plus the production of Lespedeza, bromegrass, and sudan grass seed as reported by the U.S. Department of Agriculture.
3/ Production of lespedeza, sudan grass, and bromegrass seed.
4/ Production of lespedeza.
5/ Not available.

Source: Production and exports compiled from official statistics of the U.S. Department of Agriculture, except as noted; imports compiled from official statistics of the U.S. Department of Commerce.

| Commodity | TSUS item |
|---|---|
| Sugar beet seed | 126.03 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

U.S. production of sugar beet seed has supplied nearly all of domestic consumption in recent years. U.S. imports and exports have been small.

## Comment

The sugar beet is a biennial plant, i.e., it normally requires two growing seasons to produce seed. Seed is produced by the winter annual method--the seed is planted in August or September, overwintered in the field, and harvested the following July. The type of sugar beet seed produced has changed considerably in recent years. Before 1956 sugar beet seed was entirely of the multigerm type--actually a cluster of seeds. Several plants would grow from one of these clusters, and extra plants then had to be thinned from the row by hand. The necessity for hand thinning was reduced by milling operations to separate the seed and by the development of monogerm seed.

Under the TSUS, sugar beet seed is free of duty, as originally provided in the Tariff Act of 1930; it was bound free pursuant to the General Agreement on Tariffs and Trade, effective October 1, 1951.

Nearly all of the sugar beet seed used in the United States is produced in Arizona, Oregon, Utah, and Nevada. Unlike most other kinds of seed, sugar beet seed does not enter ordinary channels of trade but is produced by, or for, companies producing beet sugar. These companies supply the seed on a contract basis to growers of the sugar beets.

During the 5-year period 1963-67, annual U.S. production of sugar beet seed averaged about 11 million pounds. In these years the seed was produced on about 4,000 acres, and the annual value of the crop averaged $2.0 million. In 1958, the first year that monogerm seed was used to any extent, it accounted for about 25 percent of the seed crop; in 1965 it accounted for 99 percent. U.S. production of sugar beet seed has supplied nearly all of the domestic consumption in the past two decades. U.S. imports and exports have been negligible since 1962 (see table) the small volume of high priced imports have entered primarily from the United Kingdom.

Sugar beet seed: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, 1962-67

| Year | Production | Imports | Exports | Apparent consumption |
|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | |
| 1962 | 9,342 | 1/ | 121 | 9,221 |
| 1963 | 9,445 | 31 | 101 | 9,375 |
| 1964 | 13,361 | 33 | 144 | 13,250 |
| 1965 | 9,336 | 151 | 2/ | 3/ 9,487 |
| 1966 | 13,902 | 86 | 2/ | 3/ 13,988 |
| 1967 | 8,541 | 33 | 2/ | 3/ 8,574 |
| | Value (1,000 dollars) | | | |
| 1962 | 1,642 | 4/ | 30 | 2/ |
| 1963 | 1,700 | 16 | 33 | 2/ |
| 1964 | 2,376 | 32 | 37 | 2/ |
| 1965 | 1,693 | 391 | 2/ | 2/ |
| 1966 | 2,549 | 166 | 2/ | 2/ |
| 1967 | 1,570 | 92 | 2/ | 2/ |
| | Unit value (cents per pound) | | | |
| 1962 | 17.6 | 50.0 | 24.8 | 2/ |
| 1963 | 18.0 | 51.6 | 32.7 | 2/ |
| 1964 | 17.8 | 97.0 | 25.7 | 2/ |
| 1965 | 18.1 | 258.9 | 2/ | 2/ |
| 1966 | 18.3 | 193.0 | 2/ | 2/ |
| 1967 | 18.4 | 278.8 | 2/ | 2/ |

1/ Less than 500 pounds.
2/ Not available.
3/ Exports not excluded.
4/ Less than $500.

Source: Production compiled from official statistics of the U.S. Department of Agriculture; imports and exports compiled from official statistics of the U.S. Department of Commerce.

The seeds of concern in this general statement are as follows:

| Commodity | TSUS item |
|---|---|
| Garden seeds: | |
| Beet (except sugar beet) | 126.05 |
| Cabbage | 126.15 |
| Carrot | 126.17 |
| Cauliflower | 126.19 |
| Celery | 126.21 |
| Flower | 126.41 |
| Kale | 126.51 |
| Kohlrabi | 126.53 |
| Mangelwurzel | 126.55 |
| Mushroom spawn | 126.59 |
| Onion | 126.61 |
| Parsley | 126.65 |
| Parsnip | 126.67 |
| Pepper | 126.71 |
| Radish | 126.73 |
| Spinach | 126.81 |
| Tree and shrub | 126.87 |
| Turnip and rutabaga | 126.89 |
| Other, not elsewhere enumerated | 127.10 |

The dried seeds (whole grains) of sweet corn are provided for in part 7A. The dried seeds of beans, peas, lentils, lupines, cowpeas, and chickpeas, not rendered unfit for human consumption by chemical or other treatment making them more useful as seed, are provided for in part 8A.

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

Comment

Garden seeds are used in the commercial production of vegetables, flowers, trees, or shrubs and in home gardens. Some "garden" seeds are used as condiments or as bird food. Annual U.S. consumption of all the garden seeds considered here averaged 15.6 million pounds during 1962-66 (table 1). Other garden seeds, not elsewhere enumerated and celery seed each accounted for about 20 percent of total consumption, and mushroom spawn (including spawn medium), for about 17 percent.

Commercial production of garden seeds in the United States is a highly specialized business. During 1962-66 an annual average of 25,000 to 30,000 acres were devoted to the production of the garden seeds included in this general statement. Garden seeds are grown in many States, but most of the seed is produced in the West, primarily because of the favorable climate there; the greatest variety is produced in California. Nearly all vegetable seeds are grown under contract between a grower and a seed company, with the latter retaining ownership of the seed. Few growers produce garden seed as their major enterprise; most of the seed (except flower seed, mushroom spawn, and tree and shrub seed) is produced by general-crop farmers who include a small acreage of seed in their crop rotation.

During World War II, U.S. production of garden seeds increased sharply as a result both of the lack of foreign seed available for import and of a program of the U.S. Department of Agriculture, which provided for the exportation of seed under lend-lease. Annual U.S. production of garden seed averaged 15.5 million pounds during 1962-66 (table 2). Other garden seeds accounted for 32 percent of this total; mushroom spawn (including spawn medium), for 17 percent; and carrot and flower seeds, for about 7 and 8 percent, respectively.

Total U.S. exports of all of these garden seeds amounted to about 32 percent of domestic production of such seeds in 1962-66. During that period, annual exports averaged about 5.0 million pounds, valued at $6.6 million (table 3). On a quantity basis, the export category of the U.S. Department of Commerce "other vegetable seed", accounted for nearly 65 percent of the total; this category consists of many different kinds of garden seeds (except carrot, onion, and flower) for which individual statistics are not available. Canada, Mexico, the Netherlands, France, and West Germany have been the principal foreign markets for U.S. exports of garden seeds.

U.S. imports of most of the seeds discussed here have been small compared with domestic production or consumption. Aggregate U.S. imports of such seed, however, accounted for about 35 percent of total U.S. consumption in recent years, primarily because of the large imports of celery seed and other garden seed, not elsewhere enumerated. During 1962-66, U.S. imports of all the seeds covered in this summary averaged approximately 5.8 million pounds; celery seed accounted for a little more than 50 percent of these imports, while other garden seed, not elsewhere enumerated accounted for about 35 percent. Imported celery seed is used predominantly as a condiment on bakery products rather than for seed purposes, and the principal seeds imported in the category other garden seeds, not elsewhere enumerated are used for human consumption or bird food. Western European countries, India, Ethiopia, and Mexico have been the principal suppliers of imported garden seed.

The Federal Seed Act and State seed laws have been enacted to insure that imported and domestic seed for planting are properly labeled and meet standards of germination and weed seed content. U.S. Department of Agriculture plant quarantine regulations require inspection of imported seed to determine whether it contains plant pests.

Table 1.--Garden seeds: U.S. apparent consumption, 1962-66 and annual average 1962-66

(In thousands of pounds)

| Kind of seed 1/ | 1962 | 1963 | 1964 | 1965 | 1966 | Average 1962-66 |
|---|---|---|---|---|---|---|
| Beet (except sugar beet) 2/ | 889 | 859 | 2,058 | 1,873 | 2,104 | 1,557 |
| Cabbage 2/ | 244 | 290 | 617 | 298 | 823 | 454 |
| Carrot | 578 | 407 | 692 | 503 | 285 | 493 |
| Cauliflower 3/ | 52 | 33 | 39 | 52 | 53 | 46 |
| Celery 3/ | 3,137 | 3,537 | 2,118 | 3,550 | 2,741 | 3,017 |
| Flower 4/ | 954 | 1,080 | 979 | 957 | 1,071 | 1,008 |
| Kale 3/ | 32 | 48 | 89 | 12 | 49 | 46 |
| Kohlrabi 3/ | 5 | 9 | 6 | 13 | 42 | 15 |
| Mangelwurzel 4/ | 3 | 2 | - | 8 | 7 | 4 |
| Mushroom spawn 4/ 5/ | 2,700 | 2,700 | 2,700 | 2,700 | 2,700 | 2,700 |
| Onion | 152 | 196 | 465 | 528 | 691 | 406 |
| Parsley 3/ | 77 | 126 | 220 | 179 | 133 | 147 |
| Parsnip 3/ | 51 | 83 | 64 | 40 | 35 | 55 |
| Pepper 3/ | 149 | 126 | 195 | 127 | 210 | 161 |
| Radish 2/ | 1,136 | 794 | 647 | 1,207 | 734 | 904 |
| Spinach 2/ | 677 | 825 | 1,038 | 1,092 | 903 | 907 |
| Turnip and rutabaga 2/ | 472 | 478 | 1,030 | 311 | 869 | 632 |
| Other 6/ | 3,826 | 2,582 | 3,580 | 2,246 | 2,982 | 3,043 |
| Total | 15,134 | 14,175 | 16,537 | 15,696 | 16,432 | 15,595 |

1/ No data are available on tree and shrub seed.

2/ Does not take into account exports to countries other than Canada.

3/ Does not take into account exports, which are estimated to be small.

4/ Estimated.

5/ Includes spawn medium.

6/ Production plus imports of other garden seeds, not elsewhere enumerated, minus exports of garden seeds (except carrot, onion, and flower seed).

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

Table 2.--Garden seeds: U.S. production, 1/ 1962-66 and annual average 1962-66

(In thousands of pounds)

| Kind of seed 2/ | 1962 | 1963 | 1964 | 1965 | 1966 | Average 1962-66 |
|---|---|---|---|---|---|---|
| Beet (except sugar beet) | 883 | 788 | 2,217 | 1,982 | 2,163 | 1,607 |
| Cabbage | 242 | 285 | 621 | 301 | 823 | 454 |
| Carrot | 1,060 | 1,120 | 1,326 | 937 | 714 | 1,031 |
| Cauliflower | 50 | 33 | 39 | 51 | 52 | 45 |
| Celery | 10 | 26 | 17 | 29 | 16 | 20 |
| Flower 3/ | 1,100 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Kale | 32 | 48 | 83 | 8 | 45 | 43 |
| Kohlrabi | 4 | 8 | 4 | 12 | 41 | 14 |
| Mushroom spawn 4/ | 2,700 | 2,700 | 2,700 | 2,700 | 2,700 | 2,700 |
| Onion | 370 | 454 | 754 | 848 | 969 | 679 |
| Parsley | 57 | 110 | 196 | 159 | 110 | 126 |
| Parsnip | 51 | 83 | 64 | 40 | 35 | 55 |
| Pepper | 145 | 126 | 195 | 127 | 209 | 160 |
| Radish | 1,208 | 873 | 732 | 1,288 | 815 | 983 |
| Spinach | 478 | 536 | 858 | 977 | 866 | 743 |
| Turnip and rutabaga | 456 | 475 | 1,027 | 312 | 865 | 627 |
| Other, not elsewhere enumerated 5/ | 4,873 | 5,028 | 5,440 | 4,244 | 5,480 | 5,013 |
| Total | 13,719 | 13,893 | 17,473 | 15,215 | 17,103 | 15,438 |

1/ Compiled from reports of commercial vegetable seed growers, which usually produce about 95 percent of the total commercial production of vegetable seeds.

2/ No data are available on mangelwurzel seed or tree and shrub seed.

3/ Estimates based on data in the 1959 United States Census of Agriculture.

4/ Estimated; includes spawn medium.

5/ Includes the following seeds: Asparagus, broccoli, Brussels sprouts, cucumber, eggplant, endive, leek, lettuce, muskmelon, pumpkin, salsify, squash, Swiss chard, tomato, and watermelon.

Source: Compiled from official statistics of the U.S. Department of Agriculture, except as noted.

Table 3.--Garden seeds: U.S. exports of domestic merchandise, 1962-66 and annual average 1962-66

| Kind of seed | 1962 | 1963 | 1964 | 1965 | 1966 | Average 1962-66 |
|---|---|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | | | |
| Flower | 307 | 262 | 441 | 436 | 344 | 358 |
| Carrot | 490 | 719 | 638 | 446 | 430 | 544 |
| Onion | 227 | 269 | 314 | 347 | 309 | 293 |
| Other vegetable 1/ | 2,738 | 4,015 | 4,299 | 3,597 | 4,766 | 3,283 |
| Total | 3,762 | 5,265 | 5,692 | 4,826 | 5,849 | 5,079 |
| | Value (1,000 dollars) | | | | | |
| Flower | 736 | 746 | 944 | 1,001 | 836 | 853 |
| Carrot | 459 | 739 | 662 | 450 | 472 | 556 |
| Onion | 553 | 717 | 754 | 881 | 873 | 756 |
| Other vegetable 1/ | 3,146 | 4,276 | 4,635 | 4,078 | 6,185 | 4,464 |
| Total | 4,894 | 6,478 | 6,995 | 6,410 | 8,366 | 6,629 |

1/ Not comparable with production or imports of "other garden seeds, not elsewhere enumerated."

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

Table 4.--Garden seeds: U.S. imports for consumption, 1962-66 and annual average 1962-66

(In thousands of pounds)

| Kind of seed | 1962 | 1963 | 1964 | 1965 | 1966 | Average 1962-66 |
|---|---|---|---|---|---|---|
| Beet (except sugar beet) | 1/ | 1/ | 109 | 12 | 23 | 2/ |
| Cabbage | 11 | 13 | 6 | 8 | 13 | 10 |
| Carrot | 1/ | 1/ | 4 | 12 | 1 | 2/ |
| Cauliflower | 2 | 3 | 3/ | 1 | 1 | 1 |
| Celery | 3,127 | 3,511 | 2,101 | 3,521 | 2,725 | 2,997 |
| Flower | 161 | 142 | 220 | 193 | 215 | 186 |
| Kale | 1/ | 1/ | 6 | 4 | 4 | 3 |
| Kohlrabi | 1 | 1 | 2 | 1 | 1 | 1 |
| Mangelwurzel | 3 | 2 | - | 8 | 7 | 4 |
| Mushroom spawn | - | - | - | 3/ | 1,019 | 3/ |
| Onion | 9 | 11 | 25 | 27 | 31 | 21 |
| Parsley | 20 | 16 | 24 | 20 | 23 | 21 |
| Parsnip | - | - | - | - | - | - |
| Pepper | 4 | 3/ | 3/ | 3/ | 1 | 3/ |
| Radish | 1/ | 1/ | 10 | 4 | 2 | 2/ |
| Spinach | 211 | 297 | 204 | 135 | 54 | 180 |
| Tree and shrub | 74 | 91 | 78 | 74 | 92 | 82 |
| Turnip and rutabaga | 25 | 11 | 11 | 5 | 11 | 13 |
| Other, not elsewhere enumerated | 4/ 1,691 | 4/ 1,625 | 2,444 | 2,080 | 2,268 | 2,022 |
| Total | 5,339 | 5,723 | 5,244 | 6,105 | 6,491 | 5,780 |

1/ Included in other garden seeds, not elsewhere enumerated.
2/ Not available.
3/ Less than 500 pounds.
4/ Includes data for beet (except sugar beet), carrot, kale, and radish seeds, which are separately provided for in the TSUS.

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

| Commodity | TSUS item |
|---|---|
| Beet seed (except sugar beet)---------- | 126.05 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

U.S. consumption of beet seed is supplied mostly from domestic production. In 1962-66, U.S. imports of this seed supplied about 4 percent of the apparent domestic consumption; exports are estimated to have exceeded imports in most of these years.

## Comment

The garden or field beet is a biennial, the root being produced during the first growing season and the seed during the second. Beets grown for seed are either wintered in the field or removed from the ground and stored during the winter months, then replanted in the field in the spring. The seedstalks are cut, windrowed, and cured before threshing.

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 126.05 | Beet seed (except sugar beet). | 1.5¢ per lb. | 0.9¢ per lb. | Free |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change. The specific rate of duty in effect on December 31, 1967, was equivalent to 5.6 percent ad valorem, based on dutiable imports

entered in 1967; the ad valorem equivalent on imports from individual countries ranged from 2.2 to 8.0 percent.

During the 1962-66 period, U.S. annual apparent consumption of beet seed ranged from 859,000 pounds in 1963 to 2.1 million pounds in 1966. Actual consumption probably was somewhat smaller because export data were not complete for these years.

Since 1950, annual U.S. production of beet seed has averaged about 1.2 million pounds. U.S. production increased sharply to 2.2 million pounds in 1964, offsetting the short crops in 1962 and 1963, and averaged 1.6 million pounds for the period 1962-66 (see table). Most of the domestic beet seed is produced in the Pacific Northwest.

Statistics are not available on U.S. exports of beet seed in recent years; however, Canada is known to have been one of the principal markets for U.S. exports of such seed. According to Canadian data, annual U.S. exports of beet seed to Canada averaged about 116,000 pounds during the 1962-66 crop years.

During 1962-66, annual U.S. imports of beet seed ranged from 120,000 pounds in 1963 to 12,000 pounds in 1965 and accounted for 14.0 and 0.6 percent, respectively, of the estimated domestic consumption in those 2 years. In recent years the Netherlands has been the principal source of imported beet seed.

Beet seed (except sugar beet): U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, 1962-67

| Year | Production | Imports | | Exports 1/ | Apparent consumption | Ratio of imports to consumption |
|---|---|---|---|---|---|---|
| | | Quantity | Value | | | |
| | 1,000 pounds | 1,000 pounds | 1,000 dollars | 1,000 pounds | 1,000 pounds | Percent |
| 1962--- | 883 | 2/ 64 | 3/ | 58 | 889 | 7.2 |
| 1963--- | 788 | 2/ 120 | 3/ | 49 | 859 | 14.0 |
| 1964--- | 2,217 | 109 | 12 | 268 | 2,058 | 5.3 |
| 1965--- | 1,982 | 12 | 7 | 121 | 1,873 | .6 |
| 1966--- | 2,163 | 23 | 6 | 82 | 2,104 | 1.1 |
| 1967--- | 1,624 | 6 | 2 | 3/ | 3/ | 3/ |

1/ U.S. exports to Canada as reported in Canadian import data for the crop year beginning July 1.

2/ Seed imported under the Federal Seed Act for the crop year beginning July 1.

3/ Not available.

Source: Production compiled from statistics of the U.S. Department of Agriculture from reports of commercial vegetable seed growers, which usually produce about 95 percent of the total commercial production of vegetable seeds; imports compiled from official statistics of the U.S. Department of Commerce, except as noted.

| Commodity | TSUS item |
|---|---|
| Cabbage seed---------- | 126.15 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

Nearly all of U.S. consumption of cabbage seed is supplied from domestic production. U.S. imports and exports of such seed are small.

## Comment

Cabbage is a biennial plant, the head being formed during the first growing season and the seed during the second. Cabbage plants grown for seed are either wintered in the field or removed from the ground and stored at a temperature just above freezing during the winter months, then replanted in the field in the spring. The seed-stalks are cut, windrowed, and cured before threshing.

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1971 |
| 126.15 | Cabbage seed---------- | 3¢ per lb. | 1¢ per lb. | Free |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second and final stages of the three rate modifications are shown above. During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports in 1967, averaged 0.5 percent; the ad valorem equivalents for imports from individual countries ranged from 0.2 percent to 2.5 percent.

Before World War II the average annual U.S. consumption of cabbage seed was about 800,000 pounds, of which approximately half was produced domestically. During 1962-66 the apparent annual U.S. consumption of cabbage seed, which ranged from 244,000 pounds in 1962 to 823,000 pounds in 1966 and averaged 454,000 pounds, was about equal to domestic production (table 1). Actual consumption of such seed, however, was probably slightly smaller because available export data are based on Canadian imports only.

During World War II, U.S. production of cabbage seed, as well as that of most other vegetable seed, increased sharply. The production of cabbage seed totaled about 2 million pounds in 1944; after the war the U.S. output declined. Production of such seed fluctuates a great deal from year to year because of the effect of insects, disease, and adverse weather. Nearly all of the domestic cabbage seed is produced in the State of Washington. On the average, such seed is harvested annually from about 400 acres.

U.S. exports of cabbage seed reached a high of 265,000 pounds in 1945. Data are not available on exports of cabbage seed for the postwar period, but such exports, primarily to Canada, are estimated to have been small.

During 1962-66, annual U.S. imports of cabbage seed averaged about 10,000 pounds, valued at about $27,000. In most of these years Japan, Denmark, and the Netherlands accounted for all the imports of such seed. U.S. imports of cabbage seed from Japan have a high unit value (table 2) and consist of high-quality seed, much of which is used by commercial seed producers.

Table 1.--Cabbage seed: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, 1962-67

| Year | Production | Imports | | Exports 1/ | Apparent consumption | Ratio of imports to consumption |
|---|---|---|---|---|---|---|
| | | Quantity | Value | | | |
| | 1,000 pounds | 1,000 pounds | 1,000 dollars | 1,000 pounds | 1,000 pounds | Percent |
| 1962---- | 242 | 11 | 13 | 9 | 244 | 4.5 |
| 1963---- | 285 | 13 | 25 | 8 | 290 | 4.5 |
| 1964---- | 621 | 6 | 29 | 10 | 617 | 1.0 |
| 1965---- | 301 | 8 | 22 | 11 | 298 | 2.7 |
| 1966---- | 823 | 13 | 44 | 13 | 823 | 1.6 |
| 1967---- | 721 | 6 | 32 | 2/ | 2/ | 2/ |

1/ Imports into Canada from the United States as reported by the Canadian Department of Agriculture for the year beginning July 1.
2/ Not available.

Source: Production compiled from statistics of the U.S. Department of Agriculture from reports of commercial vegetable seed growers which usually produce about 95 percent of the total commercial production of vegetable seeds; imports compiled from official statistics of the U.S. Department of Commerce.

Table 2.--Cabbage seed: U.S. imports for consumption, by principal sources, 1963-67

| Source | 1963 | 1964 | 1965 | 1966 | 1967 |
|---|---|---|---|---|---|
| | Quantity (pounds) | | | | |
| Japan | 2,054 | 3,312 | 1,170 | 3,019 | 2,010 |
| Denmark | 5,813 | 1,803 | 3,405 | 4,880 | 2,500 |
| Netherlands | 5,101 | 1,371 | 3,418 | 850 | 1,293 |
| All other | - | - | - | 1/ 3,960 | 50 |
| Total | 12,968 | 6,486 | 7,993 | 12,709 | 5,853 |
| | Value | | | | |
| Japan | $17,499 | $25,048 | $13,447 | $26,268 | $24,379 |
| Denmark | 3,946 | 2,281 | 3,641 | 5,040 | 2,927 |
| Netherlands | 3,957 | 1,312 | 4,539 | 2,586 | 4,260 |
| All other | - | - | - | 1/ 10,320 | 501 |
| Total | 25,402 | 28,641 | 21,627 | 44,214 | 32,067 |
| | Unit value (per pound) | | | | |
| Japan | $8.52 | $7.56 | $11.49 | $8.70 | $12.13 |
| Denmark | .68 | 1.27 | 1.07 | 1.03 | 1.17 |
| Netherlands | .78 | .96 | 1.33 | 3.04 | 3.29 |
| All other | - | - | - | 2.61 | 10.02 |
| Average | 1.96 | 4.42 | 2.71 | 3.48 | 5.48 |

1/ All from Australia.

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

| Commodity | TSUS item |
|---|---|
| Carrot seed | 126.17 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

Nearly all of the carrot seed consumed in the United States is produced domestically. In recent years, average U.S. exports of this seed have amounted to about half of domestic production; imports have been negligible.

## Comment

Carrots are biennial plants, the edible root being produced during the first growing season and the seed during the second. Carrots grown for seed are either wintered in the field or removed from the ground and stored during the winter months. In the spring the roots are replanted in the field and produce seedstalks which are cut, piled, and cured before threshing.

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 126.17 | Carrot seed | 1.5¢ per lb. | 0.9¢ per lb. | Free |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the five annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports in 1967, averaged 0.6 percent; the ad valorem equivalents for imports from individual countries ranged from 0.3 percent to 2.2 percent.

Virtually all of the carrot seed consumed in the United States is produced domestically. In 1963-67 the average apparent annual U.S. consumption of such seed amounted to about 470,000 pounds, while annual U.S. production was more than double the consumption, averaging 1.2 million pounds (see table). In recent years carrot seed has been harvested annually on about 1,900 acres in the Western States.

In 1963-67, annual U.S. exports of carrot seed averaged about 520,000 pounds and were equivalent to about half of domestic production of such seed. The Netherlands, the United Kingdom, France, Canada, and Japan have been the principal foreign markets for U.S. carrot seed.

In 1963-67, average annual U.S. imports of carrot seed amounted to about 5,000 pounds and accounted for about 1 percent of domestic consumption. France, the United Kingdom, Denmark, and the Netherlands supplied most of this small volume of imported carrot seed.

Carrot seed: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, 1963-67

(Quantity in thousands of pounds; value in thousands of dollars)

| Year | Production | Imports | Exports | Apparent consumption | Ratio (percent) of imports to consumption |
|---|---|---|---|---|---|
| | Quantity | | | | |
| 1963 | 1,120 | 1/ 6 | 719 | 407 | 1.5 |
| 1964 | 1,326 | 4 | 638 | 692 | .6 |
| 1965 | 937 | 12 | 446 | 503 | 2.4 |
| 1966 | 741 | 1 | 430 | 285 | .4 |
| 1967 | 829 | 2 | 374 | 457 | .4 |
| | Value | | | | |
| 1963 | 2/ | 2/ | 739 | 2/ | 2/ |
| 1964 | 2/ | 4 | 662 | 2/ | 2/ |
| 1965 | 2/ | 5 | 450 | 2/ | 2/ |
| 1966 | 2/ | 1 | 472 | 2/ | 2/ |
| 1967 | 2/ | 5 | 389 | 2/ | 2/ |

1/ Seed offered for imports under the Federal Seed Act, for seed purposes.

2/ Not available.

Source: Production compiled from statistics of the U.S. Department of Agriculture from reports of commercial vegetable seed growers which usually produce about 95 percent of the total commercial production of vegetable seeds; imports and exports compiled from official statistics of the U.S. Department of Commerce, except as noted.

| Commodity | TSUS item |
|---|---|
| Celery seed---------- | 126.21 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

Virtually all of U.S. consumption of celery seed (most of which is used as a condiment) is supplied by imports. Nearly all of the small quantity of domestically produced seed is used for planting. U.S. exports of celery seed are small.

## Comment

Celery seed, in addition to being used for producing the vegetable, is used as a condiment primarily in the whole form on rolls and other bakery products and in the ground form in celery salt.

The celery seed which is to be used as a condiment is not suitable for planting purposes, and the seed used for planting is normally too high in price for use as a condiment.

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 126.21 | Celery seed---------- | 0.6¢ per lb. | 0.3¢ per lb. | Free |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade.

Only the second (that in effect during 1969) and final stages of the five annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports in 1967, averaged 3.5 percent. The ad valorem equivalents for imports from individual countries ranged from 1.7 percent for imports from France to 3.8 percent for those from India, the principal supplier.

During 1963-67 the estimated average annual U.S. consumption of celery seed amounted to about 3 million pounds (see table). Virtually all of the celery seed consumed in the United States consists of imported seed used as a condiment; less than 1 percent of U.S. consumption consists of domestic seed for planting purposes. In 1963-67 the average annual domestic production of celery seed was 20,000 pounds, harvested from about 30 acres, nearly all of which were in California.

Data on U.S. exports of celery seed are not separately reported, but such exports are estimated to be negligible. In 1963-67, annual U.S. imports of celery seed averaged approximately 3 million pounds, valued at $540,000. India has accounted for more than 90 percent of U.S. imports of celery seed in most years, and France has accounted for nearly all of the remainder.

Celery seed: U.S. production, imports for consumption, and apparent consumption, 1963-67

| Year | Production | Imports | | | Apparent consumption 1/ |
|---|---|---|---|---|---|
| | | Quantity | Value | Unit value | |
| | 1,000 pounds | 1,000 pounds | 1,000 dollars | Cents per pound | 1,000 pounds |
| 1963 | 26 | 3,511 | 681 | 19.4 | 3,537 |
| 1964 | 17 | 2,101 | 347 | 16.5 | 2,118 |
| 1965 | 29 | 3,521 | 670 | 19.0 | 3,550 |
| 1966 | 16 | 2,725 | 462 | 17.0 | 2,741 |
| 1967 | 14 | 3,116 | 538 | 17.3 | 3,130 |

1/ Apparent consumption does not take into account U.S. exports of celery seed, which are estimated to be negligible.

Source: Production compiled from statistics of the U.S. Department of Agriculture from reports of commercial vegetable seed growers which usually produce about 95 percent of the total commercial production of vegetable seeds: imports compiled from official statistics of the U.S. Department of Commerce.

| Commodity | TSUS item |
|---|---|
| Flower seed---------- | 126.41 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

In recent years, U.S. production of flower seed has accounted for about 80 percent of estimated U.S. consumption. In 1963-67 the value of exports was about the same as that of imports, whereas the volume of exports was nearly twice that of imports.

## Description and uses

In recent years seeds of approximately 1,500 varieties of flowers have been produced commercially in the United States. The commercial production of flower seeds is a specialized business involving many new genetic, chemical, and managerial techniques; moreover, planting times, growing practices, and harvesting methods vary widely for different species. Production of flower seed is best suited to areas having a mild climate with little rain during the growing and harvesting season. Largely because of its climate, California is the primary flower-seed-producing State.

## U.S. tariff treatment

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concession granted in 1964-67 trade conference (Kennedy Round), effective Jan. 1, 1968 |
|---|---|---|---|
| 126.41 | Flower seed-------- | 1.5¢ per lb. | 1¢ per lb. |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and the modification therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports in 1967, averaged 0.3 percent; the ad valorem equivalents for imports from individual countries ranged from 0.1 percent to 3.0 percent.

## U.S. consumption

Between the late 1940's and the late 1950's, annual U.S. consumption of flower seed increased from about 700,000 pounds to about 900,000 pounds. It is estimated that during 1963-67 such consumption averaged about 1 million pounds (see table). The increase in consumption was probably due largely to the increasing interest in home gardens and to the postwar expansion of residential building.

## U.S. producers and production

In 1959, the latest year for which data are available, about 85 firms produced seed for sale in the United States. Nearly 90 percent of the value of U.S. output of flower seeds was accounted for by seed produced in California; five firms that produce flower seeds in that State accounted for about three-fourths of the value of U.S. output. In contrast to these large producers that offer a general line of flower seeds, most of the small growers specialize in a few kinds of seeds.

The production of flower seeds in the United States has increased gradually since the 1940's. Output in 1959 amounted to about 1 million pounds, valued at $2.6 million (wholesale value), compared with $1.8 million in 1949. In 1959 sweetpea, snapdragon, petunia, marigold, aster, and zinnia seed together accounted for more than half of the value of all flower seeds produced in the United States. In recent years the area planted annually to flowers grown for seed is believed to have averaged about 3,500 acres, consisting of small plantings of many species.

## U.S. exports and imports

U.S. exports of flower seeds generally exceed imports. During 1963-67 the quantity of such exports was nearly twice that of imports. Annual exports during those years averaged 372,000 pounds, valued at $934,000. As a result of mechanized cultivation, high per acre yield, and high-quality seed, U.S. producers have been able to compete effectively in the world market, particularly with varieties of seed that are suited to mechanized production. The Netherlands, the United Kingdom, West Germany, Denmark, and France are the principal foreign markets for U.S. exports of flower seeds.

Annual U.S. imports of flower seeds have fluctuated between 100,000 and 220,000 pounds since 1930, except during World War II, when imports were very low. The annual value of these imports in recent years, however, has been about four times as large as in the early 1930's. During 1963-67, average annual imports amounted to 197,000 pounds, valued at $949,000; such imports accounted for 19 percent of estimated domestic consumption. In terms of quantity, the Netherlands and the Union of South Africa have been the principal foreign suppliers of flower seeds in recent years.

Flower seed: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, 1959 and 1963-67

| Year | Production 1/ | Imports | Exports | Apparent consumption | Ratio (percent) of imports to consumption |
|---|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | | |
| 1959 | 1,000 | 144 | 235 | 909 | 15.8 |
| 1963 | 1,200 | 142 | 262 | 1,080 | 13.1 |
| 1964 | 1,200 | 220 | 441 | 979 | 22.5 |
| 1965 | 1,200 | 193 | 436 | 957 | 20.2 |
| 1966 | 1,200 | 215 | 344 | 1,071 | 20.1 |
| 1967 | 1,200 | 213 | 375 | 1,038 | 20.5 |
| | Value (1,000 dollars) | | | | |
| 1959 | 2/ 2,593 | 510 | 573 | 2,530 | 3/ |
| 1963 | 3/ | 622 | 746 | 3/ | 3/ |
| 1964 | 3/ | 850 | 944 | 3/ | 3/ |
| 1965 | 3/ | 1,091 | 1,001 | 3/ | 3/ |
| 1966 | 3/ | 1,149 | 836 | 3/ | 3/ |
| 1967 | 3/ | 1,031 | 1,142 | 3/ | 3/ |
| | Unit value (per pound) | | | | |
| 1959 | $2.59 | $3.54 | $2.44 | 3/ | 3/ |
| 1963 | 3/ | 4.38 | 2.85 | 3/ | 3/ |
| 1964 | 3/ | 3.86 | 2.14 | 3/ | 3/ |
| 1965 | 3/ | 5.65 | 2.30 | 3/ | 3/ |
| 1966 | 3/ | 5.34 | 2.43 | 3/ | 3/ |
| 1967 | 3/ | 4.84 | 3.05 | 3/ | 3/ |

1/ Production data for 1959 are from the 1959 United States Census of Agriculture; figures for 1963-67 are estimated.
2/ Wholesale value.
3/ Not available.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

| Commodity | TSUS item |
|---|---|
| Mushroom spawn | 126.59 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

In recent years U.S. production of mushroom spawn has supplied nearly all of domestic consumption. U.S. exports are estimated to be small.

## Comment

Mushroom spawn is used for the propagation of mushrooms and consists of a medium containing the living mycelium (underground portion) of the mushroom fungi.

The column 1 rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) is as follows:

| TSUS item | Commodity | Rate of duty |
|---|---|---|
| 126.59 | Mushroom spawn | 1¢ per lb. |

This rate of duty is the same as that originally provided for in the Tariff Act of 1930. It was equivalent to 2.4 percent ad valorem, based on dutiable imports entered in 1967.

Mushroom spawn is produced in the laboratory under controlled conditions; therefore, it is not generally produced by the individual mushroom grower. In the United States, spawn is produced by about 10 firms; Pennsylvania is the principal producing State. Spawn is sold in bottles or in the form of bricks; in recent years, most of the spawn used by U.S. commercial growers has been bottled spawn. The spawn medium consists of grain (barley or rye) or manure.

In the United States, mushrooms are harvested from approximately 76 million square feet of growing space each year. On the average, a bottle of mushroom spawn which with the medium weighs about 2 pounds, plants 30 square feet of growing space. Based on these figures, about 2.5 million pounds of mushroom spawn and medium are used annually in the United States.

Nearly all of the mushroom spawn consumed in the United States is produced domestically. It is believed that most U.S. exports of mushroom spawn have gone to Canada. Import statistics of Canada indicate that the value of annual U.S. exports of mushroom spawn to that country during 1963-67 ranged from $41,000 to $64,000. There was a small volume of imports into the United States in 1965-67, the first in many years. In 1965, 172 pounds, valued at $405, entered all from Canada; in 1966, 1,019 pounds, valued at $420, and in 1967, 14,672 pounds, valued at $6,050, entered from France.

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| Commodity | TSUS item |
|---|---|
| Onion seed---------- | 126.61 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

In recent years U.S. production of onion seed has supplied nearly all of domestic consumption. The United States has been on a strong export basis for this seed; in 1963-67 exports were equivalent to about 65 percent of apparent U.S. consumption, and imports to only 6 percent.

## Description and uses

Onions are biennial or perennial plants; only biennial onions are generally grown commercially. The biennial onion seed will produce a mature onion during the first growing season. Seeds from such onions are obtained either by allowing the mature onion to remain in the ground through a second growing season or by removing the mature onion from the ground, storing it through the winter, and subsequently replanting it the next year, at which time it produces a seed head, The seed heads are handpicked and cured before threashing.

Onions produced in the United States may be divided into two general groups: mild onions (e.g., the Bermuda and Spanish-type varieties), and pungent or strong onions (e.g., the yellow globe and danvers varieties). Before World War II this country produced most of its requirement of pungent onion seed, but little of its mild onion seed. In recent years the United States has produced nearly all of the domestic requirements of both kinds of seed. Onion sets (item 136.90) and onions (item 136.91) are covered in a separate summary.

## U.S. tariff treatment

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1971 |
| 126.61 | Onion seed---------- | 12¢ per lb. | 10¢ per lb. | 9¢ per lb. |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969 and 1970) and final stages of the three rate modifications are shown above. During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports in 1967, averaged 14.4 percent. The ad valorem equivalents for imports from individual countries ranged from 7.5 percent for imports from the Netherlands to 35.5 percent for imports from Mexico.

U.S. consumption

Apparent U.S. consumption of onion seed fluctuates from year to year. During 1963-67, consumption of such seed ranged from 196,000 pounds in 1963 to 691,000 pounds in 1966 (see table). Actual consumption was undoubtedly more stable.

Onion seed is used for the production of onion sets, primarily for replanting by home gardeners, and for the production of onions by commercial growers and home gardeners.

U.S. producers and production

In recent years U.S. production of onion seed has increased, accompanied by a substantial increase in U.S. exports of onion seed. During 1963-67 an annual average of 808,000 pounds of onion seed was harvested in the United States. The great bulk of the U.S. output of onion seed originates in California.

U.S. exports

U.S. exports of onion seed have shown an upward trend since the early 1950's. During 1963-67 annual U.S. exports of such seed averaged about 330,000 pounds, valued at about $898,000. Canada, the Netherlands, the Philippines, and Mexico have been the largest foreign markets for U.S. onion seed.

U.S. imports

Before 1953, U.S. imports of onion seed, which consisted in large part of mild onion seed, were substantial; but they have amounted to less than 50,000 pounds in most years since then. During 1963-67 annual U.S. imports of onion seed averaged about 30,000 pounds, valued at $46,000, and accounted for about 6 percent of the quantity of apparent consumption. The Netherlands, France, and Japan have been the principal sources of the small U.S. imports of onion seed entered in recent years.

Onion seed: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, 1963-67

| Year | Production | Imports | Exports | Apparent consumption |
|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | |
| 1963 | 454 | 11 | 269 | 196 |
| 1964 | 754 | 25 | 314 | 465 |
| 1965 | 848 | 27 | 347 | 528 |
| 1966 | 969 | 31 | 309 | 691 |
| 1967 | 1,013 | 58 | 413 | 658 |
| | Value (1,000 dollars) | | | |
| 1963 | 1/ | 22 | 717 | 1/ |
| 1964 | 1/ | 44 | 754 | 1/ |
| 1965 | 1/ | 62 | 881 | 1/ |
| 1966 | 1/ | 52 | 873 | 1/ |
| 1967 | 1/ | 48 | 1,263 | 1/ |
| | Unit value (per pound) | | | |
| 1963 | 1/ | $2.00 | $2.67 | 1/ |
| 1964 | 1/ | 1.76 | 2.40 | 1/ |
| 1965 | 1/ | 2.30 | 2.54 | 1/ |
| 1966 | 1/ | 1.68 | 2.83 | 1/ |
| 1967 | 1/ | .83 | 3.06 | 1/ |

1/ Not available.

Source: Production compiled from official statistics of the U.S. Department of Agriculture from reports of commercial vegetable seed growers which usually produce about 95 percent of the total commercial production of vegetable seeds; imports and exports compiled from official statistics of the U.S. Department of Commerce.

Note.--The ratio of imports to consumption, based on quantity, was as follows in 1963-67: 1963--5.6 percent; 1964--5.4 percent; 1965--5.1 percent; 1966--4.5 percent; and 1967--8.8 percent.

| Commodity | TSUS item |
|---|---|
| Radish seed---------- | 126.73 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

U.S. production of radish seed supplies nearly all of domestic consumption. In 1962-66, exports were equivalent to about 10 percent of U.S. production of this seed, and imports accounted for less than 2 percent.

## Comment

In terms of quantity consumed, radish seed is one of the more important vegetable seeds. Radishes grown for seed are planted early in the growing season. After the seed pods have turned yellow, the crop is cut, windrowed, and allowed to dry before being threshed by a combine.

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 126.73 | Radish seed--------- | 1.5¢ per lb. | 0.9¢ per lb. | Free |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and the final stages of the five annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports in 1967, averaged 2.1 percent.

In 1962-66, apparent U.S. consumption of radish seed ranged from about 650,000 pounds in 1964 to 1.2 million pounds in 1965 and averaged 904,000 pounds a year (see table). Actual consumption of such seed in those years was probably quite stable, but the estimates in the table make no adjustment for changes in carryover stocks. During 1962-66 the average annual output of radish seed in the United States amounted to nearly 1 million pounds, harvested from about 1,200 acres (most of which were in California).

Annual U.S. exports of radish seed are not reported separately, but Canada is believed to be the major market. Based on import statistics of Canada, annual U.S. exports of radish seed to that country during fiscal years 1962-66 averaged about 87,000 pounds. It is estimated that total U.S. exports amount to about 10 percent of domestic production. Since 1950, U.S. imports of radish seed have been small; such imports averaged 7,200 pounds a year in 1962-66, accounting for a negligible part of domestic consumption. The Netherlands, Denmark, and Japan have been the principal suppliers of the small quantities of radish seed imported by the United States.

Radish seed: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, 1962-67

| Year | Production | Imports | Exports 1/ | Apparent consumption | Ratio of imports to consumption |
|---|---|---|---|---|---|
| | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | Percent |
| 1962 | 1,208 | 8 | 80 | 1,136 | 0.7 |
| 1963 | 873 | 12 | 91 | 794 | 1.5 |
| 1964 | 732 | 10 | 95 | 647 | 1.5 |
| 1965 | 1,288 | 4 | 85 | 1,207 | .3 |
| 1966 | 815 | 2 | 83 | 734 | .3 |
| 1967 | 1,346 | 4 | 2/ | 2/ | 2/ |

1/ Canadian imports of radish seed from the United States for the fiscal year beginning July 1.
2/ Not available.

Source: Production compiled from official statistics of the U.S. Department of Agriculture from reports of commercial vegetable seed growers which usually produce about 95 percent of the total commercial production of vegetable seeds; imports compiled from official statistics of the U.S. Department of Commerce; exports compiled from official statistics of the Canadian Department of Agriculture.

| Commodity | TSUS item |
|---|---|
| Spinach seed---------- | 126.81 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

In 1963-67, U.S. production of spinach seed supplied most of domestic consumption; in earlier years imports had supplied a large part of consumption. U.S. exports of spinach seed are estimated to have been small.

## Comment

Spinach is an annual vegetable crop grown for the fresh market and for processing. Spinach grown for seed is generally planted early in the growing season. After the seed pods have matured, the seed stalks are cut, dried in windrows, and threshed by a combine.

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concession granted in 1964-67 trade conference (Kennedy Round), effective Jan. 1, 1968 |
|---|---|---|---|
| 126.81 | Spinach seed---------- | 0.25¢ per lb. | 0.2¢ per lb. |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and the modification therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports in 1967, averaged 1.0 percent.

Before World War II, annual U.S. consumption of spinach seed averaged about 3 million pounds and, as with most other vegetable seeds, it increased sharply during World War II. Since that time, consumption of spinach seed has declined; estimated annual consumption of such seed averaged about 907,000 pounds during 1962-66 (see table).

The decline in domestic consumption has resulted from the use of improved seed which produces mildew-resistant spinach. Before the development of such seed in the United States in the late 1950's, much more acreage of spinach (and seed to plant it) was needed each year because of the mildew damage to the crop. The introduction of mildew-resistant and hybrid spinach seed in the United States has also resulted in an increasing proportion of U.S. consumption of such seed being supplied by domestic production.

Before World War II, U.S. production of spinach seed was small. During the war U.S. output of such seed increased sharply to a high of 5.1 million pounds in 1943. Production of spinach seed declined after the war, but increased steadily after 1951; it rose from an annual average of about 130,000 pounds during 1951-54 to an annual average of about 743,000 pounds during 1962-66. In the latter period an average of nearly 700 acres was harvested annually, nearly all in the Pacific Northwest.

Data on annual U.S. exports of spinach seed have not been available in recent years; however, Canada is known to have been one of the principal markets for such exports. According to Canadian data, annual U.S. exports of spinach seed to Canada averaged about 16,000 pounds during the 1962-66 crop years. Annual U.S. imports averaged 1.4 million pounds, valued at $212,000, during 1949-52, compared with an average of about 180,000 pounds, valued at about $39,000, during 1962-66. In the latter period imports accounted for about one-fifth of estimated U.S. consumption of spinach seed. The Netherlands was the principal source of these imports.

Spinach seed: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, 1962-67

| Year | Production | Imports | | | Exports 1/ | Apparent consumption |
|---|---|---|---|---|---|---|
| | | Quantity | Value | Unit value | | |
| | 1,000 pounds | 1,000 pounds | 1,000 dollars | Cents per pound | 1,000 pounds | 1,000 pounds |
| 1962 | 478 | 211 | 42 | 19.9 | 12 | 677 |
| 1963 | 536 | 297 | 64 | 21.5 | 8 | 825 |
| 1964 | 858 | 204 | 44 | 21.6 | 24 | 1,038 |
| 1965 | 977 | 135 | 31 | 23.0 | 20 | 1,092 |
| 1966 | 866 | 54 | 13 | 24.1 | 17 | 903 |
| 1967 | 925 | 72 | 17 | 23.6 | 2/ | 2/ |

1/ Canadian imports of U.S. seed on a fiscal-year basis beginning July 1.
2/ Not available.

Source: Production compiled from statistics of the U.S. Department of Agriculture from reports of commercial vegetable seed growers which usually produce about 95 percent of the total commercial production of vegetable seeds; imports compiled from official statistics of the U.S. Department of Commerce.

| Commodity | TSUS item |
|---|---|
| Tree and shrub seed---------- | 126.87 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

U.S. production of tree and shrub seed supplies the great bulk of U.S. consumption. U.S. exports are estimated to be somewhat larger than imports which have accounted for less than 5 percent of domestic consumption of such seed in recent years.

## Comment

Included in the category of tree and shrub seed are seeds of forest trees, fruit trees, and ornamental trees and shrubs. The principal kinds produced in the United States are forest tree seeds and fruit tree seeds. Other tree and shrub seeds are of little commercial importance.

Forest tree seeds are used in the United States mostly for reforestation and conservation by private landowners, the State and Federal forest services, and the Soil Conservation Service. Fruit tree seeds are primarily used for growing rootstocks, mainly by commercial nurseries. The rootstocks are budded or grafted with propagating wood of the desired variety, inasmuch as varieties of many fruits do not produce a plant similar to the parent stock from seed.

The column 1 (trade-agreement) rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) is as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concession granted in 1964-67 trade conference (Kennedy Round) effective Jan. 1, 1968 |
|---|---|---|---|
| 126.87 | Tree and shrub seed---- | 1¢ per lb. | Free |

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The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and the modification therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports in 1967, averaged 0.6 percent, and the ad valorem equivalents for imports from individual countries ranged from 0.1 percent to 29.3 percent.

Annual U.S. consumption of tree and shrub seed in recent years is estimated at approximately 2 million pounds. Consumption has probably increased since 1950, owing to increased use of seedlings in conservation programs.

Tree seeds are collected in forest areas in nearly every State by private lumber firms and the by forestry services. In recent years, there has been an increase in tree seed farms, which select seeds from vigorous trees that have the characteristics desired by nurserymen. Most of the tree and shrub seed consumed in the United States is supplied from domestic production, since locally grown seed is generally better adapted to local conditions. Annual U.S. production of forest tree seeds is estimated to exceed 1.5 million pounds. Production of fruit tree seeds is much smaller than that of forest tree seeds, and production of shrub seed is believed to be very small; most of the shrubs are propagated by softwood cuttings, grafting, or root division.

Data on U.S. exports of tree and shrub seed are not available; such exports are estimated to be somewhat larger than imports. Much of the imported seed consists of seeds of trees and shrubs of different species or varieties than those grown domestically. Average annual imports during 1963-67 were about 89,000 pounds, valued at $185,000; such imports accounted for less than 5 percent of the estimated domestic consumption of such seed. Canada, Japan, and Italy have been the principal sources of the imported seed. U.S. imports of tree and shrub seed in 1963-67 are shown in the following tabulation:

| Year | Quantity | Value | Unit value |
|---|---|---|---|
| | 1,000 pounds | 1,000 dollars | Per pound |
| 1963 | 91 | 93 | $1.02 |
| 1964 | 78 | 182 | 2.33 |
| 1965 | 74 | 172 | 2.32 |
| 1966 | 92 | 258 | 2.80 |
| 1967 | 109 | 220 | 2.02 |

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

| Commodity | TSUS item |
|---|---|
| Turnip and rutabaga seed----- | 126.89 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

U.S. production of turnip and rutabaga seed supplies all but a small part of U.S. consumption. In recent years U.S. imports have accounted for less than 5 percent of domestic consumption. U.S. exports are estimated to be small.

## Description and uses

Turnips and rutabagas are used both for human food and for livestock feed. The rutabaga, also known as a "swede" or table turnip, is of minor importance in the United States. Turnips and rutabagas grown for seed are either wintered in the field or removed from the ground and stored during the winter months, then replanted in the field in the spring to produce seedstalks which are cut, windrowed, and dried before threshing.

## U.S. tariff treatment

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | First stage, effective Jan. 1, 1968 1/ | Final stage, effective Jan. 1, 1971 |
| 126.89 | Turnip and rutabaga seed. | 1.5¢ per lb. | 1¢ per lb. | 0.7¢ per lb. |

1/ The first stage remains in effect until January 1, 1971 when the final stage becomes effective.

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change. The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, based on dutiable imports in 1967, averaged 0.6 percent and the ad valorem equivalents for imports from individual countries ranged from 0.4 percent to 6.8 percent.

## U.S. consumption

Apparent U.S. consumption of turnip and rutabaga seed fluctuates widely from year to year, but the annual average for 1962-67 was about 632,000 pounds.

Turnip and rutabaga seed utilized for the production of vegetables for human food account for by far the greatest proportion of U.S. consumption of such seed. All but a small part of the aggregate domestic consumption of turnip and rutabaga seed consists of turnip seed.

## U.S. producers and production

During 1963-67, U.S. production of turnip and rutabaga seed ranged from 312,000 pounds in 1965 to 1.1 million pounds in 1967 (see table). In the same period turnip and rutabaga seed were harvested annually in the United States from about 590 acres and 35 acres, respectively; such seed is produced primarily in the Western States.

## U.S. exports

Annual U.S. exports of turnip and rutabaga seed increased during World War II, reaching a high of 967,000 pounds in the fiscal year 1945-46. Official statistics are not available for exports of turnip and rutabaga seed for recent years, but exports of such seed are estimated to be small. Import statistics of Canada, presumably the principal market, show that during fiscal years 1962-66 an annual average of about 8,000 pounds of turnip and rutabaga seed was received from the United States.

## U.S. imports

Except for some years of low domestic production, U.S. imports of turnip and rutabaga seed have been small. During 1963-67, annual U.S. imports averaged about 9,000 pounds, valued at $6,600, and accounted

for about 1 percent of domestic consumption. In most years, imports of turnip seed have accounted for about 90 percent of the imports in this category. On a value basis, Japan has been the largest single supplier in recent years.

Turnip and rutabaga seed: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, 1962-67

| Year | Production | Imports | | | Exports 2/ | Apparent consumption |
|---|---|---|---|---|---|---|
| | | Quantity | Value | Unit value 1/ | | |
| | 1,000 pounds | 1,000 pounds | 1,000 dollars | Cents per pound | 1,000 pounds | 1,000 pounds |
| 1962 | 456 | 25 | 5 | 19.7 | 9 | 472 |
| 1963 | 475 | 11 | 3 | 28.1 | 8 | 478 |
| 1964 | 1,027 | 11 | 4 | 40.6 | 8 | 1,030 |
| 1965 | 312 | 5 | 5 | 97.9 | 6 | 311 |
| 1966 | 865 | 11 | 6 | 50.8 | 7 | 869 |
| 1967 | 1,076 | 7 | 15 | 232.3 | 3/ | 3/ |

1/ Calculated from unrounded figures.
2/ Canadian imports of U.S. seed on a fiscal-year basis beginning July 1.
3/ Not available.

Source: Production compiled from official statistics of the U.S. Department of Agriculture from reports of commercial vegetable seed growers which usually produce about 95 percent of the total commercial production of vegetable seeds; imports compiled from official statistics of the U.S. Department of Commerce; exports compiled from official statistics of the Canadian Department of Agriculture.

| Commodity | TSUS item |
|---|---|
| Garden seeds: | |
| Cauliflower | 126.19 |
| Kale | 126.51 |
| Kohlrabi | 126.53 |
| Mangelwurzel | 126.55 |
| Parsley | 126.65 |
| Parsnip | 126.67 |
| Pepper | 126.71 |
| Other, not elsewhere enumerated | 127.10 |

Note.--For the statutory descriptions, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

U.S. production of miscellaneous garden seeds accounts for about 70 percent of domestic consumption. The great bulk of the domestic seed consists of vegetable seeds for planting, while a very large part of the imported seed consists of seed used for bird food. Nearly all imports have entered under "other garden seeds, not elsewhere enumerated"; it is estimated that this category has consisted largely of niger, pumpkin, and lettuce seed. Export statistics are not available on these items.

## Description and uses

This summary on miscellaneous garden seeds includes seeds specifically provided for in the TSUS and listed above, as well as "other garden seeds, not elsewhere enumerated" (TSUS item 127.10). Of the seeds included in the other-garden-seeds category, the principal kinds produced in the United States are watermelon, muskmelon, cucumber, lettuce, tomato, and squash seeds. The principal kinds imported are niger, lettuce, and unpeeled pumpkin seeds. Other miscellaneous seeds included in this category are asparagus, teasel, Brussels sprouts, cress, and eggplant seeds. The garden seeds included here are used for the production of vegetables by commercial growers and home gardeners; some (e.g., niger, teasel, and pumpkin seeds) are used for bird food. Unpeeled pumpkin, watermelon, and squash seeds whose germinating qualities have been destroyed are used for human consumption and are classified elsewhere (see summaries on TSUS items 182.95 and 193.25).

U.S. tariff treatment

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| | Garden seeds: | | | |
| 126.19 | Cauliflower | 12.5¢ per lb. | 10¢ per lb. | 6¢ per lb. |
| 126.51 | Kale | 1.5¢ per lb. | 0.9¢ per lb. | Free |
| 126.53 | Kohlrabi | 4¢ per lb. | 3.5¢ per lb. 1/ | 3¢ per lb. 2/ |
| 126.55 | Mangelwurzel | 1¢ per lb. | 0.8¢ per lb. | 0.5¢ per lb. 3/ |
| 126.65 | Parsley | 1¢ per lb. | 0.7¢ per lb. 4/ | 4/ |
| 126.67 | Parsnip | 2¢ per lb. | 1.5¢ per lb. | 1¢ per lb. |
| 126.71 | Pepper | 7.5¢ per lb. | 6¢ per lb. 5/ | 3¢ per lb. |
| 127.10 | Other garden seeds, not elsewhere enumerated. | 1.5¢ per lb. | 6/ | 6/ |

1/ The first stage rate which became effective Jan. 1, 1968 continues in effect until Jan. 1, 1970 when the final stage rate becomes effective.
2/ Rate becomes effective Jan. 1, 1970.
3/ Rate becomes effective Jan. 1, 1971.
4/ Final rate became effective Jan. 1, 1968.
5/ The first stage rate which became effective Jan. 1, 1968 continues in effect until Jan. 1, 1970.
6/ Not affected by trade conference.

The tabulation above shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the current and final stages of the annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rates shown above did not change.

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The ad valorem equivalents of the specific duties shown above, based on imports entered during 1967, and the range of ad valorem equivalents for imports from individual countries are as follows:

| TSUS item | Ad valorem equivalent | |
|---|---|---|
| | Average (percent) | Range (percent) |
| 126.19 | 1.6 | 1.4- 2.9 |
| 126.51 | 2.4 | 2.4 |
| 126.53 | 4.2 | 0.8- 5.3 |
| 126.55 | 1/ 4.7 | 4.7 |
| 126.65 | 1.9 | 1.9 |
| 126.67 | 2/ 9.8 | 9.8 |
| 126.71 | 1.3 | 0.1- 5.5 |
| 127.10 | 4.7 | 3/-18.2 |

1/ Based on imports in 1966. No imports in 1967.
2/ Based on imports in 1961. No imports during 1962-67.
3/ Less than 0.05 percent.

## U.S. consumption

The annual U.S. consumption of the miscellaneous garden seeds considered herein has averaged more than 7 million pounds in recent years (table 1). About 5 million pounds of the total has been used for planting purposes; watermelon, cucumber, lettuce, muskmelon, squash, and tomato seeds have accounted for nearly 90 percent of the seed so used. Except for lettuce and tomato, these seeds are large in size compared with most of the garden seeds, and for that reason, would be expected to account for a somewhat greater portion of domestic consumption, in terms of quantity. The remaining 2 million pounds of seed has been used for bird food; imported niger seeds and pumpkin seeds account for the major part of the seed used for bird food.

Apparent U.S. consumption of these garden seeds increased by about 1 million pounds during the period 1962-66 (table 2); nearly all of the increase occured in the category of other garden seeds. This increase resulted primarily from increased production of cucumber, muskmelon, and squash seeds.

## U.S. producers and production

During 1962-66, annual U.S. production of the seeds considered herein ranged from 4.6 million to 6.0 million pounds and averaged 5.5 million pounds (table 1 and 3). Production of watermelon seed accounted for 26 percent of this total, cucumber for 20 percent, lettuce for 12 percent, muskmelon for 11 percent, squash for 11 percent, tomato for 6

percent, and other vegetable seeds for the remaining 14 percent. In the period 1962-66, miscellaneous garden seeds were harvested from nearly 20,000 acres annually.

## U.S. exports and imports

Official statistics on U.S. exports of the seeds discussed herein are not available. Canada, the largest foreign market for U.S. vegetable seeds, reports separately on imports of most vegetable seeds from the United States. During 1962-66, Canadian imports from the United States of the garden seeds included herein amounted to an annual average of 142,000 pounds; cucumber, lettuce, and squash seeds accounted for almost 70 percent of the total.

U.S. imports of miscellaneous garden seeds increased in the years immediately following World War II, but have remained fairly stable since that time, except for some mild year-to-year fluctuations.

During 1962-66, annual U.S. imports of such seeds averaged about 2 million pounds, valued at about $540,000; nearly all of these imports were of the seeds in the category "other, not elsewhere enumerated" (table 4). On the basis of a recent invoice analysis, it is estimated that in recent years garden seeds for planting purposes have accounted for only 15 percent of the total imports of the seeds mentioned above, while seeds for bird food and human consumption have accounted for about 85 percent--44 percent pumpkin seed, 36 percent niger seed, and 5 percent teasel and other seeds. Aggregate U.S. imports of seeds, included herein were equivalent to nearly 40 percent of production and accounted for about 30 percent of domestic consumption during 1962-66. Ethiopia, Yugoslavia, and Mexico have been the principal suppliers of miscellaneous garden seeds. Ethiopia has supplied most of the niger seed and Mexico and Yugoslavia have supplied most of the pumpkin seed.

Table 1.--Specified garden seeds: U.S. production, imports for consumption, exports, and apparent consumption, by specified kinds, average 1962-66

(In thousands of pounds)

| Kind | Production | Imports | Exports 1/ | Apparent consumption |
|---|---|---|---|---|
| Cauliflower | 45 | 1 | 1 | 45 |
| Kale | 43 | 3 | 2/ | 46 |
| Kohlrabi | 14 | 1 | 1 | 14 |
| Mangelwurzel | 3/ | 4 | 1 | 3 |
| Parsley | 126 | 21 | 4 | 143 |
| Parsnip | 55 | - | 7 | 48 |
| Pepper | 160 | 1 | 1 | 160 |
| Other | 5,013 | 2,009 | 127 | 6,895 |
| Total | 5,456 | 2,040 | 142 | 7,354 |

1/ Imports into Canada from the United States as reported by official Canadian statistics, years beginning July 1.
2/ Less than 500 pounds.
3/ Not available.

Source: Production, compiled from official statistics of the U.S. Department of Agriculture; imports compiled from official statistics of the U.S. Department of Commerce; exports compiled from official statistics of the Canadian Department of Agriculture.

Table 2.--Specified garden seeds: Apparent U.S. consumption, 1/ by kinds, 1962-66

(In thousands of pounds)

| Kind of seed | 1962 | 1963 | 1964 | 1965 | 1966 |
|---|---|---|---|---|---|
| Cauliflower | 52 | 33 | 39 | 52 | 53 |
| Kale 2/ | 32 | 48 | 89 | 12 | 49 |
| Kohlrabi | 5 | 9 | 6 | 13 | 42 |
| Mangelwurzel 3/ | 3 | 2 | - | 8 | 7 |
| Parsley | 77 | 126 | 220 | 179 | 133 |
| Parsnip | 51 | 83 | 64 | 40 | 35 |
| Pepper | 149 | 126 | 195 | 127 | 210 |
| Other, not elsewhere enumerated 2/ | 6,564 | 6,597 | 7,884 | 6,324 | 7,748 |
| Total | 6,933 | 7,024 | 8,497 | 6,755 | 8,277 |

1/ Production plus imports; does not exclude exports.

2/ For years prior to 1964, import data on kale, carrot, radish, and beet (except sugar beet) are included in the category, "other garden seed, not elsewhere enumerated."

3/ Imports only.

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

Table 3.--Specified garden seeds: U.S. production, by kinds, 1962-66

(In thousands of pounds)

| Kind of seed 1/ | 1962 | 1963 | 1964 | 1965 | 1966 |
|---|---|---|---|---|---|
| Cauliflower | 50 | 33 | 39 | 51 | 52 |
| Kale | 32 | 48 | 83 | 8 | 45 |
| Kohlrabi | 4 | 8 | 4 | 12 | 41 |
| Parsley | 57 | 110 | 196 | 159 | 110 |
| Parsnip | 51 | 83 | 64 | 40 | 35 |
| Pepper | 145 | 126 | 195 | 127 | 209 |
| Other, not elsewhere enumerated. | 4,873 | 5,028 | 5,440 | 4,244 | 5,480 |
| Total | 5,212 | 5,436 | 6,021 | 4,641 | 5,972 |

1/ Data on mangelwurzel seed are not available.

Source: Compiled from statistics of the U.S. Department of Agriculture from reports of commercial vegetable seed growers which usually produce about 95 percent of the total commercial production of vegetable seeds.

Table 4.--Specified garden seeds: U.S. imports for consumption, by kinds, 1962-66

| Kind of seed | 1962 | 1963 | 1964 | 1965 | 1966 |
|---|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | | |
| Cauliflower | 2 | 3 | 1/ | 1 | 1 |
| Kale | 2/ | 2/ | 6 | 4 | 4 |
| Kohlrabi | 1 | 1 | 2 | 1 | 1 |
| Mangelwurzel | 3 | 2 | - | 8 | 7 |
| Parsley | 20 | 16 | 24 | 20 | 23 |
| Parsnip | - | - | - | - | - |
| Pepper | 4 | 1/ | 1/ | 1/ | 1 |
| Other, not elsewhere enumerated 3/ | 1,691 | 1,569 | 2,439 | 2,080 | 2,268 |
| Total | 1,721 | 1,591 | 2,471 | 2,114 | 2,305 |
| | Value (1,000 dollars) | | | | |
| Cauliflower | 7 | 12 | 3 | 4 | 7 |
| Kale | 2/ | 2/ | 2 | 1 | 1 |
| Kohlrabi | 1 | 1 | 2 | 1 | 1 |
| Mangelwurzel | 1 | 4/ | - | 2 | 1 |
| Parsley | 5 | 13 | 9 | 5 | 11 |
| Parsnip | - | - | - | - | - |
| Pepper | 24 | 4/ | 2 | 2 | 4 |
| Other, not elsewhere enumerated 3/ | 354 | 388 | 604 | 509 | 724 |
| Total | 392 | 414 | 622 | 524 | 749 |

1/ Less than 500 pounds.
2/ Not available.
3/ Prior to 1964 this category included other beet (except sugar beet), carrot, kale, and radish seeds.
4/ Less than $500.

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

The articles of concern in this general statement are as follows:

| Commodity | TSUS item |
|---|---|
| Lawn-grass seed: | |
| Bent grass (genus Agrostis)---------- | 126.07 |
| Kentucky bluegrass---------- | 126.09 |
| Other bluegrass---------- | 126.11 |
| Creeping red fescue---------- | 126.35 |
| Meadow fescue---------- | 126.37 |
| Other fescue---------- | 126.39 |
| Rye grass---------- | 126.77 |

The principal grass seeds now used for planting lawns in the United States are those of the fine-leaved grasses--Chewings and creeping red fescue, Kentucky and Merion Kentucky bluegrass, and bent grass. Most of these grass seeds are also used in producing forage. The coarse-leaved grasses--redtop, common and perennial rye grass, and meadow and tall fescue--are used for both lawn and forage purposes.

Most of the lawn-grass seed sold to the consuming public is in mixtures of various kinds, generally formulated around Kentucky bluegrass. Although for some uses certain types of lawn-grass seed may be preferred, one type is often substituted for another, depending on their prices. Accordingly, economic factors that effect the price of one grass seed affect the price of other grass seeds.

U.S. demand for the major lawn-grass seeds has increased tremendously in the last two decades. U.S. consumption increased from about 61 million pounds in 1940 1/ to 273 million pounds in 1966 (table 1), chiefly as a result of the increase in construction activities (e.g., the seeding of rights of way along new Federal and State highways), the increase in the number of family units, the increase in the average family purchasing power, and the increased popularity of good lawns, promoted by garden magazines, garden clubs, and the availability of improved means of lawn care.

U.S. production and imports of grass seeds have increased sharply over the past 25 years. Acreage of lawn-grass seeds harvested, on the other hand has increased only moderately (table 2), although production has quadrupled (table 3) as the result of a shift from redtop to rye grass, for which the average yield in pounds per acre is many times as large.

1/ In the summaries on lawn-grass seed, the years designated are crop years beginning July 1, unless otherwise noted.

A comparison of data 1/ for 1940 with those for 1966, show that acreage harvested increased from about 394,000 to 531,000; production increased from about 73 million pounds to 289 million pounds; and imports increased (table 4) from 2 million pounds to 18 million pounds. Since the early 1950's, domestic production has accounted for virtually all the U.S. supply of the principal lawn-grass seeds, except for creeping red fescue and, in more recent years, Kentucky bluegrass.

In most years, exports of the principal lawn-grass seeds have exceeded imports. The combined exports of all lawn-grass seeds reached a high of 36 million pounds in 1960 (table 5). The coarse-leaved grass seeds (mostly rye grass and tall fescue) accounted for about 87 percent of exports, while the fine-leaved grass seeds (mostly Chewings fescue and bent grass) accounted for about 13 percent.

After the mid-1950's, stocks of many of the important lawn-grass seeds increased substantially (table 6). In the aggregate, however, there was no material increase in the ratio of yearend stocks to annual consumption of such seeds.

## Seed laws, plant quarantine regulations, and seed certification

The Federal Seed Act and State seed laws have been enacted to insure that imported and domestic seeds are properly labeled and that they meet standards of germination and weed seed content. Plant quarantine regulations, to prevent the spread of disease and insect pests, affect the importation, exportation, and interstate movement of seeds.

Certified seed is seed of known genetic identity, which is high in germination and purity. The production of this seed is controlled by crop improvement associations composed of cooperating farmers and agricultural experiment stations. Certified seed generally requires more labor and better management in its production than does ordinary seed. It is accordingly higher in price.

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1/ These data do not include statistics on the acreage of Kentucky bluegrass seed or the acreage and production of meadow fescue seed, which are not available.

Table 1.--Lawn-grass seed: Apparent U.S. consumption, 1/ by kind of seed, specified crop years, 1940-66

(In thousands of pounds, clean-seed basis)

| Kind of seed | Year beginning July 1-- | | | | | |
|---|---|---|---|---|---|---|
| | 1940 | 1950 | 1955 | 1960 | 1965 | 1966 |
| Fine-leaved: | | | | | | |
| Creeping red fescue | 30 | 2,283 | 11,886 | 15,478 | 16,220 | 17,130 |
| Chewings fescue | 1,924 | 4,867 | 7,116 | 4,457 | 4,107 | 3,843 |
| Kentucky bluegrass 2/ | 18,050 | 20,596 | 3/19,628 | 3/ 24,733 | 3/ 35,135 | 41,112 |
| Bent grass | 816 | 2,138 | 4,242 | 2,638 | 1,223 | 930 |
| Total | 20,820 | 29,884 | 42,872 | 47,306 | 56,685 | 63,015 |
| Coarse-leaved: | | | | | | |
| Redtop | 13,342 | 6,112 | 2,057 | 2,624 | 4/ | 4/ |
| Common rye grass | 24,127 | 66,680 | 95,494 | 5/139,037 | 5/150,989 | 5/147,030 |
| Perennial rye grass | 1,664 | 7,848 | 23,453 | 6/ | 6/ | 6/ |
| Tall fescue | 240 | 19,813 | 27,164 | 24,554 | 54,167 | 61,697 |
| Meadow fescue | 1,290 | 2,495 | 4/ | 4/ | 4/ | 1,478 |
| Total | 40,663 | 102,948 | 148,168 | 166,215 | 205,156 | 210,205 |
| Grand total | 61,483 | 132,832 | 191,040 | 213,521 | 261,841 | 273,220 |

1/ Consumption data takes into account beginning stocks.
2/ Consumption statistics for 1940-60 include common Kentucky bluegrass seed produced in the North Central States and Kentucky. Data for 1965-66 include production of common Kentucky, Merion, Park, Delta, Newport, and other improved strains in the North Central States, Kentucky, and Pacific Northwest States.
3/ Includes Merion Kentucky bluegrass.
4/ Not available.
5/ Includes both common and perennial rye grass.
6/ Not separately reported.

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

Table 2.--Lawn-grass seed: U.S. acres harvested, by kind of seed, specified crop years, 1940-66 1/

| Kind of seed | Year beginning July 1-- | | | | | |
|---|---|---|---|---|---|---|
| | 1940 | 1950 | 1955 | 1960 | 1965 | 1966 |
| Fine-leaved: | | | | | | |
| Creeping red fescue | 100 | 5,140 | 8,800 | 14,400 | 13,530 | 15,250 |
| Chewings fescue | 2,200 | 13,400 | 21,000 | 25,000 | 17,000 | 17,500 |
| Merion Kentucky bluegrass 2/ | - | - | 6,700 | 15,070 | 12,660 | 16,850 |
| Bent grass | 5,750 | 16,500 | 22,000 | 22,500 | 32,600 | 32,600 |
| Total | 8,050 | 35,040 | 58,500 | 76,970 | 75,790 | 82,200 |
| Coarse-leaved: | | | | | | |
| Redtop | 305,000 | 164,000 | 53,000 | 58,000 | 3/ | 3/ |
| Common rye grass | 65,000 | 115,000 | 124,000 | 115,000 | 4/ 142,000 | 4/ 142,000 |
| Perennial rye grass | 9,500 | 14,000 | 33,000 | 50,000 | 5/ | 5/ |
| Tall fescue | 750 | 94,900 | 117,100 | 169,400 | 245,100 | 307,200 |
| Meadow fescue | 5,830 | 6,300 | 3/ | 3/ | 3/ | 3/ |
| Total | 386,080 | 394,200 | 327,100 | 392,400 | 387,100 | 449,200 |
| Grand total | 394,130 | 429,240 | 385,600 | 469,370 | 462,890 | 531,400 |

1/ Does not include Kentucky bluegrass seed, for which acreage is not available.
2/ The 1952 crop year was the first year of commercial production.
3/ Not available.
4/ Includes both common and perennial rye grass.
5/ Not separately reported.

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

Table 3.--Lawn-grass seed: U.S. production, by kind of seed, specified crop years, 1940-66

(In thousands of pounds, clean-seed basis)

| Kind of seed | Year beginning July 1-- | | | | | |
|---|---|---|---|---|---|---|
| | 1940 | 1950 | 1955 | 1960 | 1965 | 1966 |
| Fine-leaved: | | | | | | |
| Creeping red fescue | 20 | 1,837 | 2,072 | 5,038 | 6,014 | 6,918 |
| Chewings fescue | 393 | 3,630 | 7,980 | 11,000 | 6,290 | 7,175 |
| Kentucky bluegrass 1/ | 22,694 | 28,938 | 2/ 24,362 | 2/ 32,548 | 2/ 26,463 | 2/ 35,390 |
| Bent grass | 752 | 2,440 | 4,600 | 5,092 | 7,746 | 8,253 |
| Total | 23,859 | 36,845 | 39,014 | 53,678 | 46,513 | 57,736 |
| Coarse-leaved: | | | | | | |
| Redtop | 18,300 | 12,600 | 4,240 | 5,020 | 3/ | 3/ |
| Common rye grass | 27,500 | 72,450 | 121,520 | 4/ 149,960 | 4/ 160,460 | 4/ 151,940 |
| Perennial rye grass | 1,720 | 7,000 | 31,350 | 5/ | 5/ | 5/ |
| Tall fescue | 240 | 20,539 | 28,647 | 37,580 | 56,714 | 79,070 |
| Meadow fescue | 1,400 | 1,050 | 3/ | 3/ | 3/ | 3/ |
| Total | 49,160 | 113,639 | 185,757 | 192,560 | 217,174 | 231,010 |
| Grand total | 73,019 | 150,484 | 224,771 | 246,238 | 263,687 | 288,746 |

1/ Production statistics for 1940-60 are Kentucky bluegrass seed produced in the North Central States plus Kentucky. Data for 1965 and 1966 include production of common Kentucky, Merion, Park, Delta, Newport, and other improved strains in the North Central States, Kentucky, and the Pacific Northwest States.

2/ Includes Merion Kentucky bluegrass.

3/ Not available.

4/ Includes both common and perennial rye grass seed.

5/ Not separately reported.

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

Table 4.--Lawn-grass seed: U.S. imports, 1/ by kind of seed, specified crop years, 1940-66

(In thousands of pounds, clean-seed basis)

| Kind of seed | Year beginning July 1-- | | | | | |
|---|---|---|---|---|---|---|
| | 1940 | 1950 | 1955 | 1960 | 1965 | 1966 |
| Fine-leaved: | | | | | | |
| Creeping red fescue | 10 | 484 | 8,795 | 15,100 | 14,436 | 9,701 |
| Chewings fescue | 1,531 | 1,198 | 112 | 5 | 2/ | 29 |
| Kentucky bluegrass 3/ | 2/ | 929 | 961 | 4,224 | 9,660 | 6,840 |
| Bent grass | 17 | 14 | 76 | 3 | 8 | 9 |
| Total | 1,558 | 2,625 | 9,944 | 19,332 | 24,104 | 16,579 |
| Coarse-leaved: | | | | | | |
| Redtop | - | 3 | 1 | - | 2 | 4/ |
| Common rye grass | 1 | 3 | 434 | 3 | 88 | 82 |
| Perennial ryegrass | 294 | 1,511 | 25 | 104 | 657 | 212 |
| Tall fescue | - | - | - | - | - | 1 |
| Meadow fescue | 15 | 1,892 | 2,735 | 894 | 864 | 1,078 |
| Total | 310 | 3,409 | 3,195 | 1,001 | 1,611 | 1,373 |
| Grand total | 1,868 | 6,034 | 13,139 | 20,333 | 25,715 | 17,952 |

1/ Seed offered for importation under the Federal Seed Act.
2/ Less than 500 pounds.
3/ Includes Merion Kentucky bluegrass.
4/ Not available.

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

Table 5.--Lawn-grass seed: U.S. exports, by kind of seed, specified crop years, 1940-66

(In thousands of pounds, clean-seed basis)

| Kind of seed | Year beginning July 1 -- | | | | | |
|---|---|---|---|---|---|---|
| | 1940 | 1950 | 1955 | 1960 | 1965 | 1966 |
| Fine-leaved: | | | | | | |
| Creeping red fescue | 1/ | 1/ | 1/ | 1/ | 1/ | 1/ |
| Chewings fescue | 1/ | 1/ | 1/ | 1/ | 1/ | 1/ |
| Kentucky bluegrass | 1,100 | 2,186 | 660 | 1,576 | 1,030 | 953 |
| Bent grass | 1/ | 1/ | 1/ | 3,141 | 6,049 | 8,098 |
| Total | 1,100 | 2,186 | 660 | 4,717 | 7,079 | 9,051 |
| Coarse-leaved: | | | | | | |
| Redtop | 800 | 1,727 | 773 | 1,572 | 1/ | 1/ |
| Common rye grass | 1,000 | 200 | 4,000 | 14,700 | 2/ 11,746 | 2/ 13,192 |
| Perennial rye grass | 350 | 300 | 1,500 | 9,800 | 3/ | 3/ |
| Tall fescue | - | 1/ | 3,329 | 5,300 | 1/ | 1/ |
| Meadow fescue | 1/ | 1/ | 1/ | 1/ | 1/ | 1/ |
| Total | 2,150 | 2,227 | 9,602 | 31,372 | 11,746 | 13,192 |
| Grand total | 3,250 | 4,413 | 10,262 | 36,089 | 18,825 | 22,243 |

1/ Not available but believed to be small.
2/ Includes both common and perennial rye grass.
3/ Not separately reported.

Source: Official statistics of the U.S. Department of Commerce as compiled by the U.S. Department of Agriculture.

Table 6.--Lawn-grass seed: U.S. year-end stocks, by kind of specified crop years, 1940-66

(In thousands of pounds, clean-seed basis)

| Kind of seed | Year beginning July 1-- | | | | | |
|---|---|---|---|---|---|---|
| | 1940 | 1950 | 1955 | 1960 | 1965 | 1966 |
| Fine-leaved: | | | | | | |
| Creeping red fescue | 1/ | 452 | 4,388 | 11,589 | 6,931 | 6,420 |
| Chewings fescue | 1/ | 670 | 4,717 | 7,896 | 2,504 | 3,024 |
| Kentucky bluegrass | 9,080 | 9,928 | 2/ 11,689 | 2/ 19,368 | 2/ 9,179 | 2/ 11,906 |
| Bent grass | 377 | 884 | 1,978 | 1,541 | 3,420 | 2,450 |
| Total | 9,457 | 11,934 | 22,772 | 40,394 | 22,034 | 23,800 |
| Coarse-leaved: | | | | | | |
| Redtop | 12,312 | 5,986 | 2,071 | 3,011 | 1/ | 1/ |
| Common rye grass | 8,462 | 13,085 | 43,706 | 3/ 56,644 | 3/ 51,494 | 3/ 42,689 |
| Perennial rye grass | 1/ | 2,543 | 8,367 | 4/ | 4/ | 4/ |
| Tall fescue | 1/ | 1,389 | 20,583 | 10,186 | 13,510 | 25,202 |
| Meadow fescue | 256 | 744 | 1/ | 1/ | 1/ | 1/ |
| Total | 21,030 | 23,747 | 74,727 | 69,841 | 65,004 | 67,891 |
| Grand total 5/ | 30,487 | 35,681 | 97,499 | 110,235 | 87,038 | 91,691 |

1/ Not available.
2/ Includes Merion Kentucky bluegrass.
3/ Includes both common and perennial rye grass.
4/ Not separately reported.
5/ Figures do not include stocks of fescues or rye grasses in specified earlier years, for which data are not available. The resulting understatment of stocks is believed to be small.

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

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1:5

| Commodity | TSUS item |
|---|---|
| Bent grass 1/ seed (genus Agrostis)---------- | 126.07 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

Nearly all of the U.S. consumption of bent grass seed is supplied from domestic production. About two-thirds of the domestic output is exported.

## Description and uses

Bent grasses (genus Agrostis), except redtop, are fine-leaved grasses used primarily as lawn grass; among the several species of the genus Agrostis, colonial, creeping, and velvet bent grass and redtop 2/ are the most important commercially. Some of the fine-leaved bent grasses are particularly suited to golf course greens. Bent grasses may be propagated from stolons as well as from seeds; they are generally perennials, although a few species are annuals.

Redtop is a course-leaved grass that may grow to a height of 3 feet. It is planted in mixtures with other pasture grasses and in grass-legume mixtures for pasture or hay. It is used in lawn-seed mixtures but is not considered a permanent lawn grass. Because redtop differs in certain characteristics and uses from other bent grass, it is discussed separately in this summary.

## U.S. tariff treatment

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

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1/ Commercial terminology also uses this as one word bentgrass.
2/ See Treasury Decision 56124 (98) (March 1964): "bent grass (genus Agrostis) was intended to include the seeds of all bent grass of the Agrostis genus, which by common meaning includes the seed of redtop."

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1972 |
| 126.07 | Bent grass seed (genus Agrostis). | 12¢ per lb. | 10.5¢ per lb. | 9¢ per lb. |

The tabulation above shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the five annual rate modifications are shown above (see the TSUSA-1969 for the intermediate staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, 1/ based on dutiable imports in 1967, averaged 11.5 percent and the ad valorem equivalents for imports from individual countries ranged from 1.9 percent for imports from Canada to 13.3 percent for those from the Netherlands, the principal supplier.

U.S. consumption

Annual U.S. consumption of bent grass seed (except redtop) reached a high of 5.9 million pounds in 1957. In succeeding years it declined, averaging about 1.6 million pounds during the period 1962-66 (table 1). Probably the principal reason for the decline is the increased supply and relatively lower price of competing lawn-grass seeds. Although consumption decreased, production and exports increased. Bent grass is best adapted to a cool moist climate. Although it is used in nearly every section of the United States, the major portion of it is used in the Northern States.

Annual consumption of redtop seed decreased from a high of about 19 million pounds in 1946 to about 3 million pounds in 1962 and 1963

1/ The ad valorem equivalent is computed on a calendar year basis; all other years in this summary are crop years beginning July 1, except as noted.

(table 2). The decline is attributable primarily to a decrease in the use of redtop as a hay and pasture crop in the Northeastern and North Central States, formerly large consuming areas.

U.S. producers

Commercial production of bent grass seed (except redtop) in the United States occurs in Oregon and Washington. In 1964 bent grass seed was harvested from 30,778 acres on 375 U.S. farms. The production is specialized and provides a substantial part of the producers' income.

U.S. production of redtop seed occurs almost entirely in Missouri and Illinois. In 1964, redtop seed was harvested from about 33,000 acres on 1,500 U.S. farms. Production of redtop seed is only a supplementary enterprise for most producers. Land formerly used in the production of redtop seed has been diverted to the production of soybeans, corn, or other more profitable crops.

U.S. production

U.S. production of bent grass seed attained a high of about 9.7 million pounds valued at $3.3 million in 1964 and averaged 8.0 million pounds annually valued at $3.1 million in 1963-66 (table 1). The U.S. production of redtop seed declined irregularly from about 22 million pounds valued at $2.4 million in 1945 to 3.2 million pounds valued at $1.0 million in 1964 (table 2). Production data are not available after 1964. Nearly all of the U.S. output of bent grass seed and redtop seed is produced for sale; very little is retained for use on the farm where it is produced.

U.S. exports

U.S. exports of bent grass (other than redtop) seed have been increasing in recent years (table 3). During the period 1962-66, annual exports averaged about 6.1 million pounds, valued at $1.8 million. During this period, approximately 75 percent of the U.S. production of such seed was exported, principally to the United Kingdom, the Netherlands, West Germany, and Canada.

U.S. exports of redtop seed have fluctuated from year to year. Annual exports ranged from 0.3 million to 2.4 million pounds during the years from 1940 to 1963. As a result of the decline in U.S. output, exports of redtop seed have made up a larger percentage of production in recent years than formerly. During the period 1961-63 they averaged 1.0 million pounds, valued at $0.3 million, a year

(table 4) and accounted for about one-third of production. West Germany, Canada, and the Netherlands have been the chief markets for U.S. exports of redtop seed.

U.S. imports

In recent years U.S. imports of bent grass seed, which have been negligible, have consisted primarily of varieties of the creeping and velvet species not produced in this country. Direct competition between the domestic and imported bent grass seed, therefore, has been limited. During the period 1962-66, annual U.S. imports, principally from Denmark, the Netherlands, and West Germany, averaged about 15,000 pounds.

U.S. imports of redtop seed have been negligible; approximately 100,000 pounds of seed was imported during the entire 25-year period 1940-65.

Table 1.--Bent grass seed (except redtop): U.S. production, imports under the Federal Seed Act, exports of domestic merchandise, beginning stocks, and apparent consumption, crop years 1962-67

| Year beginning July 1-- | Production | Imports 1/ | Exports | Beginning stocks | Apparent consumption 2/ |
|---|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | | |
| 1962 | 6,254 | 7 | 4,129 | 1,163 | 2,036 |
| 1963 | 7,918 | 35 | 4,877 | 1,259 | 1,875 |
| 1964 | 9,673 | 16 | 7,187 | 2,460 | 2,036 |
| 1965 | 7,746 | 8 | 6,049 | 2,926 | 1,211 |
| 1966 | 8,253 | 9 | 8,302 | 3,420 | 930 |
| 1967 | 8,039 | 3/ | 3/ | 2,450 | 3/ |
| | Value (1,000 dollars) | | | | |
| 1962 | 2,817 | 3/ | 1,234 | 3/ | 3/ |
| 1963 | 3,834 | 3/ | 1,574 | 3/ | 3/ |
| 1964 | 3,273 | 3/ | 2,120 | 3/ | 3/ |
| 1965 | 3,246 | 3/ | 2,114 | 3/ | 3/ |
| 1966 | 2,134 | 3/ | 2,156 | 3/ | 3/ |
| 1967 | 2,542 | 3/ | 3/ | 3/ | 3/ |
| | Unit value (cents per pound) | | | | |
| 1962 | 45.0 | 3/ | 29.9 | 3/ | 3/ |
| 1963 | 48.4 | 3/ | 32.3 | 3/ | 3/ |
| 1964 | 33.8 | 3/ | 29.5 | 3/ | 3/ |
| 1965 | 41.9 | 3/ | 34.9 | 3/ | 3/ |
| 1966 | 25.9 | 3/ | 26.0 | 3/ | 3/ |
| 1967 | 31.6 | 3/ | 3/ | 3/ | 3/ |

1/ These quantities are approximately the same as imports for consumption but include some rejected seed and U.S. seed returned.
2/ Consumption data take into account beginning stocks.
3/ Not available.

Source: Production, imports, and beginning stocks compiled from official statistics of the U.S. Department of Agriculture; exports compiled from official statistics of the U.S. Department of Commerce.

Table 2.--Redtop seed: U.S. production, exports of domestic merchandise, beginning stocks, and apparent consumption, crop years 1962-64 1/

| Year beginning July 1-- | Production | Exports | Beginning stocks | Apparent consumption 2/ |
|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | |
| 1962 | 3,330 | 1,083 | 2,770 | 3,525 |
| 1963 | 2,630 | 388 | 1,492 | 2,868 |
| 1964 | 3,240 | 3/ | 866 | 3/ |
| | Value (1,000 dollars) | | | |
| 1962 | 620 | 300 | 3/ | 3/ |
| 1963 | 783 | 123 | 3/ | 3/ |
| 1964 | 1,045 | 3/ | 3/ | 3/ |
| | Unit value (cents per pound) | | | |
| 1962 | 18.6 | 27.7 | 3/ | 3/ |
| 1963 | 29.8 | 31.7 | 3/ | 3/ |
| 1964 | 32.3 | 3/ | 3/ | 3/ |

1/ No data are available for years after 1964. Imports are negligible.
2/ Consumption data take into account beginning stocks.
3/ Not available.

Source: Production, imports, and beginning stocks compiled from official statistics of the U.S. Department of Agriculture; exports compiled from official statistics of the U.S. Department of Commerce.

Table 3.--Bent grass seed: U.S. exports of domestic merchandise, by principal markets, crop years 1962-66

| Market | Year beginning July 1-- | | | | |
|---|---|---|---|---|---|
| | 1962 | 1963 | 1964 | 1965 | 1966 |
| | Quantity (1,000 pounds) | | | | |
| United Kingdom | 903 | 830 | 1,500 | 1,089 | 1,180 |
| Netherlands | 904 | 878 | 1,019 | 704 | 1,065 |
| West Germany | 441 | 561 | 834 | 1,213 | 1,787 |
| Canada | 425 | 739 | 399 | 337 | 516 |
| Sweden | 416 | 389 | 878 | 628 | 859 |
| Australia | 174 | 496 | 467 | 394 | 467 |
| France | 202 | 252 | 520 | 541 | 499 |
| All other | 664 | 732 | 1,570 | 1,143 | 1,929 |
| Total | 4,129 | 4,877 | 7,187 | 6,049 | 8,302 |
| | Value (1,000 dollars) | | | | |
| United Kingdom | 261 | 295 | 442 | 381 | 318 |
| Netherlands | 255 | 266 | 304 | 244 | 289 |
| West Germany | 107 | 197 | 227 | 353 | 389 |
| Canada | 155 | 175 | 129 | 123 | 171 |
| Sweden | 121 | 141 | 259 | 238 | 252 |
| Australia | 55 | 136 | 146 | 151 | 139 |
| France | 55 | 94 | 148 | 198 | 136 |
| All other | 225 | 270 | 465 | 426 | 462 |
| Total | 1,234 | 1,574 | 2,120 | 2,114 | 2,156 |
| | Unit value (cents per pound) | | | | |
| Average, all markets | 29.9 | 32.3 | 29.5 | 34.9 | 26.0 |

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

Table 4.--Redtop seed: U.S. exports of domestic merchandise, by principal markets, crop years 1959-63 and July-December 1964 1/

| Market | Year beginning July 1 -- | | | | | July-Dec. 1964 |
|---|---|---|---|---|---|---|
| | 1959 | 1960 | 1961 | 1962 | 1963 | |
| | Quantity (1,000 pounds) | | | | | |
| Canada | 273 | 389 | 362 | 212 | 159 | 66 |
| West Germany | 70 | 806 | 784 | 541 | 163 | 17 |
| Netherlands | 120 | 126 | 82 | 41 | 38 | - |
| France | - | 152 | 34 | 160 | - | - |
| All other | 31 | 99 | 353 | 129 | 28 | 9 |
| Total | 494 | 1,572 | 1,615 | 1,083 | 388 | 92 |
| | Value (1,000 dollars) | | | | | |
| Canada | 90 | 105 | 109 | 68 | 69 | 33 |
| West Germany | 26 | 187 | 175 | 145 | 33 | 6 |
| Netherlands | 19 | 25 | 16 | 10 | 8 | - |
| France | - | 36 | 8 | 42 | - | - |
| All other | 12 | 28 | 55 | 35 | 13 | 4 |
| Total | 147 | 381 | 363 | 300 | 123 | 43 |
| | Unit value (cents per pound) | | | | | |
| Average, all markets | 29.7 | 24.2 | 22.5 | 27.7 | 31.7 | 46.7 |

1/ Not separately reported after December 1964.

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

| Commodity | TSUS item |
|---|---|
| Kentucky bluegrass seed------ | 126.09 |
| Other bluegrass seed--------- | 126.11 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

In most years, U.S. production of Kentucky bluegrass seed supplied more than half of the consumption of such seed. U.S. exports are small compared with production or imports. Most of the "other bluegrass seed" consumed in this country is supplied by imports.

## Description and uses

Bluegrass is a fine-leaved pasture and lawn grass adapted to temperate and cool climates that have a moderate rainfall. The most popular of the domestically grown species is Kentucky bluegrass (Poa pratensis), a long-lived perennial which spreads by creeping rhizomes; it is used extensively both alone and in mixtures with other seeds for lawn and turf purposes, as well as for pasture. The bulk of the Kentucky bluegrass seed produced commercially in the United States is used for lawns. Most of the lawn-grass seed sold to the consuming public is marketed in mixtures of various kinds; such mixtures are generally formulated around Kentucky bluegrass. There are a number of improved varieties of Kentucky bluegrass, the most important being Merion.

Some of the species included in the category "other bluegrass seed" are Canada, annual, bulbous, mutton, roughstalk, 1/ Sandberg, Texas, and wood bluegrass; Canada bluegrass and roughstalk bluegrass are the most important of these species. Canada bluegrass is generally used as a pasture grass; occasionally it is used for lawns with soil and climate not suitable for Kentucky bluegrass. Roughstalk bluegrass (Poa trivialis) is used as a lawn or pasture grass in moist and/or shady areas.

1/ Also called rough-stalked meadow grass. As stated in Treasury Decision 56190(180) May 14, 1964, "Seed of rough stalked meadow grass (Poa Trivialis) is classifiable under the provision for garden and field seeds: . . . Bluegrass: . . . Other, in item 126.11, TSUS."

U.S. tariff treatment

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | First stage, effective Jan. 1, 1968 | Final stage, effective Jan. 1, 1972 |
| 126.09 | Kentucky bluegrass seed. | 1.25¢ per lb. | 1/ | 1/ |
| 126.11 | Other bluegrass seed-- | 1.3¢ per lb. | 1¢ per lb. 2/ | 0.6¢ per lb. |

1/ Duty status not effected by trade conference.
2/ The first stage rate remains in effect until January 1, 1970.

The tabulation above shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications in item 126.11 as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the first and final stages of the rate modifications for item 126.11 are shown above (see the TSUSA-1969 for all the staged rates). The ad valorem equivalents of the specific rates of duty in effect on December 31, 1967, based on dutiable imports in 1967, 1/ averaged 4.3 percent for TSUS item 126.09 and 5.2 percent for item 126.11. During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rates shown above did not change.

U.S. consumption

During the 1940's and 1950's, when the consumption of other lawn-grass seed increased substantially, the consumption of Kentucky bluegrass seed remained fairly stable at about 20 million pounds a year. The consumption of Kentucky bluegrass seed subsequently increased, however, until it amounted to 41 million pounds in 1966 and averaged 34 million pounds a year for the period 1962-66 (table 1).

1/ The ad valorem equivalents are computed on a calendar year basis; all other years in this summary are crop years beginning July 1, except as noted.

Most of the "other bluegrass seed" consumed in this country consists of roughstalk bluegrass seed, which is supplied by imports. Consumption of this seed has tended to decrease with the development of improved varieties of Kentucky bluegrass and other grasses.

## U.S. production

Seeds of Kentucky bluegrass and its improved varieties are the only kinds of bluegrass seed produced in the United States in significant quantities. U.S. production of common Kentucky bluegrass seed is characterized by extreme fluctuations from year to year, largely as a result of weather conditions at the time of seed setting and harvest. During the period 1950-59, the average annual production of common Kentucky bluegrass seed was about 18 million pounds (clean-seed basis). In 1962-66 the annual production ranged from 9 million pounds to 30 million pounds. Before 1960 nearly all of the domestic Kentucky bluegrass seed was produced in the Kentucky District (an area which includes the States of Kentucky, Ohio, and Indiana) and in the West North Central States. In the early 1960's, however, production in the Pacific Northwest became of consequence, and in 1966 it amounted to about 19 million pounds and accounted for the bulk of the total (table 2). Kentucky bluegrass seed in the West North Central States and in the Kentucky District is obtained from grass grown primarily for hay and pasture and only incidentally for seed. In these areas seed is harvested by stripping machines owned, in most cases, by dealers that contract for the purchase of the seed. In contrast, Kentucky bluegrass seed in the Pacific Northwest is obtained from grass grown for seed only. Seed production in this area is very specialized--grass is grown in rows and harvested by combines. Seed produced by this latter method is generally of higher quality (higher in germination and purity).

Nearly all of the Merion Kentucky bluegrass seed is produced in Oregon, Washington, and Idaho (table 2). This variety first became commercially available in 1952. Domestic output increased from 157,000 pounds in that year to 5.1 million pounds in 1966. Because of the considerably higher prices of Merion, the value of its production has exceeded that of common Kentucky bluegrass seed in recent years. Separate data on production of other improved varieties of Kentucky bluegrass are not available; however, output of new varieties is increasing and may be substantial.

## U.S. exports

The volume of U.S. exports of Kentucky bluegrass seed has remained fairly stable at a level of about 1 million pounds a year for many years and averaged this for the period 1962-66. About 60 to 80

percent of such exports in recent years have gone to Canada. Reported exports have a higher average unit value than production and imports and probably include a substantial quantity of Merion Kentucky bluegrass seed.

U.S. imports

Before 1959, U.S. imports of Kentucky bluegrass seed were unimportant in relation to domestic production. In 1959 and 1961, years of exceptionally low domestic production, imports exceeded production. After 1961, imports continued to increase, reaching a high of 14.1 million pounds, valued at $4.1 million, in 1963 and averaged 11.3 million pounds, valued at $3.4 million, a year during 1962-66 (table 3). In the same period, imports of Merion Kentucky bluegrass seed reported under the Federal Seed Act averaged about 1.0 million pounds annually.

Prior to the 1956 crop year, the bulk of the U.S. imports of Kentucky bluegrass seed came from Canada. Since then the Netherlands and Denmark have been the chief suppliers (table 3). There has been an increase in production of Kentucky bluegrass seed in the Netherlands and Denmark in recent years, coinciding with the decline in production of fine-leaved red fescue seed in those countries. The bluegrass seed is produced in the Netherlands and Denmark by the same method as in the Pacific Northwest. The quality of the imported seed is about equal to that of the domestic seed, except that small quantities of Poa annua may be found in some of the imported seed. Poa annua is an annual bluegrass which, under most conditions, is considered to be a weed. On a price basis the domestic and imported Kentucky bluegrass seed are comparable.

During the period 1962-66 the average annual imports of "other bluegrass seed" were about 1.1 million pounds, valued at $334,000 (table 4). Separate import statistics for roughstalk bluegrass seed, as reported under the Federal Seed Act, show that roughstalk seed comprised by far the greater part of the imports. Imports of "other bluegrass seed" come primarily from Denmark, the Netherlands, and Canada.

Table 1.--Kentucky bluegrass seed: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, crop years 1962-66

| Year beginning July 1-- | Production | | Imports | Exports | Apparent consumption 2/ |
|---|---|---|---|---|---|
| | Kentucky 1/ | Merion Kentucky | | | |
| | Quantity (1,000 pounds of clean seed) | | | | |
| 1962 | 9,300 | 4,072 | 3/ 12,544 | 612 | 26,085 |
| 1963 | 14,018 | 3,333 | 3/ 14,068 | 1,015 | 32,621 |
| 1964 | 19,238 | 3,317 | 3/ 13,593 | 1,196 | 34,929 |
| 1965 | 22,832 | 3,631 | 3/ 9,493 | 1,030 | 36,961 |
| 1966 | 30,247 | 5,143 | 3/ 6,675 | 953 | 41,112 |
| | Value (1,000 dollars) | | | | |
| 1962 | 4/ | 2,229 | 3,459 | 326 | 4/ |
| 1963 | 4/ | 2,714 | 4,139 | 527 | 4/ |
| 1964 | 4/ | 3,302 | 4,235 | 662 | 4/ |
| 1965 | 4/ | 3,994 | 3,200 | 528 | 4/ |
| 1966 | 4/ | 2,866 | 2,222 | 475 | 4/ |
| | Unit value (cents per pound) | | | | |
| 1962 | 4/ | 54.7 | 27.6 | 53.3 | 4/ |
| 1963 | 4/ | 81.4 | 29.4 | 51.9 | 4/ |
| 1964 | 4/ | 99.5 | 31.2 | 55.4 | 4/ |
| 1965 | 4/ | 110.0 | 33.7 | 51.3 | 4/ |
| 1966 | 4/ | 55.7 | 33.3 | 49.8 | 4/ |

1/ Data for 1962-66 include production of common Kentucky, Park, Delta, Newport, and other improved strains (excluding Merion) in the North Central States, the Kentucky District, and the Pacific Northwest States.

2/ Consumption takes into account beginning stocks.

3/ U.S. Department of Agriculture import statistics under the Federal Seed Act indicate that the data shown includes 1.1 million pounds of Merion Kentucky bluegrass seed imported in 1962, 0.8 million pounds in 1963, 1.0 million pounds in 1964, 0.5 million pounds in 1965 and 1.1 million pounds in 1966.

4/ Not available.

Source: Production compiled from official statistics of the U.S. Department of Agriculture; imports and exports compiled from official statistics of the U.S. Department of Commerce.

Note.--In crop years 1962-66 the ratio of imports to consumption, based on quantity, was as follows: 1962 -- 48.1 percent; 1963 -- 43.1 percent; 1964 -- 38.9 percent; 1965 -- 25.7 percent; 1966 -- 16.2 percent.

Table 2.--Kentucky bluegrass and Merion bluegrass seed: U.S. production by areas, crop years, average 1950-59 and 1966

| Kind of seed, and area | Year beginning July 1 | | | |
|---|---|---|---|---|
| | Average 1950-59 1/ | | 1966 | |
| | Quantity 2/ | Distribution by States | Quantity 3/ | Distribution by States |
| | 1,000 pounds | Percent | 1,000 pounds | Percent |
| Kentucky bluegrass seed: | | | | |
| Pacific Northwest district 4/ | - | - | 20,480 | 65.5 |
| North Central States district | 37,115 | 82.4 | 9,295 | 32.8 |
| Kentucky district | 7,903 | 17.6 | 472 | 1.7 |
| Total | 45,018 | 100.0 | 30,247 | 100.0 |
| Merion bluegrass seed: | | | | |
| Oregon | 706 | 47.0 | 2,295 | 42.1 |
| Washington | 491 | 32.8 | 1,625 | 32.4 |
| Idaho | 169 | 11.2 | 1,100 | 23.2 |
| California | 132 | 9.0 | 122 | 2.3 |
| Total | 1,498 | 100.0 | 5,143 | 100.0 |
| Grand total | 46,516 | 100.0 | 35,390 | 100.0 |

1/ 1952 was the first year of commercial production for Merion bluegrass seed.

2/ Rough-cured seed basis (about 2 to 2.5 times as large as the quantity of clean seed).

3/ Clean-seed basis.

4/ Statistics are not available for 1950 to 1959, but production is known to be small.

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

Table 3.--Kentucky bluegrass seed: U.S. imports for consumption, by principal sources, crop years beginning July 1, 1962-66

| Source | Year beginning July 1-- | | | | |
|---|---|---|---|---|---|
| | 1962 | 1963 | 1964 | 1965 | 1966 |
| | Quantity (1,000 pounds) | | | | |
| Netherlands | 8,772 | 10,985 | 9,090 | 5,861 | 3,457 |
| Denmark | 3,672 | 2,610 | 4,402 | 3,573 | 3,150 |
| Canada | 100 | 245 | 1 | 3 | 1 |
| All other | - | 228 | 100 | 56 | 67 |
| Total | 12,544 | 14,068 | 13,593 | 9,493 | 6,675 |
| | Value (1,000 dollars) | | | | |
| Netherlands | 2,516 | 3,244 | 3,054 | 2,102 | 1,308 |
| Denmark | 933 | 795 | 1,149 | 1,077 | 893 |
| Canada | 10 | 35 | 1/ | 2 | 1 |
| All other | - | 65 | 32 | 19 | 20 |
| Total | 3,459 | 4,139 | 4,235 | 3,200 | 2,222 |
| | Unit value (cents per pound) | | | | |
| Netherlands | 28.7 | 29.5 | 33.6 | 35.9 | 37.8 |
| Denmark | 25.4 | 30.5 | 26.1 | 30.1 | 28.3 |
| Canada | 10.4 | 14.3 | 45.4 | 66.7 | 100.0 |
| All other | - | 28.5 | 32.0 | 33.9 | 29.8 |
| Average | 27.6 | 29.4 | 31.2 | 33.7 | 33.3 |

1/ Less than $500.

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

Table 4.--Other bluegrass seed: U.S. imports for consumption, crop years 1962-66

| Year beginning July 1-- | Quantity | Value | Unit value |
|---|---|---|---|
| | 1,000 pounds | 1,000 dollars | Per pound |
| 1962 | 1/ 1,149 | 2/ 310 | $0.27 |
| 1963 | 1/ 1,430 | 2/ 351 | .25 |
| 1964 | 840 | 252 | .30 |
| 1965 | 1,272 | 479 | .38 |
| 1966 | 837 | 278 | .33 |

1/ Includes imports of roughstalk bluegrass seed entered under the Federal Seed Act, as reported by the U.S. Department of Agriculture.
2/ Value for 1962 and 1963 estimated.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

| Commodity | TSUS item |
|---|---|
| Creeping red fescue seed---------- | 126.35 |
| Meadow fescue seed---------- | 126.37 |
| Other fescue seed---------- | 126.39 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

Aggregate U.S. imports of fescue seed, which consist largely of creeping red fescue, account for about one-fourth of domestic consumption. On the average, exports of fescue seed--nearly all Chewings and tall fescue seed--are about half as large in volume as imports.

## Description and uses

Fescue includes both fine-leaved and coarse-leaved species. The principal fine-leaved species are Chewings and creeping red--perennial grasses that withstand considerable wear and tear and are found in most lawn mixtures. The principal coarse-leaved species is tall fescue, a hardy grass used for pasture in the Western and Southern States and for lawn grass. Meadow fescue is a coarse-leaved species of minor importance in the United States. It is grown primarily for pasture in the Northern States on low, wet soil and is used to a lesser extent as a temporary lawn grass.

## U.S. tariff treatment

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1971 |
| 126.35 | Creeping red fescue---- | 1¢ per lb. | 0.8¢ per lb. | 0.5¢ per lb. |
| 126.37 | Meadow fescue---------- | 0.5¢ per lb. | 0.3¢ per lb. | Free |
| 126.39 | Other fescue---------- | 0.4¢ per lb. | 0.2¢ per lb. | Free 1/ |

1/ Becomes effective Jan. 1, 1970.

The tabulation above shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (those in effect during 1969) and final stages of the rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rates shown above did not change.

The ad valorem equivalents of the specific rates of duty in effect on December 31, 1967, based on dutiable imports in 1967, 1/ were as follows:

| TSUS item | Commodity | Percent |
|---|---|---|
| 126.35 | Creeping red fescue------ | 4.6 |
| 126.37 | Meadow fescue---------- | 3.4 |
| 126.39 | Other fescue---------- | .9 |

U.S. consumption

U.S. consumption of fescue seed increased sharply in the period after World War II and has trended upward less sharply in recent years (table 1). Annual consumption of creeping red fescue seed in 1962-66 (table 2) declined from 21 million pounds in 1962 to 14 million pounds in 1964 then rose to 17 million pounds in 1966. Consumption of Chewings fescue seed (table 3) decreased from 7.7 million pounds in 1963 to about 3.8 million pounds in 1966, and averaged 5.9 million pounds annually in 1962-66. Annual consumption of tall fescue seed (table 4) increased from about 36 million pounds in 1962 to 62 million pounds in 1966. During 1962-66, consumption of meadow fescue seed (table 5) was small, averaging less than 2 million pounds a year.

U.S. producers

According to the 1964 United States Census of Agriculture, about 14,000 farms produced fescue seed in the United States in 1964; about 345,000 acres were harvested. Creeping red and Chewings fescue seed together accounted for about 20 percent of this acreage; tall fescue seed accounted for nearly all of the remainder. The acreage of creeping red and Chewings fescue seed harvested in the 1966 crop year was 15,250 and 17,500 acres, respectively. The acreage of tall fescue seed increased in 1966 to a high of 307,000 acres.

1/ Ad valorem equivalents are computed on a calendar year basis; all other years in this summary are crop years beginning July 1, except as noted.

Oregon accounts for nearly all of the creeping red fescue and Chewings fescue seed produced in the United States (table 6). Kentucky is the largest producer of tall fescue seed, followed by Missouri, Oregon, and Tennessee. Most of the small U.S. output of meadow fescue seed is produced in Kansas and Missouri. Seed production in the Pacific Northwest is highly specialized. Production of fescue seed in that area provides a substantial part of the producers' income; it may be the sole source of income for many. Producers of fescue seed in other areas of the country tend to have diversified farms; nearly all produce other crops and livestock as well as fescue seed.

## U.S. production

The commercial production of fescue seed in the United States has been largely a post-World War II development; U.S. output before the war was negligible. U.S. production of creeping red fescue seed has increased from 3.8 million pounds in 1963 to 6.9 million pounds in 1966 (table 2) and averaged 5.4 million pounds a year for the period 1962-66. The production of Chewings fescue seed has fluctuated from year to year with no discernible trend, and averaged 7.3 million pounds for the period 1962-66 (table 3).

U.S. production of tall fescue seed increased from 31 million pounds in 1962 to 62 million pounds in 1964, declined to 57 million pounds in 1965, and then rose to an all time high of 79 million pounds in 1966 (table 4). Compared with the U.S. production of other fescue seeds, that of meadow fescue seed has been small, amounting to an estimated 400,000 pounds annually (table 5).

## U.S. exports and imports

U.S. exports are largely confined to Chewings fescue and tall fescue seeds. In recent years, U.S. foreign trade in these two seeds has been on a net export basis. Exports of all fescue seeds increased from a negligible amount in the early 1950's to an annual average of about 6.4 million pounds during the 1962-66 crop years (table 7). The United Kingdom, West Germany, and Argentina are the principal destinations.

In recent years U.S. imports accounted for little of the consumption of Chewings and tall fescue seed, but for more than half of the consumption of creeping red fescue and meadow fescue seeds. During 1962-66, annual imports of creeping red fescue seed averaged 10.6 million pounds and accounted for about 65 percent of domestic consumption. Imports of meadow fescue seed averaged 1.4 million pounds a year and accounted for 75 percent of the estimated consumption in 1962-66 (table 5).

Approximately 75 percent of the imports of fescue seeds have originated in Canada; Denmark and the Netherlands accounts for nearly all of the remainder.

Three escape-clause investigations 1/ have been conducted on red fescue seed by the Tariff Commission under the provisions of section 7 of the Trade Agreements Extension Act of 1951, as amended; Chewings fescue seed was included in the first two of these investigations. In each of the investigations the Commission found that the seed was not being imported in such increased quantities as to cause or threaten serious injury to the domestic industry concerned.

1/ U.S. Tariff Commission, Red Fescue Seed: Report on /Escape-Clause/ Investigation No. 7-40 ..., 1955 (processed).
U.S. Tariff Commission, Red Fescue Seed: Report on Escape-clause Investigation No. 7-80 ..., 1959 (processed).
U.S. Tariff Commission, Creeping Red Fescue Seed: Report on Escape-clause Investigation No. 7-111 ..., 1962 (processed).

Table 1.--Fescue seed: U.S. production, imports for consumption, exports of domestic merchandise, beginning stocks, and apparent consumption, crop years 1962-66

(Quantity in thousands of pounds; value in thousands of dollars)

| Year beginning July 1-- | Production 1/ | Imports | Exports | Beginning stocks 2/ | Apparent consumption 3/ | Ratio (percent) of imports to consumption |
|---|---|---|---|---|---|---|
| | Quantity | | | | | |
| 1962---- | 45,377 | 15,180 | 4,698 | 20,777 | 62,845 | 24.2 |
| 1963---- | 57,010 | 11,303 | 6,224 | 13,791 | 59,857 | 18.9 |
| 1964---- | 75,171 | 8,219 | 7,398 | 16,023 | 72,966 | 10.8 |
| 1965---- | 69,018 | 15,234 | 5,065 | 19,049 | 75,292 | 20.2 |
| 1966---- | 93,163 | 10,795 | 8,524 | 22,944 | 83,732 | 12.9 |
| | Value | | | | | |
| 1962---- | 7,022 | 1,991 | 902 | 4/ | 4/ | 4/ |
| 1963---- | 12,056 | 2,867 | 1,740 | 4/ | 4/ | 4/ |
| 1964---- | 10,606 | 2,928 | 1,620 | 4/ | 4/ | 4/ |
| 1965---- | 10,521 | 5,280 | 1,152 | 4/ | 4/ | 4/ |
| 1966---- | 10,161 | 2,693 | 1,625 | 4/ | 4/ | 4/ |

1/ Production of meadow fescue seed is not available. It is estimated to be 400,000 pounds annually but is not included in this table.
2/ Beginning stocks do not include meadow fescue.
3/ Reported consumption takes into account the change in stocks.
4/ Not available.

Source: Production and beginning stocks compiled from official statistics of the U.S. Department of Agriculture; imports and exports compiled from official statistics of the U.S. Department of Commerce.

Table 2.--Creeping red fescue seed: U.S. production, imports under the Federal Seed Act, beginning stocks, and apparent consumption, crop years 1962-66

| Year beginning July 1-- | Production | | Imports 1/ | Beginning stocks | Apparent consumption | Ratio of imports to consumption |
|---|---|---|---|---|---|---|
| | Quantity | Value | | | | |
| | 1,000 pounds | 1,000 dollars | 1,000 pounds | 1,000 pounds | 1,000 pounds | Percent |
| 1962----- | 5,078 | 837 | 12,526 | 8,484 | 21,414 | 58.5 |
| 1963----- | 3,810 | 1,369 | 9,146 | 4,674 | 13,967 | 65.5 |
| 1964----- | 5,310 | 1,938 | 7,432 | 3,663 | 13,704 | 54.2 |
| 1965----- | 6,014 | 2,518 | 14,436 | 2,701 | 16,220 | 89.0 |
| 1966----- | 6,918 | 1,752 | 9,701 | 6,931 | 17,130 | 56.6 |

1/ These quantities are approximately the same as imports for consumption, but include some rejected seed and U.S. seed returned.

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

Note.--Statistics on exports are not available, but exports are estimated to be small.

Table 3.--Chewings fescue seed: U.S. production, imports under the Federal Seed Act, exports of domestic merchandise, beginning stocks, and apparent consumption, crop years 1962-66

| Year beginning July 1-- | Production | | Imports 1/ | Exports 2/ | Beginning stocks | Apparent consumption |
|---|---|---|---|---|---|---|
| | Quantity | Value | | | | |
| | 1,000 pounds | 1,000 dollars | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds |
| 1962----- | 9,000 | 1,260 | 196 | 1,564 | 6,418 | 7,690 |
| 1963----- | 6,290 | 1,950 | 31 | 2,075 | 6,360 | 7,698 |
| 1964----- | 7,920 | 2,614 | - | 2,466 | 2,908 | 6,521 |
| 1965----- | 6,290 | 2,673 | 3/ | 1,688 | 1,841 | 3,939 |
| 1966----- | 7,175 | 1,830 | 29 | 2,841 | 2,504 | 3,843 |

1/ These quantities are approximately the same as imports for consumption, but include some rejected seed and U.S. seed returned.
2/ Estimated as one-third of total exports.
3/ Less than 500 pounds.

Source: Compiled from official statistics of the U.S. Department of Agriculture, except as noted.

Table 4.--Tall fescue seed: U.S. production, imports under the Federal Seed Act, exports of domestic merchandise, beginning stocks, and apparent consumption, crop years 1962-66

| Year beginning July 1-- | Production | | Imports 1/ | Exports 2/ | Beginning stocks | Apparent consumption |
|---|---|---|---|---|---|---|
| | Quantity | Value | | | | |
| | 1,000 pounds | 1,000 dollars | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds |
| 1962----- | 31,299 | 4,925 | 111 | 3,134 | 5,875 | 31,394 |
| 1963----- | 46,910 | 8,737 | 1 | 4,149 | 2,757 | 36,067 |
| 1964----- | 61,941 | 6,054 | 7 | 4,932 | 9,452 | 51,961 |
| 1965----- | 56,714 | 5,330 | - | 3,377 | 14,507 | 54,334 |
| 1966----- | 79,070 | 6,579 | 1 | 5,682 | 13,510 | 61,697 |

1/ These quantities are approximately the same as imports for consumption, but include some rejected seed and U.S. seed returned.
2/ Estimated as two-thirds of total exports.

Source: Compiled from official statistics of the U.S. Department of Agriculture, except as noted.

Table 5.--Meadow fescue seed: U.S. production, imports under the Federal Seed Act, and apparent consumption, crop years 1962-66

| Year beginning July 1-- | Production 1/ | Imports 2/ | Apparent consumption 3/ | Ratio of imports to consumption |
|---|---|---|---|---|
| | 1,000 pounds | 1,000 pounds | 1,000 pounds | Percent |
| 1962 | 400 | 1,978 | 2,378 | 83.2 |
| 1963 | 400 | 2,156 | 2,556 | 84.4 |
| 1964 | 400 | 829 | 1,229 | 67.5 |
| 1965 | 400 | 864 | 1,264 | 68.4 |
| 1966 | 400 | 1,078 | 1,478 | 72.9 |

1/ Estimated.

2/ These quantities are approximately the same as imports for consumption, but include some rejected seed and U.S. seed returned.

3/ Production plus imports. Exports are believed to be nil.

Source: Compiled from official statistics of the U.S. Department of Agriculture, except as noted.

Table 6.--Fescue seed: U.S. production of clean seed, by kinds and by States, crop years, average 1961-65 and 1966

| Kind of seed, and State | Year beginning July 1 -- | | | |
|---|---|---|---|---|
| | Average 1961-65 | | 1966 | |
| | Quantity | Distribution by States | Quantity | Distribution by States |
| | 1,000 pounds | Percent | 1,000 pounds | Percent |
| Creeping red fescue: | | | | |
| Oregon | 4,717 | 94.0 | 6,670 | 96.4 |
| Washington | 253 | 5.0 | 248 | 3.6 |
| Total | 1/ 5,018 | 99.0 | 6,918 | 100.0 |
| Chewings fescue: | | | | |
| Oregon | 7,400 | 100.0 | 7,175 | 100.0 |
| Tall fescue: | | | | |
| Kentucky | 13,791 | 29.5 | 27,000 | 34.1 |
| Missouri | 12,588 | 26.9 | 23,940 | 30.3 |
| Oregon | 7,391 | 15.8 | 10,560 | 13.4 |
| Tennessee | 6,248 | 13.4 | 7,980 | 10.1 |
| Georgia | 1,596 | 3.4 | 2,520 | 3.2 |
| South Carolina | 1,599 | 3.4 | 2,220 | 2.8 |
| Alabama | 1,292 | 2.8 | 2,100 | 2.6 |
| Arkansas | 1,210 | 2.6 | 1,680 | 2.1 |
| Oklahoma | 373 | .8 | 480 | .6 |
| Idaho | 304 | .6 | 140 | .2 |
| Mississippi | 378 | .8 | 450 | .6 |
| Total | 46,770 | 100.0 | 79,070 | 100.0 |

1/ Figures do not add to total because of small production from States not listed.

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

Table 7.--Fescue seed: U.S. exports of domestic merchandise, by principal markets, crop years, 1962-66

| Market | Year beginning July 1-- | | | | |
|---|---|---|---|---|---|
| | 1962 | 1963 | 1964 | 1965 | 1966 |
| | Quantity (1,000 pounds) | | | | |
| United Kingdom | 1,666 | 1,675 | 1,787 | 748 | 1,244 |
| West Germany | 688 | 1,171 | 1,181 | 1,348 | 2,878 |
| France | 249 | 784 | 1,229 | 55 | 31 |
| Netherlands | 172 | 420 | 357 | 401 | 400 |
| Australia | 244 | 385 | 402 | 212 | 158 |
| Canada | 199 | 371 | 456 | 141 | 324 |
| Uruguay | 267 | 220 | 551 | 286 | 486 |
| Argentina | 22 | 76 | 293 | 795 | 1,330 |
| Sweden | 405 | 18 | 45 | 59 | 109 |
| All other | 786 | 1,104 | 1,097 | 1,020 | 1,564 |
| Total | 4,698 | 6,224 | 7,398 | 5,065 | 8,524 |
| | Value (1,000 dollars) | | | | |
| United Kingdom | 329 | 538 | 479 | 232 | 370 |
| West Germany | 106 | 317 | 201 | 302 | 485 |
| France | 56 | 201 | 250 | 20 | 7 |
| Netherlands | 32 | 126 | 115 | 99 | 103 |
| Australia | 41 | 116 | 125 | 58 | 42 |
| Canada | 36 | 96 | 69 | 41 | 61 |
| Uruguay | 53 | 54 | 91 | 53 | 93 |
| Argentina | 5 | 19 | 47 | 129 | 166 |
| Sweden | 72 | 6 | 13 | 18 | 41 |
| All other | 172 | 267 | 230 | 200 | 257 |
| Total | 902 | 1,740 | 1,620 | 1,152 | 1,625 |
| | Unit value (cents per pound) | | | | |
| United Kingdom | 19.7 | 32.1 | 26.8 | 31.0 | 30.0 |
| West Germany | 15.4 | 27.1 | 17.0 | 22.4 | 16.8 |
| France | 22.5 | 25.6 | 20.3 | 36.4 | 22.6 |
| Netherlands | 18.6 | 30.0 | 32.3 | 24.7 | 25.7 |
| Australia | 16.8 | 30.1 | 31.1 | 27.4 | 26.6 |
| Canada | 18.1 | 25.9 | 15.1 | 29.1 | 18.8 |
| Uruguay | 19.8 | 24.5 | 16.5 | 18.5 | 19.1 |
| Argentina | 22.7 | 25.0 | 16.0 | 16.2 | 12.5 |
| Sweden | 17.8 | 33.3 | 28.9 | 30.5 | 37.6 |
| All other | 21.9 | 24.2 | 21.0 | 19.7 | 16.4 |
| Average | 19.2 | 28.0 | 21.9 | 22.7 | 19.1 |

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

| Commodity | TSUS item |
|---|---|
| Rye grass seed---------- | 126.77 |

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

## U.S. trade position

Nearly all of the U.S. consumption of rye grass seed is supplied from domestic production. About 7 percent of the domestic output is exported.

## Description and uses

Rye grasses are of two primary types--common (sometimes referred to as annual or Italian rye grass) and perennial rye grass. Common rye grass is an annual which can be used to provide a green manure or cover crop at comparatively low cost. This type of rye grass has become increasingly important as forage, as a lawn grass, as a soil-conserving grass, and as a seed crop. Perennial rye grass seed is used primarily in permanent pasture grass mixtures to furnish forage for livestock while the slower growing grasses become established. In establishing lawns, perennial rye grass seed is used to some extent in mixtures with the seeds of common rye grass and other lawn grasses.

While a substantial portion of rye grass seed is used for forage production, nevertheless, for purposes of these summaries ryegrass is considered a lawn-grass seed, since its use in lawn grass mixtures affects the price and use of other lawn-grass seeds (see General Statement on Lawn-grass Seed).

## U.S. tariff treatment

The column 1 (trade-agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

| TSUS item | Commodity | Rate prior to Jan. 1, 1968 | U.S. concessions granted in 1964-67 trade conference (Kennedy Round) | |
|---|---|---|---|---|
| | | | Second stage, effective Jan. 1, 1969 | Final stage, effective Jan. 1, 1970 |
| 126.77 | Rye grass seed------ | 1.25¢ per lb. | 1.1¢ per lb. | 1¢ per lb. |

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the three annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change. The ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, 1/ based on dutiable imports in 1967 averaged 4.6 percent.

U.S. consumption

Annual U.S. consumption of rye grass seed increased from about 30 million pounds in the early 1940's to an annual average of 154 million pounds in 1962-66 (see table). Common rye grass seed generally accounted for at least 70 percent of the total.

Because of its many uses and its low price, rye grass seed has become the most important grass seed in the United States in terms of volume consumed. Although used in nearly every section of the country, it is used most extensively in the Pacific Coast, Southeastern, and Middle Atlantic States, where winter temperatures are relatively mild and annual rainfall amounts to 30 inches or more.

U.S. producers and production

Nearly all of the common and perennial rye grass seed grown in the United States is produced in Oregon; generally about three-fourths of total consists of common and one-fourth of perennial rye grass seed. In 1964 about 1,500 farms harvested rye grass seed; an average of about 100 acres per farm was harvested. Seed production in the growing areas of the Pacific Northwest is specialized. Rye grass seed provides a substantial part of the producers' income.

The production of rye grass seed increased irregularly from about 30 million pounds in the early 1940's to an average of 164 million pounds a year for the period 1962-66. Almost the entire amount is produced for sale; very little is retained for use on the farms where it is produced.

In 1949-53, when average annual production amounted to 77 million

1/ The ad valorem equivalent is computed on a calendar year basis; all other years in this summary are crop years beginning July 1, except as noted.

pounds, the average price received by growers was 8.6 cents a pound, but in recent years, when production has been more than twice as large, the price has generally been much lower. It averaged 5.4 cents a pound in the 5-year period 1962-66.

U.S. exports and imports

During 1962-66, annual U.S. exports of rye grass seed are estimated to have averaged about 12 million pounds, which is equivalent to about 7 percent of domestic production.

During 1965-66, about 60 percent of the total rye grass seed exports were perennial rye grass seed. In recent years the principal markets for perennial rye grass seed were the Netherlands, Italy, Austria, and Japan. Japan and Italy have been the chief markets for annual rye grass seed.

U.S. imports of rye grass seed decreased from a high of about 6 million pounds in 1952 to an annual average of about 211,000 pounds during the period 1962-66 and have been negligible in relation to consumption. The principal sources of imports have been the United Kingdom, Canada, and New Zealand.

Rye grass seed: U.S. production, imports for consumption, exports of domestic merchandise, beginning stocks, and apparent consumption, crop years 1962-67

| Year beginning July 1-- | Production | Imports | Exports | Beginning stocks | Apparent consumption |
|---|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | | |
| 1962 | 180,880 | 78 | 1/ 11,746 | 51,217 | 173,826 |
| 1963 | 145,725 | 120 | 1/ 11,746 | 46,603 | 131,023 |
| 1964 | 179,690 | 210 | 1/ 11,746 | 49,679 | 164,809 |
| 1965 | 160,460 | 391 | 11,746 | 53,024 | 150,635 |
| 1966 | 151,160 | 257 | 13,192 | 51,494 | 147,030 |
| 1967 | 134,160 | 2/ | 2/ | 42,689 | 2/ |
| | Value (1,000 dollars) | | | | |
| 1962 | 8,320 | 21 | 2/ | 2/ | 2/ |
| 1963 | 8,889 | 38 | 2/ | 2/ | 2/ |
| 1964 | 8,535 | 50 | 2/ | 2/ | 2/ |
| 1965 | 9,467 | 107 | 1,384 | 2/ | 2/ |
| 1966 | 8,964 | 75 | 1,229 | 2/ | 2/ |
| 1967 | 8,318 | 2/ | 2/ | 2/ | 2/ |
| | Unit value (cents per pound) | | | | |
| 1962 | 4.6 | 26.9 | 2/ | 2/ | 2/ |
| 1963 | 6.1 | 31.7 | 2/ | 2/ | 2/ |
| 1964 | 4.7 | 23.8 | 2/ | 2/ | 2/ |
| 1965 | 5.9 | 27.4 | 11.8 | 2/ | 2/ |
| 1966 | 5.9 | 29.2 | 9.3 | 2/ | 2/ |
| 1967 | 6.2 | 2/ | 2/ | 2/ | 2/ |

1/ Estimated.
2/ Not available.

Source: Production, exports, and beginning stocks compiled from official statistics of the U.S. Department of Agriculture, except as noted; imports compiled from official statistics of the U.S. Department of Commerce.

# A P P E N D I X  A

Tariff Schedules of the United States Annotated (1969): General headnotes and rules of interpretation, and excerpts relating to the items included in this volume.

NOTE: The shaded areas in this appendix cover headnotes and TSUS items not included in the summaries in this volume.

TARIFF SCHEDULES OF THE UNITED STATES ANNOTATED (1969)

GENERAL HEADNOTES AND RULES OF INTERPRETATION



1. Tariff Treatment of Imported Articles. All articles imported into the customs territory of the United States from outside thereof are subject to duty or exempt therefrom as prescribed in general headnote 3.

2. Customs Territory of the United States. The term "customs territory of the United States", as used in the schedules, includes only the States, the District of Columbia, and Puerto Rico.

3. Rates of Duty. The rates of duty in the "Rates of Duty" columns numbered 1 and 2 of the schedules apply to articles imported into the customs territory of the United States as hereinafter provided in this headnote:

(a) Products of Insular Possessions.

(i) Except as provided in headnote 6 of schedule 7, part 2, subpart E, [and] except as provided in headnote 4 of schedule 7, part 7, subpart A, articles imported from insular possessions of the United States which are outside the customs territory of the United States are subject to the rates of duty set forth in column numbered 1 of the schedules, except that all such articles the growth or product of any such possession, or manufactured or produced in any such possession from materials the growth, product, or manufacture of any such possession or of the customs territory of the United States, or of both, which do not contain foreign materials to the value of more than 50 percent of their total value, coming to the customs territory of the United States directly from any such possession, and all articles previously imported into the customs territory of the United States with payment of all applicable duties and taxes imposed upon or by reason of importation which were shipped from the United States, without remission, refund, or drawback of such duties or taxes, directly to the possession from which they are being returned by direct shipment, are exempt from duty.

(ii) In determining whether an article produced or manufactured in any such insular possession contains foreign materials to the value of more than 50 percent, no material shall be considered foreign which, at the time such article is entered, may be imported into the customs territory from a foreign country, other than Cuba or the Philippine Republic, and entered free of duty.

(b) Products of Cuba. Products of Cuba imported into the customs territory of the United States, whether imported directly or indirectly, are subject to the rates of duty set forth in column numbered 1 of the schedules. Preferential rates of duty for such products apply only as shown in the said column 1. 1/

(c) Products of the Philippine Republic.

(i) Products of the Philippine Republic imported into the customs territory of the United States, whether imported directly or indirectly, are subject to the rates of duty which are set forth in column numbered 1 of the schedules or to fractional parts of the rates in the said column 1, as hereinafter prescribed in subdivisions (c)(ii) and (c)(iii) of this headnote.

(ii) Except as otherwise prescribed in the schedules, a Philippine article, as defined in subdivision (c)(iv) of this headnote, imported into the customs territory of the United States and entered on or before July 3, 1974, is subject to that rate which results from the application of the following percentages to the most favorable rate of duty (i.e., including a preferential rate prescribed for any product of Cuba) set forth in column numbered 1 of the schedules:

(A) 20 percent, during calendar years 1963 through 1964,

(B) 40 percent, during calendar years 1965 through 1967,

(C) 60 percent, during calendar years 1968 through 1970,

(D) 80 percent, during calendar years 1971 through 1973,

(E) 100 percent, during the period from January 1, 1974, through July 3, 1974.

(iii) Except as otherwise prescribed in the schedules, products of the Philippine Republic, other than Philippine articles, are subject to the rates of duty (except any preferential rates prescribed for products of Cuba) set forth in column numbered 1 of the schedules.

(iv) The term "Philippine article", as used in the schedules, means an article which is the product of the Philippines, but does not include any article produced with the use of materials imported into the Philippines which are products of any foreign country (except materials produced within the customs territory of the United States) if the aggregate value of such imported materials when landed at the Philippine port of entry, exclusive of any landing cost and Philippine duty, was more than 20 percent of the appraised customs value of the article imported into the customs territory of the United States.

(d) Products of Canada.

(i) Products of Canada imported into the customs territory of the United States, whether imported directly or indirectly, are subject to the rates of duty set forth in column numbered 1 of the schedules. The rates of duty for a Canadian article, as defined in subdivision (d)(ii) of this headnote, apply only as shown in the said column numbered 1.

(ii) The term "Canadian article", as used in the schedules, means an article which is the product of Canada, but does not include any article produced with the use of materials imported into Canada which are products of any foreign country (except materials produced within the customs territory of the United States), if the aggregate value of such imported materials when landed at the Canadian port of entry (that is, the actual purchase price, or if not purchased, the export value, of such materials, plus, if not included therein, the cost of transporting such materials to Canada but exclusive of any landing cost and Canadian duty) was --

(A) with regard to any motor vehicle or automobile truck tractor entered on or before December 31, 1967, more than 60 percent of the appraised value of the article imported into the customs territory of the United States; and

(B) with regard to any other article (including any motor vehicle or automobile truck tractor entered after December 31, 1967), more than 50 percent of the appraised value of the article imported into the customs territory of the United States.

(e) Products of Communist Countries. Notwithstanding any of the foregoing provisions of this headnote, the rates of duty shown in column numbered 2 shall apply to products, whether imported directly or indirectly, of the following countries and areas pursuant to section 401 of the Tariff Classification Act of 1962, to section 231 or 257(e) (2) of the Trade Expansion Act of 1962, or to

1/ By virtue of section 401 of the Tariff Classification Act of 1962, the application to products of Cuba of either a preferential or other reduced rate of duty in column 1 is suspended. See general headnote 3(e), infra. The provisions for preferential Cuban rates continue to be reflected in the schedules because, under section 401, the rates therefor in column 1 still form the bases for determining the rates of duty applicable to certain products, including "Philippine articles".

action taken by the President thereunder:
Albania
Bulgaria
China (any part of which may be under Communist domination or control)
Cuba 1/
Czechoslovakia
Estonia
Germany (the Soviet zone and the Soviet sector of Berlin)
Hungary
Indochina (any part of Cambodia, Laos, or Vietnam which may be under Communist domination or control)
Korea (any part of which may be under Communist domination or control)
Kurile Islands
Latvia
Lithuania
Outer Mongolia
Rumania
Southern Sakhalin
Tanna Tuva
Tibet
Union of Soviet Socialist Republics and the area in East Prussia under the provisional administration of the Union of Soviet Socialist Republics.

(f) Products of All Other Countries. Products of all countries not previously mentioned in this headnote imported into the customs territory of the United States are subject to the rates of duty set forth in column numbered 1 of the schedules.

(g) Effective Date; Exceptions - Staged Rates of Duty. 2/ Except as specified below or as may be specified elsewhere, pursuant to section 501(a) of the Tariff Classification Act of 1962 (P.L. 87-456, approved May 24, 1962), the rates of duty in columns numbered 1 and 2 become effective with respect to articles entered on or after the 10th day following the date of the President's proclamation provided for in section 102 of the said Act. If, in column numbered 1, any rate of duty or part thereof is set forth in parenthesis, the effective date shall be governed as follows:

(i) If the rate in column numbered 1 has only one part (i.e., 8¢ (10¢) per lb.), the parenthetical rate (viz., 10¢ per lb.) shall be effective as to articles entered before July 1, 1964, and the other rate (viz., 8¢ per lb.) shall be effective as to articles entered on or after July 1, 1964.

(ii) If the rate in column numbered 1 has two or more parts (i.e., 5¢ per lb. + 50% ad val.) and has a parenthetical rate for either or both parts, each part of the rate shall be governed as if it were a one-part rate. For example, if a rate is expressed as "4¢ (4.5¢) per lb. + 8% (9%) ad val.", the rate applicable to articles entered before July 1, 1964, would be "4.5¢ per lb. + 9% ad val."; the rate applicable to articles entered on or after July 1, 1964, would be "4¢ per lb. + 8% ad val.".

(iii) If the rate in column numbered 1 is marked with an asterisk (*), the foregoing provisions of (i) and (ii) shall apply except that "January 1, 1964" shall be substituted for "July 1, 1964", wherever this latter date appears.

1/ In Proclamation 3447, dated February 3, 1962, the President, acting under authority of section 620(a) of the Foreign Assistance Act of 1961 (75 Stat. 445), as amended, prohibited the importation into the United States of all goods of Cuban origin and all goods imported from or through Cuba, subject to such exceptions as the Secretary of the Treasury determines to be consistent with the effective operation of the embargo.

2/ The purpose of headnote 3(g) was to provide for an effective date for the rates of duty initially contained in the Tariff Schedules of the United States. By Presidential Proclamation 3548 of August 21, 1963, these rates of duty, except as noted in subparagraphs (i), (ii), and (iii) of headnote 3(g), became effective on August 31, 1963.

4. Modification or Amendment of Rates of Duty. Except as otherwise provided in the Appendix to the Tariff Schedules --

(a) a statutory rate of duty supersedes and terminates the existing rates of duty in both column numbered 1 and column numbered 2 unless otherwise specified in the amending statute;

(b) a rate of duty proclaimed pursuant to a concession granted in a trade agreement shall be reflected in column numbered 1 and, if higher than the then existing rate in column numbered 2, also in the latter column, and shall supersede but not terminate the then existing rate (or rates) in such column (or columns);

(c) a rate of duty proclaimed pursuant to section 336 of the Tariff Act of 1930 shall be reflected in both column numbered 1 and column numbered 2 and shall supersede but not terminate the then existing rates in such columns; and

(d) whenever a proclaimed rate is terminated or suspended, the rate shall revert, unless otherwise provided, to the next intervening proclaimed rate previously superseded but not terminated or, if none, to the statutory rate.

5. Intangibles. For the purposes of headnote 1 --
(a) corpses, together with their coffins and accompanying flowers,
(b) currency (metal or paper) in current circulation in any country and imported for monetary purposes,
(c) electricity,
(d) securities and similar evidences of value, and
(e) vessels which are not "yachts or pleasure boats" within the purview of subpart D, part 6, of schedule 6,
are not articles subject to the provisions of these schedules.

6. Containers or Holders for Imported Merchandise. For the purposes of the tariff schedules, containers or holders are subject to tariff treatment as follows:

(a) Imported Empty: Containers or holders if imported empty are subject to tariff treatment as imported articles and as such are subject to duty unless they are within the purview of a provision which specifically exempts them from duty.

(b) Not Imported Empty: Containers or holders if imported containing or holding articles are subject to tariff treatment as follows:

(i) The usual or ordinary types of shipping or transportation containers or holders, if not designed for, or capable of, reuse, and containers of usual types ordinarily sold at retail with their contents, are not subject to treatment as imported articles. Their cost, however, is, under section 402 or section 402a of the tariff act, a part of the value of their contents and if their contents are subject to an ad valorem rate of duty such containers or holders are, in effect, dutiable at the same rate as their contents, except that their cost is deductible from dutiable value upon submission of satisfactory proof that they are products of the United States which are being returned without having been advanced in value or improved in condition by any means while abroad.

(ii) The usual or ordinary types of shipping or transportation containers or holders, if designed for, or capable of, reuse, are subject to treatment as imported articles separate and distinct from their contents. Such holders or containers are not part of the dutiable value of their contents and are separately subject to duty upon each and every importation into the customs territory of the United States unless within the scope of a provision specifically exempting them from duty.

(iii) In the absence of context which requires otherwise, all other containers or holders are subject to the same treatment as specified in (ii) above for usual or ordinary types of shipping or transportation containers or holders designed for, or capable of, reuse.

7. Commingling of Articles. (a) Whenever articles subject to different rates of duty are so packed together or mingled that the quantity or value of each class of articles cannot be readily ascertained by customs officers (without physical segregation of the shipment or the contents of any entire package thereof), by one or more of the following means:

(i) sampling,

(ii) verification of packing lists or other documents filed at the time of entry, or

(iii) evidence showing performance of commercial settlement tests generally accepted in the trade and filed in such time and manner as may be prescribed by regulations of the Secretary of the Treasury,

the commingled articles shall be subject to the highest rate of duty applicable to any part thereof unless the consignee or his agent segregates the articles pursuant to subdivision (b) hereof.

(b) Every segregation of articles made pursuant to this headnote shall be accomplished by the consignee or his agent at the risk and expense of the consignee within 30 days (unless the Secretary authorizes in writing a longer time) after the date of personal delivery or mailing, by such employee as the Secretary of the Treasury shall designate, of written notice to the consignee that the articles are commingled and that the quantity or value of each class of articles cannot be readily ascertained by customs officers. Every such segregation shall be accomplished under customs supervision, and the compensation and expenses of the supervising customs officers shall be reimbursed to the Government by the consignee under such regulations as the Secretary of the Treasury may prescribe.

(c) The foregoing provisions of this headnote do not apply with respect to any part of a shipment if the consignee or his agent furnishes, in such time and manner as may be prescribed by regulations of the Secretary of the Treasury, satisfactory proof --

(i) that such part (A) is commercially negligible, (B) is not capable of segregation without excessive cost, and (C) will not be segregated prior to its use in a manufacturing process or otherwise, and

(ii) that the commingling was not intended to avoid the payment of lawful duties.

Any article with respect to which such proof is furnished shall be considered for all customs purposes as a part of the article, subject to the next lower rate of duty, with which it is commingled.

(d) The foregoing provisions of this headnote do not apply with respect to any shipment if the consignee or his agent shall furnish, in such time and manner as may be prescribed by regulations of the Secretary of the Treasury, satisfactory proof --

(i) that the value of the commingled articles is less than the aggregate value would be if the shipment were segregated;

(ii) that the shipment is not capable of segregation without excessive cost and will not be segregated prior to its use in a manufacturing process or otherwise; and

(iii) that the commingling was not intended to avoid the payment of lawful duties.

Any merchandise with respect to which such proof is furnished shall be considered for all customs purposes to be dutiable at the rate applicable to the material present in greater quantity than any other material.

(e) The provisions of this headnote shall apply only in cases where the schedules do not expressly provide a particular tariff treatment for commingled articles.

8. Abbreviations. In the schedules the following symbols and abbreviations are used with the meanings respectively indicated below:

| | | |
|---|---|---|
| $ | - | dollars |
| ¢ | - | cents |
| % | - | percent |
| + | - | plus |
| ad val. | - | ad valorem |
| bu. | - | bushel |
| cu. | - | cubic |
| doz. | - | dozen |
| ft. | - | feet |
| gal. | - | gallon |
| in. | - | inches |
| lb. | - | pounds |
| oz. | - | ounces |
| sq. | - | square |
| wt. | - | weight |
| yd. | - | yard |
| pcs. | - | pieces |
| prs. | - | pairs |
| lin. | - | linear |
| I.R.C. | - | Internal Revenue Code |

9. Definitions. For the purposes of the schedules, unless the context otherwise requires --

(a) the term "entered" means entered, or withdrawn from warehouse, for consumption in the customs territory of the United States;

(b) the term "entered for consumption" does not include withdrawals from warehouse for consumption;

(c) the term "withdrawn for consumption" means withdrawn from warehouse for consumption and does not include articles entered for consumption;

(d) the term "rate of duty" includes a free rate of duty; rates of duty proclaimed by the President shall be referred to as "proclaimed" rates of duty; rates of duty enacted by the Congress shall be referred to as "statutory" rates of duty; and the rates of duty in column numbered 2 at the time the schedules become effective shall be referred to as "original statutory" rates of duty;

(e) the term "ton" means 2,240 pounds, and the term "short ton" means 2,000 pounds;

(f) the terms "of", "wholly of", "almost wholly of", "in part of" and "containing", when used between the description of an article and a material (e.g., "furniture of wood", "woven fabrics, wholly of cotton", etc.), have the following meanings:

(i) "of" means that the article is wholly or in chief value of the named material;

(ii) "wholly of" means that the article is, except for negligible or insignificant quantities of some other material or materials, composed completely of the named material;

(iii) "almost wholly of" means that the essential character of the article is imparted by the named material, notwithstanding the fact that significant quantities of some other material or materials may be present; and

(iv) "in part of" or "containing" mean that the article contains a significant quantity of the named material.

With regard to the application of the quantitative concepts specified in subparagraphs (ii) and (iv) above, it is intended that the de minimis rule apply.

# APPENDIX A

## TARIFF SCHEDULES OF THE UNITED STATES ANNOTATED (1969)

### General Headnotes and Rules of Interpretation



10. General Interpretative Rules. For the purposes of these schedules --

(a) the general, schedule, part, and subpart headnotes, and the provisions describing the classes of imported articles and specifying the rates of duty or other import restrictions to be imposed thereon are subject to the rules of interpretation set forth herein and to such other rules of statutory interpretation, not inconsistent therewith, as have been or may be developed under administrative or judicial rulings;

(b) the titles of the various schedules, parts, and subparts and the footnotes therein are intended for convenience in reference only and have no legal or interpretative significance;

(c) an imported article which is described in two or more provisions of the schedules is classifiable in the provision which most specifically describes it; but, in applying this rule of interpretation, the following considerations shall govern:

(i) a superior heading cannot be enlarged by inferior headings indented under it but can be limited thereby;

(ii) comparisons are to be made only between provisions of coordinate or equal status, i.e., between the primary or main superior headings of the schedules or between coordinate inferior headings which are subordinate to the same superior heading;

(d) if two or more tariff descriptions are equally applicable to an article, such article shall be subject to duty under the description for which the original statutory rate is highest, and, should the highest original statutory rate be applicable to two or more of such descriptions, the article shall be subject to duty under that one of such descriptions which first appears in the schedules;

(e) in the absence of special language or context which otherwise requires --

(i) a tariff classification controlled by use (other than actual use) is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of articles of that class or kind to which the imported articles belong, and the controlling use is the chief use, i.e., the use which exceeds all other uses (if any) combined;

(ii) a tariff classification controlled by the actual use to which an imported article is put in the United States is satisfied only if such use is intended at the time of importation, the article is so used, and proof thereof is furnished within 3 years after the date the article is entered;

(f) an article is in chief value of a material if such material exceeds in value each other single component material of the article;

(g) a headnote provision which enumerates articles not included in a schedule, part, or subpart is not necessarily exhaustive, and the absence of a particular article from such headnote provision shall not be given weight in determining the relative specificity of competing provisions which describe such article;

(h) unless the context requires otherwise, a tariff description for an article covers such article, whether assembled or not assembled, and whether finished or not finished;

(ij) a provision for "parts" of an article covers a product solely or chiefly used as a part of such article, but does not prevail over a specific provision for such part.

11. Issuance of Rules and Regulations. The Secretary of the Treasury is hereby authorized to issue rules and regulations governing the admission of articles under the provisions of the schedules. The allowance of an importer's claim for classification, under any of the provisions of the schedules which provide for total or partial relief from duty or other import restrictions on the basis of facts which are not determinable from an examination of the article itself in its condition as imported, is dependent upon his complying with any rules or regulations which may be issued pursuant to this headnote.

12. The Secretary of the Treasury is authorized to prescribe methods of analyzing, testing, sampling, weighing, gauging, measuring, or other methods of ascertainment whenever he finds that such methods are necessary to determine the physical, chemical, or other properties or characteristics of articles for purposes of any law administered by the Customs Service.

*General statistical headnotes:*

*1. Statistical Requirements for Imported Articles. Persons making customs entry or withdrawal of articles imported into the customs territory of the United States shall complete the entry or withdrawal forms, as provided herein and in regulations issued pursuant to law, to provide for statistical purposes information as follows:*

*(a) the number of the Customs district and of the port where the articles are being entered for consumption or warehouse, as shown in Statistical Annex A of these schedules;*

*(b) the name of the carrier or the means of transportation by which the articles were transported to the first port of unloading in the United States;*

*(c) the foreign port of lading;*

*(d) the United States port of unlading;*

*(e) the date of importation;*

*(f) the country of origin of the articles expressed in terms of the designation therefor in Statistical Annex B of these schedules;*

*(g) a description of the articles in sufficient detail to permit the classification thereof under the proper statistical reporting number in these schedules;*

*(h) the statistical reporting number under which the articles are classifiable;*

*(ij) gross weight in pounds for the articles covered by each reporting number when imported in vessels or aircraft;*

*(k) the net quantity in the units specified herein for the classification involved;*

*(l) the U.S. dollar value in accordance with the definition in Section 402 or 402a of the Tariff Act of 1930, as amended, for all merchandise including that free of duty or dutiable at specific rates; and*

*(m) such other information with respect to the imported articles as is provided for elsewhere in these schedules.*

TARIFF SCHEDULES OF THE UNITED STATES ANNOTATED (1969)

General Headnotes and Rules of Interpretation



2. Statistical Annotations. (a) The statistical annotations to the Tariff Schedules of the United States consist of --

(i) the 2-digit statistical suffixes,
(ii) the indicated units of quantity,
(iii) the statistical headnotes and annexes, and
(iv) the italicized article descriptions.

(b) The legal text of the Tariff Schedules of the United States consists of the remaining text as more specifically identified in headnote 10(a) of the general headnotes and rules of interpretation.

(c) The statistical annotations are subordinate to the provisions of the legal text and cannot change their scope.

3. Statistical Reporting Number. (a) General Rule: Except as provided in paragraph (b) of this headnote, and in the absence of specific instructions to the contrary elsewhere, the statistical reporting number for an article consists of the 7-digit number formed by combining the 5-digit item number with the appropriate 2-digit statistical suffix. Thus, the statistical reporting number for live monkeys dutiable under item 100.95 is "100.9520".

(b) Wherever in the tariff schedules an article is classifiable under a provision which derives its rate of duty from a different provision, the statistical reporting number is, in the absence of specific instructions to the contrary elsewhere, the 7-digit number for the basic provision followed by the item number of the provision from which the rate is derived. Thus, the statistical reporting number of mixed apple and grape juices, not containing over 1.0 percent of ethyl alcohol by volume, is "165.6500-165.40".

4. Abbreviations. (a) The following symbols and abbreviations are used with the meanings respectively indicated below:

| | | |
|---|---|---|
| s. ton | - | short ton |
| C. | - | one hundred |
| Cwt. | - | 100 lbs. |
| mg. | - | milligram |
| M. | - | 1,000 |
| bd. ft. | - | board feet |
| M. bd. ft. | - | 1,000 board feet |
| mc. | - | millicurie |
| cord | - | 128 cubic feet |
| square | - | amount to cover 100 square feet of surface |
| sup. ft. | - | superficial foot |
| oz. | - | ounces avoirdupois |
| fl. oz. | - | fluid ounce |
| oz. troy | - | troy ounce |
| pf. gal. | - | proof gallon |

(b) An "X" appearing in the column for units of quantity means that no quantity (other than gross weight) is to be reported.

(c) Whenever two separate units of quantity are shown for the same article, the "v" following one of such units means that the value of the article is to be reported with that quantity.

# APPENDIX A

## TARIFF SCHEDULES OF THE UNITED STATES ANNOTATED (1969)

## HISTORICAL NOTES

Notes p. 1
General
Headnotes

### Amendments and Modifications

| PROVISIONS | |
|---|---|
| Gen Hdnte--3(a)(i) | Language "Except as provided in headnote 6 of schedule 7, part 2, subpart E," added; language "except that all articles" deleted and language "except that all such articles" inserted in lieu thereof. Pub. L. 89-805, Secs. 1(a), (c), Nov. 10, 1966, 80 Stat. 1521, 1522, effective date Jan. 1, 1967. |
| | Language "Except as provided in headnote 4 of schedule 7, part 7, subpart A," added. Pub. L. 89-806, Secs. 2(b), (c), Nov. 10, 1966, 80 Stat. 1523, effective date March 11, 1967. |

| PROVISIONS | |
|---|---|
| Gen Hdnte--3(d), (e), (f) and (g) | Headnotes 3(d), (e), and (f) redesignated as headnotes 3(e), (f), and (g), respectively, and new headnote 3(d) added. Pub. L. 89-283, Secs. 401(a), 403, Oct. 21, 1965, 79 Stat. 1021, 1022; entered into force Oct. 22, 1965, by Pres. Proc. 3682, Oct. 21, 1965, 3 CFR, 1965 Supp., p. 68. |
| Gen Hdnte--6(b)(i) | Language "and containers of usual types ordinarily sold at retail with their contents," added. Pub. L. 89-241, Secs. 2(a), 4, Oct. 7, 1965, 79 Stat. 933, 934, effective date Dec. 7, 1965. |

**SCHEDULE 1. - ANIMAL AND VEGETABLE PRODUCTS**

## SCHEDULE 1. - ANIMAL AND VEGETABLE PRODUCTS

Part 1 - Live Animals

Part 2 - Meats
- A. Bird Meat
- B. Meats Other Than Bird Meat

Part 3 - Fish and Shellfish
- A. Fish, Fresh, Chilled, or Frozen
- B. Fish, Dried, Salted, Pickled, Smoked, or Kippered
- C. Fish in Airtight Containers
- D. Other Fish Products
- E. Shellfish

Part 4 - Dairy Products; Birds' Eggs
- A. Milk and Cream
- B. Butter, Oleomargarine, and Butter Substitutes
- C. Cheese
- D. Other Milk Products
- E. Poultry and Other Birds' Eggs

Part 5 - Hides, Skins, and Leather; Furskins
- A. Hides, Skins, and Leather
- B. Furskins

**Part 6 - Live Plants; Seeds**
- **A. Live Plants**
- **B. Seeds**

Part 7 - Cereal Grains, Milled Grain Products, and Malt and Starches
- A. Grains
- B. Milled Grain Products
- C. Malt and Starches

Part 8 - Vegetables
- A. Vegetables, Fresh, Chilled, or Frozen
- B. Vegetables, Dried, Desiccated, or Dehydrated
- C. Vegetables, Packed in Salt, in Brine, Pickled, or Otherwise Prepared or Preserved
- D. Mushrooms and Truffles

Part 9 - Edible Nuts and Fruits
- A. Edible Nuts
- B. Edible Fruits
- C. Fruit Flours, Peels, Pastes, Pulps, Jellies, Jams, Marmalades, and Butters
- D. Dried Nuts, Fruits, and Other Vegetable Substances

Part 10 - Sugar, Cocoa, Confectionery
- A. Sugars, Syrups, and Molasses
- B. Cocoa
- C. Confectionery

Part 11 - Coffee, Tea, Maté, and Spices
- A. Coffee and Coffee Substitutes, Tea, Maté
- B. Spices and Spice Seeds

Part 12 - Beverages
- A. Fruit Juices
- B. Non-Alcoholic Beverages
- C. Fermented Alcoholic Beverages
- D. Spirits, Spirituous Beverages and Beverage Preparations

Part 13 - Tobacco and Tobacco Products

Part 14 - Animal and Vegetable Oils, Fats and Greases
- A. Oil-Bearing Vegetable Materials
- B. Vegetable Oils, Crude or Refined
- C. Animal Oils, Fats, and Greases, Crude or Refined
- D. Hardened Oils, Fats, and Greases; Mixtures

Part 15 - Other Animal and Vegetable Products
- A. Products of American Fisheries
- B. Edible Preparations
- C. Animal Feeds
- D. Feathers, Downs, Bristles, and Hair
- E. Shellac and Other Lacs; Natural Gums, Gum Resins, Resins, and Balsams; Turpentine and Rosin
- F. Miscellaneous Animal Products
- G. Miscellaneous Vegetable Products

TARIFF SCHEDULES OF THE UNITED STATES ANNOTATED (1969)



SCHEDULE 1. - ANIMAL AND VEGETABLE PRODUCTS
Part 6. - Live Plants; Seeds



| Item | Stat. Suf-fix | Articles | Units of Quantity | Rates of Duty 1 | Rates of Duty 2 |
|---|---|---|---|---|---|
| | | **PART 6. - LIVE PLANTS; SEEDS** | | | |
| | | Part 6 headnote: | | | |
| | | 1. This part does not cover all live plants and seed. Cereal grains, certain bulbs and other vegetables (such as potatoes, onions, garlic and beans), and certain seeds (such as spice seeds and oil-bearing seeds) are provided for elsewhere in this schedule (see parts 7, 8, 11, 14 and 15). See part 3 of schedule 8 for importations of the Department of Agriculture and the U.S. Botanic Garden. | | | |
| | | **Subpart A. - Live Plants** | | | |
| | | Bulbs, roots, rootstocks, clumps, corms, tubers, and herbaceous perennials: | | | |
| 125.01 | 00 | Tulip bulbs | No..... | $1.40 per 1000 | $6 per 1000 |
| 125.05 | 00 | Hyacinth bulbs | No..... | 69¢ per 1000 | $4 per 1000 |
| 125.10 | 00 | Lily bulbs | No..... | $1.40 per 1000 | $6 per 1000 |
| 125.15 | 00 | Narcissus bulbs | No..... | $2.10 per 1000 | $6 per 1000 |
| 125.20 | 00 | Crocus corms | No..... | 30¢ per 1000 | $2 per 1000 |
| 125.25 | 00 | Lily of the valley pips | No..... | $2.25 per 1000 | $6 per 1000 |
| 125.30 | | Other, imported for horticultural purposes | ..... | 5.5% ad val. | 30% ad val. |
| | *20* | *Iris bulbs* | *No.* | | |
| | *40* | *Gladiolus corms* | *No.* | | |
| | *60* | *Begonia (tuberous) tubers* | *No.* | | |
| | *80* | *Other* | *No.* | | |
| 125.40 | 00 | Seedlings, layers, and cuttings of apple, cherry, pear, plum, quince, and other fruit-tree stocks | No..... | $1.20 per 1000 | $2 per 1000 |
| 125.50 | 00 | Grafted or budded fruit trees, cuttings and seedlings of grape, currant, gooseberry, or other fruit plants (except trees) | No..... | 8% ad val. | 25% ad val. |
| 125.51 | | Pineapple slips produced in Cuba | ..... | Free (s) | |
| 125.60 | 00 | Seedlings and cuttings of Manetti, multiflora, brier, rugosa, and other rose stock | No..... | 18¢ per 1000 | $2 per 1000 |
| 125.65 | 00 | Rose plants, budded, grafted, or grown on their own roots | No..... | 1.5¢ each | 4¢ each |
| 125.67 | 00 | Seed potato eyes | Lb..... | 8% ad val. | 20% ad val. |
| 125.70 | 00 | Orchid plants | No..... | 4.5% ad val. | 25% ad val. |
| 125.80 | 00 | Live plants suitable for planting, not specially provided for | No..... | 9% ad val. | 25% ad val. |

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

| Item | Stat. Suffix | Articles | Units of Quantity | Rates of Duty 1 | Rates of Duty 2 |
|---|---|---|---|---|---|
| | | **Subpart B. - Seeds** | | | |
| | | Subpart B headnotes: | | | |
| | | 1. This subpart covers garden and field seeds whether actually used for seeding or other purposes, but does not cover seeds unfit for seeding purposes within the meaning of the Federal Seed Act (7 U.S.C. 1551-1610). | | | |
| | | 2. No allowance in weight shall be made for dirt or other impurities in seed of any kind provided for in this subpart. | | | |
| | | Garden and field seeds: | | | |
| 126.01 | 00 | Alfalfa | Lb. | 1.8¢ per lb. | 8¢ per lb. |
| | | Beet: | | | |
| 126.03 | 00 | Sugar beet | Lb. | Free | Free |
| 126.05 | 00 | Other | Lb. | 0.9¢ per lb. | 4¢ per lb. |
| 126.07 | 00 | Bent grass (genus agrostis) | Lb. | 10.5¢ per lb. | 40¢ per lb. |
| | | Bluegrass: | | | |
| 126.09 | 00 | Kentucky | Lb. | 1.25¢ per lb. | 5¢ per lb. |
| 126.11 | 00 | Other | Lb. | 1¢ per lb. | 5¢ per lb. |
| 126.15 | 00 | Cabbage | Lb. | 1¢ per lb. | 12¢ per lb. |
| 126.17 | 00 | Carrot | Lb. | 0.9¢ per lb. | 4¢ per lb. |
| 126.19 | 00 | Cauliflower | Lb. | 10¢ per lb. | 25¢ per lb. |
| 126.21 | 00 | Celery | Lb. | 0.3¢ per lb. | 2¢ per lb. |
| | | Clover: | | | |
| 126.23 | 00 | Alsike | Lb. | 1.6¢ per lb. | 8¢ per lb. |
| 126.25 | 00 | Crimson | Lb. | 0.45¢ per lb. | 2¢ per lb. |
| 126.27 | 00 | Red | Lb. | 1.5¢ per lb. | 8¢ per lb. |
| 126.29 | 00 | Sweet | Lb. | 0.64¢ per lb. | 4¢ per lb. |
| 126.31 | 00 | White and ladino | Lb. | 2.5¢ per lb. | 6¢ per lb. |
| 126.33 | 00 | Other | Lb. | 1.5¢ per lb. | 3¢ per lb. |
| | | Fescue: | | | |
| 126.35 | 00 | Creeping red | Lb. | 0.8¢ per lb. | 2¢ per lb. |
| 126.37 | 00 | Meadow | Lb. | 0.3¢ per lb. | 2¢ per lb. |
| 126.39 | 00 | Other | Lb. | 0.2¢ per lb. | 2¢ per lb. |
| 126.41 | 00 | Flower | Lb. | 1¢ per lb. | 6¢ per lb. |
| 126.51 | 00 | Kale | Lb. | 0.9¢ per lb. | 6¢ per lb. |
| 126.53 | 00 | Kohlrabi | Lb. | 3.5¢ per lb. | 8¢ per lb. |
| 126.55 | 00 | Mangelwurzel | Lb. | 0.8¢ per lb. | 4¢ per lb. |
| 126.57 | 00 | Millet | Lb. | 0.3¢ per lb. | 1¢ per lb. |
| 126.59 | 00 | Mushroom spawn | Lb. | 1¢ per lb. | 1¢ per lb. |
| 126.61 | 00 | Onion | Lb. | 10¢ per lb. | 15¢ per lb. |
| 126.63 | 00 | Orchard grass | Lb. | 2¢ per lb. | 5¢ per lb. |
| 126.65 | 00 | Parsley | Lb. | 0.7¢ per lb. | 2¢ per lb. |
| 126.67 | 00 | Parsnip | Lb. | 1.5¢ per lb. | 4¢ per lb. |
| 126.71 | 00 | Pepper | Lb. | 6¢ per lb. | 15¢ per lb. |
| 126.73 | 00 | Radish | Lb. | 0.9¢ per lb. | 6¢ per lb. |
| 126.77 | 00 | Rye grass | Lb. | 1.1¢ per lb. | 3¢ per lb. |
| 126.79 | 00 | Sesbania | Lb. | 2¢ per lb. | 6¢ per lb. |
| 126.81 | 00 | Spinach | Lb. | 0.2¢ per lb. | 1¢ per lb. |
| 126.83 | 00 | Tall oat | Lb. | 2.5¢ per lb. | 5¢ per lb. |
| 126.85 | 00 | Timothy | Lb. | 0.3¢ per lb. | 2¢ per lb. |
| 126.87 | 00 | Tree and shrub | Lb. | Free | 8¢ per lb. |
| 126.89 | 00 | Turnip and rutabaga | Lb. | 1¢ per lb. | 5¢ per lb. |
| | | Vetch: | | | |
| 126.91 | 00 | Hairy vetch | Lb. | 2.4¢ per lb. | 3¢ per lb. |
| 126.93 | 00 | Other vetch | Lb. | 0.8¢ per lb. | 1.5¢ per lb. |
| 126.95 | 00 | Wheat grass | Lb. | 0.2¢ per lb. | 2¢ per lb. |
| | | Garden and field seeds, not specially provided for; | | | |
| 127.01 | 00 | Grass seeds and other forage crop seeds | Lb. | 0.2¢ per lb. | 2¢ per lb. |
| 127.10 | 00 | Other | Lb. | 1.5¢ per lb. | 6¢ per lb. |

TARIFF SCHEDULES OF THE UNITED STATES ANNOTATED (1969)

STAGED RATES AND HISTORICAL NOTES

Notes p. 1
Schedule 1,
Part 6

Staged Rates

Modifications of column 1 rates of duty by Pres. Proc. 3822 (Kennedy Round), Dec. 16, 1967, 32 F.R. 19002:

| TSUS item | Prior rate | Rate of duty, effective with respect to articles entered on and after January 1 -- | | | | |
|---|---|---|---|---|---|---|
| | | 1968 | 1969 | 1970 | 1971 | 1972 |
| 125.05 | 75¢ per 1000 | 72¢ per 1000 | 69¢ per 1000 | 66¢ per 1000 | 63¢ per 1000 | 60¢ per 1000 |
| 125.10 | $1.75 per 1000 | $1.57 per 1000 | $1.40 per 1000 | $1.22 per 1000 | $1.05 per 1000 | 87¢ per 1000 |
| 125.40 | $2 per 1000 | $1.60 per 1000 | $1.20 per 1000 | 80¢ per 1000 | 40¢ per 1000 | Free |
| 125.50 | 10% ad val. | 9% ad val. | 8% ad val. | 7% ad val. | 6% ad val. | 5% ad val. |
| 125.60 | 20¢ per 1000 | 19¢ per 1000 | 18¢ per 1000 | 17¢ per 1000 | 16¢ per 1000 | 15¢ per 1000 |
| 125.65 | 2¢ each | 1.8¢ each | 1.5¢ each | 1.4¢ each | 1¢ each | 1¢ each |
| 125.67 | 10% ad val. | 9% ad val. | 8% ad val. | 7% ad val. | 6% ad val. | 5% ad val. |
| 125.70 | 5.5% ad val. | 5% ad val. | 4.5% ad val. | 4.5% ad val. | 4% ad val. | 4% ad val. |
| 125.80 | 10% ad val. | 9% ad val. | 9% ad val. | 8% ad val. | 8% ad val. | 7.5% ad val. |
| 126.01 | 2¢ per lb. | 1.9¢ per lb. | 1.8¢ per lb. | 1.5¢ per lb. | 1.5¢ per lb. | 1.5¢ per lb. |
| 126.05 | 1.5¢ per lb. | 1¢ per lb. | 0.9¢ per lb. | 0.5¢ per lb. | 0.3¢ per lb. | Free |
| 126.07 | 12¢ per lb. | 11¢ per lb. | 10.5¢ per lb. | 10¢ per lb. | 9.5¢ per lb. | 9¢ per lb. |
| 126.11 | 1.3¢ per lb. | 1¢ per lb. | 1¢ per lb. | 0.9¢ per lb. | 0.7¢ per lb. | 0.6¢ per lb. |
| 126.15 | 3¢ per lb. | 2¢ per lb. | 1¢ per lb. | 1¢ per lb. | Free | Free |
| 126.17 | 1.5¢ per lb. | 1¢ per lb. | 0.9¢ per lb. | 0.5¢ per lb. | 0.3¢ per lb. | Free |
| 126.19 | 12.5¢ per lb. | 11¢ per lb. | 10¢ per lb. | 8¢ per lb. | 7¢ per lb. | 6¢ per lb. |
| 126.21 | 0.6¢ per lb. | 0.4¢ per lb. | 0.3¢ per lb. | 0.2¢ per lb. | 0.1¢ per lb. | Free |
| 126.23 | 2¢ per lb. | 1.8¢ per lb. | 1.6¢ per lb. | 1.4¢ per lb. | 1.2¢ per lb. | 1¢ per lb. |
| 126.25 | 0.8¢ per lb. | 0.6¢ per lb. | 0.45¢ per lb. | 0.3¢ per lb. | 0.1¢ per lb. | Free |
| 126.27 | 2¢ per lb. | 1.8¢ per lb. | 1.5¢ per lb. | 1.4¢ per lb. | 1.2¢ per lb. | 1¢ per lb. |
| 126.29 | 0.8¢ per lb. | 0.7¢ per lb. | 0.64¢ per lb. | 0.55¢ per lb. | 0.45¢ per lb. | 0.4¢ per lb. |
| 126.31 | 3.2¢ per lb. | 2.8¢ per lb. | 2.5¢ per lb. | 2¢ per lb. | 1.9¢ per lb. | 1.6¢ per lb. |
| 126.33 | 2¢ per lb. | 1.8¢ per lb. | 1.5¢ per lb. | 1.4¢ per lb. | 1¢ per lb. | 1¢ per lb. |
| 126.35 | 1¢ per lb. | 0.9¢ per lb. | 0.8¢ per lb. | 0.7¢ per lb. | 0.5¢ per lb. | 0.5¢ per lb. |
| 126.37 | 0.5¢ per lb. | 0.4¢ per lb. | 0.3¢ per lb. | 0.2¢ per lb. | Free | Free |
| 126.39 | 0.4¢ per lb. | 0.3¢ per lb. | 0.2¢ per lb. | Free | Free | Free |
| 126.41 | 1.5¢ per lb. | 1¢ per lb. | 1¢ per lb. | 1¢ per lb. | 1¢ per lb. | 1¢ per lb. |
| 126.51 | 1.5¢ per lb. | 1.2¢ per lb. | 0.9¢ per lb. | 0.5¢ per lb. | 0.3¢ per lb. | Free |
| 126.53 | 4¢ per lb. | 3.5¢ per lb. | 3.5¢ per lb. | 3¢ per lb. | 3¢ per lb. | 3¢ per lb. |
| 126.55 | 1¢ per lb. | 0.9¢ per lb. | 0.8¢ per lb. | 0.7¢ per lb. | 0.5¢ per lb. | 0.5¢ per lb. |
| 126.57 | 0.4¢ per lb. | 0.3¢ per lb. | 0.3¢ per lb. | 0.3¢ per lb. | 0.3¢ per lb. | 0.3¢ per lb. |
| 126.61 | 12¢ per lb. | 11¢ per lb. | 10¢ per lb. | 10¢ per lb. | 9¢ per lb. | 9¢ per lb. |
| 126.63 | 2.5¢ per lb. | 2.2¢ per lb. | 2¢ per lb. | 1.7¢ per lb. | 1.5¢ per lb. | 1.2¢ per lb. |
| 126.65 | 1¢ per lb. | 0.7¢ per lb. | 0.7¢ per lb. | 0.7¢ per lb. | 0.7¢ per lb. | 0.7¢ per lb. |
| 126.67 | 2¢ per lb. | 1.8¢ per lb. | 1.5¢ per lb. | 1.4¢ per lb. | 1.2¢ per lb. | 1¢ per lb. |
| 126.71 | 7.5¢ per lb. | 6¢ per lb. | 6¢ per lb. | 5¢ per lb. | 4¢ per lb. | 3¢ per lb. |
| 126.73 | 1.5¢ per lb. | 1¢ per lb. | 0.9¢ per lb. | 0.5¢ per lb. | 0.3¢ per lb. | Free |
| 126.77 | 1.25¢ per lb. | 1.2¢ per lb. | 1.1¢ per lb. | 1¢ per lb. | 1¢ per lb. | 1¢ per lb. |
| 126.81 | 0.25¢ per lb. | 0.2¢ per lb. | 0.2¢ per lb. | 0.2¢ per lb. | 0.2¢ per lb. | 0.2¢ per lb. |
| 126.85 | 0.5¢ per lb. | 0.4¢ per lb. | 0.3¢ per lb. | 0.2¢ per lb. | Free | Free |
| 126.87 | 1¢ per lb. | Free | Free | Free | Free | Free |
| 126.89 | 1.5¢ per lb. | 1¢ per lb. | 1¢ per lb. | 1¢ per lb. | 0.7¢ per lb. | 0.7¢ per lb. |
| 126.91 | 3¢ per lb. | 2.7¢ per lb. | 2.4¢ per lb. | 2.1¢ per lb. | 1.8¢ per lb. | 1.5¢ per lb. |
| 126.93 | 1¢ per lb. | 0.9¢ per lb. | 0.8¢ per lb. | 0.7¢ per lb. | 0.6¢ per lb. | 0.5¢ per lb. |
| 126.95 | 0.4¢ per lb. | 0.3¢ per lb. | 0.2¢ per lb. | 0.1¢ per lb. | Free | Free |
| 127.01 | 0.4¢ per lb. | 0.3¢ per lb. | 0.2¢ per lb. | 0.1¢ per lb. | Free | Free |

# A P P E N D I X  B

Value of U.S. imports for consumption, by TSUS items included in the individual summaries of this volume, total and from the 3 principal suppliers, 1967.

Value of U.S. imports for consumption, by TSUS items included in the individual summaries of this volume, total and from the 3 principal suppliers, 1967

(In thousands of dollars. The dollar value of imports shown is defined generally as the market value in the foreign country and therefore excludes U.S. import duties, freight, and transportation insurance)

| TSUS item | All countries | | First supplier | | Second supplier | | Third supplier | |
|---|---|---|---|---|---|---|---|---|
| | Amount in 1967 | Percent change from 1966 | Country | Value | Country | Value | Country | Value |
| Tulip bulbs | | | | | | | | |
| 125.01 | 5,563 | -6.2 | Netherlands | 5,257 | Japan | 273 | Denmark | 11 |
| Hyacinth bulbs | | | | | | | | |
| 125.05 | 1,742 | 3.9 | Netherlands | 1,730 | France | 4 | Philippines | 3 |
| Lily bulbs | | | | | | | | |
| 125.10 | 289 | -21.7 | Japan | 209 | Netherlands | 62 | France | 17 |
| Narcissus bulbs | | | | | | | | |
| 125.15 | 1,232 | -6.3 | Netherlands | 1,165 | France | 27 | Italy | 26 |
| Crocus corms | | | | | | | | |
| 125.20 | 520 | -2.4 | Netherlands | 512 | Japan | 4 | W. Germany | 2 |
| Lily of the valley pips | | | | | | | | |
| 125.25 | 97 | 29.3 | W. Germany | 77 | Netherlands | 16 | Japan | 4 |
| Bulbs and herbs, not elsewhere enumerated | | | | | | | | |
| 125.30 | 4,580 | 2.9 | Netherlands | 2,671 | Belgium | 1,159 | Canada | 327 |
| Fruit tree seedlings | | | | | | | | |
| 125.40 | 74 | -14.9 | Canada | 66 | W. Germany | 3 | France | 2 |
| 125.50 | 41 | 215.4 | Canada | 38 | Japan | 2 | Netherlands | 1 |
| 125.51 | - | - | - | - | - | - | - | - |
| Rose stock | | | | | | | | |
| 125.60 | 14 | -54.8 | Netherlands | 14 | - | - | - | - |
| 125.65 | 1 | 1/ | U.K. | 1 | Canada | 2/ | - | - |
| Seed potato eyes and live plants, not elsewhere enumerated | | | | | | | | |
| 125.67 | - | - | - | - | - | - | - | - |
| 125.80 | 360 | -9.1 | Netherlands | 182 | Canada | 85 | Japan | 79 |
| Orchid plants | | | | | | | | |
| 125.70 | 113 | -8.1 | France | 84 | Brazil | 8 | Thailand | 5 |
| Alfalfa seed | | | | | | | | |
| 126.01 | 172 | 3/ | Argentina | 138 | Brazil | 12 | Canada | 12 |
| Sugar beet seed | | | | | | | | |
| 126.03 | 92 | -44.6 | W. Germany | 76 | Netherlands | 8 | Ireland | 4 |
| Beet seed, other than sugar | | | | | | | | |
| 126.05 | 2 | -66.7 | France | 1 | U.K. | 1 | Netherlands | 2/ |
| Bent grass seed | | | | | | | | |
| 126.07 | 2 | - | Netherlands | 2 | Sweden | 2/ | Canada | 2/ |
| Bluegrass seed | | | | | | | | |
| 126.09 | 1,428 | -51.1 | Netherlands | 795 | Denmark | 613 | Poland | 18 |
| 126.11 | 225 | -39.5 | Denmark | 184 | Netherlands | 40 | W. Germany | 1 |

See footnotes at end of table.

**Value of U.S. imports for consumption, by TSUS items included in the individual summaries** of this volume, total and from the 3 principal suppliers, 1967--Continued

(In thousands of dollars. The dollar value of imports shown is defined generally as the market value in the foreign country and therefore excludes U.S. import duties, freight, and transportation insurance)

| TSUS item | All countries | | First supplier | | Second supplier | | Third supplier | |
|---|---|---|---|---|---|---|---|---|
| | Amount in 1967 | Percent change from 1966 | Country | Value | Country | Value | Country | Value |
| Cabbage seed | | | | | | | | |
| 126.15 | 32 | -27.3 | Japan | 24 | Netherlands | 4 | Denmark | 3 |
| Carrot seed | | | | | | | | |
| 126.17 | 5 | 3/ | Australia | 3 | Canada | 1 | France | 1 |
| Miscellaneous garden seeds | | | | | | | | |
| 126.19 | 16 | 128.5 | Denmark | 15 | Netherlands | 2 | - | - |
| 126.51 | 2/ | 3/ | Netherlands | 2/ | - | - | - | - |
| 126.53 | 1 | - | Italy | 1 | Netherlands | 2/ | - | - |
| 126.55 | -100.0 | - | - | - | - | - | - | - |
| 126.65 | 1 | -90.9 | France | 1 | - | - | - | - |
| 126.67 | - | - | - | - | - | - | - | - |
| 126.71 | 13 | 3/ | Japan | 7 | Taiwan | 3 | Mexico | 3 |
| 127.10 | 946 | 30.7 | Mexico | 257 | Yugoslavia | 224 | Japan | 149 |
| Celery seed | | | | | | | | |
| 126.21 | 538 | 16.4 | India | 452 | France | 74 | Indonesia | 12 |
| Alsike clover seed | | | | | | | | |
| 126.23 | 625 | -19.3 | Canada | 625 | - | - | - | - |
| Crimson clover seed | | | | | | | | |
| 126.25 | - | -100.0 | - | - | - | - | - | - |
| Red clover seed | | | | | | | | |
| 126.27 | 787 | 101.8 | Canada | 778 | Australia | 7 | U.K. | 1 |
| Sweet clover seed | | | | | | | | |
| 126.29 | 643 | -4.6 | Canada | 643 | - | - | - | - |
| White and Ladino clover seed | | | | | | | | |
| 126.31 | 236 | 177.6 | Canada | 199 | Denmark | 30 | New Zealand | 5 |
| Other clover seed | | | | | | | | |
| 126.33 | 99 | -28.3 | Australia | 91 | New Zealand | 4 | Denmark | 3 |
| Fescue seed | | | | | | | | |
| 126.35 | 2,204 | -35.9 | Canada | 1,894 | Netherlands | 178 | Denmark | 127 |
| 126.37 | 111 | -42.5 | Canada | 110 | Netherlands | 1 | - | - |
| 126.39 | 181 | 3/ | Netherlands | 173 | Denmark | 7 | U.K. | 1 |
| Flower seed | | | | | | | | |
| 126.41 | 1,031 | -10.3 | Costa Rica | 467 | Netherlands | 294 | Japan | 115 |
| Millet seed | | | | | | | | |
| 126.57 | 439 | 20.9 | France | 349 | Canada | 85 | Italy | 5 |
| Mushroom spawn seed | | | | | | | | |
| 126.59 | 6 | 3/ | France | 6 | - | - | - | - |
| Onion seed | | | | | | | | |
| 126.61 | 48 | -7.7 | Netherlands | 24 | Mexico | 11 | Denmark | 7 |

See footnotes at end of table.

Value of U.S. imports for consumption, by TSUS items included in the individual summaries of this volume, total and from the 3 principal suppliers, 1967—Continued

(In thousands of dollars. The dollar value of imports shown is defined generally as the market value in the foreign country and therefore excludes U.S. import duties, freight, and transportation insurance)

| TSUS item | All countries | | First supplier | | Second supplier | | Third supplier | |
|---|---|---|---|---|---|---|---|---|
| | Amount in 1967 | Percent change from 1966 | Country | Value | Country | Value | Country | Value |
| Orchard grass seed | | | | | | | | |
| 126.63 | 788 | 6.3 | Denmark | 752 | U.K. | 32 | Poland | 3 |
| Radish seed | | | | | | | | |
| 126.73 | 3 | 50.0 | Netherlands | 1 | Japan | 1 | Hong Kong | 1 |
| Rye grass seed | | | | | | | | |
| 126.77 | 77 | -26.7 | Netherlands | 52 | Canada | 24 | Belgium | 1 |
| Sesbania seed | | | | | | | | |
| 126.79 | - | -100.0 | - | - | - | - | - | - |
| 126.91 | - | -100.0 | - | - | - | - | - | - |
| 126.93 | 5 | 1/ | Spain | 5 | - | - | - | - |
| Spinach seed | | | | | | | | |
| 126.81 | 17 | 30.8 | Netherlands | 16 | Denmark | 1 | Mexico | 1 |
| Tall oat seed | | | | | | | | |
| 126.83 | - | -100.0 | - | - | - | - | - | - |
| Timothy seed | | | | | | | | |
| 126.85 | 222 | -19.6 | Canada | 220 | Netherlands | 2 | - | - |
| Tree and shrub seed | | | | | | | | |
| 126.87 | 220 | -14.7 | Canada | 143 | Spain | 14 | France | 11 |
| Turnip seed | | | | | | | | |
| 126.89 | 15 | 150.0 | Japan | 15 | Netherlands | 2/ | Italy | 2/ |
| Wheat grass seed | | | | | | | | |
| 126.95 | 175 | -16.3 | Canada | 175 | - | - | - | - |
| Grass seeds and other forage crops, not elsewhere enumerated | | | | | | | | |
| 127.01 | 951 | -19.9 | Canada | 519 | Australia | 197 | Yugoslavia | 63 |

1/ No imports in 1966.
2/ Less than $500.
3/ More than 200 percent.

## OTHER AVAILABLE VOLUMES OF THE SUMMARIES SERIES

| *Schedule* | *Volume* | *Title* |
|---|---|---|
| 1 | 1 | Animals and Meats |
| 1 | 2 | Fish: Fresh, Chilled, Frozen, or Cured |
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| 1 | 7 | Vegetables and Edible Nuts |
| 1 | 11 | Tobacco and Tobacco Products |
| 1 | 12 | Animal and Vegetable Fats and Oils |
| 1 | 13 | Hides, Skins, Leather, Feathers, and Miscellaneous Articles of Animal Origin |
| 2 | 1 | Wood and Related Products I |
| 2 | 2 | Wood and Related Products II |
| 2 | 3 | Paper and Related Products I |
| 3 | 5 | Textile Furnishings and Apparel |
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| 4 | 10 | Pigments, Inks, Paints, and Related Products |
| 4 | 12 | Fatty Substances, Waxes, and Miscellaneous Chemical Products |