

**UNITED STATES TARIFF COMMISSION**

**CREEPING RED FESCUE SEED**

**Report on Escape-Clause Investigation No. 7-III  
Under the Provisions of Section 7 of the  
Trade Agreements Extension Act of 1951, as Amended**



**TC Publication 59**

**Washington  
May 1962**

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## C O N T E N T S

|  | <u>Page</u> |
|--|-------------|
| Introduction-----  | 1           |
| Finding and conclusion of the Commission-----                            | 2           |
| Summary of information obtained in the investigation:                    |             |
| U.S. customs treatment-----  | 3           |
| Description and uses-----  | 3           |
| The relationship of other lawn seeds to creeping red<br>fescue seed----- | 5           |
| U.S. industry-----   | 8           |
| U.S. consumption-----  | 11          |
| U.S. production-----   | 11          |
| U.S. imports-----  | 12          |
| U.S. exports-----  | 13          |
| Production in foreign countries:   |             |
| Canada-----  | 13          |
| The Netherlands and Denmark-----   | 15          |
| U.S. stocks-----   | 16          |
| U.S. prices-----   | 16          |
| Employment and wages-----  | 17          |
| Financial experience of domestic producers-----                          | 17          |
| Considerations bearing on the finding of<br>the Commission-----          | 21          |
| Dissenting views of Commissioners Schreiber and Sutton-----              | 33          |
| Statistical appendix-----  | 42          |

(TC28489)

### Tables

1. Important lawn-grass seeds: U.S. acres harvested, crop years 1939/40 to 1961/62
2. Important lawn-grass seeds: U.S. beginning stocks, crop years 1939/40 to 1961/62
3. Important lawn-grass seeds: U.S. production, crop years 1939/40 to 1961/62
4. Important lawn-grass seeds: U.S. imports, crop years 1939/40 to 1960/61, and July 1961 to March 1962
5. Important lawn-grass seeds: U.S. exports, crop years 1939/40 to 1960/61, and July 1961 to February 1962
6. Important lawn-grass seeds: U.S. supplies, crop years 1939/40 to 1960/61

## C O N T E N T S

### Tables

7. Important lawn-grass seeds: Apparent U.S. consumption, crop years 1939/40 to 1960/61
8. Important lawn-grass seeds: Season average prices received by growers, crop years 1939/40 to 1961/62
9. Creeping red fescue seed: U.S. acres harvested, average yield per acre, production, and average price received by growers, by producing States, crop years 1954/55 to 1961/62
10. Creeping red fescue seed: U.S. beginning stocks, production, imports, exports, supply, and apparent consumption, crop years 1949/50 to 1961/62
11. Creeping red fescue seed: U.S. acres harvested, average yield per acre, production, and average price received by growers, crop years 1949/50 to 1961/62
12. Creeping red fescue seed: U.S. imports, by principal sources, crop years 1949/50 to 1961/62, July-March 1960/61 and July-March 1961/62
13. Creeping red fescue seed: Production in the United States, Canada, Denmark, and the Netherlands, crop years 1950/51 to 1961/62
14. Creeping red fescue seed: U.S. acreage and production, and the acreage and production of 45 U.S. producers that submitted financial data, 1957-61
15. Creeping red fescue seed: Operating experience of the 45 producers that submitted financial data, 1957-61

### Figures

1. Prices received by farmers for fine-leaved lawn-grass seeds, (creeping red fescue, Chewings fescue, Kentucky bluegrass, and bentgrass), crop years 1945/46 to 1961/62
2. Creeping red fescue seed: U.S. beginning stocks, production, imports, supply, apparent consumption, and season average price received by farmers, crop years 1945/46 to 1961/62
3. Chewings fescue, Kentucky bluegrass, and bentgrass seed combined: U.S. beginning stocks, production, imports, supply, and apparent consumption, crop years 1945/46 to 1961/62
4. Important lawn-grass seeds, excluding creeping red fescue seed: U.S. beginning stocks, production, imports, supply, and apparent consumption, crop years 1945/46 to 1961/62

## CREEPING RED FESCUE SEED

U.S. Tariff Commission  
May 21, 1962

### Introduction

This report, published pursuant to section 7(d) of the Trade Agreements Extension Act of 1951, as amended (19 U.S.C. 1364(d)), sets forth the finding and conclusion of the U.S. Tariff Commission in connection with an investigation (No. 7-111) to determine whether creeping red fescue seed, classifiable under paragraph 763 of the Tariff Act of 1930, is, as a result, in whole or in part, of the customs treatment reflecting the concessions granted thereon under the General Agreement on Tariffs and Trade, being imported into the United States in such increased quantities, either actual or relative, as to cause or threaten serious injury to the domestic industry producing the like product.

An earlier investigation was instituted on March 3, 1961, by operation of section 3(b)(1) of the Trade Agreements Extension Act of 1951, as amended, and was terminated prior to its completion at the request of the Chewings Fescue and Creeping Red Fescue Commission of the State of Oregon and the Northwest Chewings and Creeping Red Fescue Association. (26 F.R. 2064, 26 F.R. 2495, and 26 F.R. 5016). The termination of that investigation on May 31, 1961, was without prejudice to the institution of another investigation respecting creeping red fescue seed upon application of an interested party.

The present investigation was instituted on November 22, 1961, upon amended application of the Chewings Fescue and Creeping Red Fescue Commission of the State of Oregon, and others, under the authority of section 7 of the Trade Agreements Extension Act of 1951, as amended. Public

notice of the institution of the investigation and of a public hearing to be held in connection therewith was given by posting copies of the notice at the office of the Tariff Commission in Washington, D.C., and at its New York City office, and by publishing the notice in the Federal Register (26 F.R. 11226), and in the November 30, 1961, issue of Treasury Decisions. The public hearing was duly held on February 27, 1962, and all interested parties were afforded reasonable opportunity to produce evidence and to be heard. In addition to the information obtained at the hearing, data were obtained from the Commission's files, from the U.S. Department of Agriculture, from interviews with domestic producers and members of the American Seed Trade Association, Inc., and through questionnaires sent to all known domestic producers and importers.

#### Finding and Conclusion of the Commission

On the basis of the investigation, including the hearing, the Tariff Commission finds (Commissioners Schreiber and Sutton dissenting) 1/ that creeping red fescue seed is not being imported in such increased quantities, either actual or relative, as to cause or threaten serious injury to the domestic industry producing the like product. Accordingly, in the judgment of the Commission, no sufficient reason exists for a recommendation to the President under the provisions of section 7 of the Trade Agreements Extension Act of 1951, as amended.

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1/ The dissenting views of Commissioners Schreiber and Sutton are set forth beginning on page 33. Commissioner Overton did not participate in the finding in this investigation because of absence.

## Summary of Information Obtained in the Investigation

U.S. customs treatment

Creeping red fescue seed is not separately provided for in the Tariff Act of 1930 but is classified for duty purposes under the provision in paragraph 763 of the Tariff Act for "all other grass and forage crop seeds not specially provided for." The rate of duty originally provided for such seeds was 2 cents per pound. Pursuant to a concession initially negotiated with Australia and New Zealand under the General Agreement on Tariffs and Trade, the rate of duty was reduced to 1 cent per pound, effective January 1, 1948. This reduced rate is currently applicable to imports of creeping red fescue seed and is the rate of duty reflecting the trade-agreement concession pertinent to this investigation.

Description and uses

Creeping red fescue (Festuca rubra) is a fine-leaved grass, the seed of which is used, either alone or mixed with other seeds, principally for the development of lawns. Seeds of a number of grasses other than creeping red fescue are used for the same purpose, and they are discussed in this report in reference to their effect on the growing and marketing of creeping red fescue seed.

Creeping red fescue is a perennial hardy grass which spreads by creeping rhizomes, and forms a firm-matted turf with bristle-like leaves. Inasmuch as creeping red fescue is capable of withstanding considerable wear and heavy trampling, it is found in most lawn mixtures, but is seldom

used alone. It grows in cool or temperate climates and in all types of soil, even on dry, sandy land. It has great tolerance of shade and is persistent at high temperatures and low moisture levels, but does better in those areas that receive somewhat more moisture. Although it may wilt during a long dry spell, it revives rapidly after exposure to moisture. The bulk of the creeping red fescue is used in the North Central, Middle Atlantic, and New England States.

Improved varieties of creeping red fescue have been developed in both the United States and Canada. The most important improved varieties in the United States are Illahee, Rainier, and Pennlawn. Illahee and Rainier were developed in Oregon; they form a more dense turf and are less susceptible to disease than common creeping red fescue. Pennlawn, which was bred in Pennsylvania, produces turf which is more dense and uniform than common creeping red fescue; moreover, under eastern growing conditions it has greater disease tolerance than either Illahee or Rainier, though it has limited winter-hardiness. The most common improved varieties grown in Canada are the Olds and Duraturf.

Because of its characteristics, creeping red fescue is widely used for lawns in residential areas, parks, cemeteries, golf courses, and other places where a firm turf is desired. It is used to a limited extent for pastures and as a cover crop in orchards. In pastures it provides early spring grazing and, unless the grass is severely overgrazed during the summer, produces good fall pasture. Its leaves retain their nutritive value and dark-green color even after freezing. In addition to producing grass for these purposes, creeping red fescue seed is used for the production of more seed.



Creeping red fescue seed, produced and marketed in the United States, is sold as either uncertified or certified seed. The uncertified seed is subject only to standards agreed upon by the buyer and the seller. The certified seed, on the other hand, must be genetically true to variety and meet certain purity and germination standards. 1/

To be admitted to the United States for marketing, the imported seed is subject to the provisions of the Federal Seed Act, which sets forth certain requirements. 2/

The relationship of other lawn-grass seeds  
to creeping red fescue seed

Although for some purposes one type of grass seed may be preferred to others and substitution in such uses may seldom occur, 3/ in the huge mass market there is a great deal of substitution of one grass seed for another, depending in considerable degree on comparative prices. The

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1/ For example, in Oregon, which is the largest producer and seller of certified seed, the requirements for the "blue tag" certified seed are as follows: A minimum of 98 percent pure seed, a maximum of 0.25 percent of other crop seeds, a maximum of 2 percent inert matter, a maximum 0.3 percent of weed seeds, and a minimum of 90 percent guaranteed germination. In addition to the "blue tag" certified seed there are "registered," "foundation," and "breeder" seeds. Each of these, to be labeled as such, must meet even more exacting requirements.

2/ These requirements are as follows: (1) The seed must consist of at least 75 percent pure live seed (the percentage of pure live seed is calculated by multiplying the percentage of pure seed by the percentage of germination and dividing by 100); (2) noxious weed seeds may be contained only to permitted tolerances; and (3) the combined total of all weed seeds may not exceed 2 percent.

3/ The caretaker of a football field, for example, would be reluctant to use creeping red fescue or other fine-leaved grass seed; he would prefer some other kind of seed such as meadow fescue, Alta, Kentucky 31, or Goar, because grasses grown from such seed have coarse, wide leaves and are able to withstand rough treatment. The caretaker of a golf course, on the other hand, would probably prefer, for the putting greens, one of the bentgrasses inasmuch as the putting greens must be closely clipped and the bentgrasses thrive on low (1/2-inch) mowings that would kill other grasses.

great bulk of the grass seed sold to the consuming public is in mixtures of various kinds, 1/ and the mixtures are generally formulated around Kentucky bluegrass. Because of the price relationships between the various seeds economic factors that affect the market for one seed, sooner or later affect that for the other seeds. Moreover, the growing and marketing of the several grass seeds might be expected to follow similar patterns, though not necessarily simultaneously. 2/

The principal grass seeds now used for lawns in the United States are those of the fine-leaved grasses--creeping and Chewings red fescue, Kentucky and Merion bluegrass, and bentgrass; and those of the coarse-leaved grasses--redtop, common and perennial ryegrass, and tall fescue.

The U.S. demand for the major lawn-grass seeds has increased tremendously in the last two decades. The chief factors contributing to this increase have been (1) the increase in number of family units, (2) the increase in family purchasing power, and (3) the increased popularity of good lawns, promoted by garden magazines, garden clubs, and the availability of improved means of lawn care. (Tables 1-8 show for important lawn-grass seeds the acreage harvested, beginning stocks, U.S. production, U.S. imports, U.S. exports, U.S. supplies, apparent U.S. consumption, and season average prices received by growers since 1938.)

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1/ One witness at the Commission's hearing testified that his company formulates approximately 200 grass-seed mixtures.

2/ Commissioners Schreiber and Sutton take exception to this paragraph of the report for the reason that the general economic conclusions expressed therein with respect to the relationship of other lawn-grass seeds to creeping red fescue seed ignore, or fail to make discriminating use of, the relevant facts. See p. 34 of this report.

The annual acreage harvested, production, imports, and apparent consumption of the important lawn-grass seeds increased irregularly with the increased demand. <sup>1/</sup> Available data on such seeds excluding redtop seed, show that from 1940/41 to 1960/61, <sup>2/</sup> acreage harvested (excluding that devoted to Kentucky bluegrass as well as redtop seed) <sup>3/</sup> increased from 83,000 to 411,000; the production increased from 53.3 million pounds to 243.1 million pounds; annual imports increased from 1.9 million pounds to 19.4 million pounds; and apparent U.S. annual consumption increased from 46.8 million pounds to 213.0 million pounds. Consumption of the fine-leaved grass seeds alone increased during this period from 20.8 million pounds to 47.5 million pounds annually. Imports of such grass seeds increased from 1.6 million pounds to 19.3 million pounds annually in the same period. Except for Kentucky bluegrass and creeping red fescue seeds, domestic production has, since 1953/54, accounted for virtually the entire U.S. supply of the principal lawn-grass seeds.

In most years exports of the principal lawn-grass seeds have exceeded imports. Exports reached a record high of 38.7 million pounds in 1960/61. Of this total the coarse-leaved grass seeds accounted for about 31.4 million pounds (mostly rye grass and tall fescue), while the fine-leaved grass seeds accounted for 7.3 million pounds (mostly Chewings fescue and bentgrass). Creeping red fescue is the only important lawn-grass seed that has not been exported in significant quantities in recent years.

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<sup>1/</sup> Except for redtop seed, formerly used extensively for production of hay or for pasture, but now little used for those purposes.

<sup>2/</sup> All years referred to herein are crop years beginning July 1, unless otherwise noted, and the year beginning July 1, 1959, for example, is denoted by 1959/60.

<sup>3/</sup> No data are available on the acreage devoted to the production of Kentucky bluegrass seed, but it is known to be very large.

Stocks of most of the important lawn-grass seeds have increased substantially since 1954/55, whether or not there have been imports. In the aggregate, however, there has been no sustained increase in the ratio of beginning stocks to apparent annual consumption of such seeds. With respect to the principal fine-leaved grass seeds, during the 20 years 1940/41 to 1960/61 there was a slight but irregular increase in the ratio of beginning stocks to apparent U.S. consumption.

In 1959/60 and 1960/61 the average prices of most of the principal lawn-grass seeds were lower than during the years 1954/55 to 1958/59.

Figure 1 shows, for the four principal fine-leaved lawn-grass seeds, the prices received by growers in the years 1945/46 to 1961/62. Figures 2, 3, and 4 show various data respecting the growing, trade, and use of creeping red fescue seed, of the principal fine-leaved lawn-grass seeds except creeping red fescue, and of the principal fine- and coarse-leaved lawn-grass seeds combined (excluding creeping red fescue), for the crop years 1945/46 to 1961/62.

#### U.S. industry

Creeping red fescue seed is produced in the United States in Oregon, Washington, and Idaho; the first-named State is by far the principal producer (table 9). According to the 1959 United States Census of Agriculture, 357 farms reported production of creeping red fescue seed in 1959/60. Of this number, 280 farms with 11,010 acres harvested were in Oregon, 56 farms with 1,652 acres harvested were in Washington, and 21 farms with 722 acres harvested were in Idaho. Census data are not

available for later years, but official figures of the Department of Agriculture show that additional acreage was harvested in 1960/61. The acreage harvested declined somewhat in 1961/62 and, according to information obtained by the Commission, a further decline in the harvested acreage can be expected in 1962/63.

The available information indicates that the bulk of the U.S. output of creeping red fescue seed, formerly produced in eastern Oregon, is now produced in the western part of the State. Both growing conditions and the method of production differ in the two sections of Oregon. In western Oregon, largely because of an abundance of rainfall during the growing season and partly as a result of threat of erosion, creeping red fescue is seeded in solid stands. In eastern Oregon, where the crop is grown either with or without irrigation, the seed is sown in rows. Row cultivation provides for roguing (removal of off-type and useless plants), permits better weed control, conserves moisture, and facilitates irrigation. As a result of row cultivation, however, the land becomes uneven and must be leveled from time to time.

Creeping red fescue is generally grown in rotation with other crops but the rotation systems differ in the two producing sections of Oregon. In eastern Oregon the land is generally fallowed for a year between the

last harvest and new seeding, but in western Oregon the land must be used continuously to prevent possible erosion. Depending on the locality, the type of cultivation, the amount of fertilizer used, and the effectiveness of weed control, one seeding produces from four to eight harvests in Oregon.

Growing conditions in eastern Washington, the principal producing area in that State, are similar to those in eastern Oregon. The method of production is, therefore, similar to that in eastern Oregon. The increased use of fertilizer and more effective weed control in this area make it possible for some growers to harvest 10 or more crops before reseeding. In Idaho, creeping red fescue seed is produced in the southern part of the State in small individual fields, mostly under irrigation.

Whether grown as a solid stand or in rows, creeping red fescue is usually cut with a swather; the seed is then harvested by a pickup combine. Some of the creeping red fescue is harvested by direct combining or is cut with a binder and subsequently threshed. Regardless of the method of harvesting, it produces field-run seed which must be further cleaned. As a rule the cleaning is done in special cleaning plants owned by large wholesale seed concerns, although some farmers, individually or with other growers, operate their own cleaning plants. The wholesale concerns may buy the seed from the grower outright after making an adjustment, when appropriate, for the cost of cleaning. Often, however, they clean and store the seed for the account of the grower, charging fees for both services. The purpose of the cleaning is to bring the seed up to the minimum standards acceptable to the trade.

U.S. consumption

Creeping red fescue seed is a relatively new lawn seed in the United States. It was not produced commercially in this country until the late 1930's. <sup>1/</sup> As domestic supplies became increasingly available, consumption of creeping red fescue seed expanded but still remained relatively unimportant until the middle 1940's. Thereafter, there was a marked, although irregular, increase in the consumption of the seed. In the crop year 1946/47 consumption was 1.2 million pounds. It increased in each successive crop year through 1955/56, in which year consumption reached 11.9 million pounds (tables 7 and 10). In the crop year 1956/57 consumption declined to 8.5 million pounds but in the next year the upward trend was resumed, and consumption reached a new high of 19.1 million pounds in 1959/60. In the crop year 1960/61 consumption declined to 15.5 million pounds, but was still higher than in any other year except 1959/60.

U.S. production

Production of creeping red fescue seed in the United States was first reported for the crop year 1940/41. In that year a crop of 20,000 pounds was harvested on 100 acres, entirely in Oregon. Since then there has been a general, but irregular, increase in the acreage harvested and in the quantity of seed produced. In the 1950/51 crop year, 5,150 acres produced 1.8 million pounds (table 11). In 1954/55 about 10,000 acres were harvested and the output reached 4.7 million pounds. During the next 4 crop years, both the acreage harvested and the size of the

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<sup>1/</sup> The crop year 1940/41 was the first year for which a commercial crop was reported.

crop were well below that level but, in 1959/60 the area harvested reached 13,500 acres and the crop 5.7 million pounds. The area harvested in the next crop year increased further to 14,400 acres but, because of a lower yield per acre, the crop fell somewhat below that of the previous crop year. In 1961/62 the acres harvested declined to 13,100 and the crop to 4.2 million pounds.

The average yield of creeping red fescue seed per acre varied greatly during the 13-year period shown in table 11, ranging from 193 pounds in 1949/50 to 469 pounds in 1954/55. The trend of the average yield, however, was generally upward. In the 5-year period 1949/50 to 1953/54, the annual average yield per acre was 280 pounds; in the next 5 years, 1954/55 to 1958/59, it was 353 pounds, and in the last 3 years, 1959/60 to 1961/62, it was 363 pounds. The increase in average yield per acre reflects largely the use of improved seeds, improved weed control, and increased amounts of fertilizer. The largest average yields occurred in Washington; Oregon was second and Idaho third (table 9).

#### U.S. imports

U.S. imports of creeping red fescue seed increased irregularly from 746,000 pounds in the crop year 1949/50 to a high of 15.9 million pounds in 1959/60. In 1960/61 they declined to 15.1 million pounds. In the first 9 months of 1961/62 they amounted to 7.2 million pounds, compared with 12.1 million pounds in the corresponding period of the previous year (table 12). Value data for imports were not reported before January 1, 1960. According to data reported by the U.S. Department of Commerce, the average foreign unit value of imports from all countries during the first 8 months of the crop year 1961/62 was 14.8 cents per pound;



imports from Canada had an average unit value of 14.9 cents, those from the Netherlands, 12.8 cents, and those from Denmark, 14.4 cents.

In most recent years Canada has supplied the bulk of U.S. imports of creeping red fescue seed. During the past decade Canada's share of total U.S. imports ranged from a low of 36 percent in the crop year 1952/53 to a high of 91 percent in 1960/61. Virtually all of the remainder came from the Netherlands and Denmark. In the crop year 1960/61 (the last full year for which data are available) imports from the Netherlands and Denmark dropped sharply, whereas imports from Canada exceeded those in any earlier year.

The ratios of imports of creeping red fescue seed to total U.S. supplies are shown in table 10.

#### U.S. exports

Official export data are available for all fescue grass seeds combined but are not available separately for creeping red fescue. It is known, however, from analyses of export documents and from trade information, that exports of creeping red fescue seed have been negligible or nil in most years.

#### Production in foreign countries

Canada.--In Canada, creeping red fescue seed was harvested on 37,100 acres in the crop year 1954/55. Acreage data are not available for the years from 1955/56 to 1959/60. A recent official Canadian document states that in 1960/61, "the growing area totaled about 55,000 acres, of which over three quarters was in the Peace River region of Alberta and British

Columbia. The Olds-Innisfail region of central Alberta has developed into an important secondary center of production." <sup>1/</sup>

The substantial increase in acreage between 1954/55 and 1960/61 was accompanied by an increase in the production of creeping red fescue seed--from 9.8 million pounds in 1954/55 to 16.6 million pounds in 1960/61. Canadian production further increased to 17.6 million pounds in 1961/62 (table 13).

Most of the Canadian production of creeping red fescue seed is sold as noncertified seed, whereas much of the U.S. crop is sold as certified seed. In recent years, however, increasing quantities of Canadian seed have been certified. Official Canadian certification statistics show that 656 acres devoted to creeping red fescue seed were inspected for certification in 1959/60; 1,758 acres, in 1960/61; and 1,617 acres, in 1961/62. <sup>2/</sup> The certified acreage in 1960/61 comprised about 3 percent of the total acreage devoted to creeping red fescue seed. Information submitted to the Commission by importers indicated that only a very small percentage of the seed imported from Canada was certified.

In Canada the bulk of creeping red fescue seed is handled and sold by Northern Canadian Seed Sales Limited, which acts as a sales agent for the Seed Division of the Alberta Wheat Pool and for the Seed Department of the Manitoba Pool Elevators. All of these organizations are grower-owned cooperatives. The pools make advance payments to the growers of creeping red fescue seed (in the present crop year the payment was set at 12 cents per pound) based on the net weight, after deduc-

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<sup>1/</sup> Canada Department of Agriculture, Research Branch, Creeping Red Fescue, Publication 1122, 1961, p. 4.

<sup>2/</sup> Canada Department of Agriculture, Production and Marketing Branch, General Seed Crop Report, 1961 Crop, Jan. 3, 1962, p. 7.

tion of the dockage, which is determined at the time of delivery.

There is no charge to the grower, and the pools rather than the grower assume all charges, which include--

transportation charges based on the gross weight of the seed from point of delivery to cleaning plant, also the cost of handling, cleaning, bagging and marketing and in the case of shipments to the U.S., freight from cleaning plant to destination as well as 1¢ per lb. duty. 1/

The seed is cleaned in four cleaning plants owned by the two pools.

If the seed is sold at a price above the initial payment plus all cost, the profit--after an assessment of 1 cent per 100 pounds is retained for a commercial reserve--is distributed to the growers in proportion to their deliveries. 2/

The Netherlands and Denmark.--Statistics on production of creeping red fescue seed in the Netherlands and Denmark are shown in table 13. Testimony was presented at the hearing that growers in the Netherlands and Denmark are shifting from the production of creeping red fescue seed to the production of other grass seeds, particularly Kentucky bluegrass seed. Official statistics on the acreage used in each country for the production of creeping red fescue seed in the last 3 years are shown in the following tabulation:

| <u>Year</u>  | <u>The Netherlands</u><br>(Acres) | <u>Denmark</u><br>(Acres) |
|--------------|-----------------------------------|---------------------------|
| 1959/60----- | 5,515                             | 12,029                    |
| 1960/61----- | 4,398                             | 10,218                    |
| 1961/62----- | 1,574                             | 7,408                     |

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1/ Letter from W. Barry Bain, Manager, Northern Canadian Seed Sales Limited, dated Mar. 20, 1962.

2/ During the crop year 1959/60, the Alberta Wheat Pool incurred a loss in the handling of creeping red fescue seed, and the loss was paid from the general funds of the pool. However, it was charged to the Seed Division and was to be paid ultimately by the seed growers through the commercial reserve mentioned above. No information on losses or profits on the 1960/61 and 1961/62 crops was obtained.

U.S. stocks

The following discussion relates to total beginning stocks (held by growers and dealers combined) as reported by the U.S. Department of Agriculture. These stocks include both domestically grown and imported seed. In the first 4 of the 13 crop years shown in table 10, the beginning stocks were relatively small; thereafter they increased substantially to 5.4 million pounds on July 1, 1955, when they amounted to more than 2-1/2 times the domestic crop in that year. In the next 2 crop years, beginning stocks declined; they have increased in every year since and were 11.4 million pounds on July 1, 1961. These stocks, the highest on record, were almost 3 times the production of creeping red fescue seed in 1961/62.

U.S. prices

The average price received by growers of creeping red fescue seed <sup>1/</sup> reached a record high of 69.3 cents per pound in the crop year 1951/52. The price declined sharply to an average of 48.3 cents in 1952/53. The decline continued in succeeding years; in the crop year 1955/56 the price was 22.4 cents per pound, the lowest on record up to that time (tables 8 and 9). In these years domestic consumption expanded, but not sufficiently to absorb the increased supply of seed that accrued from both domestic and foreign sources. In the crop year 1956/57, as a result of a substantial decline in supplies, the price received by growers was nearly double that in 1955/56, reaching 42.3 cents per pound. After 1956/57 the average price received by growers declined steadily, as

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<sup>1/</sup> This is a gross price for clean seed from which the costs of cleaning, bagging, and storage must be deducted to arrive at the net price received by the grower, unless the grower performs these functions himself. These costs total 4 to 5 cents per pound.

domestic consumption failed to keep pace with the rising supplies; the average price reached a new low of 16.0 cents per pound in 1961/62. Although the decline in price of creeping red fescue was coincident with increased supplies of this seed, it was also coincident with increased supplies and declining prices of most of the other lawn-grass seeds (tables 6 and 8).

The average prices received by growers in Oregon in the crop years 1954/55 through 1959/60 were usually several cents higher than those received by growers in Washington and Idaho (table 9). The differential is attributable to the fact that the production consisted of a higher proportion of certified seed in Oregon than elsewhere. Certified seed generally commands a higher price than noncertified seed, but in the crop years 1960/61 and 1961/62 the differential was reduced in consequence of the large available supplies of certified seed.

#### Employment and wages

Through questionnaires, the Commission attempted to obtain information with respect to wages paid and labor employed in the production of creeping red fescue seed but the data so obtained were too fragmentary to be of value.

#### Financial experience of domestic producers

Questionnaires were mailed to 436 domestic producers of creeping red fescue seed. Only 45 of them furnished usable financial data on their operations relating to the production of creeping red fescue seed for the calendar years 1957-61. All of those that furnished usable data raised other farm crops in addition to creeping red fescue seed.

Of the 45 producers, 21 harvested creeping red fescue seed in all of the 5 years 1957-61; 18 harvested such seed in 4 of those years, and 6 in 3 years. The 45 producers accounted for 24 percent of the U.S. production of creeping red fescue seed in 1957, 33 percent in 1958, 31 percent in 1959, 39 percent in 1960, and 29 percent in 1961 (table 14). They accounted for 20 percent of the U.S. acreage of creeping red fescue seed harvested in 1957 and for about 25 percent during the period 1958-61.

The data furnished to the Commission showed the wages paid to the hired labor, but did not take account of the labor performed by owners. Consequently, the difference between the growers' total farm income and total farm expenses (net return) represents partly profit and partly compensation for their own labor. Pertinent data (including acreages, yields, production, sales, inventories, and net returns) for the 45 producers are summarized in table 15.

All of the 45 producers kept their accounting records on a cash basis (as distinguished from the accrual basis) except for the cost of the farm equipment, which was amortized over the estimated useful life of the equipment. The cost of soil preparation and seeding was not amortized and the value of unsold inventories was not taken into account in determining the producers' net return. Hence, some producers reported losses during years that the soil was being prepared and seeded, i.e., before any seed was harvested and sold; others that incurred production expenses, but whose harvested seed was unsold, also reported losses; still others, who sold largely from inventories in some years, reported higher than usual net returns because the production expenses had been reported in earlier years. For the group as a whole

and over the 5-year period covered, however, these wide annual variations in expenditures by individual growers relative to their cash returns partly offset one another. Nevertheless, the net returns determined by the cash basis of accounting are not a reliable measure of the growers' profits or losses, chiefly because of (1) the extensive new seeding that occurred in 1957-58 and (2) the increasing accumulation in unsold inventory of creeping red fescue seed throughout the entire period 1957-61.

The total sales of all farm products by the 45 producers rose from \$1,260,000 in 1957 to \$1,487,000 in 1959 and then declined to \$999,000 in 1961. Their aggregate net return on all farm operations increased from \$393,000 in 1957 to \$411,000 in 1959 and fell to \$114,000 in 1961. These producers' receipts from sales of creeping red fescue seed increased from \$247,000 in 1957 to \$326,000 in 1959 and then declined to \$129,000 in 1961. Their yearend inventories rose steadily from 183,000 pounds in 1957 to 904,000 pounds in 1961. The 45 producers reported an aggregate net return on their creeping-red-fescue-seed operations of \$90,000 in 1957, \$37,000 in 1958, \$74,000 in 1959, and \$26,000 in 1960, and a net loss of \$49,000 in 1961.

According to data prepared by the Department of Agricultural Economics of Oregon State University and submitted by domestic producers at the public hearing, the estimated average cost of production of creeping red fescue seed in western Oregon in 1961 was 25.7 cents per pound. This estimate includes three items not included in the "expenses per

pound produced" shown in table 15, namely, allowances for cleaning, for interest on the investment, and for labor performed by the grower. The cost data prepared by the University included an allowance of 5 cents per pound for cleaning, 1/ 3.1 cents per pound for interest on the investment, and an unspecified amount for the labor of the grower.

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1/ This includes cleaning, cost of seed sacks, insurance in the field and in the warehouse, testing, and payments to the Oregon Chewings Fescue and Creeping Red Fescue Commission.



CONSIDERATIONS BEARING ON THE FINDING  
OF THE COMMISSION

More than a year has elapsed since the Commission unanimously found, in the course of a peril-point investigation (No. 3-9--Supplemental), that an increase in duty or additional import restrictions on creeping red fescue seed were required to avoid serious injury, or the threat thereof, to the domestic industry producing the like article. <sup>1/</sup> Because of the significant changes that have occurred since that finding was made, however, the Commission would not--if it were presently obliged to conduct a similar peril-point investigation--make the same finding today. Accordingly, there would be no occasion now for the Commission to initiate an escape-clause investigation in accordance with section 3(b)(1) of the Trade Agreements Extension Act of 1951, as amended, with respect to creeping red fescue seed.

At any given time the economic position of the domestic industry producing creeping red fescue seed depends primarily on the volume and trend of domestic production, imports, and exports, not only of creeping red fescue seed, but also of a number of other kinds of lawn-grass seed, particularly the fine-leaved lawn-grass seeds; on the stocks of the aforementioned seeds on hand in the United States and in the major foreign markets; on the comparative prices of these seeds in the

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<sup>1/</sup> The present Chairman was not a member of the Commission at the time of the above-mentioned investigation.

United States and in those foreign markets; and on the extent to which different kinds of seeds are substituted for one another in the United States and abroad. In considerable measure also the prosperity of the producers of creeping red fescue depends on their alternate opportunities, inasmuch as virtually all of them engage in other agricultural activities, either concurrently or in rotation with the production of creeping red fescue seed.

The Trade Agreements Extension Act of 1951, as amended, specifically enumerates certain criteria (trend of production, employment, prices, profits, wages, and so forth) that the Commission must take into account in determining whether a domestic industry is being seriously injured or threatened with serious injury. The statute also directs the Commission to take into account such "other factors" as it deems appropriate. Since the statute does not assign weights to the individual criteria, whether specifically enumerated or not, each Commissioner is free to allocate to them whatever weights he deems appropriate. No canvass is made of either the aggregate of factors that individual Commissioners take into account or the respective weights that they assign to them. In applying the criteria contemplated by the statute in the instant investigation, however, none of the undersigned Commissioners have been able to find that creeping red fescue is, "as a result, in whole or in part, of the duty or other customs treatment reflecting [a trade agreement] concession, being

imported in such increased quantities, either actual or relative, as to cause or threaten serious injury to the domestic industry producing" creeping red fescue seed. In their view the imports in question have not contributed substantially toward causing or threatening serious injury to the aforementioned domestic industry.

Inasmuch as the Commission unanimously concluded in its escape-clause report of October 1959 <sup>1/</sup> that imports of creeping red fescue seed were not causing or threatening serious injury to the domestic industry concerned, there is no need here to give more than a cursory review of developments in the period prior to that covered in the earlier report.

Though not directly pertinent to the instant investigation, it should be clear--contrary to assertions that have been made--that the trade-agreement concession on creeping red fescue seed has at no time materially contributed to the difficulties confronting the domestic industry in question. The concession, which was made in 1948, involved a reduction in tariff duty from 2 cents to 1 cent per pound of seed. In the intervening period the domestic production of this seed has increased several fold; the average price (received by growers) has

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<sup>1/</sup> See U.S. Tariff Commission, Red Fescue Seed, Report on Escape-Clause Investigation No. 80 . . . , 1959. In that report the domestic industry was regarded as embracing the production of red fescue seed, including Chewings fescue. It is doubtful, however, that the Commission's decision would have been any different if the coverage then had been identical with that in the present investigation, i.e., creeping red fescue seed.

fluctuated greatly, between a high of 69.3 cents per pound in 1951/52 and a low of 16.0 cents in 1961/62; and stocks on hand rose over the period from a negligible quantity to 11.4 million pounds in 1961/62.

The difficulties presently confronting the domestic producers of creeping red fescue seed are common to producers of other lawn-grass seeds, including those that receive little or no direct competition from imports. There is no evidence, moreover, that growers of either creeping red fescue seed or of grass seeds generally, represent an agricultural group that is in singular distress.

The Commission made every effort to obtain information on earnings, wages, and employment in the industry producing creeping red fescue seed but was unsuccessful. The Commission sent questionnaires by certified mail to 436 persons who were identified with producing creeping red fescue seed in recent years. Of the 418 who received the questionnaire, 227 did not respond to it and an additional 127 returned only the first page (indicating that production of the seed was unimportant in their farming operations). Thus, 85 percent of those who received the questionnaire did not evince an interest that can be associated with producers who feel that they are being seriously injured by imports.

Completed questionnaires were returned by 64 growers, but only 45 of them supplied usable data. Of these 45 producers, only 21 harvested creeping red fescue seed in all of the 5 years for which the Commission sought information; 18 harvested such seed in 4 years,

and 6 of them, in 3 years. The 45 producers accounted for 24 percent of the U.S. production of creeping red fescue seed in 1957, for 33 percent in 1958, for 31 percent in 1959, for 39 percent in 1960, and for 29 percent in 1961.

All 45 growers whose records the Commission was able to use kept their accounting records on a cash basis. In consequence, growers reported losses in the periods in which they were preparing fields for seeding and were awaiting harvest of seeds a year or two later; and growers assigned no value to their inventories of seed. Their reporting took no account of the fact that seedings in some areas yielded, say, 4 harvests but in others yielded 10 or more. Reports on wages and employment were too nebulous to be of use.

In the circumstances, the Commission cannot regard the financial information received from growers who responded to its questionnaires as depicting a representative sample of the industry producing creeping red fescue seed.

The basic factors now adversely affecting the domestic producers of creeping red fescue are (1) the large stocks of that seed, as well as of other substitutable seeds, that are on hand; (2) the price-depressing effects of the excessive inventories overhanging the market, as well as of the continuing annual excess of production of grass seeds over consumption; and (3) what appears to be a declining dealer acceptance of creeping red fescue seed.

Most creeping red fescue seed is sold as a component of lawn-grass-seed mixtures put up by seed houses that are sensitive both to comparative seed prices and to customer acceptance of their mixtures. The principal mixtures used are generally combinations of no fewer than three or four of the following kinds: Creeping red fescue, Chewings fescue, Kentucky bluegrass, Merion Kentucky bluegrass, bentgrass, red-top, common ryegrass, perennial ryegrass, and tall fescue.

We recognize that the aforementioned seeds are by no means fully interchangeable. Each has its peculiar characteristics, with the result that some are better suited than others to various conditions of climate, soil, and use. Most lawn seeds, however, are sold in mixtures to purchasers who do not have expert knowledge of the seeds, and the proportions thereof, that are best suited to meet their needs. Most mixtures are formulated by seed houses, and even the experts that they employ do not always agree on the kinds of seed, and the proportions thereof, that are best suited to meet particular requirements. Comparative prices of the various seeds, therefore, in large measure determine the respective demands for the different kinds of seed. The least sophisticated consumers of grass seed tend to make their purchases primarily on a basis of price. The most sophisticated consumers, on the other hand, tend to subordinate price considerations to obtaining precisely the kinds of seed they desire in the proportions they believe best suited to meet their needs. Such buyers would not ask merely for

"creeping red fescue seed," inasmuch as not even all varieties of that seed are 100 percent interchangeable. They would more likely specify some particular improved variety of that seed, such as Illahee or Rainier (developed in Oregon), Pennlawn (developed in Pennsylvania), or Olds or Duraturf (from Canada). They would also, no doubt, specify standards of purity, germination, and the like. We recognize that such buyers accept only limited substitution of one kind of grass seed for another, but we also recognize that they purchase only a very small part of the total quantity of grass seed marketed in the United States.

The aggregate domestic production of the principal kinds of grass seed enumerated in a preceding paragraph rose from 170 million pounds in 1958/59 to 245 million in 1959/60, 248 million in 1960/61, and then declined to 201 million in 1961/62. The corresponding domestic production of creeping red fescue seed in the same 4 crop years was, respectively, 2.7 million, 5.7 million, 5.0 million, and 4.2 million pounds.

Aggregate imports of the above-mentioned seeds have varied widely from year to year. They rose from 14.3 million pounds in 1958/59 to 24.9 million in 1959/60, and then declined to 19.4 million in 1960/61; and they amounted to 15.0 million pounds in the first 9 months of 1961/62 (July-March).

Exports of the aforementioned seeds have likewise varied widely from year to year. They rose from 25.9 million pounds in 1959/60 to

38.7 million in 1960/61; and they amounted to 22.0 million pounds in the first 8 months of 1961/62 (July-February). It will be noted that aggregate exports exceeded imports in each of these periods, as well as in most earlier years.

Domestic consumption of the above kinds of grass seed rose from 172.9 million pounds in 1958/59 to 206.7 million in 1959/60, and to 215.7 million in 1960/61. Since production exceeded consumption in that 3-year period, beginning-of-the-year inventories rose from 59.9 million pounds in 1959/60 to 97.5 million in 1960/61, and 110.7 million in 1961/62. Except for the export balance in grass seeds, the disparity between production and consumption would have been even larger.

The inevitable effect of excessive production and continually rising inventories of grass seeds has been to depress their prices but, of course, not uniformly. The price of creeping red fescue seed, however, has by no means been depressed the most. Moreover, there appears to be no observable correlation between prices of individual grass seeds and the volume of imports of those seeds. Between 1959/60 and 1961/62, for example, the price of Chewings red fescue seed declined more than did that of creeping red fescue seed, despite the fact that there were virtually no imports (but there were sizable exports) of Chewings red fescue in that period. The ratio of imports to apparent consumption of lawn-grass seeds has always been small, and it could not be appreciably altered--as will be demonstrated later--by the application of an escape-clause restriction solely to imports of creeping red fescue.



We recognize from the disparity in price response to changes in the inventory of individual varieties of seed, that seed houses must give considerable weight to factors other than comparative prices. We note, for example, that domestic consumption of creeping red fescue seed was 3.6 million pounds smaller in 1960/61 (when the price averaged 17 cents per pound) than it was in 1959/60 (when the price averaged 26 cents per pound), notwithstanding that the total consumption of the major lawn-grass seeds was 8.9 million pounds larger in 1960/61 than in 1959/60. It may well be that creeping red fescue is declining in favor with the grass-seed houses. Marketing problems, of which domestic producers of creeping red fescue seed have complained, could also be a factor. We note, further, that the Netherlands and Denmark have sharply reduced their production of creeping red fescue seed in favor of Kentucky bluegrass. Also, a witness testified at the public hearing that many Canadian farmers who grow creeping red fescue seed are reconverting to wheat, now that Canada's excessive surplus of wheat has largely disappeared as a result of the poor Canadian wheat crop in 1961 and the substantial sales of wheat abroad.

Until aggregate domestic production of grass seeds, embracing creeping red fescue and other seeds substitutable for it in greater or lesser degree, is brought more nearly into correspondence with consumption, and the excessive inventories of grass seeds overhanging the market are eliminated, there is little prospect for a highly

prosperous industry producing either creeping red fescue seed or any other seed that is commercially substitutable for it. We believe that some improvement is now slowly taking place. We recognize, however, that a grower who has undergone the heavy expense of preparing and planting his field to creeping red fescue, and has foregone income therefrom for 2 years, is reluctant to abandon such production until after he has been able to harvest seed for a number of years-- from 4 to 8 in some areas to as many as 10 or more in other areas.

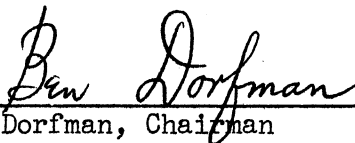
The application of even the maximum increase in duty permissible under the escape-clause statute or the quota restriction requested by the applicants would give little promise of materially improving the position of the industry producing creeping red fescue seed, and could even have the opposite effect. Under present conditions, the imposition of an increased duty would, in all probability, operate more to depress the price of creeping red fescue seed outside the United States than to raise it within the United States. The principal country that would be affected would be Canada, whose markets for such seed outside the United States are distinctly limited. In the circumstance that an increased duty were imposed, Canadian sellers might elect to absorb most of the increase in the U.S. duty rather than forego sales even at the lower prices. Except for use as grass seed, creeping red fescue has only limited value. It would appear that the U.S. Treasury rather than the domestic growers of creeping red fescue

seed would be the principal beneficiary of an increase in duty. Further, to the extent that an increase in U.S. duty would operate to depress prices of creeping red fescue seed (as well as those of other foreign-produced seeds) outside the United States, it would also operate to curtail U.S. exports of other kinds of grass seed. Such a consequence would be detrimental, for example, to the growers of Chewings fescue seed in Oregon, who are anxious to increase, rather than curtail, their sales. As previously observed, U.S. aggregate exports of grass seeds substantially exceed its imports.

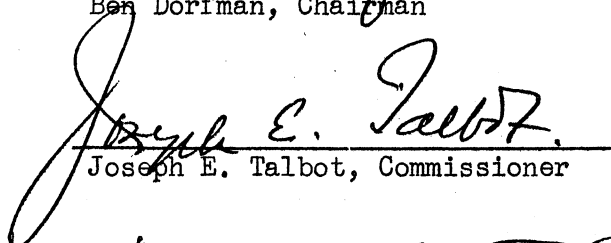
The application of an annual import quota of 6.5 million pounds of creeping red fescue seed, requested by the applicants and recommended by the minority, would be even more likely to aggravate than to remedy the difficulties confronting the complainants. Imports of creeping red fescue seed, virtually all of which come from Canada, are already declining sharply. In the first 9 months of 1961/62 (July through March) they totaled 7.2 million pounds, 4.9 million pounds less than in the corresponding period of 1960/61. A similar decline next year would reduce the imports for the crop year well below 6.5 million pounds. The application of an absolute quota, however, might tempt holders of stocks of seed in Canada to rush shipments into the United States at the opening of the quota year, thus contributing further to demoralization of the domestic market. It is a common experience that absolute quotas, if filled fully, tend to be filled early in the quota year.

The application of restrictions on imports of creeping red fescue seed could also result in one or more foreign governments taking retaliatory action. Conceivably, that could be damaging to U.S. exporters of other kinds of grass seeds, as well as to exporters of still other products, both agricultural and nonagricultural. Some of such adversely affected domestic interests might even be located in the same parts of the country in which creeping red fescue seed is produced. We recognize, however, that consideration of such possible repercussions is outside the purview of the escape-clause statute.

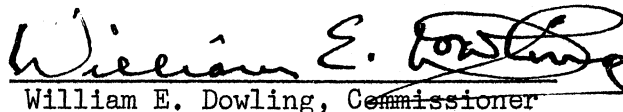
In view of the considerations set forth above, we find that no sufficient reason exists in this case for a recommendation to the President under the provisions of section 7 of the Trade Agreements Extension Act of 1951, as amended.



Ben Dorfman, Chairman



Joseph E. Talbot, Commissioner



William E. Dowling, Commissioner

## DISSENTING VIEWS OF COMMISSIONERS SCHREIBER AND SUTTON

As a result of the investigation, including the hearing, Commissioners Schreiber and Sutton find as follows:

(a) That creeping red fescue seed is, as a result, in part, of the customs treatment reflecting the concession thereon in the General Agreement on Tariffs and Trade, being imported into the United States in such increased quantities, both actual and relative, as to cause serious injury to the domestic industry producing the like product; and

(b) That, in order to remedy the serious injury to the domestic industry concerned, it is necessary that the quantity of creeping red fescue seed entered, or withdrawn from warehouse, for consumption in any 12-month period beginning July 1 in 1962 or in any subsequent year be limited to not more than 6.5 million pounds. 1/

The facts are clear and uncomplicated and do not require extended legal or economic analysis. They establish conclusively the devastating impact of imports of creeping red fescue seed on the domestic industry producing the like product. Indeed, so clearly do the facts speak in this regard that a contrary finding must perforce place dependence upon irrelevant and specious legal and economic considerations well beyond the intendment of the statute.

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1/ The findings in this investigation differ from the related peril-point findings of the Commission. In the peril-point findings of April 1961, the Commission found that the domestic industry was being seriously injured by increased imports and that, in order to remedy the serious injury, it was necessary to increase the rate of duty from 1 cent to 3 cents per pound. Commissioners Schreiber and Sutton, in conformity with their views expressed in investigations Nos. 7-96 and 7-97 regarding tennis rackets and baseball gloves, respectively, deem it necessary to explain that, on the basis of further consideration of the facts, they are, in practical effect, reaffirming their peril-point finding as to serious injury, but believe the peril-point finding as to remedy was in error.

Creeping red fescue is a distinctive type of seed which produces lawn grass having special or peculiar characteristics of its own. It is primarily for these characteristics that such seed--whether sold by itself or in mixtures with other grass seeds--is bought and used by consumers in the United States. This fact is important for it underlies the conclusion that the only domestic product which is like the imported creeping red fescue seed is creeping red fescue seed, and, that, accordingly, the domestic industry is comprised only of the producers of such seed. 1/

The relationship of other lawn-grass seeds to creeping red fescue seed

Unfortunately, as indicated in footnote 2 on page 6, the summary of information obtained in the investigation (pages 3 through 20) omits certain pertinent facts, developed in the course of the investigation and corroborated by the Commission's staff, pertaining to the relationship of other lawn-grass seeds to creeping red fescue seed. Inasmuch as these facts bear directly on the issues involved and are essential to their resolution, they are set forth below.

The principal grass seeds now used for lawns in the temperate and cool season areas of the United States are those of the fine-leaved grasses, creeping red fescue, Chewings red fescue, Kentucky bluegrass, and bentgrass; and those of the coarse-leaved grasses, redtop, common

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1/ It should be noted that this conclusion is implicit in the peril-point findings of the Commission and in the subsequent actions of the Commission in connection with the institution of this escape-clause investigation.

and perennial ryegrass, and tall fescue. Creeping red fescue, Kentucky bluegrass, bentgrass, and tall fescue are each further subclassified into various commercially important varieties.

The fine-leaved red fescues, creeping and Chewings, are more tolerant of varying soil conditions and of shade than either Kentucky bluegrass or bentgrass but they have a tendency to get clumpy if used alone. The adaptation and general value of creeping red and Chewings red fescue are quite similar. Chewings red differs from creeping red mainly in that it forms tufts rather than spreading by creeping rhizomes, and in that it withstands drought better than creeping red. Improved varieties of creeping red fescue such as Illahee, Rainier, and Pennlawn are less susceptible to disease and provide a denser turf under some growing conditions than common creeping red or Chewings red fescue.

Kentucky bluegrass is more sensitive to poor soil conditions and requires more sun than the red fescues. It tends to replace the red fescues under favorable conditions. Bentgrass is adapted to growth during the cool months but is least compatible with other grasses since it forms solid patches and does best on low mowing which may kill out other grasses. The coarse-leaved redtop, rye grasses and tall fescue are quick growing and adaptable to a wide range of soil and moisture conditions. They all tend to clump and redtop and annual rye quickly thin out. Tall fescue is long-lived and very wear resistant.

For certain specialized uses a lawn-grass seed may be sown as a pure stand unmixed with other types. For example, football fields where the lawn gets very rough treatment may be sown to a pure stand of tall fescue. Or putting greens on a golf course may be sown to a pure stand of the fine-leaved bentgrass which thrives on the low mowings required on putting greens.

Most consumers, however, purchase the cool-season lawn-grass seeds in mixtures. The presence in a mixture of several types of grass seed adaptable to different conditions tends to insure that at least one or two of the types in the mixture will be adaptable to the particular lawn or portion of the lawn where sown. For example, redtop and the rye grasses provide quick cover of bare ground. The red fescues eventually predominate in shady areas, while Kentucky bluegrass tends to dominate in sunny locations.

Seed dealers market a great variety of mixtures generally tailored to the climatic and soil conditions in the particular part of the country where marketed. Most mixtures contain Kentucky bluegrass and red fescue and in the higher priced blends these account for the largest part of the mixture. Such mixtures usually contain no tall fescue and not more than 15 percent of the quick growing redtop and rye grass. In some of the higher priced mixtures the percentages of the various type seeds may not change with changes in the component prices. The sophisticated consumer would probably insist on a scientifically prepared mixture suitable to his needs and would not accept



substitutions. However, in mixtures for the price-conscious market there is a tendency to use a larger quantity of the lower priced seeds. In the primarily fine-leaved mixtures the proportions of the basic Kentucky bluegrass and red fescue will vary with their relative prices and in the cheapest mixes, which are sold in large volume, Kentucky bluegrass and red fescue may be reduced to very minor percentages if their prices are relatively high in comparison with the rye grasses or tall fescue.

Other considerations bearing on the minority views

The distress of the domestic industry is strikingly evidenced by consideration in the following paragraphs of the significant statutory criteria of injury.

Domestic production of creeping red fescue seed is declining significantly. Production was highest in the crop year 1959/60 when 5.7 million pounds were produced, but fell off to 89 percent of that quantity (5 million pounds) for the crop year 1960/61 and to 73 percent thereof (4.2 million pounds) for the crop year 1961/62. Along with the decline in production, the acreage harvested declined from 14,400 acres in 1960/61 to 13,100 acres in 1961/62, a decline of 9 percent. According to information obtained by the Commission, a further significant decline in the harvested acreage can be expected in 1962/63.

Prices received by the growers have steadily declined since the crop year 1956/57 when they averaged 42.3 cents per pound. In the most recent crop year (1961/62), prices averaged only 16.0 cents per pound, the lowest on record.

Cost data obtained in this investigation show that even the most efficient growers<sup>1/</sup> operated at a cash loss during 1961. A substantial loss is also indicated for 1960 when the net return shown in table 15 (calculated on a cash basis of accounting) is adjusted for interest on land and imputed wages.<sup>2/</sup> The indicated net loss for 1961 of 3.1 cents per pound, when so adjusted, becomes much larger. In view of the high volume and continuing low price of imports, it appears virtually certain that growers remaining in production in 1962 will continue to operate at a loss unless some protection is afforded against imports.

It should also be pointed out that the reported expenses (table 15), when adjusted to make allowance for interest on investment (at 3.1 cents per pound), for cleaning, bagging, and storage (at 5 cents per pound), and for an indeterminate amount of unpaid labor, are at the approximate level reported by the Department of Agricultural Economics of the Oregon State University--25.7 cents per pound. This cost figure is on a clean-seed basis as are the prices received by growers reported in official statistics of the U.S. Department of

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<sup>1/</sup> In agricultural accounting, it is recognized that for most crops higher yields per acre result in lower unit costs. The cost data shown in table 15 were obtained from 45 producers whose average yield during the 1957-61 period was 30 percent higher than the average of all producers--475 as compared to 367 pounds per acre.

<sup>2/</sup> The summarization of net returns per pound shown in table 15 does not make any allowance for the unpaid labor of the operator and his family or for the actual or imputed interest on his investment in land. The Department of Agricultural Economics of Oregon State University estimates the average interest charge for investment in land for fescue growers at 3.1 cents per pound of seed produced. Though no data have been developed on the proper allowance for unpaid labor, it would obviously be a significant amount for the typical family farm.

Agriculture. As previously indicated, the reported average price received by growers (17 cents per pound in 1960 and 16 cents per pound in 1961--table 8) has been considerably lower than such cost figure.

Imports of creeping red fescue seed tripled during the 4-year period 1956/57 to 1959/60, reaching a record high of 15.9 million pounds in 1959/60. In 1960/61, imports declined slightly, to 15.1 million pounds, but were still the second largest of record. Average annual imports in the 3-year period 1958/59-1960/61 were more than 20 times higher than in the 3-year period 1948/49-1950/51.

Beginning stocks (inventories) of creeping red fescue seed increased about five fold during the 5-year period 1957/58-1961/62, from 2.4 million pounds to a record 11.4 million pounds. In the last year alone they increased by 4.6 million pounds.

The U. S. supply of creeping red fescue seed has increased significantly in each crop year since 1956/57 and in 1960/61 reached a record high of 26.9 million pounds which is approximately the equivalent of consumption for a 2-year period. This was about  $2\frac{1}{2}$  times the supply of 10.9 million pounds available in 1956/57.

The share of the domestic creeping red fescue seed market supplied by domestic producers has declined. During the 3-year period 1951/52-1953/54, domestic production equaled 37 percent of apparent consumption but in the 3-year period, 1958/59-1960/61, this share dropped to only 28 percent.

It is clear from the foregoing that low-priced imports of creeping red fescue seed have produced a glut of such seed in the United States having ruinous impact on the domestic producers thereof. Any effort which may be made to explain the plight of the domestic producers of such seed by attributing it to domestic competition with other grass seeds, or by regarding such producers as a relatively unimportant "segment" of a larger grass-seed industry, does not bring the basic issues into proper focus. As previously indicated, creeping red fescue seed is a distinctive type of seed, imports of which primarily and most directly compete in the domestic market with domestic creeping red fescue seed. Any attempt to minimize or explain away the competitive impact of imports of such seed on the domestic producers thereof is like attributing the primary distress of a pneumonia sufferer to his ringworm or eczema.

It is also clear that the maximum increase in the rate of duty permissible under the escape-clause legislation would not remedy the serious injury sustained by such producers. On the other hand, the imposition of an absolute annual quota of 6.5 million pounds would divide the present domestic market almost equally between domestic and foreign producers, thereby assuring both a fair proportion of such market. Moreover, this quota

limitation on imports would permit the systematic reduction of swollen inventories, make possible a reasonable return to the grower based on a realistic supply and demand relationship, and would encourage increased domestic production.

*Walter R. Schreiber*  
Walter R. Schreiber, Commissioner

*Glenn W. Sutton*  
Glenn W. Sutton, Commissioner

STATISTICAL APPENDIX

Table 1.---Important lawn-grass seeds: U.S. acres harvested, crop years 1939/40 to 1961/62 1/

| Crop year<br>(July 1-June 30) | Creeping<br>red<br>fescue | Chewings<br>fescue | Merion<br>Kentucky<br>bluegrass | Bentgrass | Redtop  | Common<br>ryegrass | Perennial<br>ryegrass | Tall<br>fescue | Total   |
|-------------------------------|---------------------------|--------------------|---------------------------------|-----------|---------|--------------------|-----------------------|----------------|---------|
| 1939/40                       | 2/                        | 925                | 2/                              | 4,500     | 285,000 | 55,000             | 7,000                 | 150            | 352,575 |
| 1940/41                       | 100                       | 2,200              | 2/                              | 5,750     | 305,000 | 65,000             | 9,500                 | 750            | 388,300 |
| 1941/42                       | 200                       | 3,750              | 2/                              | 6,250     | 281,000 | 70,000             | 12,500                | 1,250          | 374,950 |
| 1942/43                       | 350                       | 4,000              | 2/                              | 6,400     | 256,000 | 84,000             | 13,200                | 1,500          | 365,450 |
| 1943/44                       | 500                       | 4,200              | 2/                              | 6,600     | 184,000 | 60,000             | 14,500                | 2,100          | 271,900 |
| 1944/45                       | 800                       | 5,300              | 2/                              | 7,000     | 263,000 | 72,000             | 16,500                | 3,800          | 368,400 |
| 1945/46                       | 1,000                     | 6,000              | 2/                              | 7,000     | 274,000 | 80,000             | 15,000                | 5,000          | 388,000 |
| 1946/47                       | 2,500                     | 10,000             | 2/                              | 9,000     | 239,000 | 92,000             | 17,000                | 7,000          | 376,500 |
| 1947/48                       | 4,000                     | 12,000             | 2/                              | 11,000    | 202,000 | 87,000             | 18,000                | 10,000         | 344,000 |
| 1948/49                       | 5,300                     | 13,000             | 2/                              | 12,000    | 74,000  | 73,000             | 17,000                | 27,200         | 221,500 |
| 1949/50                       | 4,500                     | 12,300             | 2/                              | 15,500    | 128,000 | 86,000             | 14,000                | 45,130         | 305,430 |
| 1950/51                       | 5,150                     | 13,400             | 2/                              | 16,500    | 164,000 | 115,000            | 14,000                | 94,900         | 422,950 |
| 1951/52                       | 6,000                     | 15,500             | 2/                              | 16,500    | 110,000 | 100,000            | 15,000                | 141,500        | 404,500 |
| 1952/53                       | 6,750                     | 17,000             | 900                             | 17,500    | 81,000  | 113,000            | 17,000                | 247,600        | 500,750 |
| 1953/54                       | 8,100                     | 17,000             | 2,100                           | 18,400    | 67,000  | 100,000            | 20,000                | 145,100        | 377,700 |
| 1954/55                       | 10,000                    | 20,000             | 4,200                           | 19,300    | 54,000  | 115,000            | 27,000                | 125,500        | 375,000 |
| 1955/56                       | 8,800                     | 21,000             | 6,700                           | 22,000    | 53,000  | 124,000            | 33,000                | 117,100        | 385,600 |
| 1956/57                       | 7,100                     | 17,000             | 9,920                           | 25,000    | 50,000  | 89,000             | 41,000                | 103,800        | 342,820 |
| 1957/58                       | 7,000                     | 20,000             | 11,860                          | 28,200    | 45,000  | 72,000             | 39,000                | 112,900        | 335,960 |
| 1958/59                       | 8,500                     | 21,000             | 10,350                          | 25,900    | 42,000  | 72,000             | 36,000                | 133,500        | 349,250 |
| 1959/60                       | 13,500                    | 24,000             | 12,930                          | 24,000    | 62,000  | 124,000            | 46,000                | 134,600        | 441,030 |
| 1960/61                       | 14,400                    | 25,000             | 15,070                          | 22,500    | 58,000  | 115,000            | 50,000                | 169,400        | 469,370 |
| 1961/62                       | 13,100                    | 24,000             | 16,310                          | 23,500    | 47,000  | 112,000            | 50,000                | 149,800        | 415,710 |

1/ Excluding acreage devoted to a major lawn-grass seed, namely common Kentucky bluegrass. Much of the common Kentucky bluegrass harvested for seed is in permanent pasture from which seed is taken intermittently; hence acreage data for common Kentucky bluegrass seed has little meaning. The seed of Merion Kentucky bluegrass is harvested from land devoted especially to seed production.

2/ Not available but known to be negligible or nil.

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

Table 2.--Important lawn-grass seeds: U.S. beginning stocks, crop years 1939/40 to 1961/62

| Crop year<br>(July 1-June 30) | (In thousands of pounds, clean-seed basis) |                    |                                      |           |        |                    |                       |                |                 |   |   |
|-------------------------------|--|--------------------|--------------------------------------|-----------|--------|--------------------|-----------------------|----------------|-----------------|---|---|
|                               | Creeping<br>red<br>fescue                  | Chewings<br>fescue | Kentucky<br>blue-<br>grass <u>1/</u> | Bentgrass | Redtop | Common<br>ryegrass | Perennial<br>ryegrass | Fall<br>fescue | Total <u>2/</u> | Total,<br>Chewings fes-<br>cue, Kentucky<br>bluegrass, <u>3/</u><br>and bentgrass | Total,<br>excluding<br>creeping red<br>fescue <u>4/</u> |
| 1939/40                       | 5/   | 5/                 | 10,856                               | -         | 6,910  | 6/                 | 5/                    | 5/             | 17,766          | 10,856  | 17,766  |
| 1940/41                       | 5/   | 5/                 | 5,536                                | 424       | 8,154  | 6,088              | 5/                    | 5/             | 20,202          | 5,690   | 20,202  |
| 1941/42                       | 5/   | 5/                 | 9,080                                | 377       | 12,312 | 8,462              | 5/                    | 5/             | 30,230          | 9,457   | 30,230  |
| 1942/43                       | 5/   | 5/                 | 10,265                               | 354       | 13,837 | 8,769              | 5/                    | 5/             | 33,225          | 10,619  | 33,225  |
| 1943/44                       | 5/   | 558                | 19,466                               | 521       | 13,615 | 9,467              | 5/                    | 5/             | 43,627          | 20,545  | 43,627  |
| 1944/45                       | 5/   | 517                | 11,551                               | 461       | 9,725  | 9,354              | 5/                    | 5/             | 31,608          | 12,529  | 31,608  |
| 1945/46                       | 5/   | 522                | 4,232                                | 347       | 7,452  | 11,439             | 5/                    | 5/             | 23,992          | 5,101   | 23,992  |
| 1946/47                       | 5/   | 747                | 2,126                                | 408       | 11,782 | 8,228              | 5/                    | 5/             | 23,291          | 3,281   | 23,291  |
| 1947/48                       | 5/   | 1,152              | 1,278                                | 630       | 5,798  | 24,411             | 5/                    | 5/             | 33,269          | 3,060   | 33,269  |
| 1948/49                       | 5/   | 1,081              | 7,064                                | 653       | 3,416  | 26,350             | 5/                    | 5/             | 38,564          | 8,798   | 38,564  |
| 1949/50                       | 1,071                                      | 1,677              | 2,197                                | 1,027     | 642    | 6,092              | 665                   | 1,053          | 14,424          | 4,901   | 13,353  |
| 1950/51                       | 1,114                                      | 709                | 2,843                                | 568       | 1,222  | 7,512              | 2,180                 | 672            | 16,120          | 4,120   | 15,706  |
| 1951/52                       | 452  | 670                | 9,928                                | 884       | 5,986  | 13,085             | 2,543                 | 1,389          | 34,937          | 11,482  | 34,485  |
| 1952/53                       | 749  | 742                | 7,715                                | 800       | 5,327  | 14,198             | 2,604                 | 2,697          | 34,832          | 9,257   | 34,083  |
| 1953/54                       | 2,189                                      | 2,658              | 2,289                                | 1,133     | 821    | 13,229             | 3,894                 | 26,558         | 52,771          | 6,080   | 50,582  |
| 1954/55                       | 4,000                                      | 3,414              | 1,719                                | 1,910     | 1,062  | 8,623              | 3,444                 | 21,744         | 45,916          | 7,043   | 41,916  |
| 1955/56                       | 5,407                                      | 3,741              | 6,944                                | 1,544     | 660    | 21,245             | 1,945                 | 22,429         | 63,616          | 11,929  | 58,209  |
| 1956/57                       | 4,388                                      | 4,717              | 11,679                               | 1,978     | 2,071  | 43,706             | 8,367                 | 20,583         | 97,489          | 18,374  | 93,101  |
| 1957/58                       | 2,371                                      | 3,221              | 4,303                                | 3,012     | 1,730  | 41,404             | 15,530                | 11,495         | 83,066          | 10,536  | 80,695  |
| 1958/59                       | 3,033                                      | 1,857              | 12,652                               | 4,471     | 1,395  | 21,309             | 16,176                | 5,528          | 66,421          | 18,980  | 63,388  |
| 1959/60                       | 4,250                                      | 1,899              | 19,711                               | 3,334     | 1,410  | 13,461             | 9,640                 | 6,169          | 59,874          | 24,944  | 55,624  |
| 1960/61                       | 6,785                                      | 3,979              | 10,164                               | 2,225     | 2,187  | 57,521             | 12,446                | 2,184          | 97,491          | 16,568  | 90,706  |
| 1961/62                       | 11,445                                     | 7,896              | 20,364                               | 1,540     | 3,008  | 45,251             | 11,274                | 9,946          | 110,724         | 29,800  | 99,279  |

1/ Includes Merion Kentucky bluegrass.

2/ The total does not include stocks of fescues or ryegrasses in specified earlier years for which data are not available. The resulting understatement of stocks is believed to be small.

3/ The total does not include stocks of Chewings fescue in specified earlier years for which data are not available. The resulting understatement of stocks is believed to be small.

4/ The total does not include stocks of Chewings fescue, tall fescue, and the ryegrasses in specified earlier years for which data are not available. The resulting understatement of stocks is believed to be small.

5/ Not available but believed to be small.

6/ Not available.

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



Table 3.--Important lawn-grass seeds: U.S. production, crop years 1939/40 to 1961/62  
(In thousands of pounds, clean-seed basis)

| Crop year<br>(July 1-June 30) | Creeping<br>red<br>fescue | Chewings<br>fescue | Kentucky<br>blue-<br>grass 1/ | Bentgrass | Redtop | Common<br>ryegrass | Perennial<br>ryegrass | Tall<br>fescue | Total   | Total,<br>Chewings fes-<br>cue, Kentucky<br>bluegrass,<br>and bentgrass | Total,<br>excluding<br>creeping<br>red fescue |
|-------------------------------|---------------------------|--------------------|-------------------------------|-----------|--------|--------------------|-----------------------|----------------|---------|---|---|
| 1939/40                       | 2/                        | 186                | 9,205                         | 632       | 17,700 | 30,500             | 1,350                 | 24             | 59,597  | 10,023  | 59,597  |
| 1940/41                       | 20                        | 393                | 22,694                        | 752       | 18,300 | 27,500             | 1,720                 | 240            | 71,619  | 23,839  | 71,599  |
| 1941/42                       | 40                        | 800                | 24,717                        | 875       | 18,500 | 24,000             | 2,300                 | 232            | 71,464  | 26,392  | 71,424  |
| 1942/43                       | 75                        | 960                | 33,161                        | 800       | 16,600 | 30,000             | 3,300                 | 270            | 85,166  | 34,921  | 85,091  |
| 1943/44                       | 150                       | 900                | 10,585                        | 660       | 10,700 | 23,000             | 3,200                 | 500            | 49,695  | 12,145  | 49,545  |
| 1944/45                       | 240                       | 1,000              | 10,694                        | 910       | 17,800 | 31,000             | 4,600                 | 680            | 66,924  | 12,604  | 66,684  |
| 1945/46                       | 350                       | 1,300              | 13,862                        | 1,000     | 22,300 | 39,500             | 4,500                 | 1,000          | 83,812  | 16,162  | 83,462  |
| 1946/47                       | 1,100                     | 2,800              | 7,666                         | 1,100     | 15,000 | 51,000             | 5,600                 | 1,600          | 85,866  | 11,566  | 84,766  |
| 1947/48                       | 1,400                     | 2,900              | 30,235                        | 1,500     | 14,500 | 47,500             | 6,100                 | 2,000          | 106,135 | 34,635  | 104,735                                       |
| 1948/49                       | 2,000                     | 3,200              | 14,239                        | 1,500     | 3,900  | 32,700             | 6,500                 | 6,400          | 70,439  | 18,939  | 68,439  |
| 1949/50                       | 870                       | 2,475              | 23,550                        | 1,580     | 8,100  | 42,200             | 5,600                 | 9,126          | 93,501  | 27,605  | 92,631  |
| 1950/51                       | 1,837                     | 3,630              | 28,938                        | 2,440     | 12,600 | 72,450             | 7,000                 | 20,539         | 149,434 | 35,008  | 147,597                                       |
| 1951/52                       | 1,180                     | 2,190              | 18,099                        | 1,840     | 7,300  | 66,000             | 7,950                 | 24,655         | 129,214 | 22,129  | 128,034                                       |
| 1952/53                       | 2,145                     | 5,060              | 18,557                        | 2,475     | 4,300  | 90,400             | 12,070                | 55,532         | 190,539 | 26,092  | 188,394                                       |
| 1953/54                       | 2,712                     | 4,420              | 8,442                         | 3,287     | 3,860  | 66,000             | 16,600                | 32,482         | 137,803 | 16,149  | 135,091                                       |
| 1954/55                       | 4,692                     | 6,800              | 20,361                        | 3,339     | 3,072  | 105,800            | 22,410                | 29,470         | 195,944 | 30,500  | 191,252                                       |
| 1955/56                       | 2,072                     | 7,980              | 24,362                        | 4,600     | 4,240  | 121,520            | 31,350                | 28,647         | 224,771 | 36,942  | 222,699                                       |
| 1956/57                       | 2,056                     | 5,100              | 10,994                        | 5,670     | 3,840  | 89,000             | 43,050                | 25,140         | 184,850 | 21,764  | 182,794                                       |
| 1957/58                       | 3,160                     | 7,800              | 26,882                        | 8,020     | 3,375  | 66,960             | 35,490                | 26,124         | 177,811 | 42,702  | 174,651                                       |
| 1958/59                       | 2,706                     | 5,880              | 30,309                        | 6,152     | 3,155  | 63,360             | 28,080                | 30,558         | 170,200 | 42,341  | 167,494                                       |
| 1959/60                       | 5,679                     | 10,560             | 6,747                         | 6,765     | 5,485  | 136,400            | 45,080                | 28,594         | 245,310 | 24,072  | 239,631                                       |
| 1960/61                       | 5,038                     | 11,000             | 32,464                        | 5,092     | 5,020  | 106,250            | 45,000                | 37,580         | 248,144 | 48,556  | 243,106                                       |
| 1961/62                       | 4,153                     | 7,500              | 8,519                         | 5,895     | 4,400  | 136,320            | 15,000                | 34,100         | 200,887 | 21,914  | 196,734                                       |

1/ Includes Merion Kentucky bluegrass.

2/ Not available but known to be negligible or nil.

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

Table 4.--Important lawn-grass seeds: U.S. imports, 1/ crop years 1939/40 to 1960/61, and July 1961-March 1962

(In thousands of pounds, clean-seed basis)

| Crop year<br>(July 1-June 30) | Creeping<br>red<br>fescue | Chewings<br>fescue | Kentucky<br>blue-<br>grass <u>1</u> / | Bentgrass | Reedtop    | Common<br>ryegrass | Perennial<br>ryegrass | Total  | Total,                          |                                     |
|-------------------------------|---------------------------|--------------------|---------------------------------------|-----------|------------|--------------------|-----------------------|--------|---------------------------------|-------------------------------------|
|                               |                           |                    |                                       |           |            |                    |                       |        | Chewings fes-<br>cue, Kentucky: | excluding<br>creeping<br>red fescue |
| 1939/40                       | 135                       | 1,052              | -                                     | 155       | -          | 292                | 661                   | 2,295  | 1,207                           | 2,160                               |
| 1940/41                       | 10                        | 1,531              | <u>3</u> /                            | 17        | -          | 1                  | 294                   | 1,853  | 1,548                           | 1,843                               |
| 1941/42                       | 10                        | 1,035              | -                                     | 39        | -          | 348                | 271                   | 1,703  | 1,074                           | 1,693                               |
| 1942/43                       | 83                        | 858                | -                                     | -         | -          | 3                  | 41                    | 985    | 858                             | 902                                 |
| 1943/44                       | 65                        | 901                | -                                     | -         | -          | 156                | 342                   | 1,464  | 901                             | 1,399                               |
| 1944/45                       | 96                        | 774                | -                                     | -         | -          | 39                 | -                     | 909    | 774                             | 813                                 |
| 1945/46                       | 275                       | 1,247              | <u>2</u> /                            | 367       | -          | -                  | -                     | 1,889  | 1,614                           | 1,614                               |
| 1946/47                       | 88                        | 576                | 5                                     | 314       | -          | 15                 | 1                     | 999    | 895                             | 911                                 |
| 1947/48                       | 88                        | -                  | 19                                    | 96        | 19         | 3                  | 11                    | 236    | 115                             | 148                                 |
| 1948/49                       | 888                       | 49                 | 42                                    | 84        | 62         | 23                 | 39                    | 1,187  | 175                             | 299                                 |
| 1949/50                       | 746                       | 1,616              | -                                     | 62        | <u>3</u> / | 838                | 1,542                 | 4,804  | 1,678                           | 4,058                               |
| 1950/51                       | 484                       | 1,198              | 929                                   | 14        | 3          | 3                  | 1,511                 | 4,142  | 2,141                           | 3,658                               |
| 1951/52                       | 2,472                     | 1,049              | 22                                    | 316       | 1          | 415                | 4,298                 | 8,573  | 1,387                           | 6,101                               |
| 1952/53                       | 3,657                     | 449                | 22                                    | 178       | -          | 261                | 6,030                 | 10,597 | 649                             | 6,940                               |
| 1953/54                       | 7,873                     | 600                | 529                                   | 90        | 2          | 69                 | 5,183                 | 14,346 | 1,219                           | 6,473                               |
| 1954/55                       | 7,429                     | 64                 | 1,092                                 | 37        | <u>3</u> / | 100                | 235                   | 8,957  | 1,193                           | 1,528                               |
| 1955/56                       | 8,795                     | 112                | 961                                   | 76        | <u>1</u> / | 434                | 25                    | 10,404 | 1,149                           | 1,609                               |
| 1956/57                       | 5,438                     | 132                | 450                                   | 11        | -          | 56                 | 33                    | 6,120  | 593                             | 682                                 |
| 1957/58                       | 7,869                     | 40                 | 843                                   | 8         | 5          | 64                 | 1                     | 8,830  | 891                             | 961                                 |
| 1958/59                       | 12,160                    | 6                  | 1,968                                 | 3         | -          | <u>3</u> /         | 176                   | 14,313 | 1,977                           | 2,153                               |
| 1959/60                       | 15,936                    | 19                 | 7,739                                 | 14        | -          | 1,215              | 8                     | 24,931 | 7,772                           | 8,995                               |
| 1960/61                       | 15,100                    | 5                  | 4,224                                 | 3         | -          | 3                  | 104                   | 19,439 | 4,232                           | 4,339                               |
| 1961/62 (July-<br>March)      | 7,210                     | 44                 | 7,741                                 | 1         | -          | 38                 | 5                     | 15,039 | 7,786                           | 7,829                               |

1/ Seed offered for importation under the Federal Seed Act. These quantities are approximately the same as imports for consumption but may include some rejected seed and U.S. goods returned. Data on imports of tall fescue are not available for the years before 1958/59. Such imports as were reported in that and subsequent years were all U.S. seed returned. Imports prior to that year are known to have been negligible or nil.

2/ Includes Merion Kentucky bluegrass.

3/ Less than 500 pounds.

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

Table 5.---Important lawn-grass seeds: U.S. exports, crop years 1939/40 to 1960/61, and July 1961-February 1962

| Crop year<br>(July 1-June 30)    | (In thousands of pounds, clean-seed basis) |                       |                               |           |        |                            |                               |                   |          |        | Total,<br>Chewings fes-<br>cue, Kentucky<br>bluegrass, and<br>bentgrass 4/ | Total,<br>excluding red<br>fescue 4/ |
|----------------------------------|--|-----------------------|-------------------------------|-----------|--------|----------------------------|-------------------------------|-------------------|----------|--------|--|--------------------------------------|
|                                  | Creeping<br>red<br>fescue 1/               | Chewings<br>fescue 1/ | Kentucky<br>blue-<br>grass 2/ | Bentgrass | Redtop | Common<br>rye-<br>grass 3/ | Perennial<br>rye-<br>grass 1/ | Tall<br>fescue 1/ | Total 3/ |        |  |                                      |
| 1939/40                          | 5/   | 5/                    | 465                           | 5/        | 310    | 500                        | -                             | -                 | -        | 1,275  | 465  | 1,275                                |
| 1940/41                          | 5/   | 5/                    | 1,100                         | 5/        | 800    | 1,000                      | 350                           | -                 | -        | 3,250  | 1,100  | 3,250                                |
| 1941/42                          | 5/   | 5/                    | 2,367                         | 5/        | 1,210  | 1,500                      | 354                           | -                 | -        | 5,431  | 2,367  | 5,431                                |
| 1942/43                          | 5/   | 5/                    | 1,400                         | 5/        | 1,110  | 5/                         | 910                           | 20                | -        | 3,470  | 1,400  | 3,470                                |
| 1943/44                          | 5/   | 5/                    | 1,704                         | 5/        | 1,000  | 284                        | 10                            | -                 | -        | 2,998  | 1,704  | 2,998                                |
| 1944/45                          | 5/   | 5/                    | 1,969                         | 5/        | 1,400  | 2,000                      | 1,600                         | 100               | -        | 7,069  | 1,969  | 7,069                                |
| 1945/46                          | 5/   | 5/                    | 839                           | 5/        | 2,368  | 3,000                      | 1,400                         | -                 | -        | 7,607  | 839  | 7,607                                |
| 1946/47                          | 5/   | 5/                    | 312                           | 5/        | 2,284  | 500                        | 800                           | 1                 | -        | 3,897  | 312  | 3,897                                |
| 1947/48                          | 5/   | 5/                    | 2,140                         | 5/        | 1,103  | 500                        | 500                           | 1                 | -        | 4,244  | 2,140  | 4,244                                |
| 1948/49                          | 5/   | 5/                    | 1,543                         | 5/        | 535    | 2,000                      | 2,600                         | -                 | -        | 6,678  | 1,543  | 6,678                                |
| 1949/50                          | 5/   | 5/                    | 2,031                         | 5/        | 326    | 400                        | 500                           | 1                 | -        | 3,258  | 2,031  | 3,258                                |
| 1950/51                          | 5/   | 5/                    | 2,186                         | 5/        | 1,727  | 200                        | 300                           | 9                 | -        | 4,422  | 2,186  | 4,422                                |
| 1951/52                          | 5/   | 5/                    | 1,948                         | 5/        | 1,638  | 100                        | 150                           | 50                | -        | 3,886  | 1,948  | 3,886                                |
| 1952/53                          | 5/   | 5/                    | 1,555                         | 5/        | 658    | 100                        | 100                           | 181               | -        | 2,594  | 1,555  | 2,594                                |
| 1953/54                          | 5/   | 5/                    | 270                           | 5/        | 367    | 100                        | 500                           | 500               | -        | 1,737  | 270  | 1,737                                |
| 1954/55                          | 5/   | 5/                    | 1,031                         | 5/        | 421    | 20,500                     | 2,500                         | 1,000             | -        | 25,452 | 1,031  | 25,452                               |
| 1955/56                          | 5/   | 5/                    | 660                           | 5/        | 773    | 4,000                      | 1,500                         | 3,329             | -        | 10,262 | 660  | 10,262                               |
| 1956/57                          | 1,000                                      | 750                   | 962                           | 5/        | 624    | 6,000                      | 4,000                         | 750               | -        | 14,586 | 2,212  | 13,586                               |
| 1957/58                          | 850  | 1,650                 | 1,127                         | 1/        | 711    | 4,500                      | 4,100                         | 1,000             | -        | 14,638 | 3,477  | 13,788                               |
| 1958/59                          | 14   | 1,478                 | 2,203                         | 3,712     | 425    | 4,600                      | 3,100                         | 2,700             | -        | 18,232 | 7,393  | 18,218                               |
| 1959/60                          | 5/   | 1,600                 | 943                           | 4,879     | 494    | 8,900                      | 5,900                         | 3,200             | -        | 25,916 | 7,422  | 25,916                               |
| 1960/61 6/                       | 5/   | 2,600                 | 1,576                         | 3,141     | 1,572  | 14,700                     | 9,800                         | 5,300             | -        | 38,689 | 7,317  | 38,689                               |
| 1961/62 (July-<br>February) 5/-- | 5/   | 1,500                 | 434                           | 3,654     | 1,139  | 7,400                      | 4,900                         | 3,000             | -        | 22,027 | 5,588  | 22,027                               |

1/ Estimated.

2/ Includes Merion Kentucky bluegrass.

3/ The totals do not include exports of creeping red fescue, Chewings fescue, and bentgrass in specified years for which no data are available. The resulting understatement of exports is believed to be small.

4/ The totals do not include exports of Chewings fescue and bentgrass in specified years for which no data are available. The resulting understatement of exports is believed to be small.

5/ Not available but believed to be small.

6/ Preliminary.

Source: Official statistics of the U.S. Department of Commerce as compiled by the U.S. Department of Agriculture, except as noted.

Table 6.--Important lawn-grass seeds: U.S. supplies, 1/ crop years 1939/40 to 1960/61

| Crop year<br>(July 1-<br>June 30) | (In thousands of pounds, clean-seed basis) |                    |                               |           |        |                    |                       |                |         |   |         | Total,<br>excluding<br>creeping<br>red fescue |
|-----------------------------------|--|--------------------|-------------------------------|-----------|--------|--------------------|-----------------------|----------------|---------|---|---------|---|
|                                   | Creeping<br>red<br>fescue                  | Chewings<br>fescue | Kentucky<br>blue-<br>grass 2/ | Bentgrass | Redtop | Common<br>ryegrass | Perennial<br>ryegrass | Tall<br>fescue | Total   | Total,<br>Chewings fes-<br>cue, Kentucky<br>bluegrass, and<br>bentgrass |         |   |
| 1939/40                           | 135  | 1,238              | 19,596                        | 787       | 24,300 | 30,292             | 2,011                 | 24             | 78,383  | 21,621  | 78,248  |   |
| 1940/41                           | 30   | 1,924              | 27,130                        | 1,193     | 25,654 | 32,589             | 1,664                 | 240            | 90,424  | 30,247  | 90,394  |   |
| 1941/42                           | 50   | 1,835              | 31,430                        | 1,291     | 29,602 | 31,310             | 2,217                 | 232            | 97,967  | 34,556  | 97,917  |   |
| 1942/43                           | 158  | 1,818              | 42,026                        | 1,154     | 29,297 | 38,772             | 2,431                 | 250            | 115,906 | 44,998  | 115,748 |   |
| 1943/44                           | 215  | 2,359              | 28,347                        | 1,181     | 23,315 | 32,339             | 3,532                 | 500            | 91,788  | 31,887  | 91,573  |   |
| 1944/45                           | 336  | 2,291              | 20,276                        | 1,371     | 26,125 | 38,393             | 3,000                 | 580            | 92,372  | 23,938  | 92,036  |   |
| 1945/46                           | 625  | 3,069              | 17,255                        | 1,714     | 27,384 | 47,939             | 3,100                 | 1,000          | 102,086 | 22,038  | 101,461 |   |
| 1946/47                           | 1,188                                      | 4,123              | 9,485                         | 1,822     | 24,498 | 58,743             | 4,801                 | 1,599          | 106,259 | 15,430  | 105,071 |   |
| 1947/48                           | 1,488                                      | 4,052              | 29,392                        | 2,226     | 19,214 | 71,414             | 5,611                 | 1,999          | 135,396 | 35,670  | 133,908 |   |
| 1948/49                           | 2,888                                      | 4,330              | 19,802                        | 2,237     | 6,843  | 57,073             | 3,939                 | 6,400          | 103,512 | 26,369  | 100,624 |   |
| 1949/50                           | 2,687                                      | 5,768              | 23,716                        | 2,669     | 8,416  | 48,730             | 6,707                 | 10,178         | 108,871 | 32,153  | 106,184 |   |
| 1950/51                           | 2,735                                      | 5,537              | 30,524                        | 3,022     | 12,098 | 79,765             | 10,391                | 21,202         | 165,274 | 39,083  | 162,539 |   |
| 1951/52                           | 4,104                                      | 3,909              | 26,101                        | 3,040     | 11,649 | 79,400             | 14,641                | 25,994         | 168,838 | 33,050  | 164,734 |   |
| 1952/53                           | 6,551                                      | 6,251              | 24,739                        | 3,453     | 8,969  | 104,759            | 20,604                | 58,048         | 233,374 | 34,443  | 226,823 |   |
| 1953/54                           | 12,774                                     | 7,678              | 10,990                        | 4,510     | 4,316  | 79,198             | 25,177                | 58,540         | 203,183 | 23,178  | 190,409 |   |
| 1954/55                           | 16,121                                     | 10,278             | 22,141                        | 5,286     | 3,713  | 94,023             | 23,589                | 50,214         | 225,365 | 37,705  | 209,244 |   |
| 1955/56                           | 16,274                                     | 11,833             | 31,307                        | 6,220     | 4,128  | 139,200            | 31,820                | 47,747         | 288,529 | 49,360  | 272,255 |   |
| 1956/57                           | 10,882                                     | 9,199              | 22,161                        | 7,159     | 5,287  | 126,762            | 47,450                | 44,973         | 273,873 | 38,519  | 262,991 |   |
| 1957/58                           | 12,550                                     | 9,411              | 30,901                        | 10,340    | 4,399  | 103,928            | 46,921                | 36,619         | 255,069 | 50,652  | 242,519 |   |
| 1958/59                           | 17,885                                     | 6,265              | 42,726                        | 6,914     | 4,125  | 80,069             | 41,332                | 33,416         | 232,732 | 55,905  | 214,847 |   |
| 1959/60                           | 25,865                                     | 10,878             | 33,254                        | 5,234     | 6,401  | 142,176            | 48,828                | 31,604         | 304,240 | 49,366  | 278,375 |   |
| 1960/61                           | 26,923                                     | 12,384             | 45,276                        | 4,179     | 5,635  | 149,774            | 47,750                | 34,464         | 326,385 | 61,839  | 299,462 |   |

1/ Beginning stocks plus U.S. production plus imports minus exports.  
2/ Includes Merion Kentucky bluegrass.

Source: Tables 2, 3, 4, and 5.

Table 7.--Important lawn-grass seeds: Apparent U.S. consumption, 1/ crop years 1939/40 to 1960/61  
(In thousands of pounds, clean-seed basis)

| Crop year<br>(July 1-<br>June 30) | Creeping<br>red<br>fescue | Chewings<br>fescue | Kentucky<br>blue-<br>grass 2/ | Bentgrass | Redtop | Common<br>ryegrass | Perennial<br>ryegrass | Tall<br>fescue | Total   | Total,<br>Chewings fes-<br>cue, Kentucky<br>bluegrass, and<br>bentgrass | Total,<br>excluding<br>creeping<br>red fescue |
|-----------------------------------|---------------------------|--------------------|-------------------------------|-----------|--------|--------------------|-----------------------|----------------|---------|---|---|
| 1939/40                           | 135                       | 1,238              | 14,060                        | 363       | 16,146 | 24,204             | 2,011                 | 24             | 58,181  | 15,661  | 58,046  |
| 1940/41                           | 30                        | 1,924              | 18,050                        | 816       | 13,342 | 24,127             | 1,664                 | 240            | 60,193  | 20,790  | 60,163  |
| 1941/42                           | 50                        | 1,835              | 21,165                        | 937       | 15,765 | 22,541             | 2,217                 | 232            | 64,742  | 23,937  | 64,692  |
| 1942/43                           | 158                       | 1,260              | 22,560                        | 633       | 15,682 | 29,305             | 2,431                 | 250            | 72,279  | 24,453  | 72,121  |
| 1943/44                           | 215                       | 1,842              | 16,796                        | 720       | 13,590 | 22,985             | 3,532                 | 500            | 60,180  | 19,358  | 59,965  |
| 1944/45                           | 336                       | 1,769              | 16,044                        | 1,024     | 18,673 | 26,954             | 3,000                 | 580            | 68,380  | 18,837  | 68,044  |
| 1945/46                           | 625                       | 2,322              | 15,129                        | 1,306     | 15,602 | 39,711             | 3,100                 | 1,000          | 78,795  | 18,757  | 78,170  |
| 1946/47                           | 1,188                     | 2,971              | 8,207                         | 1,192     | 18,700 | 34,332             | 4,801                 | 1,599          | 72,990  | 12,370  | 71,802  |
| 1947/48                           | 1,488                     | 2,971              | 22,328                        | 1,573     | 15,798 | 45,064             | 5,611                 | 1,999          | 96,832  | 26,872  | 95,344  |
| 1948/49                           | 1,817                     | 2,653              | 17,605                        | 1,210     | 6,201  | 50,981             | 3,874                 | 5,347          | 89,688  | 21,468  | 87,871  |
| 1949/50                           | 2,273                     | 5,059              | 20,873                        | 2,101     | 7,194  | 41,218             | 4,527                 | 9,506          | 92,751  | 28,033  | 90,478  |
| 1950/51                           | 2,283                     | 4,867              | 20,596                        | 2,138     | 6,112  | 66,680             | 7,848                 | 19,813         | 130,337 | 27,601  | 128,054                                       |
| 1951/52                           | 3,355                     | 3,167              | 18,386                        | 2,240     | 6,322  | 65,202             | 12,037                | 23,297         | 134,006 | 23,793  | 130,651                                       |
| 1952/53                           | 4,362                     | 3,593              | 22,428                        | 2,320     | 8,148  | 91,530             | 16,710                | 31,490         | 180,581 | 28,341  | 176,219                                       |
| 1953/54                           | 8,774                     | 4,264              | 9,271                         | 2,600     | 3,254  | 70,575             | 21,733                | 36,796         | 157,267 | 16,135  | 148,493                                       |
| 1954/55                           | 10,714                    | 6,537              | 15,497                        | 3,742     | 3,053  | 72,777             | 21,644                | 27,785         | 161,749 | 25,776  | 151,035                                       |
| 1955/56                           | 11,886                    | 7,116              | 19,628                        | 4,242     | 2,057  | 95,494             | 23,453                | 27,164         | 191,040 | 30,986  | 179,154                                       |
| 1956/57                           | 8,511                     | 5,978              | 17,858                        | 4,147     | 3,557  | 85,358             | 31,920                | 33,478         | 190,807 | 27,983  | 182,296                                       |
| 1957/58                           | 9,517                     | 7,554              | 18,249                        | 5,869     | 3,004  | 82,619             | 30,745                | 31,091         | 188,648 | 31,672  | 179,131                                       |
| 1958/59                           | 13,635                    | 4,366              | 23,015                        | 3,580     | 2,715  | 66,608             | 31,692                | 27,247         | 172,858 | 30,961  | 159,223                                       |
| 1959/60                           | 19,080                    | 6,899              | 23,090                        | 3,009     | 4,214  | 84,655             | 36,382                | 29,420         | 206,749 | 32,998  | 187,669                                       |
| 1960/61                           | 15,478                    | 4,488              | 24,912                        | 2,639     | 2,627  | 104,523            | 36,476                | 24,518         | 215,661 | 32,039  | 200,183                                       |

1/ U.S. supplies minus year-end stocks.

2/ Includes Merion Kentucky bluegrass.

Source: Tables 2 and 6.

Table 8.--Important lawn-grass seeds: Season average prices received by growers, crop years 1939/40 to 1961/62

(In cents per pound, clean-seed basis)

| Crop year<br>(July 1-June 30) | Creeping<br>red<br>fescue | Chewings<br>fescue | Kentucky<br>bluegrass | Merion<br>Kentucky<br>bluegrass | Bentgrass | Redtop | Common<br>ryegrass | Perennial<br>ryegrass | Tall<br>fescue |
|-------------------------------|---------------------------|--------------------|-----------------------|---------------------------------|-----------|--------|--------------------|-----------------------|----------------|
| 1939/40                       | 2/                        | 40.0               | 6.9                   | 2/                              | 40.0      | 8.2    | 4.2                | 8.0                   | 34.0           |
| 1940/41                       | 52.0                      | 25.5               | 5.1                   | 2/                              | 40.0      | 7.3    | 3.1                | 8.0                   | 12.8           |
| 1941/42                       | 45.0                      | 26.0               | 6.0                   | 2/                              | 43.5      | 7.0    | 4.3                | 8.8                   | 20.0           |
| 1942/43                       | 45.0                      | 33.0               | 5.5                   | 2/                              | 45.0      | 6.4    | 5.0                | 10.5                  | 25.0           |
| 1943/44                       | 49.0                      | 44.0               | 6.5                   | 2/                              | 57.0      | 12.7   | 7.9                | 13.5                  | 33.0           |
| 1944/45                       | 61.0                      | 55.5               | 7.8                   | 2/                              | 55.0      | 15.3   | 7.0                | 12.9                  | 38.5           |
| 1945/46                       | 51.0                      | 49.5               | 10.2                  | 2/                              | 69.0      | 11.0   | 7.5                | 14.0                  | 41.5           |
| 1946/47                       | 49.0                      | 48.5               | 17.3                  | 2/                              | 81.5      | 16.8   | 7.5                | 14.0                  | 37.5           |
| 1947/48                       | 31.5                      | 29.5               | 7.9                   | 2/                              | 59.5      | 13.2   | 6.0                | 9.4                   | 29.5           |
| 1948/49                       | 40.5                      | 36.5               | 11.8                  | 2/                              | 58.7      | 41.3   | 7.8                | 10.7                  | 41.2           |
| 1949/50                       | 39.2                      | 33.9               | 9.2                   | 2/                              | 63.7      | 42.0   | 9.7                | 13.3                  | 43.5           |
| 1950/51                       | 51.9                      | 49.7               | 11.3                  | 2/                              | 67.5      | 34.3   | 7.5                | 12.5                  | 40.8           |
| 1951/52                       | 69.3                      | 66.5               | 9.3                   | 2/                              | 81.5      | 23.3   | 9.0                | 13.6                  | 50.9           |
| 1952/53                       | 48.3                      | 47.0               | 12.5                  | 213.0                           | 52.8      | 37.7   | 6.7                | 9.4                   | 25.4           |
| 1953/54                       | 41.3                      | 43.0               | 15.5                  | 214.0                           | 61.1      | 51.3   | 8.9                | 11.6                  | 12.5           |
| 1954/55                       | 25.5                      | 25.0               | 14.1                  | 162.0                           | 54.9      | 56.2   | 7.0                | 13.0                  | 15.4           |
| 1955/56                       | 22.4                      | 19.0               | 9.6                   | 197.0                           | 46.1      | 36.1   | 5.6                | 9.4                   | 9.2            |
| 1956/57                       | 42.3                      | 32.0               | 12.1                  | 145.0                           | 43.6      | 42.9   | 4.8                | 7.0                   | 13.1           |
| 1957/58                       | 36.3                      | 29.5               | 7.0                   | 83.0                            | 24.2      | 19.4   | 4.4                | 5.1                   | 10.0           |
| 1958/59                       | 31.8                      | 31.0               | 6.5                   | 126.0                           | 22.7      | 22.5   | 7.8                | 9.1                   | 11.3           |
| 1959/60                       | 26.1                      | 27.5               | 8.5                   | 118.0                           | 22.2      | 28.2   | 5.5                | 9.8                   | 16.6           |
| 1960/61                       | 17.0                      | 16.2               | 5.7                   | 91.0                            | 28.2      | 15.7   | 3.7                | 6.4                   | 11.2           |
| 1961/62                       | 16.0                      | 16.0               | 6.9                   | 78.2                            | 25.1      | 17.2   | 2/                 | 2/                    | 10.6           |

1/ Unlike the prices shown in this table for the other seeds, the prices shown here for Kentucky bluegrass seed are on a cured-seed basis. Most producers of common Kentucky bluegrass seed sell their seed on a cured-seed basis (containing extraneous matter and with hull intact) rather than on a clean-seed basis (with most extraneous matter and hull removed); therefore the U.S. Department of Agriculture publishes a "price received by farmers" series only for cured seed. A reasonable estimate of prices for common Kentucky bluegrass prices on a clean-seed basis comparable to the prices shown for other grasses could be made in the following manner: Adjust the cured price upward by the ratio of cured to cleaned seed for each year and add 10 cents to cover cleaning and other costs incident to processing the cured into cleaned seed.

2/ Not available.

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

Table 9.--Creeping red fescue seed: U.S. acres harvested, average yield per acre, production, and average price received by growers, by producing States, crop years 1954/55 to 1961/62

| State and crop year<br>(July 1-June 30) | Acres<br>har-<br>vested | Average<br>yield<br>per<br>acre | Production             |                         | Average<br>price<br>received<br>by growers<br>Cents per<br>pound |
|---|-------------------------|---------------------------------|------------------------|-------------------------|--|
|   |                         |                                 | Quantity               | Value                   |  |
|   |                         |                                 | <u>1,000</u><br>pounds | <u>1,000</u><br>dollars |  |
| <u>Oregon</u>                           |                         |                                 |                        |                         |  |
| 1954/55                                 | 7,500                   | 480                             | 3,600                  | 936                     | 26.0   |
| 1955/56                                 | 6,500                   | 230                             | 1,495                  | 336                     | 22.5   |
| 1956/57                                 | 5,500                   | 300                             | 1,650                  | 710                     | 43.0   |
| 1957/58                                 | 5,500                   | 435                             | 2,392                  | 885                     | 37.0   |
| 1958/59                                 | 6,500                   | 330                             | 2,145                  | 708                     | 33.0   |
| 1959/60                                 | 11,000                  | 430                             | 4,730                  | 1,253                   | 26.5   |
| 1960/61                                 | 12,000                  | 350                             | 4,200                  | 714                     | 17.0   |
| 1961/62                                 | 11,500                  | 310                             | 3,565                  | 570                     | 16.0   |
| <u>Washington</u>                       |                         |                                 |                        |                         |  |
| 1954/55                                 | 1,500                   | 535                             | 802                    | 192                     | 24.0   |
| 1955/56                                 | 1,400                   | 290                             | 406                    | 89                      | 22.0   |
| 1956/57                                 | 1,200                   | 255                             | 306                    | 119                     | 39.0   |
| 1957/58                                 | 1,100                   | 545                             | 600                    | 210                     | 35.0   |
| 1958/59                                 | 1,400                   | 315                             | 441                    | 119                     | 27.0   |
| 1959/60                                 | 1,700                   | 410                             | 697                    | 171                     | 24.5   |
| 1960/61                                 | 1,700                   | 390                             | 663                    | 113                     | 17.0   |
| 1961/62                                 | 1,100                   | 425                             | 468                    | 75                      | 16.0   |
| <u>Idaho</u>                            |                         |                                 |                        |                         |  |
| 1954/55                                 | 1,000                   | 290                             | 290                    | 68                      | 23.5   |
| 1955/56                                 | 900                     | 190                             | 171                    | 38                      | 22.5   |
| 1956/57                                 | 400                     | 250                             | 100                    | 40                      | 40.0   |
| 1957/58                                 | 400                     | 420                             | 168                    | 52                      | 31.0   |
| 1958/59                                 | 600                     | 200                             | 120                    | 34                      | 28.0   |
| 1959/60                                 | 800                     | 315                             | 252                    | 60                      | 24.0   |
| 1960/61                                 | 700                     | 250                             | 175                    | 32                      | 18.0   |
| 1961/62                                 | 500                     | 240                             | 120                    | 18                      | 15.0   |
| <u>U.S. total</u>                       |                         |                                 |                        |                         |  |
| 1954/55                                 | 10,000                  | 469                             | 4,692                  | 1,196                   | 25.5   |
| 1955/56                                 | 8,800                   | 235                             | 2,072                  | 463                     | 22.4   |
| 1956/57                                 | 7,100                   | 290                             | 2,056                  | 869                     | 42.3   |
| 1957/58                                 | 7,000                   | 451                             | 3,160                  | 1,147                   | 36.3   |
| 1958/59                                 | 8,500                   | 318                             | 2,706                  | 861                     | 31.8   |
| 1959/60                                 | 13,500                  | 421                             | 5,679                  | 1,484                   | 26.1   |
| 1960/61                                 | 14,400                  | 350                             | 5,038                  | 859                     | 17.0   |
| 1961/62                                 | 13,100                  | 317                             | 4,153                  | 663                     | 16.0   |

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

Table 10.--Creeping red fescue seed: U.S. beginning stocks, production, imports, exports, supply, and apparent consumption, crop years 1949/50 to 1961/62

| Crop year<br>(July 1-June 30) | (Quantity in thousands of pounds of clean seed) |            |          |          |                |                         | U.S.<br>supply | Apparent:<br>U.S. con-<br>sumption : | Ratio (percent)<br>of imports to<br>U.S. supply |
|-------------------------------|---|------------|----------|----------|----------------|-------------------------|----------------|--------------------------------------|---|
|                               | Beginning<br>stocks                             | Production | Imports  | Exports  | U.S.<br>supply | U.S. con-<br>sumption : |                |                                      |   |
| 1949/50                       | 1,071   | 870        | 746      | 2/       | 2,687          | 2,273                   | :              | 27.8                                 |   |
| 1950/51                       | 414   | 1,837      | 484      | 2/       | 2,735          | 2,283                   | :              | 17.7                                 |   |
| 1951/52                       | 452   | 1,180      | 2,472    | 2/       | 4,104          | 3,355                   | :              | 60.2                                 |   |
| 1952/53                       | 749   | 2,145      | 3,657    | 2/       | 6,551          | 4,362                   | :              | 55.8                                 |   |
| 1953/54                       | 2,189   | 2,712      | 7,873    | 2/       | 12,774         | 8,774                   | :              | 61.6                                 |   |
| 1954/55                       | 4,000   | 4,692      | 7,429    | 2/       | 16,121         | 10,714                  | :              | 46.1                                 |   |
| 1955/56                       | 5,407   | 2,072      | 8,795    | 2/       | 16,274         | 11,886                  | :              | 54.0                                 |   |
| 1956/57                       | 4,388   | 2,056      | 5,438    | 3/ 1,000 | 10,882         | 8,511                   | :              | 50.0                                 |   |
| 1957/58                       | 2,371   | 3,160      | 7,869    | 3/ 850   | 12,550         | 9,517                   | :              | 62.7                                 |   |
| 1958/59                       | 3,033   | 2,706      | 12,160   | 4/ 14    | 17,885         | 13,635                  | :              | 68.0                                 |   |
| 1959/60                       | 4,250   | 5,679      | 15,936   | 2/       | 25,865         | 19,080                  | :              | 61.6                                 |   |
| 1960/61                       | 6,785   | 5,038      | 15,100   | 2/       | 26,923         | 15,478                  | :              | 56.1                                 |   |
| 1961/62                       | 11,445  | 4,153      | 5/ 7,210 | 2/       | 6/             | 6/                      | :              | 6/                                   |   |

1/ Seed offered for importation under the Federal Seed Act. These quantities are approximately the same as imports for consumption but may include some rejected seed and U.S. goods returned.

2/ Not available but known to be small.

3/ Estimated by the U.S. Department of Agriculture.

4/ Compiled from information submitted to the U.S. Tariff Commission by exporters.

5/ July-March.

6/ Not available.

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



Table 11.--Creeping red fescue seed: U.S. acres harvested, average yield per acre, production, and average price received by growers, crop years 1949/50 to 1961/62

| Crop year<br>(July 1-June 30) | Acres<br>harvested | Average<br>yield<br>per acre | Production                    |                                | Average price<br>received by<br>growers |
|-------------------------------|--------------------|------------------------------|-------------------------------|--------------------------------|---|
|                               |                    |                              | Quantity                      | Value                          |   |
|                               |                    |                              | <u>1,000</u><br><u>pounds</u> | <u>1,000</u><br><u>dollars</u> |   |
|                               |                    | <u>Pounds</u>                |                               |                                | <u>Cents</u><br><u>per pound</u>        |
| 1949/50-----                  | 4,500              | 193                          | 870                           | 341                            | 39.2                                    |
| 1950/51-----                  | 5,150              | 357                          | 1,837                         | 953                            | 51.9                                    |
| 1951/52-----                  | 6,000              | 197                          | 1,180                         | 818                            | 69.3                                    |
| 1952/53-----                  | 6,750              | 318                          | 2,145                         | 1,037                          | 48.3                                    |
| 1953/54-----                  | 8,100              | 335                          | 2,712                         | 1,120                          | 41.3                                    |
| 1954/55-----                  | 10,000             | 469                          | 4,692                         | 1,196                          | 25.5                                    |
| 1955/56-----                  | 8,800              | 235                          | 2,072                         | 463                            | 22.4                                    |
| 1956/57-----                  | 7,100              | 290                          | 2,056                         | 869                            | 42.3                                    |
| 1957/58-----                  | 7,000              | 451                          | 3,160                         | 1,147                          | 36.3                                    |
| 1958/59-----                  | 8,500              | 318                          | 2,706                         | 861                            | 31.8                                    |
| 1959/60-----                  | 13,500             | 421                          | 5,679                         | 1,484                          | 26.1                                    |
| 1960/61-----                  | 14,400             | 350                          | 5,038                         | 859                            | 17.0                                    |
| 1961/62-----                  | 13,100             | 317                          | 4,153                         | 663                            | 16.0                                    |

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

Table 12.--Creeping red fescue seed; U.S. imports, <sup>1/</sup> by principal sources, crop years 1949/50 to 1961/62, July-March 1960/61, and July-March 1961/62

(In thousands of pounds)

| Crop year<br>(July 1-June 30) | Canada | Denmark | Netherlands | All<br>other<br>countries | Total  |
|-------------------------------|--------|---------|-------------|---------------------------|--------|
| 1949/50-----                  | 462    | 171     | 74          | 39                        | 746    |
| 1950/51-----                  | 104    | 304     | 31          | 45                        | 484    |
| 1951/52-----                  | 1,112  | 741     | 260         | 359                       | 2,472  |
| 1952/53-----                  | 1,325  | 1,498   | 502         | 332                       | 3,657  |
| 1953/54-----                  | 4,499  | 2,285   | 351         | 738                       | 7,873  |
| 1954/55-----                  | 7,296  | 89      | 44          | -                         | 7,429  |
| 1955/56-----                  | 8,043  | 696     | 56          | -                         | 8,795  |
| 1956/57-----                  | 4,026  | 845     | 520         | 47                        | 5,438  |
| 1957/58-----                  | 5,325  | 1,686   | 858         | -                         | 7,869  |
| 1958/59-----                  | 9,210  | 1,359   | 1,577       | 14                        | 12,160 |
| 1959/60-----                  | 9,640  | 3,111   | 3,185       | -                         | 15,936 |
| 1960/61-----                  | 13,715 | 540     | 845         | -                         | 15,100 |
| July-March--                  |        |         |             |                           |        |
| 1960/61-----                  | 11,295 | 232     | 579         | -                         | 12,106 |
| 1961/62-----                  | 6,527  | 260     | 423         | -                         | 7,210  |

<sup>1/</sup> Seed offered for importation under the Federal Seed Act. These quantities are approximately the same as imports for consumption but may include some rejected seed and U.S. goods returned.

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

Table 13.--Creeping red fescue seed: Production in the United States, Canada, Denmark, and the Netherlands, crop years 1950/51 to 1961/62

(In thousands of pounds)

| Crop year<br>(July 1--June 30) | United States | Canada | Denmark | Netherlands     |
|--------------------------------|---------------|--------|---------|-----------------|
| 1950/51-----                   | 1,837         | 559    | 2,077   | <u>1/</u>       |
| 1951/52-----                   | 1,180         | 1,500  | 2,765   | <u>1/</u>       |
| 1952/53-----                   | 2,145         | 2,425  | 4,367   | <u>1/</u>       |
| 1953/54-----                   | 2,712         | 6,100  | 4,755   | <u>1/</u>       |
| 1954/55-----                   | 4,692         | 9,800  | 3,728   | <u>1/</u>       |
| 1955/56-----                   | 2,072         | 9,245  | 4,941   | <u>1/</u>       |
| 1956/57-----                   | 2,056         | 5,320  | 3,433   | <u>2/</u> 1,254 |
| 1957/58-----                   | 3,160         | 7,500  | 5,185   | <u>2/</u> 1,404 |
| 1958/59-----                   | 2,706         | 15,509 | 5,291   | <u>2/</u> 3,393 |
| 1959/60-----                   | 5,679         | 14,378 | 8,422   | <u>2/</u> 4,250 |
| 1960/61-----                   | 5,038         | 16,600 | 4,381   | <u>1/</u>       |
| 1961/62-----                   | 4,153         | 17,580 | 5,401   | <u>1/</u>       |

1/ Not available.

2/ Includes the production of other red fescue seed.

Source: U.S. production, compiled from official statistics of the U.S. Department of Agriculture; Canadian production, compiled from official statistics of the Canada Department of Agriculture; production statistics for Denmark and the Netherlands, compiled from Foreign Agricultural Service Reports submitted by the agricultural attaches in these countries.

Table 14.--Creeping red fescue seed: U.S. acreage and production, and the acreage and production of the 45 U.S. producers that submitted financial data, 1957-61

| Calendar year | Total United States |                             | The 45 producers that harvested seed during some or all of the years 1957-61 |                             | The 21 producers that harvested seed during each of the 5 years of the total 1957-61 |                             | The 21 producers that harvested seed during each of the 5 years of the total 1957-61 |                             |
|---------------|---------------------|-----------------------------|--|-----------------------------|--|-----------------------------|--|-----------------------------|
|               | Acreage             | Pro-duction<br>1,000 pounds | Acreage  | Pro-duction<br>1,000 pounds | Acreage  | Pro-duction<br>1,000 pounds | Acreage  | Pro-duction<br>1,000 pounds |
|               | Acres               | Percent                     | Acres  | Percent                     | Acres  | Percent                     | Acres  | Percent                     |
| 1957-----     | 7,000               | 20.3                        | 1,419  | 24.3                        | 1,161  | 684                         | 16.6   | 21.6                        |
| 1958-----     | 8,500               | 25.6                        | 2,178  | 32.9                        | 1,584  | 719                         | 18.6   | 26.6                        |
| 1959-----     | 13,500              | 25.0                        | 3,379  | 30.7                        | 2,185  | 1,238                       | 16.2   | 21.8                        |
| 1960-----     | 14,400              | 26.0                        | 3,752  | 39.3                        | 2,292  | 1,198                       | 15.9   | 23.8                        |
| 1961-----     | 13,100              | 24.1                        | 3,163  | 29.2                        | 1,948  | 755                         | 14.9   | 18.2                        |

Source: Compiled from official statistics of the U.S. Department of Agriculture and questionnaire responses submitted by producers of creeping red fescue seed.

Table 15.--Creeping red fescue seed: Operating experience of the 45 producers that submitted financial data, 1957-61 1/

| Calendar year  | Creeping red fescue seed operations      |       |                |                     |                      |                                   |                |                        |                    |                           |                       |                                   |
|--|--|-------|----------------|---------------------|----------------------|-----------------------------------|----------------|------------------------|--------------------|---------------------------|-----------------------|-----------------------------------|
|  | Producers that harvested: seed each year | Acres | Yield per acre | Production (pounds) | Expenses 2/ (pounds) | Inventory at end of year (pounds) | Sales (pounds) | Receipts from sales 3/ | Net return (cents) | Expenses produced (cents) | Receipts sold (cents) | Net return per pound sold (cents) |
| The 21 producers that harvested creeping red fescue seed during each of the 5 years 1957-61                      |  |       |                |                     |                      |                                   |                |                        |                    |                           |                       |                                   |
| 1957   | 21                                       | 550   | 1,161          | 589                 | 683,587              | \$121,606                         | 175,664        | 681,048                | \$221,661          | \$100,055                 | 17.8                  | 32.5                              |
| 1958   | 21                                       | 573   | 1,584          | 454                 | 712,497              | 147,736                           | 203,270        | 650,978                | 217,108            | 69,372                    | 20.5                  | 33.3                              |
| 1959   | 21                                       | 292   | 2,185          | 566                 | 1,238,356            | 179,969                           | 424,183        | 965,287                | 239,566            | 59,597                    | 14.5                  | 24.8                              |
| 1960   | 21                                       | 201   | 2,292          | 523                 | 1,198,025            | 176,087                           | 539,645        | 1,023,693              | 167,336            | -8,751                    | 14.7                  | 16.3                              |
| 1961   | 21                                       | 60    | 1,948          | 388                 | 755,490              | 123,248                           | 523,672        | 682,802                | 89,430             | -33,818                   | 16.3                  | 13.1                              |
| The 18 producers that harvested creeping red fescue seed during 4 of the years 1957-61                           |  |       |                |                     |                      |                                   |                |                        |                    |                           |                       |                                   |
| 1957   | 6  | 397   | 258            | 325                 | 83,956               | \$28,909                          | 7,734          | 86,913                 | \$25,760           | \$-3,149                  | 18.2                  | 29.6                              |
| 1958   | 17                                       | 348   | 594            | 286                 | 170,028              | 50,230                            | 45,069         | 131,486                | 31,443             | -18,787                   | 29.1                  | 23.9                              |
| 1959   | 18                                       | 126   | 831            | 425                 | 353,132              | 50,050                            | 210,500        | 261,298                | 54,780             | 4,730                     | 14.2                  | 21.0                              |
| 1960   | 18                                       | 52    | 923            | 513                 | 509,261              | 54,888                            | 151,093        | 565,261                | 91,730             | 36,842                    | 10.8                  | 16.2                              |
| 1961   | 13                                       | 35    | 763            | 368                 | 280,498              | 35,303                            | 253,614        | 171,302                | 21,851             | -13,452                   | 12.6                  | 12.5                              |
| The 6 producers that harvested creeping red fescue seed during 3 of the years 1957-61                            |  |       |                |                     |                      |                                   |                |                        |                    |                           |                       |                                   |
| 1957   | -  | 104   | -              | -                   | -                    | \$6,919                           | -              | -                      | -                  | \$-6,919                  | -                     | -                                 |
| 1958   | -  | 168   | -              | -                   | -                    | 13,166                            | -              | -                      | -                  | -13,166                   | -                     | -                                 |
| 1959   | 6  | 110   | 363            | 426                 | 154,813              | 22,516                            | 50,103         | 104,710                | \$32,139           | 9,623                     | 14.5                  | 30.7                              |
| 1960   | 6  | -     | 467            | 589                 | 275,263              | 23,894                            | 176,478        | 135,967                | 21,530             | -2,364                    | 8.7                   | 15.8                              |
| 1961   | 6  | 125   | 452            | 390                 | 176,237              | 19,410                            | 96,815         | 256,400                | 18,070             | -1,340                    | 11.0                  | 7.0                               |
| Aggregate of the 45 producers that harvested creeping red fescue seed during some or all of the years 1957-61 4/ |  |       |                |                     |                      |                                   |                |                        |                    |                           |                       |                                   |
| 1957   | 27                                       | 1,051 | 1,419          | 540                 | 767,543              | \$157,434                         | 183,398        | 767,961                | \$247,421          | \$89,987                  | 20.5                  | 32.2                              |
| 1958   | 38                                       | 1,089 | 2,178          | 408                 | 885,525              | 211,132                           | 248,339        | 782,464                | 246,551            | 37,419                    | 23.7                  | 31.8                              |
| 1959   | 45                                       | 528   | 3,379          | 517                 | 1,746,301            | 252,535                           | 684,786        | 1,331,295              | 326,485            | 73,950                    | 14.5                  | 24.5                              |
| 1960   | 45                                       | 253   | 3,752          | 528                 | 1,982,549            | 254,869                           | 867,216        | 1,724,921              | 280,596            | 25,727                    | 12.8                  | 16.3                              |
| 1961   | 40                                       | 220   | 3,163          | 383                 | 1,212,225            | 177,961                           | 904,401        | 1,113,504              | 129,351            | -48,610                   | 14.7                  | 11.6                              |

1/ Cash basis of accounting, by calendar years, was used by all of the producers included in this table.

2/ The expenses shown include the amount of cash expended each year for fallowing, seeding, fertilizing, cultivating, spraying, roguing, and harvesting, and the amount of annual depreciation on machinery and equipment allocated to creeping red fescue operations.

3/ Gross receipts from sales less cleaning, bags, and storage expense.

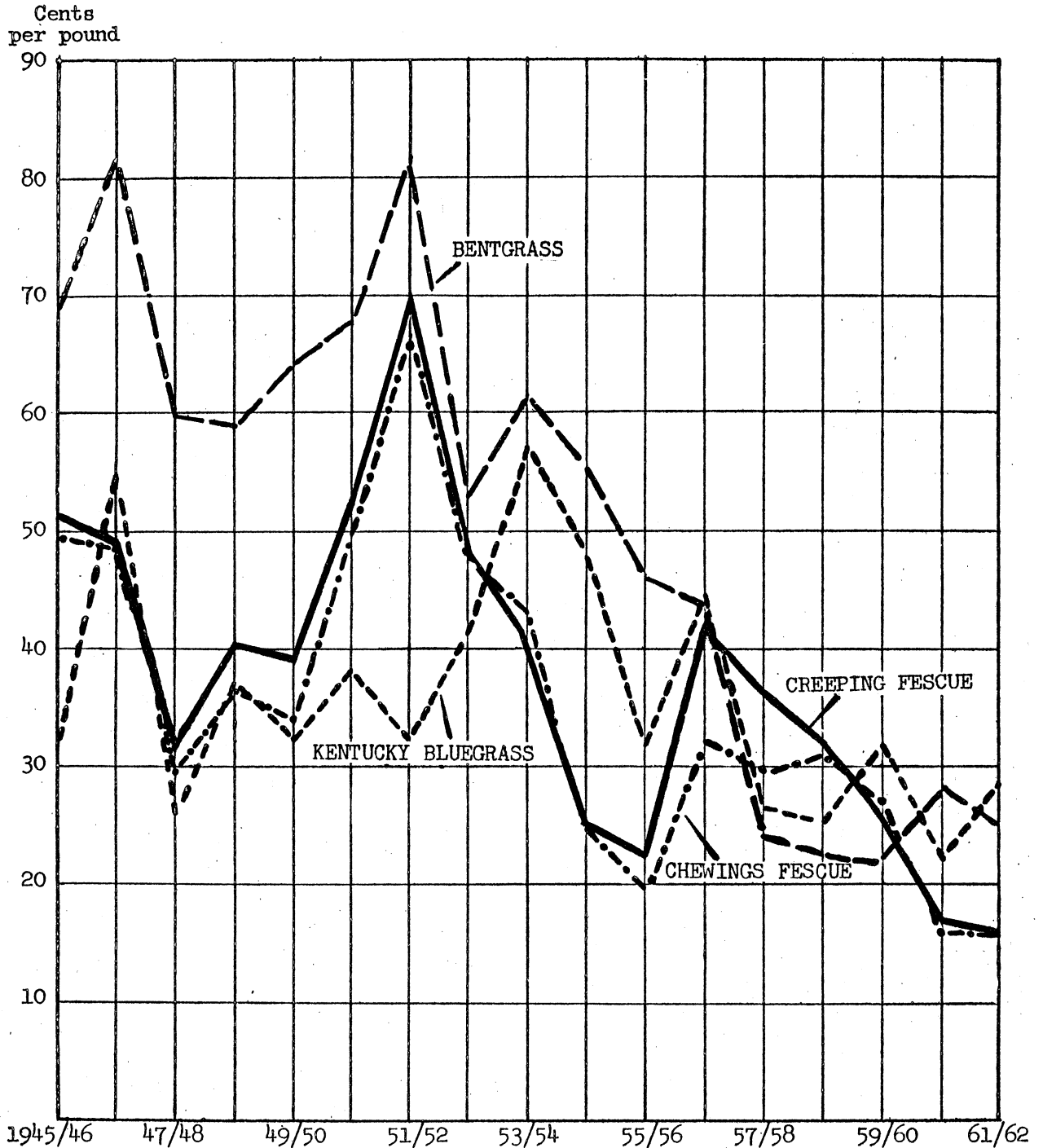
4/ The experience of these 45 producers on their total farm operations was as follows:

| Calendar year | All farm operations |             |            |
|---------------|---------------------|-------------|------------|
|               | Acres cultivated    | Sales       | Net return |
| 1957          | 17,834              | \$1,259,970 | \$392,572  |
| 1958          | 18,782              | 1,285,317   | 343,129    |
| 1959          | 19,616              | 1,487,351   | 410,897    |
| 1960          | 21,084              | 1,321,511   | 276,538    |
| 1961          | 19,360              | 999,012     | 113,889    |

Source: Compiled from data submitted to the U.S. Tariff Commission by producers of creeping red fescue seed.

Figure 1

Prices received by growers for fine-leaved lawn-grass seeds (creeping red fescue, Chewings fescue, Kentucky bluegrass, 1/ and bentgrass), crop years 1945/46 to 1961/62

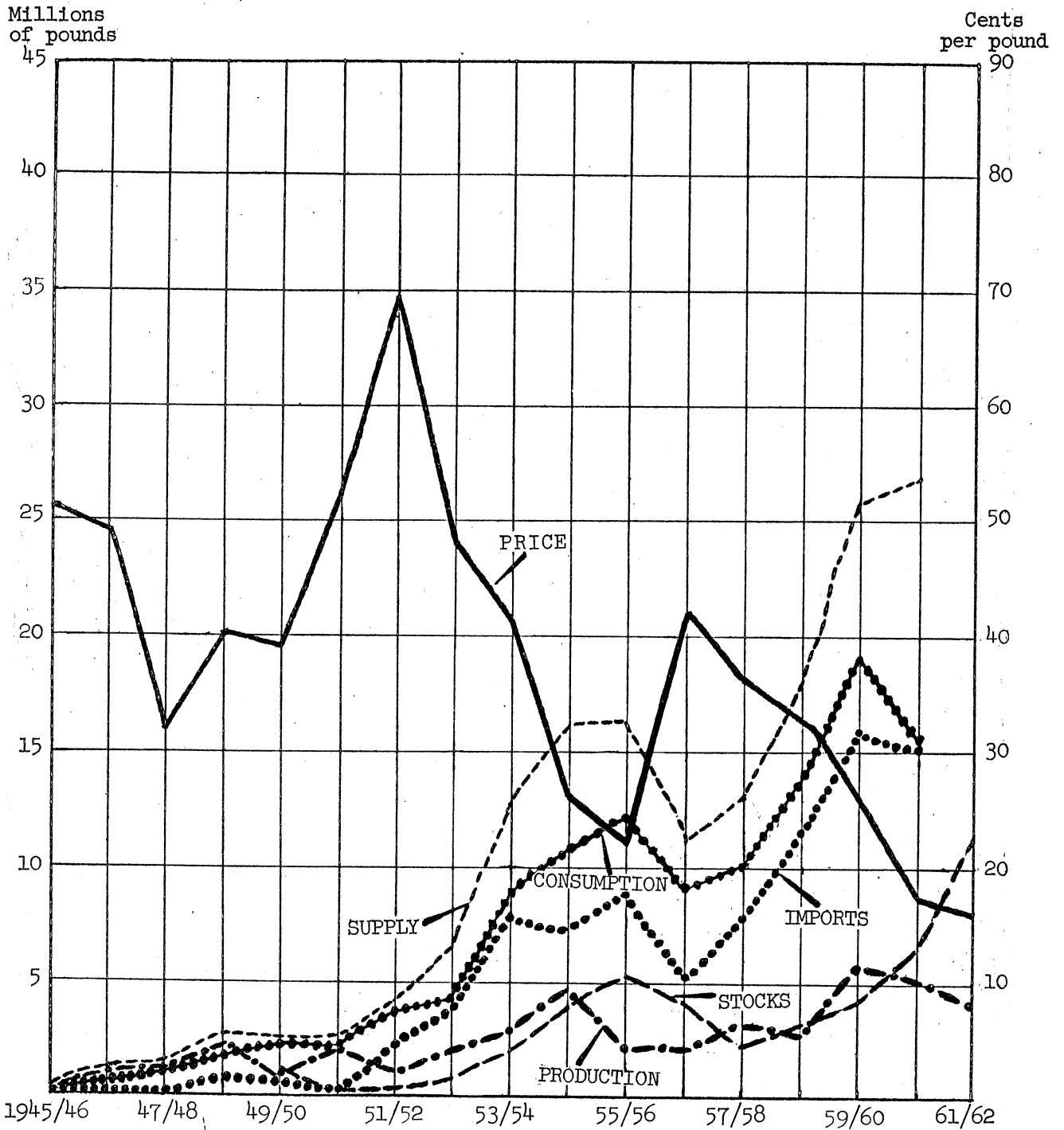


1/ The price plotted for Kentucky bluegrass is a calculated price, clean-seed basis, derived in the manner indicated in footnote 1 to table 8.

Source: Table 8.

Figure 2

Creeping red fescue seed: U.S. beginning stocks, production, imports, supply, apparent consumption, and season average price received by farmers, crop years 1945/46 to 1961/62

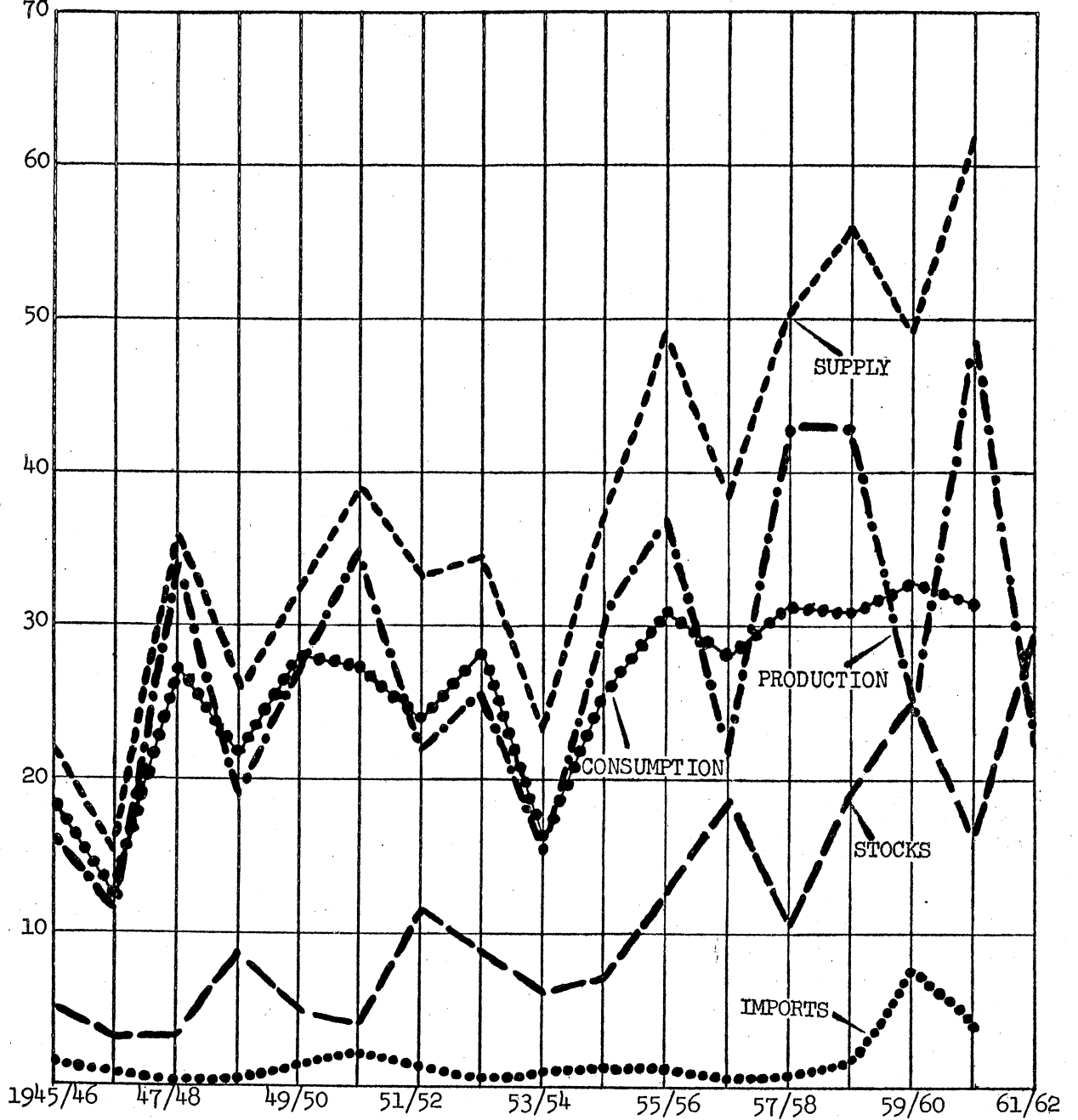


Source: Tables 2, 3, 4, 6, 7, and 8.

Figure 3

Chewings fescue, Kentucky bluegrass, and bentgrass seed combined: U.S. beginning stocks, production, imports, supply, and apparent consumption, crop years 1945/46 to 1961/62

Millions of pounds



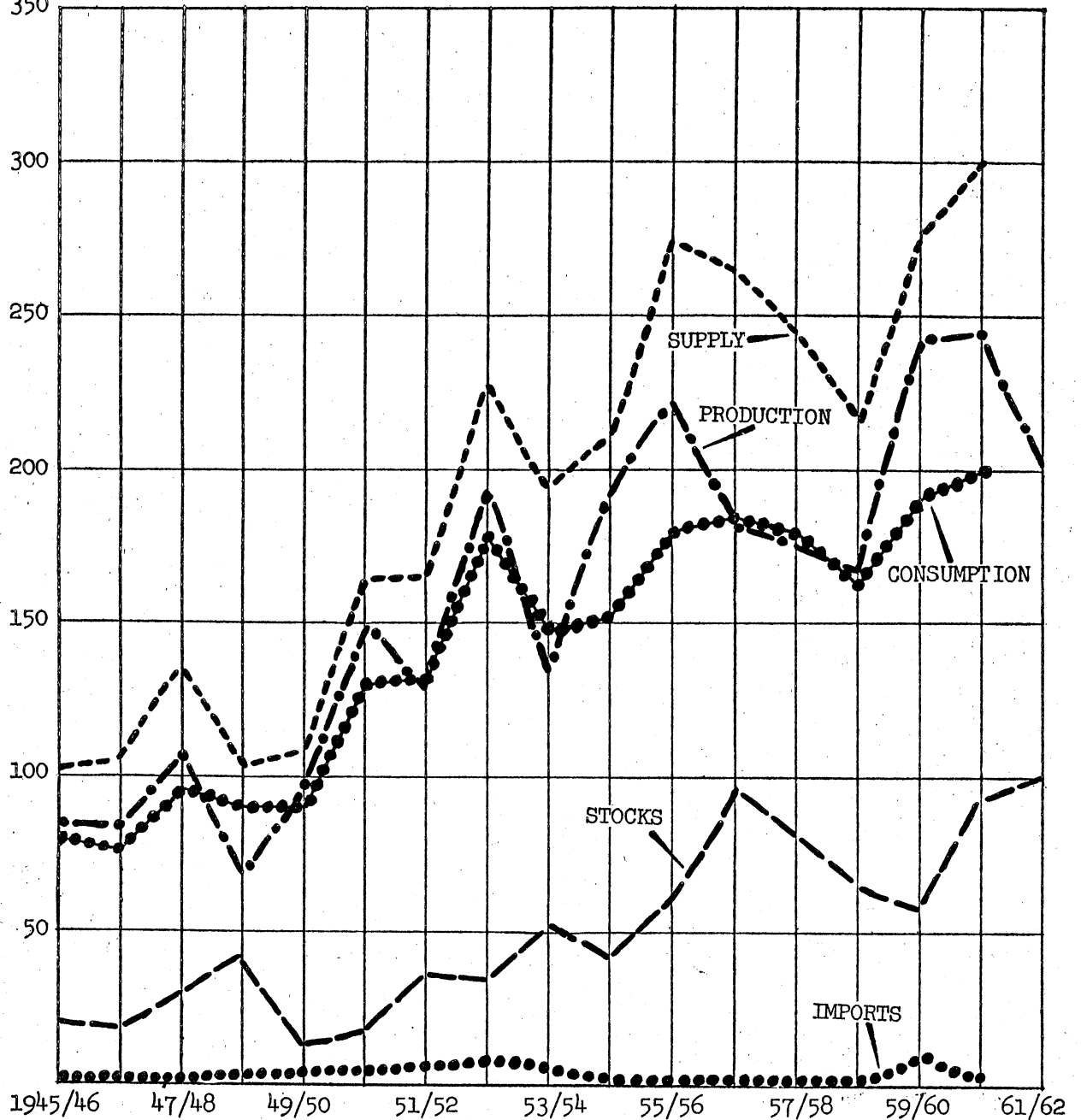
Source: Tables 2, 3, 4, 6, and 7.



Figure 4

Important lawn-grass seeds, 1/ excluding creeping red fescue seed:  
U.S. beginning stocks, production, imports, supply, and apparent  
consumption, crop years 1945/46 to 1961/62

Millions  
of pounds



1/ Includes Chewings fescue, Kentucky bluegrass, Merion Kentucky bluegrass, bentgrass, redtop, common ryegrass, perennial ryegrass, and tall fescue

Source: Tables 2, 3, 4, 6, and 7.