

# U.S. CENSUS OF AGRICULTURE : 1959

Final Report—Vol. V—Part 1—Special Reports

*FLOWERS • NURSERIES • BULBS  
FLOWER SEED • ESTABLISHMENTS  
SALES • EMPLOYMENT  
STRUCTURES AND EQUIPMENT*

## *Horticultural Specialties*

*SPECIAL REPORTS*

*Prepared under the supervision of  
RAY HURLEY, Chief  
Agriculture Division*



U.S. DEPARTMENT OF COMMERCE

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### SUGGESTED CITATION

U.S. Bureau of the Census. U.S. Census of Agriculture: 1959. Volume V  
Special Reports, Part I.—Horticultural Specialties  
U.S. Government Printing Office, Washington, D.C., 1962

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.,  
or any of the Field Offices of the Department of Commerce. Price \$3.50 (paper cover)

## PREFACE

Volume V, Special Reports, is one of the final volumes presenting the results of the 1959 Census of Agriculture. Part I, "Horticultural Specialties," presents the results of the 1959 Special Census of Horticultural Specialties. It is comprised of six sections as follows:

- Section I.—Establishments, Sales and Purchases, Employment, and Structures and Equipment
- Section II.—Cut Flowers, Flowering and Foliage Plants (including Cacti and Succulents), Bedding Plants, and Cultivated Florist Greens
- Section III.—Nursery Products
- Section IV.—Bulb Crops
- Section V.—Flower Seed
- Section VI.—Vegetables Grown Under Glass and Propagated Mushrooms

The 1959 Census of Horticultural Specialties was taken in conformity with the Act of Congress of August 31, 1954 (amended August 1957), which codified Title 13, United States Code.

The planning of the census and the compilation of the statistics were performed under the supervision of Ray Hurley, Chief, Agriculture Division. The technical work for this special census and the preparation of this report were performed by or under the supervision of Charles A. Nicholls, Agricultural Economist. Oakley M. Frost and Robert McGregor of the Agricultural Marketing Service of the U. S. Department of Agriculture assisted with the performance of the technical work for this census. The compilation of the data was under the supervision of Lois G. Miller, assisted by Esther Engelman and Louisa Crawford. Acknowledgment is made of the assistance of the Agricultural Marketing Service in the collection of data that could not be obtained by mail.

April 1962

# UNITED STATES CENSUS OF AGRICULTURE: 1959

## FINAL REPORTS

**Volume I—Counties**—A separate part for each State, Puerto Rico, Guam, Virgin Islands, and American Samoa. Statistics on number of farms; farm characteristics; acreage in farms; cropland and other uses of land; land-use practices; irrigation; farm facilities and equipment; farm labor; farm expenditures; use of commercial fertilizer; number and kind of livestock; acres and production of crops; value of farm products; characteristics of commercial farms, farms classified by tenure, size, type, and economic class; and comparative data from the 1954 Census.

Part	State or States	Part	State or States	Part	State or States	Part	State or States
1	New England States:		West North Central:		East South Central:		Mountain—Con.
2	Maine.	15	Minnesota.	30	Kentucky.	44	Utah.
3	New Hampshire.	16	Iowa.	31	Tennessee.	45	Nevada.
4	Vermont.	17	Missouri.	32	Alabama.		Pacific:
5	Massachusetts.	18	North Dakota.	33	Mississippi.	46	Washington.
6	Rhode Island.	19	South Dakota.		West South Central:	47	Oregon.
7	Connecticut.	20	Nebraska.	34	Arkansas.	48	California.
8	Middle Atlantic States:	21	Kansas.	35	Louisiana.	49	Alaska.
9	New York.		South Atlantic:	36	Oklahoma.	50	Hawaii.
10	New Jersey.	22	Delaware.	37	Texas.		Other Areas:
11	Pennsylvania.	23	Maryland.		Mountain:	51	American Samoa.
12	East North Central:	24	Virginia.	38	Montana.	52	Guam.
13	Ohio.	25	West Virginia.	39	Idaho.	53	Puerto Rico.
14	Indiana.	26	North Carolina.	40	Wyoming.	54	Virgin Islands.
	Illinois.	27	South Carolina.	41	Colorado.		
	Michigan.	28	Georgia.	42	New Mexico.		
	Wisconsin.	29	Florida.	43	Arizona.		

**Volume II—General Report**—In 1 volume and also as 13 separates (for the Introduction and for each chapter). Statistics by subjects for 1959 and prior censuses. Statistics are presented for the United States, geographic regions, and divisions, and for the States.

Chapter	Title	Chapter	Title
	Introduction.		
I	Farms and Land in Farms.	VII	Field Crops and Vegetables.
II	Age, Residence, Years on Farm, Work Off Farm.	VIII	Fruits and Nuts, Horticultural Specialties, Forest Products.
III	Farm Facilities, Farm Equipment.	IX	Value of Farm Products.
IV	Farm Labor, Use of Fertilizer, Farm Expenditures, and Cash Rent.	X	Color, Race, and Tenure of Farm Operator.
V	Size of Farm.	XI	Economic Class of Farm.
VI	Livestock and Livestock Products.	XII	Type of Farm.

**Volume III—Irrigation of Agricultural Lands**—Data from the Irrigation Censuses of 1959 and 1950, by drainage basins, for the conterminous United States and for each of the 17 western States and Louisiana. Separate maps are available. Report also includes data from the 1959 Census of Agriculture for land irrigated and acres and production of crops on irrigated land in the 18 conterminous States and Hawaii.

**Volume IV—Drainage of Agricultural Lands**—Statistics for States and counties and for the conterminous United States, presenting 1960 data on number, area, physical works, and costs for drainage projects of 500 or more acres by size, type, and year organized. Maps are included.

### Volume V—Special Reports

**Part 1.—Special Census of Horticultural Specialties**—Statistics for States, except Alaska and Hawaii, and for the conterminous United States, presenting 1959 data on number and kinds of operations, gross receipts and/or sales, sales of specified products, inventories, employment, and structures and equipment.

**Part 2.—Irrigation in Humid Areas**—Statistics for 30 eastern States showing 1960 data on acres irrigated, number of constructed ponds and reservoirs, source and method of applying water, type of pumping power, acreage of individual crops irrigated, and frequency of irrigation by States and counties.

**Part 3.—Ranking Agricultural Counties**—Statistics for selected items of inventory and agricultural production for the leading counties in the United States.

**Part 4.—Farm Taxes and Farm Mortgage**—A cooperative report by the Economic Research Science, U.S. Department of

Agriculture and the Bureau of the Census, U.S. Department of Commerce, presenting 1961 data by States on taxes on farms, number of mortgaged farms operated by full owners and part owners, amount of mortgage debt held by principal lending agencies, and amount of interest paid.

**Part 5.—1960 Sample Survey of Agriculture**—Statistics by economic class and type of farm, showing 1960 data on farm-operator-family income from farm and off-farm sources; inventory and use of selected types of farm equipment, tractors by year made and fuel used; number, size, and materials used for new buildings constructed 1958 to 1960; number of farmers having contracts with dealers, processors, or others for the production and marketing of 15 farm products; and real estate and non-real-estate debts of farm operators and farm landlords by lending agencies.

**Part 6.—A Graphic Summary of Agriculture, 1959**—A cooperative report by the Economic Research Service, U.S. Department of Agriculture and the Bureau of the Census, U.S. Department of Commerce, presenting graphically for 1959 and prior census years some of the significant uses of agricultural land; the extent and nature of the various kinds of tenure under which farms are held and operated; and changes and developments in the use of agricultural resources and production of agricultural products.

**Special Publication—Principal Data-Collection Forms and Procedures: United States Census of Agriculture, 1959, and Related Surveys**—Facsimiles of the enumeration forms used, showing variations for the 50 States, Puerto Rico, American Samoa, Guam, and the Virgin Islands, together with brief descriptions of the census field procedures for the census and the related surveys.

# HORTICULTURAL SPECIALTIES

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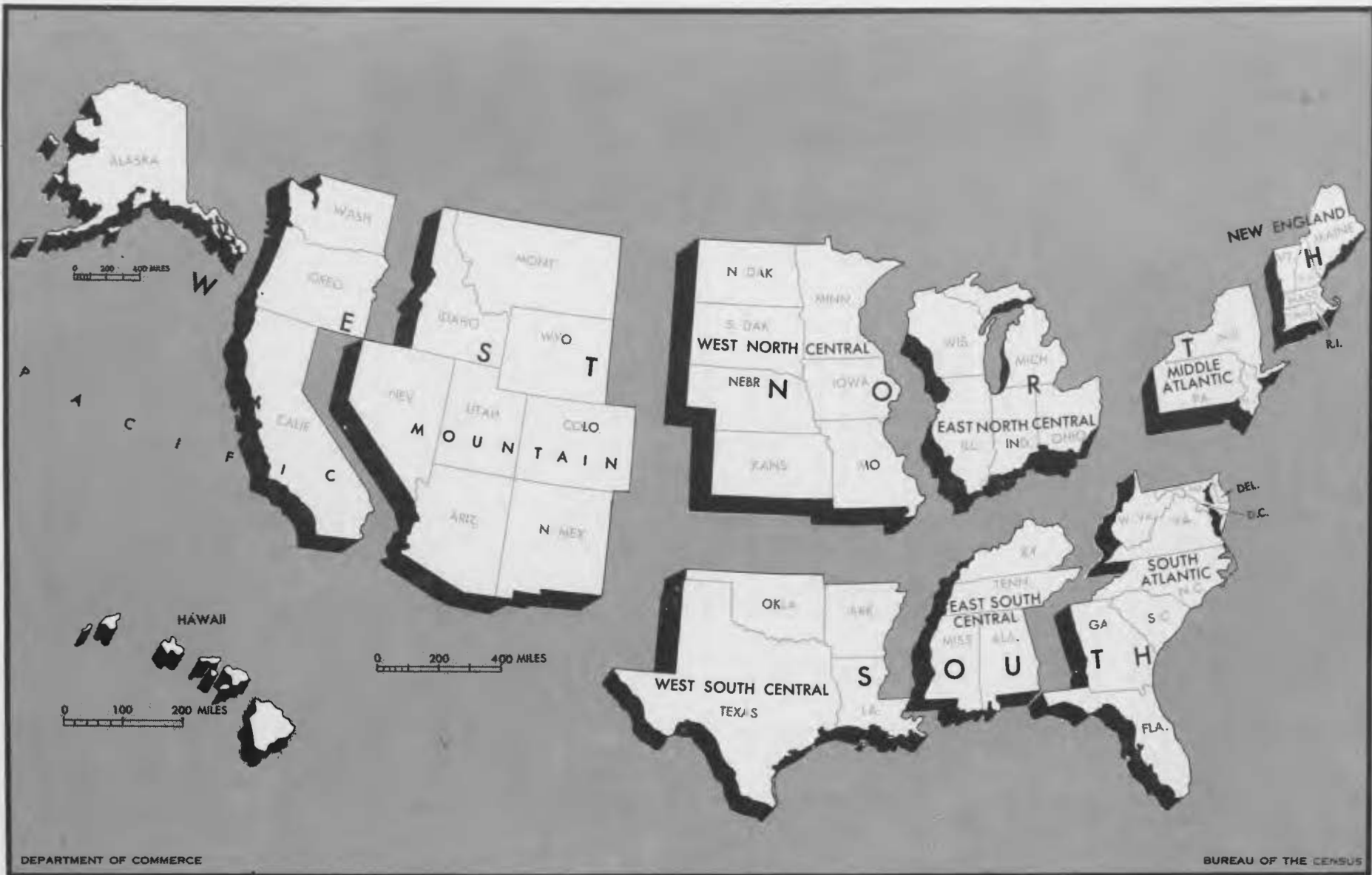
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Arizona.....	191	...	...	...	...	Nevada.....	381	...	...	...	...
Arkansas.....	192	193	194	...	...	New Hampshire.....	382	383	385	...	...
California.....	195	200	212	...	...	New Jersey.....	386	389	394	...	...
Colorado.....	224	226	228	...	...	New Mexico.....	396	...	...	...	...
Connecticut.....	229	231	234	...	...	New York.....	397	403	415	421	...
Delaware.....	236	237	238	239	...	North Carolina.....	422	425	429	431	...
Florida.....	240	244	251	257	...	North Dakota.....	432	...	...	...	...
Georgia.....	258	260	262	...	...	Ohio.....	433	441	451	457	...
Idaho.....	263	...	...	...	...	Oklahoma.....	458	460	462	...	...
Illinois.....	264	270	279	...	...	Oregon.....	463	466	470	474	...
Indiana.....	282	287	291	293	...	Pennsylvania.....	475	481	496	504	...
Iowa.....	294	297	299	...	...	Rhode Island.....	505	507	509	...	...
Kansas.....	301	303	305	...	...	South Carolina.....	510	511	512	...	...
Kentucky.....	306	308	310	...	...	South Dakota.....	513	...	...	...	...
Louisiana.....	311	313	315	...	...	Tennessee.....	514	516	518	...	...
Maine.....	316	318	...	...	...	Texas.....	520	525	529	...	...
Maryland.....	320	323	326	...	...	Utah.....	534	535	537	...	...
Massachusetts.....	328	331	337	341	...	Vermont.....	538	...	...	...	...
Michigan.....	342	347	353	359	359	Virginia.....	539	542	546	...	...
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# INTRODUCTION

(IX)



# INTRODUCTION

## HORTICULTURAL SPECIALTIES

**History of the Census.**—The Special Census of Horticultural Specialties was taken as part of the 1959 Census of Agriculture. This Special Census included producers of cut flowers, flowering and foliage plants (including cacti and succulents), bedding plants, and cultivated florist greens; nursery products; bulb crops; flower seed; vegetables grown under glass and propagated mushrooms for 48 States comprising the conterminous United States. Hawaii and Alaska were not included in this Special Census. Detailed data on the production of flowers, foliage plants, etc., in Hawaii are given in State Table 9, Part 50, Hawaii; and limited data on the production and sale of greenhouse, hothouse, and nursery products are given for Alaska in Part 49, of Volume I of the reports for the 1959 Census of Agriculture.

Establishments included in the Special Census were also included in the general census of agriculture taken in the fall of 1959.

Farms and establishments producing flowers, bulbs, nursery products, and vegetable and flower seeds have always been included in the periodic general censuses of agriculture. However, the number of inquiries relating to horticultural specialty products on the questionnaire for the general censuses of agriculture has been limited to less than six. Therefore, a limited amount of data on horticultural specialty products has been published in the reports of the periodic censuses of agriculture. Special censuses of horticultural specialty production have been taken only in connection with the Censuses of 1890, 1930, 1950, and 1959. The results of the special censuses prior to 1959 appear in the following Census reports:

1890 Volume IV Statistics of Agriculture in the U.S. Eleventh Census, 1890

1930 Fifteenth Census of the U.S.: 1930 Horticulture Statistics for the United States and for States, 1929 and 1930

1950 Volume V, Special Reports, Part I, Horticultural Specialties

**Legal Basis for the Census.**—The 1959 Census of Agriculture was authorized by an Act of Congress, as were all prior censuses of agriculture. "Title 13, United States Code—Census," codified in August 1954, and amended in August 1957 and September 1960, is now the legal basis for censuses of agriculture and other censuses and surveys conducted by the Bureau of the Census. Section 142, paragraph (a), of Title 13 makes provision for the Census of Agriculture.

**Period Covered by the Census.**—The Special Census covers, in general, operations for the calendar year 1959; however, a small portion of the establishments which maintain their records on a fiscal-year basis, and which were unable to report on the calendar-year basis, were permitted to report for the fiscal year that included at least one-half of the calendar year, 1959. Regardless of the year used, data on employment and structures and equipment were to be reported for the period specified on the questionnaire.

**Questionnaire Used for the 1959 Census.**—Only one questionnaire was used for the 1959 Special Census of Horticultural Specialties, whereas four questionnaires were used for the 1949 Census. In 1949 a separate questionnaire was used for each

of the four major horticultural classifications. (Vegetables grown under glass and propagated mushrooms were included on the questionnaire with cut flowers, potted plants, etc.) The questionnaire for 1959 contains 114 inquiries on products, value of sales, expenditures, employment, and structures and equipment, in addition to the number of plants in production during 1959, and the anticipated plantings in 1960 for five cut flowers, and the inventory of eight classes of nursery products. The questionnaire was prepared after a field test of the proposed inquiries. A facsimile of the questionnaire appears in the Appendix of this report.

Under the Census definition of a farm the production of horticultural specialty products is considered as a farm operation, and farm census enumerators were required to obtain an agriculture questionnaire from such establishments. The questionnaire for the 1959 Census of Agriculture contained the following four inquiries regarding horticultural specialty products:

NURSERY AND GREENHOUSE PRODUCTS, FLOWER AND VEGETABLE SEEDS AND PLANTS, AND BULBS:					
[198] Were any nursery or greenhouse products, flower or vegetable seeds or plants, flowers, or bulbs grown for sale this year? . . . . . No <input type="checkbox"/> Yes <input type="checkbox"/>					
(If "No," mark X and skip to question [202].)					
(Answer these questions, if "Yes.")					
	No	Yes	(1) How much area was used for growing?		(2) What will be the value of sales in 1959?
			Acres	Tenths	
199. Nursery products (trees, shrubs, vines, ornamentals)? . . . . .	<input type="checkbox"/>	<input type="checkbox"/>	★	/10	\$ _____/00
200. Cut flowers, potted plants, florist greens, and bedding plants for sale? . . . . .	<input type="checkbox"/>	<input type="checkbox"/>	★	/10	\$ _____/00
(a) In open? . . . . .	<input type="checkbox"/>	<input type="checkbox"/>	Square feet		
(b) Under glass? . . . . .	<input type="checkbox"/>	<input type="checkbox"/>			
201. Vegetables grown under glass, flower seeds, vegetable seeds, vegetable plants, bulbs, mushrooms? . . . . .	<input type="checkbox"/>	<input type="checkbox"/>	★	/10	\$ _____/00
(a) In open? . . . . .	<input type="checkbox"/>	<input type="checkbox"/>	Square feet		
(b) Under glass or in house? . . . . .	<input type="checkbox"/>	<input type="checkbox"/>			

## ENUMERATION PROCEDURES

**Obtaining Lists of Growers.**—The enumeration for the 1959 Special Census of Horticultural Specialty establishments was conducted, largely, by mail. During 1959, lists of producers were obtained from State Departments of Agriculture. From these lists a master list was prepared containing the names of approximately 36,000 horticultural specialty establishments. Even though much time was spent in screening lists for nongrowers, such as retail florists, landscape contractors, garden center operators, and others, these lists were found to include many establishments not engaged in growing and selling \$2,000 or more of horticultural products in 1959.

**Mail Enumeration.**—In December 1959, copies of the horticultural specialties questionnaire were mailed to all establishments on the mailing list. Three subsequent follow-up mailings were made to establishments from which no reports had been received.

**Field Enumeration.**—By means of a followup by telephone and further correspondence, it was possible to obtain by mail completed reports from all except about 10 percent of the growers appearing on the original list. Arrangements were made for State statisticians of the Agricultural Marketing Service of the U.S. Department of Agriculture to

appoint as special agents of the Bureau of the Census, members of their staff or others to obtain reports from establishments from which questionnaires had not been received. This procedure resulted in the obtaining of reports for all except a few establishments producing and selling horticultural specialty products of \$2,000 or more. Estimates were made for the few establishments for which it was not possible to obtain reports.

**Insuring Completeness of Coverage.**—The mailing list containing the 36,000 names for horticultural specialty establishments was provided to Census enumerators and crew leaders for use in checking the completeness of the coverage of such establishments for the 1959 Census of Agriculture. During the period of enumeration, each farm census enumerator was instructed to obtain an agriculture questionnaire also from any grower in his enumeration area whose name was not on the special list. Thus, any grower not on the list was also asked the four questions pertaining to horticultural specialty crops on the agriculture questionnaire. Subsequently, during the processing of the agriculture questionnaires, another list showing the name and address of farm operator and the information reported on the agriculture questionnaire was prepared. This list was checked against the list of horticultural specialty establishments. Questionnaires were then mailed to horticultural specialty establishments listed in the 1959 Census of Agriculture but which were not on the original mailing list. While there were 36,000 names on the original list, only 14,000 growers were qualified for the census. An additional 4,000 names were obtained by checking questionnaires for the 1959 Census of Agriculture. This brought the total number of qualified growers to 17,999.

**Crops Covered.**—Growers of Christmas trees, collectors of native plants, turf or sod growers, and producers of vegetable seeds were not included in the Special Census. The sale of forest tree seedlings and other nursery stock grown by noncommercial type nurseries, such as those operated by municipal, State, and U.S. agencies, were also excluded from the Special Census.

The number of inquiries regarding specific crops on the questionnaire was limited. Some crops for which there was a separate inquiry in 1949 were either combined with another crop, or other similar crop, or were combined as "All other" in a particular crop group or subgroup in 1959. Crops for which there was a separate inquiry for 1950, but which were combined with other crops for 1959 were as follows:

**CUT FLOWERS, FLOWERING AND FOLIAGE PLANTS (INCLUDING CACTI AND SUCCULENTS), BEDDING PLANTS, AND CULTIVATED FLORIST GREENS**

Unpotted plants, rooted cuttings, etc.:

Roses----- included with "All other" in 1959.

Potted plants:

Bulb crops, other than lily-- included with "All other" in 1959.

Cut flowers and foliage:

Chrysanthemum, pompon—  
Under glass } included as one crop, "Chrysanthemum, pompon" in 1959.  
Under cloth }  
Outdoors and under lath }

Chrysanthemum, standard—  
Under glass } included as one crop, "Chrysanthemum, standard, Fuji, spider" in 1959.  
Under cloth }  
Outdoors and under lath }

Bulb crops, other than lily  
Dahlia } included with "All other" in 1959.  
Delphinium }  
Iris }  
Narcissus }

**NURSERY PRODUCTS**

Ornamental plants:

Bulbs----- included with "All other" in 1959.

Deciduous fruit and nut trees, grapevines, citrus and subtropical fruit trees and small fruit plants—

Deciduous fruit and nut trees and grapevines:

Apricot } included in "All other" deciduous fruit and nut trees and grapevines in 1959.  
Quince }

Almond } included in "Nut trees" in 1959.  
Filbert }  
Pecan }  
Walnut }

Citrus and subtropical fruit trees:

Orange, Valencia } included in "Orange trees" in 1959.  
Orange, all other }

Fig } included in "All other" in 1959.  
Japanese persimmon }  
Olive }

Small fruit plants:

Blackberry } included in "All other" in 1959.  
Boysenberry }  
Currant }  
Dewberry }  
Gooseberry }  
Youngberry }

**BULB CROPS**

Narcissus (tender bulbs) } included in "Narcissus" in 1959.  
Narcissus (hardy bulbs) }

Amaryllis bulbs } included in "All other" in 1959.  
Anemone roots }  
Canna roots }  
Freesia corms }  
Hyacinth bulbs }  
Muscari bulbs }  
Ranunculus tubers }

**FLOWER SEED**

Petunia, regular } included in "Petunia" in 1959.  
Petunia, hybrid }

Snapdragon, regular } included in "Snapdragon" in 1959.  
Snapdragon, hybrid }

Begonia } included in "All other" in 1959.  
Cyclamen }  
Delphinium }  
Larkspur }  
Nasturtium }  
Stock }

**Reporting of Firms Having More Than One Growing Location.**—Data for producers of horticultural specialty crops are given in this report by the county in the State in which the crops were produced. When a grower had production in several counties, all data for his operation in all counties were tabulated and published for the county with the greatest production area. When a grower had the same amount of production area in two or more counties within a State, the data were tabulated and published for the county in which the sales office was located.

An operator with growing operations in more than one State was required to fill out a separate questionnaire covering operations in each State where the products were produced. The producer was required to report the products on a separate question-

naire in the State where produced even though all products were marketed from a central location.

**Comparability of Data From Prior Censuses.**—While farms or establishments producing flowers, bulbs, nursery products, and vegetable and flower seeds have always been included in the general census of agriculture, detailed data regarding these types of agricultural production have been obtained in a special census only in connection with the 1890, 1930, 1950, and 1959 Censuses of Agriculture. Comparative data are given in this report only for the special censuses taken in 1950 and 1959.

Data for the various special censuses are not fully comparable because of—

1. **Differences in Coverage.**—The 1959 Special Census included only establishments producing and selling horticultural specialty products with a total sales value of \$2,000 or more. Approximately 19,000 farms producing and selling less than \$2,000 of flowers, nursery products, bulbs, vegetables, and flower seeds were excluded from the Special Census. In 1950, the Special Census included only establishments producing and selling horticultural products with a value of \$1,000 or more. In the 1930 Special Census all establishments having any sales were included, provided these places were classified as farms in the Census.

2. **Differences in Reporting Value of Crops Sold.**—In 1959, the value of each crop sold represents the value of the crop as sold; some of the sales were at wholesale prices and others were at retail prices. For the 1950 Special Census, the value of crops sold was calculated at wholesale prices, even though part of the sales were made at retail prices. For the 1930 Special Census, the value of crops sold represents sales as they were made; some at wholesale prices and others at retail prices.

3. **Differences in Counting Establishments Growing More Than One Group of Horticultural Specialty Products.**—In 1959, an establishment growing more than one group of products, i.e., cut flowers, nursery products, bulbs, flower seeds, etc., was counted as a single establishment. In 1950, an establishment growing more than one group of horticultural specialty products was counted as a separate establishment for each group of horticultural products sold. For example, an establishment producing and selling cut flowers and also bulbs, was counted twice—once as an establishment for cut flowers and again as an establishment for bulbs. The counting of the same establishment for each group of horticultural specialty products resulted in overstatement by 600, or 3 percent, in the total number of establishments producing and selling horticultural specialty products with a value of \$1,000 and over for 1950. However, the procedure of reporting separately for each group of horticultural products sold, did not affect any statistics other than number of establishments as figures on crops sold, employment, expenditures, and structures and equipment were included only once in the Special Census.

4. **Differences in Period to Which Statistics Relate.**—For the 1959 Census, data on employment relate to the pay period nearest to November 15, 1959, while for 1950, the data on employment relate to the pay period ending nearest March 15, 1949.

**Comparability of Data Obtained in the 1959 Census of Agriculture.**—The data obtained in the 1959 Special Census of Horticultural Specialties are not fully comparable with the 1959 Census of Agriculture. In addition to including the sales value and number of establishments for farms producing \$2,000 or more of total sales, the census of agriculture also includes data for all farms producing \$250 or more in 1959 if the place was less than 10 acres in size, or \$50 or more if the place contained 10 or more acres.

However, data are given in County Table 12 of Volume I of the reports of the 1959 Census of Agriculture for horticultural specialty farms selling \$2,000 or more of horticultural specialty products in 1959.

The sales of vegetable seeds and the sales of nursery products from farms operated by governmental agencies (United States, State, and local) were included in the 1959 Census of Agriculture, but were not included in sales for the Special Census.

**Reliability of Data.**—The questionnaires received from the individual growers were thoroughly checked during the editing process. All questionable entries were referred to and examined by technical personnel. All questionable items were verified or corrected by means of correspondence or telephone calls. Some questionnaires were returned to the field where enumerators sought further information from growers. It is believed that the coverage of establishments is approximately 100 percent complete because of checking of lists of establishments obtained from many sources and the checking of all lists against the 1959 Census of Agriculture.

Approximately 3 percent of the total sales value of products grown was estimated by technical personnel because of insufficient information on the questionnaires submitted for some establishments. Estimating was required primarily for quantity of crops sold and the value of crops sold. Estimates were based on reports of other growers within the same area of production. State certification reports received by the U.S. Department of Agriculture for prior years and data obtained from the 1959 Census of Agriculture were also used in making estimates for individual establishments.

Many growers had inadequate records from which to obtain the information being sought by the Census. While the classification of crops on the questionnaire was clearly defined, some growers failed to apportion their total sales to the crops which were grown and sold by them. The growers who specialized in the production of one or a few crops did not have difficulty in providing the required information. Most large growers, whether or not they had crop specialization, provided detailed data as to quantity sold and value of sales for individual crops. Small and medium-sized growers growing a large variety of items found it difficult to allocate sales to individual products.

Most growers were able to separate their total sales to indicate sales made at retail and at wholesale, but some had difficulties in separating such sales for each product they sold.

In some instances it was difficult to obtain reports for each State in those cases where producers had growing operations in more than one State. Sometimes sales for more than one State were made from only one location. Therefore, it was difficult for the grower to differentiate between that which was grown and that which was sold in the two locations, as many producers kept only one set of books.

Certain growers did not report correctly their crops to conform with the Census classification. The following represents examples of some of the problems regarding the classification of crops:

Some growers indicated bulb sales of lilies, gladioli, and peonies in the cut flower section of the questionnaire. Names of crops were written on the questionnaire in reply to "All other" questions belonging in one of the specific crop items. Azaleas and rhododendrons were often "written in" rather than indicated in the item, "broad-leaved evergreens"; juniper and yews were often not classified by growers as coniferous evergreens. Many perennial plant growers did not list plants such as phlox and delphinium as herbaceous plants.

In some instances it was difficult to determine whether or not a grower was a flower grower or nursery grower. For example, a grower of chrysanthemum plants could be classified either as chrysanthemum plant grower under Section III of the questionnaire, or as herbaceous plant grower in Section V of the questionnaire. Similar reporting problems occurred in the case of gardenias and azaleas as these two crops can be considered as broad-leaved evergreens in Section V as well as plants in Section III of the questionnaire. Where growers reported

questionable entries these products were tabulated in the appropriate section on the questionnaire that corresponded to the probable ultimate use of the crop.

In some cases the number of plants sold and the gross sales figures for specific crops resulted in the transfer of a crop to the section of the questionnaire where the average price reported was more nearly consistent with what other growers in the same area were receiving for the same crop.

Some landscape dealers and garden center operators have acreage on which some of the material they sell is grown. Others buy all of their planting materials. For such operators it was difficult to determine whether the reported crop was grown or had been purchased for resale. For such establishments and for some florists, total sales reported included receipts for services.

Many establishments purchase flowering plants and liners for growing-on purposes and hold them for varying lengths of time before resale. In the editing of questionnaires, plants that were purchased from other growers for resale were excluded whenever such operations were detected.

In some instances, cooperatives and similar associations reported products grown under contract for them by other establishments. Cooperative and other marketing associations were not included in the census.

**Presentation of Statistics.**—This report is comprised of an introduction and six sections presenting the data obtained in the 1959 Special Census of Horticultural Specialities.

Section I includes information by kind of business, type of ownership, total sales, wholesale and retail sales, value of crops at wholesale prices, returns and allowances, and cost of flower, nursery, and bulb stock purchased. Data on employment, greenhouse area, land area, and other structures and equipment are also given.

Sections II through VI pertain to specific groups of products and contain data relating to number of growers, production and sales for specified crops for each of the main classifications of horticultural crops.

The titles of these sections are:

Section I.—Establishments, Sales and Purchases, Employment, and Structures and Equipment

Section II.—Cut Flowers, Flowering and Foliage Plants (Including Cacti and Succulents), Bedding Plants, and Cultivated Florist Greens

Section III.—Nursery Products

Section IV.—Bulb Crops

Section V.—Flower Seed

Section VI.—Vegetables Grown Under Glass and Propagated Mushrooms

## DEFINITIONS AND EXPLANATIONS

Definitions and explanations are presented here for those items considered inadequately described in the tables, in which data are given. For exact wording of inquiries on the questionnaire and for instructions given on the questionnaire, reference should be made to the facsimile of the questionnaire in the Appendix of this report.

**Establishment** represents the operation or operations of an individual owner, partnership, or corporation engaged in the production and sale of horticultural specialty products in a State. If an establishment had production but made no sales during 1959, it was not included in the census. If an operation was carried out in several places within a State, all growing locations were counted as one establishment. If operations were carried out in more than one State, the operation in each State was considered a separate establishment, provided the sales totaled \$2,000 or more in each State. When the operations of an establishment were in more than one State and separate records were not available for each operation, data for expenditures,

value of structures, etc., were prorated among the reports for the various States on the basis of sales.

**Kind of Business.**—The operator of each establishment was asked to indicate the kind of business in which he was engaged. The instructions on the questionnaire were as follows:

1. Kind of business operated and method of sale:	
(a) Please check the kind(s) of business operation(s) in which you are engaged—	
<input type="checkbox"/> Flower grower — grow and sell flowers and plants	<input type="checkbox"/> Flower seed grower
<input type="checkbox"/> Nurseryman — sell plants grown	<input type="checkbox"/> Florist — sell but do not grow flowers and plants
<input type="checkbox"/> Bulb grower	<input type="checkbox"/> Garden center operator
<input type="checkbox"/> Greenhouse vegetable grower	<input type="checkbox"/> Other (Please describe.)
<input type="checkbox"/> Mushroom grower	_____

**Type of organization** relates to the form of ownership of the business. Establishments were classified as operated by individual proprietorships, partnerships, and corporations. The facilities used by each of the types of organization may be owned or rented.

**Method of Sale.**—Operators were asked to report method of sale, i.e., whether their sales were made at wholesale, retail or wholesale and retail.

**Total sales** represent gross receipts or gross sales of all products grown and sold by the establishment during 1959. It includes all retail and wholesale sales made by the establishment. In the case of retail sales, and in some areas in the case of wholesale sales, the gross receipts represent receipts for services such as packaging, arranging, etc., and receipts from sales or other taxes collected directly by the establishment from buyers as well as products sold. The total sales figure does not include sales of fertilizer, spray materials, garden tools, etc.

**Wholesale sales** include sales of products at wholesale prices. These sales may have been made to wholesale establishments or may have been sales made at wholesale prices to retail establishments.

**Retail sales** include the sales of products at retail prices.

**Returns and allowances** represent that portion of gross sales that establishments counted as discounts and value of returned merchandise.

**Cost of flower, nursery, and bulb stock purchased during 1959** includes all expenditures for flower, nursery, bulb stock, and seed purchased by establishments in 1959. The purpose of this question was to obtain the cost of flowers, nursery and other stock, and seeds purchased for use for production purposes. However, some establishments included the cost of items purchased for resale. Because of the inclusion of products for resale, the totals for this item may represent an overstatement of 5 to 10 percent.

**Value of crops at wholesale prices** represents a calculated value of all crops sold. As crops were sold both at wholesale and at retail prices, the values of the part of the crops sold at retail were converted to wholesale equivalent values. This calculation provided values of all products at the same level of sale.

**Total employment** includes full-time as well as part-time or seasonal employees on the payroll of all establishments during the pay period ending nearest November 15, 1959. In many instances this does not represent the maximum number of employees because of the seasonal nature of many businesses. Sales and office employees not connected with the sale of horticultural specialty products produced by the establishment were not included.

**Paid full-time employment** includes all hired employees in year-round or full-time positions. Salaried officers of corporations are excluded.

**Unpaid family workers** consist of members of the operator's family who worked for the business during the first two weeks of November 1959, and who were not paid a wage or salary. The operator of the business was not to be included.

**Size of establishment** refers to the classification of establishments by size of operation based on the amount of total sales of all crops grown. Because of the significant differences in operations, kinds of products sold, etc., between very small and larger establishments separate data are presented for establishments having less than \$10,000 and \$10,000 or more total sales.

**Value of land, structures, and equipment** includes the value of land, structures, and equipment owned and/or rented by the business as of January 1960, and used for the production of horticultural specialty products. This figure does not include the value of products on hand. The value was to be estimated on the basis of value at which the land, etc., would sell in January 1960.

**Disclosure of data for individual establishments.**—Data which would disclose the operation of an individual establishment are not published. In most cases, data are not published for less than three establishments. Data on the number of establishments are given, as figures on number of establishments are not considered as a disclosure. In county tables, data that would result in disclosure of information for individual establishments were included with data for "All other counties." Footnotes on the tables indicate with which county or groups the data not published have been combined in order to avoid disclosure of information for individual establishments.

**Greenhouse area** represents square feet of land covered by greenhouse structures. The structures could be covered by glass or glass substitutes such as fiberglass or specially prepared plastics.

**Greenhouse Space Used in 1959 Classified by Use.**—The classification results in some double counting of greenhouse area as some establishments produce flower, nursery, and vegetable crops in the same greenhouse area during different months of the year.

**Bench and greenhouse area in which mist propagation was used** includes only areas in which a special overhead system of mist is used for the propagation of plants. The area given does not include any form of irrigation or method by which growing plants receive their water other than for propagating purposes.

**Ornamental plants sold in containers** refers only to number of plants. These plants are included also in the total sales for each kind of plant.

**Inventory of number of plants, January 1, 1960** includes the total number of plants on hand (excluding liners and plants for budding and grafting) on January 1, 1960.

**Units of Measurement for Crops Sold.**—Except for two cut flowers, pompon chrysanthemum and gladiolus, the number of horticultural specialty crops sold is given in number of plants. Pompon chrysanthemums are given in bunches and gladioli are reported in dozens. Units of measurement are not given for Asparagus plumosus, cacti and succulents, foliage plants, bedding plants, and items listed in the "All other" categories.

**Section I.—ESTABLISHMENTS, SALES AND PURCHASES, EMPLOYMENT, AND STRUCTURES AND EQUIPMENT**

**Agricultural Importance of Horticultural Specialty Establishments.**—Farms reporting horticultural specialty crops in the 1959 Census of Agriculture accounted for \$613,209,319, or 2 percent, of the value of all farm products sold.

There were 16,972 farms reporting nursery products in the 48 conterminous States for the 1959 Census of Agriculture, representing 0.5 percent of all farms, and the sales of nursery products on these farms totaled \$198,726,175, and represented 0.7 percent of the value of all farm products sold. Farms reporting

flowers and flowering and foliage plants totaled 22,208, or 0.6 percent of all farms, while farms reporting vegetables grown under glass, flower and vegetable seeds, bulbs, and mushrooms totaled 10,364, or 0.3 percent of all farms. The value of sales of flowers and flowering and foliage plants was \$327,625,874, or 1.1 percent of the value of all farm products sold, and the value of vegetables grown under glass, flower and vegetable seeds, vegetable plants, bulbs, and mushrooms was \$86,857,270, or 0.3 percent of the value of all farm products sold. The value of all horticultural specialty products sold represented more than 5 percent of the value of all farm products sold in eight States (Rhode Island, Massachusetts, New Jersey, Connecticut, Pennsylvania, Florida, Ohio, and New York).

**Number of Establishments.**—There were 17,999 establishments with sales of \$2,000 or more of horticultural specialty crops included in the 1959 Special Census. Establishments reporting cut flowers, flowering and foliage plants (including cacti and succulents), bedding plants, and cultivated florist greens totaled 11,772; establishments reporting nursery products, 6,757; establishments reporting bulbs, 861; and establishments reporting flower seed, 85. Establishments reporting greenhouse vegetables totaled 819, and establishments reporting propagated mushrooms, 665. Some of the 17,999 establishments reported more than one of the major groups of horticultural specialty products.

California accounted for almost 10 percent of all establishments with 1,788 establishments reporting horticultural specialties. Pennsylvania was second with 1,766 establishments. The 7 States with the largest number of establishments accounted for over 50 percent of all establishments.

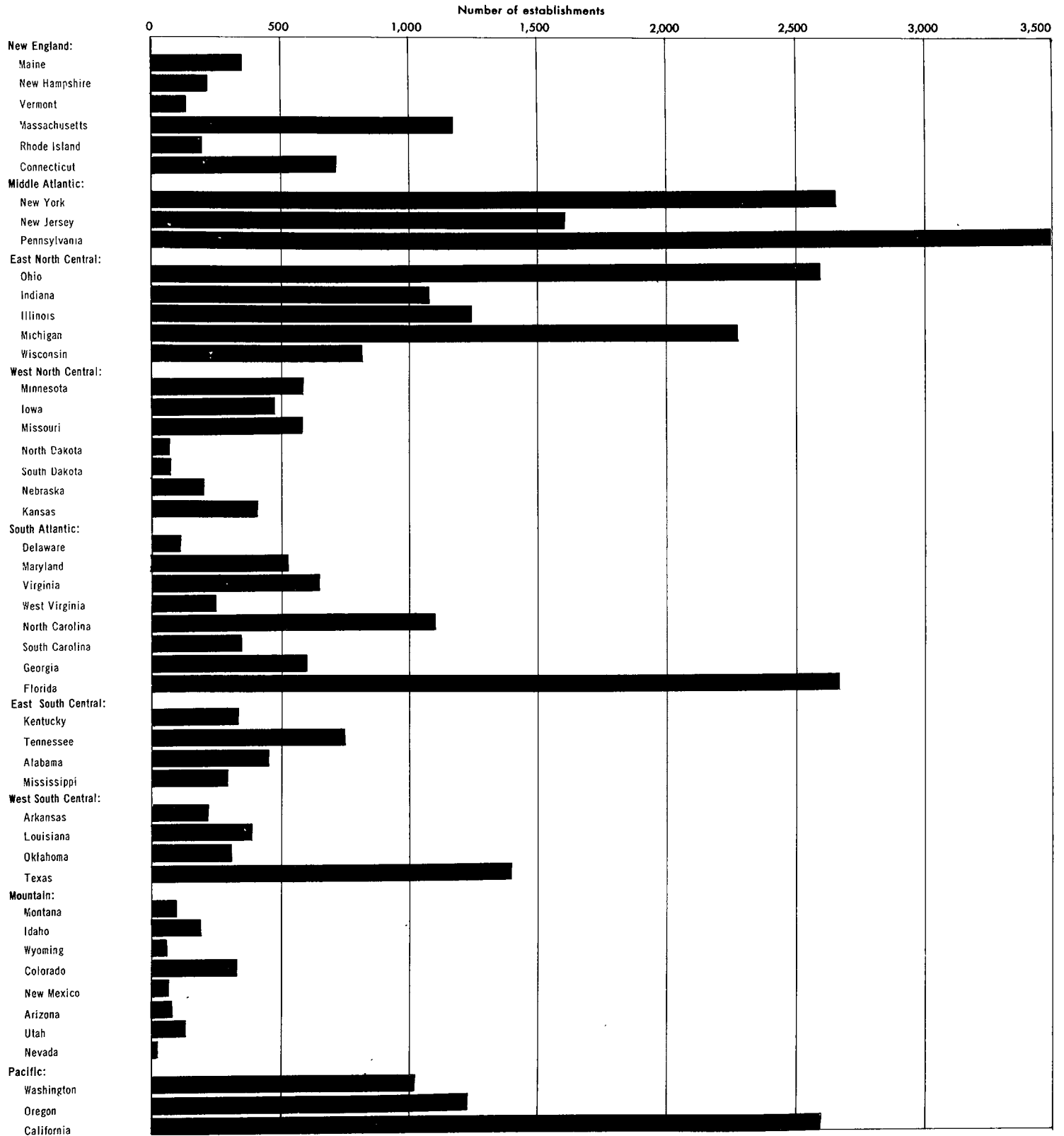
**RANK OF STATES BY NUMBER OF ESTABLISHMENTS FOR ALL HORTICULTURAL SPECIALTY CROPS FOR THE CONTERMINOUS UNITED STATES: 1959**

State	Rank	Establishments	
		Number	Percent distribution
Conterminous United States.....		17,999	100.0
California.....	1	1,788	9.9
Pennsylvania.....	2	1,766	9.8
Ohio.....	3	1,403	7.8
New York.....	4	1,315	7.3
Florida.....	5	1,156	6.4
Michigan.....	6	942	5.2
New Jersey.....	7	885	4.9
Illinois.....	8	837	4.6
Massachusetts.....	9	710	3.9
Texas.....	10	612	3.4
Oregon.....	11	530	2.9
Indiana.....	12	516	2.9
Washington.....	13	434	2.4
Wisconsin.....	14	392	2.2
Connecticut.....	15	372	2.1
Minnesota.....	16	332	1.8
North Carolina.....	17	321	1.8
Missouri.....	18	265	1.5
Iowa.....	19	255	1.4
Tennessee.....	20	247	1.4
Maryland.....	21	240	1.3
Virginia.....	22	234	1.3
Colorado.....	23	211	1.2
Georgia.....	24	209	1.2
Alabama.....	25	184	1.0
Kansas.....	26	181	1.0
Oklahoma.....	27	172	1.0
Kentucky.....	28	144	0.8
Louisiana.....	29	124	.7
Maine.....	30	122	.7
South Carolina.....	31	113	.6
Rhode Island.....	32	109	.6
West Virginia.....	33	108	.6
Nebraska.....	34	88	.5
New Hampshire.....	35	84	.5
Delaware.....	36	77	.4
Mississippi.....	37	74	.4
Arkansas.....	38	71	.4
Utah.....	39	60	.3
Arizona.....	40	51	.3
Idaho.....	41	50	.3
Montana.....	42	46	.3
South Dakota.....	43	40	.2
Vermont.....	44	39	.2
North Dakota.....	45	33	.2
New Mexico.....	46	31	.2
Wyoming.....	47	15	.1
Nevada.....	48	11	.1

# HORTICULTURAL SPECIALITIES

Number of All Horticultural Specialty Establishments, by States: 1959

NUMBER OF ALL HORTICULTURAL SPECIALTY ESTABLISHMENTS BY STATES: 1959





**Kind of Business.**—There was a total number of 17,999 establishments counted as producing and selling \$2,000 or more of horticultural specialty products in 1959. The following represents the number of establishments for each of the principal kinds of businesses:

Flower growers.....	11,772
Nurserymen.....	6,757
Bulb growers.....	861
Flower seed growers.....	85
Greenhouse vegetable growers.....	819
Mushroom growers.....	665
<b>Total.....</b>	<b>20,959</b>

Some operators indicated that they were engaged in the production of more than one group of horticultural crops. The total of the number of establishments by kind of business exceeds the number of establishments by 2,960, or 16 percent. The data on value of sales by kind of establishment represent the sales of each of the six groups of horticultural specialty products by all establishments and not the value of sales of establishments reported as flower growers, nurserymen, etc.

**Type of Ownership.**—Over two-thirds, or 69.7 percent, of all establishments were operated by individual proprietors. Partnerships comprised 19.4 percent, while corporations operated 10.9 percent of horticultural specialty establishments.

Type of ownership	Number of establishments	Percent distribution
Total.....	17,999	100.0
Individual proprietorships.....	12,539	69.7
Partnerships.....	3,502	19.4
Corporations.....	1,958	10.9

**Size of Establishment.**—Over one-half, or 52 percent, of the total number of establishments reported nearly 93 percent of total sales. The remaining 48 percent of the establishments comprised establishments that had sales of less than \$10,000.

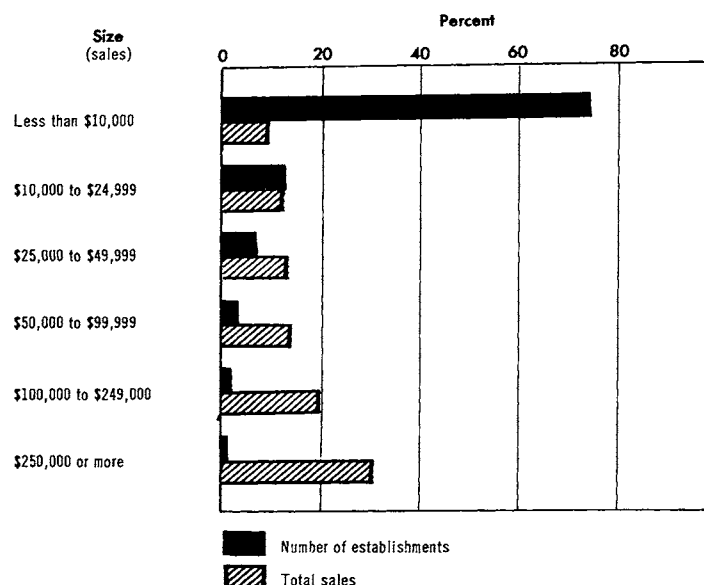
NUMBER AND TOTAL SALES FOR ALL HORTICULTURAL SPECIALTY ESTABLISHMENTS BY SIZE OF ESTABLISHMENT, FOR THE CONTERMINOUS UNITED STATES: 1959 AND 1949

Establishments with sales of—	Establishments				Total sales			
	Number		Percent distribution		Dollars		Percent distribution	
	1959	1949	1959	1949	1959	1949	1959	1949
Total.....	17,999	17,400	100.0	100.0	584,751,415	467,346,986	100.0	100.0
\$1,000 to \$1,999. . .	NA	8,581	NA	49.0	NA	36,128,054	NA	7.7
\$2,000 to \$9,999. . .	8,562	8,581	47.6	49.0	43,172,600	36,128,054	7.4	7.7
\$10,000 and over. . .	9,437	8,819	52.4	51.0	541,578,815	431,218,932	92.6	92.3

NA Not available.

**DISTRIBUTION OF THE NUMBER OF ESTABLISHMENTS AND TOTAL SALES BY SIZE OF ESTABLISHMENT FOR THE CONTERMINOUS UNITED STATES: 1959**

[Establishments reporting \$250-\$1,999 of horticultural products on the 1959 Census of Agriculture are included]



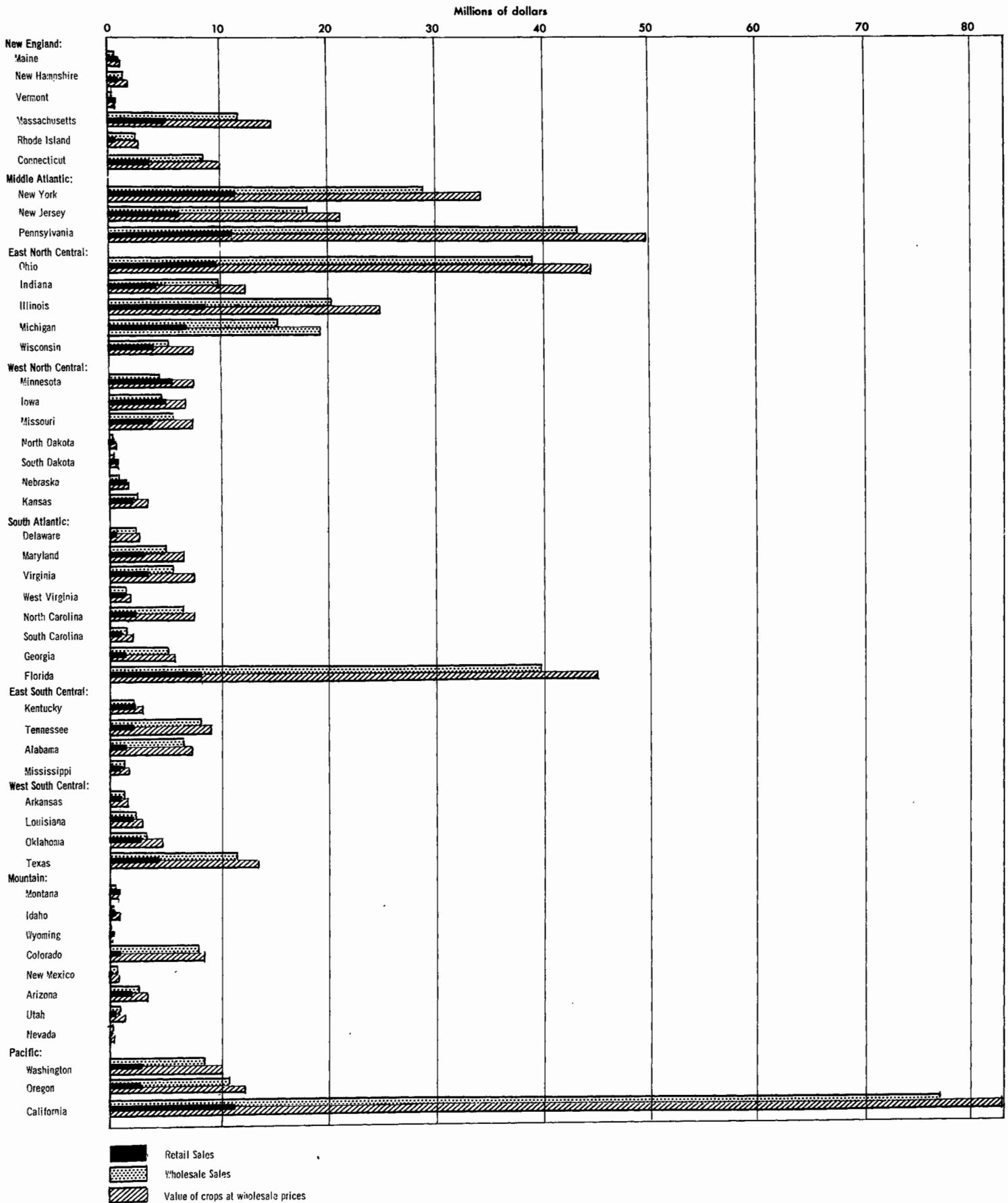
Farms having sales of less than \$2,000 of horticultural specialty products probably account for less than 3 percent of the total sales. Data from the Special Census of Horticultural Specialties show that establishments having sales of \$2,000 to \$9,999 account for only 7 percent of total sales for all establishments in 1959.

**Sales and Values of Crops by Kind of Crops Sold.**—The total value of sales for all horticultural establishments was \$584,751,415, in 1959. Wholesale sales accounted for 74.4 percent and retail sales, 25.6 percent of the total. The value of crops sold calculated at wholesale prices totaled \$515,681,277. California and Pennsylvania were the two leading States in total sales and in value of all crops sold at wholesale prices. These two States accounted for 24.5 percent of total sales and 25.9 percent of the value of crops sold at wholesale prices. States next in order of importance, by total sales, are Ohio, Florida, New York, Illinois, New Jersey, Michigan, Massachusetts, and Texas.

Cut flowers, flowering and foliage plants (including cacti and succulents), bedding plants, and cultivated florist greens accounted for \$292,302,771, or 56.7 percent of the value of all crops at wholesale prices. Nursery products accounted for 30.2 percent of this total, while sales of bulb farms amounted to 1.9 percent of the value of all horticultural specialty crops calculated at wholesale prices. Flower seed represented 0.5 percent of the total while vegetables grown under glass and propagated mushrooms accounted for 3.8 percent and 6.9 percent, respectively, of the total value of all horticultural specialty products.

# HORTICULTURAL SPECIALITIES

RETAIL SALES, WHOLESALE SALES, AND VALUE OF ALL HORTICULTURAL SPECIALTY CROPS AT WHOLESALE PRICES, FOR ALL ESTABLISHMENTS, BY STATES: 1959



# INTRODUCTION

## RANK OF STATES BY TOTAL SALES AND VALUE OF CROPS SOLD AT WHOLESALE PRICES FOR ALL HORTICULTURAL SPECIALTY CROPS FOR THE CONTERMINOUS UNITED STATES: 1959 AND 1949

[States are ranked in order by total sales]

State	Total sales						Value of crops at wholesale prices					
	1959			1949			1959			1949		
	Rank	Value (dollars)	Percent distribution	Rank	Value (dollars)	Percent distribution	Rank	Value (dollars)	Percent distribution	Rank	Value (dollars)	Percent distribution
Conterminous United States.....		584,751,415	100.0		467,346,986	100.0		515,681,277	100.0		300,637,657	100.0
California.....	1	88,687,042	15.2	1	47,330,065	10.1	1	83,576,041	16.2	1	36,896,309	12.3
Pennsylvania.....	2	54,501,823	9.3	2	38,820,139	8.3	2	49,841,828	9.7	2	28,593,321	9.5
Ohio.....	3	48,719,653	8.3	4	37,473,450	8.0	4	44,589,620	8.6	4	25,942,943	8.6
Florida.....	4	48,086,914	8.2	8	18,539,858	4.0	3	45,035,194	8.7	7	15,875,742	5.3
New York.....	5	40,735,042	7.0	3	43,043,052	9.2	5	34,425,542	6.7	3	27,675,341	9.2
Illinois.....	6	28,998,821	5.0	5	31,007,688	6.6	6	24,666,818	4.8	5	20,047,959	6.7
New Jersey.....	7	24,170,063	4.1	6	23,584,907	5.0	7	21,268,516	4.1	6	16,683,025	5.5
Michigan.....	8	22,474,518	3.8	7	21,014,623	4.5	8	19,364,042	3.8	8	11,184,416	3.7
Massachusetts.....	9	16,771,847	2.9	9	17,109,513	3.7	9	14,809,708	2.9	9	10,542,372	3.5
Texas.....	10	15,811,007	2.7	10	16,897,390	3.6	10	13,576,488	2.6	11	9,073,436	3.0
Indiana.....	11	14,108,904	2.4	11	14,956,156	3.2	11	12,408,252	2.4	10	9,510,388	3.2
Oregon.....	12	13,619,472	2.3	17	9,592,193	2.1	12	12,372,827	2.4	12	7,746,160	2.6
Connecticut.....	13	11,921,511	2.0	13	11,445,207	2.4	13	10,186,518	2.0	13	7,449,157	2.5
Washington.....	14	11,379,613	1.9	18	8,051,435	1.7	14	10,016,042	1.9	16	5,770,880	1.9
Minnesota.....	15	10,086,736	1.7	15	10,108,218	2.2	18	7,527,141	1.5	19	4,742,948	1.6
Tennessee.....	16	9,995,842	1.7	23	5,639,190	1.2	15	9,111,734	1.8	22	3,833,355	1.3
Iowa.....	17	9,542,291	1.6	12	12,854,824	2.8	23	6,786,003	1.3	15	6,459,844	2.1
Missouri.....	18	9,318,932	1.6	14	11,239,061	2.4	22	7,252,120	1.4	14	6,616,357	2.2
Wisconsin.....	19	9,123,055	1.6	16	9,953,667	2.1	20	7,452,996	1.4	18	4,969,149	1.7
Virginia.....	20	8,987,956	1.5	21	6,556,287	1.4	17	7,586,068	1.5	24	3,129,960	1.0
Colorado.....	21	8,800,069	1.5	20	7,065,397	1.5	16	8,363,589	1.6	17	5,666,817	1.9
North Carolina.....	22	8,587,720	1.5	22	5,852,877	1.3	19	7,526,285	1.5	23	3,223,322	1.1
Maryland <sup>1</sup> .....	23	7,898,465	1.4	19	7,349,796	1.6	24	6,564,827	1.3	21	3,987,236	1.3
Alabama.....	24	7,826,392	1.3	24	5,227,597	1.1	21	7,329,480	1.4	20	4,100,929	1.4
Georgia.....	25	6,364,155	1.1	26	4,193,540	0.9	25	5,748,408	1.1	29	1,452,211	0.5
Oklahoma.....	26	6,014,815	1.0	27	3,851,872	0.8	26	4,646,495	0.9	26	1,870,695	0.6
Arizona.....	27	4,383,625	0.7	44	959,556	0.2	27	3,813,778	0.6	43	297,738	0.1
Kansas.....	28	4,200,470	0.7	25	5,057,980	1.1	28	3,270,725	0.6	25	2,345,586	0.8
Kentucky.....	29	3,972,224	0.7	28	3,555,263	0.8	29	2,979,078	0.6	27	1,557,290	0.5
Louisiana.....	30	3,458,566	0.6	34	1,904,194	0.4	30	2,905,504	0.6	33	1,083,922	0.4
Rhode Island.....	31	2,906,162	0.5	31	2,683,015	0.6	31	2,536,149	0.5	30	1,413,738	0.5
Delaware.....	32	2,719,054	0.5	33	2,076,896	0.4	32	2,496,057	0.5	28	1,506,046	0.5
West Virginia.....	33	2,337,260	0.4	29	2,990,963	0.6	34	1,876,371	0.4	31	1,226,846	0.4
South Carolina.....	34	2,243,098	0.4	35	1,743,419	0.4	33	1,901,811	0.4	35	929,007	0.3
Nebraska.....	35	2,167,636	0.4	30	2,832,162	0.6	38	1,474,773	0.3	32	1,090,332	0.4
Mississippi.....	36	1,950,733	0.3	37	1,571,362	0.3	35	1,604,958	0.3	39	663,499	0.2
New Hampshire.....	37	1,904,693	0.3	36	1,707,925	0.4	36	1,585,361	0.3	36	923,938	0.3
Arkansas.....	38	1,806,588	0.3	38	1,498,243	0.3	37	1,523,799	0.3	37	953,720	0.3
Maine.....	39	1,782,228	0.3	32	2,267,795	0.5	39	1,250,145	0.2	34	935,471	0.3
Utah.....	40	1,388,213	0.2	40	1,405,862	0.3	40	1,083,877	0.2	38	733,954	0.2
Montana.....	41	1,156,963	0.2	41	1,185,020	0.3	41	724,619	0.1	42	372,243	0.1
South Dakota.....	42	953,154	0.2	42	1,004,671	0.2	42	629,819	0.1	40	398,371	0.1
Idaho.....	43	713,614	0.1	43	1,000,288	0.2	44	513,977	0.1	41	393,443	0.1
New Mexico.....	44	669,516	0.1	45	792,945	0.2	43	591,648	0.1	44	251,766	0.1
Vermont.....	45	547,433	0.1	46	591,344	0.1	46	354,362	0.1	46	171,005	0.1
North Dakota.....	46	525,025	0.1	39	1,461,967	0.3	45	412,788	0.1	45	244,132	0.1
Wyoming.....	47	231,452	( <sup>2</sup> )	47	245,688	0.1	48	111,469	( <sup>2</sup> )	47	88,728	( <sup>2</sup> )
Nevada.....	48	201,050	( <sup>2</sup> )	48	52,356	( <sup>2</sup> )	47	187,627	( <sup>2</sup> )	48	12,610	( <sup>2</sup> )

<sup>1</sup> Includes District of Columbia: Total sales \$112,268; wholesale value \$28,064.

<sup>2</sup> Less than 0.05 percent.

### VALUE AT WHOLESALE PRICES FOR ALL HORTICULTURAL SPECIALTY CROPS SOLD, BY KIND OF CROP, FOR THE CONTERMINOUS UNITED STATES: 1959

Crop	Value of sales at wholesale prices	Percent distribution
Total.....	515,681,277	100.0
Cut flowers and flowering and foliage plants (including cacti and succulents), bedding plants, and cultivated florist greens.....	292,302,771	56.7
Nursery products.....	155,505,957	30.2
Bulbs.....	9,963,663	1.9
Flower seed.....	2,592,824	0.5
Greenhouse vegetables.....	19,545,643	6.9
Propagated mushrooms.....	35,770,419	3.8

**Returns and Allowances and Cost of Flower, Nursery, and Bulb Stock Purchased.**—Returns and allowances, which included discounts and value of returned plant material, totaled \$5,205,920, and represented less than 1 percent of total sales. Flower, nursery, and bulb stock purchased by growers totaled \$95,313,734 in 1959.

**Employment.**—There were 110,349 persons who were on the payroll ending nearest November 15, 1959. The total employment

in November 1959, of horticultural specialty establishments was 120,515. This total does not include the operators themselves. Of the total, 46,988 were part-time or seasonal persons, 63,361 persons holding year-round or full-time positions, and 10,166 unpaid family members.

Establishments having a crop value of \$10,000 and over accounted for 85 percent of the total number of employees although they accounted for only 61 percent of the number of establishments reporting employment in 1959.

**Structures and Equipment.**—The value of all land, structures, and equipment owned and/or rented by horticultural specialty establishments was \$824,677,856 in January 1960. The total was 44 percent greater than in 1949. The average per establishment was \$45,818 in 1960, as compared with \$25,899 in 1949. The bench or greenhouse area in which mist propagation was used totaled 8,986,675 square feet. Greenhouses were reported by 11,933 establishments and had a total area of 227,674,935 square feet. Most of this greenhouse area was covered by glass, but 8.6 percent of the area was covered by a glass substitute such as plastic or fiberglass. The four States having the largest greenhouse area were Ohio, California, New York, and Pennsylvania.

## HORTICULTURAL SPECIALITIES

RANK OF COUNTIES BY TOTAL SALES FOR ALL HORTICULTURAL SPECIALTY PRODUCTS FOR THE CONTERMINOUS UNITED STATES: 1959

[Counties are ranked in order by total sales]

County	Rank	Number of establishments	Total sales (dollars)	Value at wholesale prices (dollars)	County	Rank	Number of establishments	Total sales (dollars)	Value at wholesale prices (dollars)
Los Angeles, Calif.	1	529	24,919,907	23,972,283	Erie, N.Y.	66	99	2,220,362	2,025,972
Chester, Pa.	2	471	17,720,098	17,310,600	Marion, Ind.	67	96	2,178,739	2,043,053
Cook, Ill.	3	225	9,891,118	8,658,490	Monroe, N.Y.	68	97	2,128,436	1,883,592
Cuyahoga, Ohio	4	203	9,388,784	9,036,234	Warren, Tenn.	69	59	2,064,392	1,996,894
Santa Clara, Calif.	5	179	9,014,119	8,574,384	New Haven, Conn.	70	85	2,047,888	1,680,666
Orange, Fla.	6	119	8,454,556	8,318,790	Volusia, Fla.	71	119	1,871,352	1,741,900
Alameda, Calif.	7	113	8,253,284	7,530,997	Lancaster, Pa.	72	103	1,832,371	1,644,537
Suffolk, N.Y.	8	217	7,620,505	7,027,375	Newcastle, Del.	73	59	1,825,082	1,681,605
Middlesex, Mass.	9	206	7,000,393	6,580,534	Kane, Ill.	74	31	1,762,739	1,543,455
Lee, Fla.	10	30	6,179,255	6,147,052	Broward, Fla.	75	69	1,761,306	1,351,554
Dade, Fla.	11	140	6,078,623	5,519,533	Ramsey, Minn.	76	52	1,754,333	1,395,666
Summit, Ohio	12	35	5,978,374	5,916,795	Harris, Tex.	77	34	1,703,807	1,449,129
Nassau, N.Y.	13	134	5,889,899	5,114,011	Fairfield, Conn.	78	66	1,701,674	1,295,330
San Mateo, Calif.	14	125	5,528,198	5,307,790	Jackson, Mo.	79	41	1,694,895	1,375,836
San Diego, Calif.	15	159	5,058,048	4,900,572	Christian, Ill.	80	8	1,661,019	1,650,772
Denver, Colo.	16	96	4,869,578	4,804,069	Contra Costa, Calif.	81	35	1,649,807	1,506,857
Lake, Ohio	17	113	4,632,431	4,175,182	Washington, Oreg.	82	53	1,647,236	1,551,583
Butler, Pa.	18	24	4,423,711	4,266,502	Oakland, Mich.	83	61	1,638,399	1,423,151
Bergen, N.J.	19	132	4,408,430	3,895,232	Morris, N.J.	84	72	1,620,023	1,380,185
Multnomah, Oreg.	20	143	4,378,748	4,159,591	Essex, Mass.	85	107	1,614,163	1,252,057
Montgomery, Pa.	21	96	4,163,665	3,742,470	Oklahoma, Okla.	86	39	1,545,917	1,315,419
San Bernardino, Calif.	22	32	4,072,950	3,448,204	Polk, Fla.	87	65	1,539,699	1,380,406
Lorain, Ohio	23	89	3,898,212	3,807,168	Kent, Mich.	88	74	1,523,525	1,340,387
Smith, Tex.	24	177	3,794,357	3,181,268	Lake, Ill.	89	39	1,518,917	1,221,159
Santa Cruz, Calif.	25	41	3,749,944	3,628,184	Merced, Calif.	90	4	1,494,331	1,393,785
Santa Barbara, Calif.	26	59	3,726,611	3,658,673	Clark, Ohio	91	23	1,489,314	1,341,384
Hamilton, Ohio	27	146	3,707,545	3,320,465	Pierce, Wash.	92	68	1,472,498	1,338,869
Maricopa, Ariz.	28	29	3,656,306	2,642,049	Worcester, Mass.	93	96	1,468,677	1,167,437
Martin, Fla.	29	24	3,506,517	3,484,585	Jefferson, Ky.	94	39	1,452,003	1,232,923
Milwaukee, Wis.	30	102	3,424,498	3,284,566	Newport, R.I.	95	29	1,423,198	1,248,831
Middlesex, Conn.	31	22	3,392,868	3,202,378	Queens, N.Y.	96	35	1,417,642	1,273,196
King, Wash.	32	124	3,391,573	3,009,978	Norfolk, Mass.	97	71	1,399,277	1,225,345
Hartford, Conn.	33	110	3,331,685	2,836,479	Vigo, Ind.	98	16	1,398,372	1,347,397
Greene, N.Y.	34	20	3,294,090	3,276,627	Plymouth, Mass.	99	60	1,391,006	1,270,116
Riverside, Calif.	35	37	3,276,404	3,116,228	Tift, Ga.	100	13	1,386,051	1,364,601
Berrien, Mich.	36	56	3,239,685	2,910,659	Atlantic, N.J.	101	43	1,328,969	1,080,964
Palm Beach, Fla.	37	65	3,183,581	3,030,790	Franklin, Ohio	102	44	1,322,783	1,111,762
Allegheny, Pa.	38	87	3,162,663	2,809,681	Indiana, Pa.	103	20	1,312,077	1,177,882
Orange, Calif.	39	96	3,120,445	3,025,029	Arapahoe, Colo.	104	18	1,311,650	1,295,466
Norfolk, Va.	40	18	3,068,150	2,754,180	Tulare, Calif.	105	53	1,294,292	1,080,669
San Francisco, Calif.	41	29	3,030,595	3,028,995	Monroe, Mich.	106	31	1,293,539	1,138,786
Lucas, Ohio	42	72	2,943,865	2,854,893	Pinellas, Fla.	107	45	1,284,822	751,744
Mobile, Ala.	43	50	2,916,403	2,826,351	Mercer, N.J.	108	31	1,283,006	864,498
Hennepin, Minn.	44	70	2,865,001	2,148,370	Thurston, Wash.	109	16	1,275,690	1,235,318
DuPage, Ill.	45	68	2,844,717	2,592,779	Gloucester, N.J.	110	44	1,266,208	1,156,284
St. Louis, Mo.	46	92	2,827,241	2,441,785	Seminole, Fla.	111	31	1,263,533	1,258,875
Delaware, Pa.	47	58	2,795,546	2,456,175	Highlands, Fla.	112	42	1,257,325	1,207,877
Macomb, Mich.	48	85	2,765,875	2,600,050	Elkhart, Ind.	113	16	1,219,693	1,133,771
Wayne, N.Y.	49	15	2,755,547	1,512,204	Kalamazoo, Mich.	114	55	1,219,537	963,146
Hillsborough, Fla.	50	66	2,722,743	2,537,777	Tarrant, Tex.	115	34	1,215,048	1,004,045
Wayne, Ind.	51	23	2,674,731	2,634,123	Hampden, Mass.	116	49	1,178,717	972,206
Berks, Pa.	52	111	2,663,413	2,510,501	Ottawa, Mich.	117	58	1,177,841	1,122,285
Westchester, N.Y.	53	85	2,661,964	1,793,297	Fremont, Iowa	118	3	1,176,000	592,950
Bucks, Pa.	54	88	2,621,009	2,398,245	Columbia, Pa.	119	20	1,144,882	1,116,877
Wayne, Mich.	55	93	2,524,041	2,132,211	Knox, Tenn.	120	17	1,127,771	895,801
Lake, Fla.	56	77	2,511,898	2,416,476	Del Norte, Calif.	121	21	1,122,739	1,050,560
Baltimore, Md.	57	82	2,507,978	2,129,502	Erie, Pa.	122	29	1,118,771	1,040,652
Middlesex, N.J.	58	55	2,494,583	2,306,503	Wicomico, Md.	123	18	1,101,784	798,312
Page, Iowa	59	6	2,459,242	1,798,097	Stafford, N. Hamp.	124	14	1,084,072	1,022,353
Monmouth, N.J.	60	95	2,438,877	2,207,162	Ashtabula, Ohio	125	25	1,042,400	1,000,992
Shelby, Tenn.	61	25	2,414,384	2,313,405	Jefferson, Colo.	126	33	1,039,790	978,399
Cumberland, N.J.	62	59	2,320,203	2,274,859	Baldwin, Ala.	127	20	1,039,629	993,837
Union, N.J.	63	69	2,306,294	2,083,886	Marion, Oreg.	128	38	1,033,101	962,687
Ventura, Calif.	64	44	2,276,016	2,268,912	Spokane, Wash.	129	42	1,029,721	861,651
Clackamas, Oreg.	65	84	2,268,161	1,871,985	Montgomery, Md.	130	27	1,021,445	842,261

## CHANGES IN GREENHOUSE AREA: 1929 TO 1959

Kind of crop grown	Greenhouse area (square feet)		
	1959	1949	1929
Total	227,674,935	191,400,495	178,500,370
Cut flowers, flowering and foliage plants, bedding plants, etc.	190,425,465	159,917,237	117,376,405
Nursery products	8,597,782	3,828,419	4,786,092
Bulbs	NA	158,332	342,742
Flower seed	NA	89,605	NA
Vegetables grown under glass	30,864,798	27,406,902	55,995,131

NA Not available.

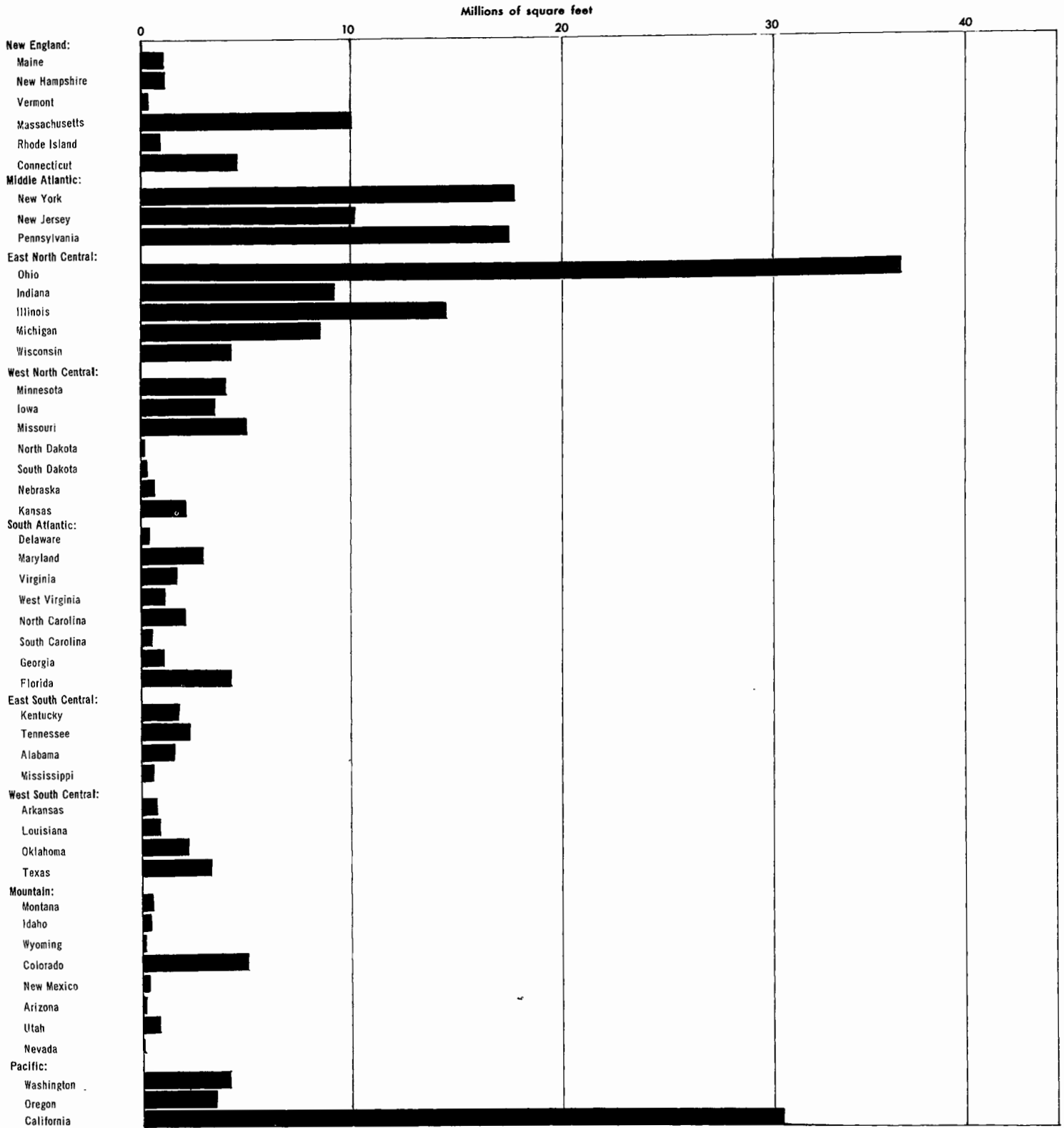
1 Total does not equal sum of area by kind of crop grown. See text.

Over four-fifths of the greenhouse area was used primarily for the production of cut flowers, flowering and foliage plants, etc. About 14 percent was used for greenhouse vegetable crops, and 4 percent, for nursery products.

There were 10,708 establishments reporting 192,668 acres for the outdoor production of horticultural products in 1959. Acreage used for the production of nursery crops accounted for 71.5 percent of this area. Cut flowers, flowering and foliage plants, florist greens, etc., accounted for 21.5 percent and bulb crops and flower seeds, 5.4 percent and 1.6 percent, respectively, of the total area.

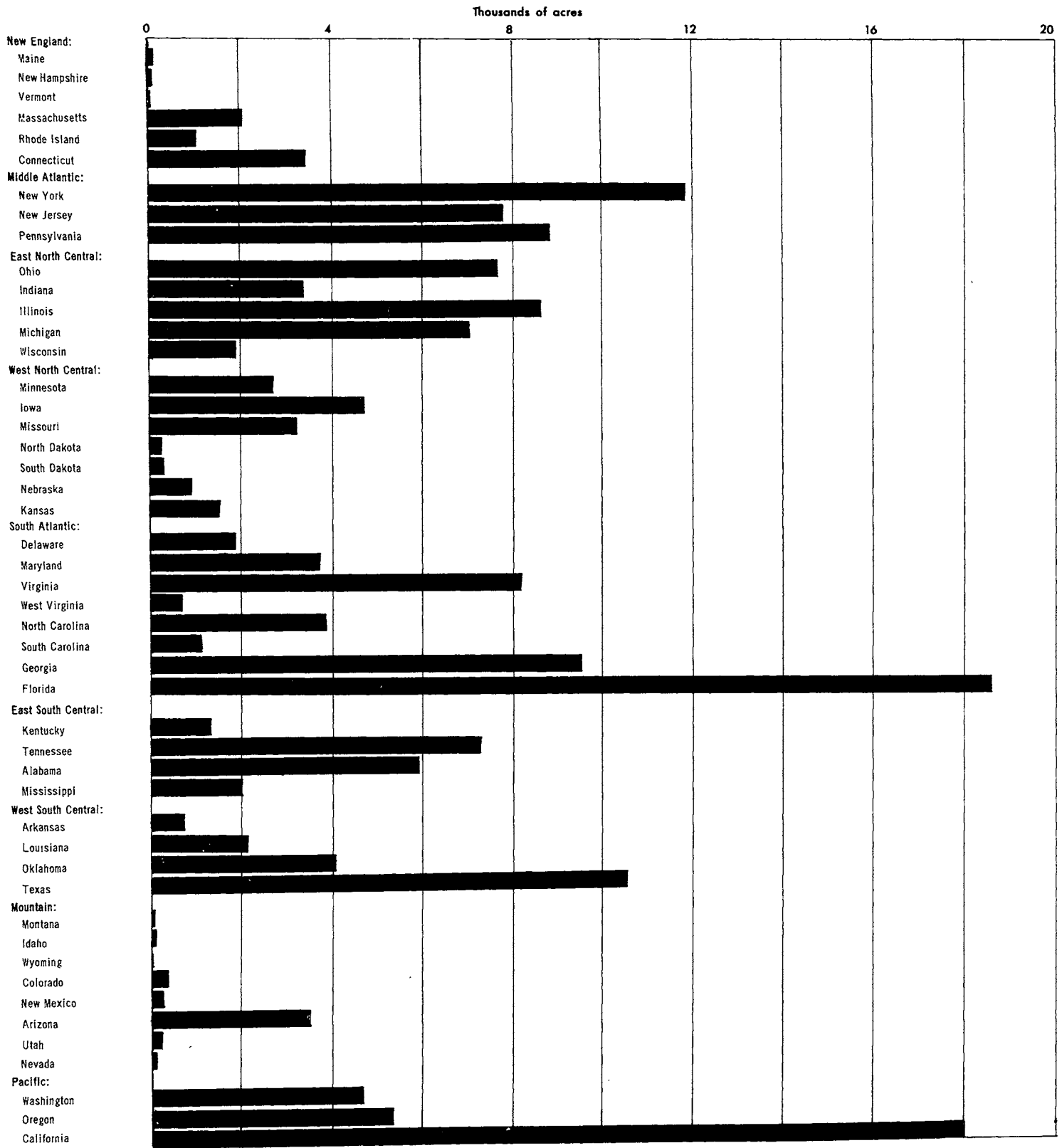
Land covered by frames totaled 42,007,804 square feet in 1959. This area includes hot bed and cold frame area used in the production of flower, nursery, and bulb crops. Frame area increased almost 100 percent since 1949. The area covered by cloth house totaled 26,122,108 square feet, while the land area covered by lath, saran, or other shade substitute material was 121,661,904 square feet in 1959. The square feet area covered by frames, cloth houses, lath, saran, and other shade substitute material is included in total land area used for outdoor production in 1959.

GREENHOUSE AREA USED FOR GROWING ALL HORTICULTURAL SPECIALTY PRODUCTS BY STATES: 1959



# HORTICULTURAL SPECIALITIES

OUTDOOR ACREAGE USED FOR GROWING ALL HORTICULTURAL SPECIALTY PRODUCTS BY STATES: 1959



Section II.—CUT FLOWERS, FLOWERING AND FOLIAGE PLANTS (INCLUDING CACTI AND SUCCULENTS), BEDDING PLANTS, AND CULTIVATED FLORIST GREENS

There were 11,772 establishments engaged in the production of cut flowers, flowering and foliage plants (including cacti and succulents), bedding plants, and cultivated florist greens in 1959.

There was a smaller number of establishments reporting for most of the major kinds of cut flowers and potted plants in 1959 than in 1949. The number of cut pompon chrysanthemum growers was a fourth less in 1959 than in 1949 while the number of establishments growing gladioli in 1959 was a third less than in 1949. The only crops with a larger number of producers in 1959 than in 1949 are cut orchids and asters, potted geraniums and poinsettias, and bedding and vegetable plants.

The value of all flower products calculated at wholesale prices totaled \$292,302,771, and represented 57 percent of all horticultural specialty products grown and sold in 1959. Unpotted plants, rooted cuttings, etc., comprised \$54,586,152, or 19 percent of the calculated wholesale value; potted plants, \$95,076,448, or 33 per-

cent of the wholesale value; and cut flowers and foliage, \$142,640,171, or 49 percent.

The following table shows the rank of all floricultural crops according to value at wholesale prices for three groups: (1) Unpotted plants, rooted cuttings, etc.; (2) potted plants; and (3) cut flowers and foliage in 1959 and 1949.

While there was a general increase in the value of most horticultural specialty products, the value at wholesale prices of all potted plants increased over 150 percent from 1949 to 1959. The ratio of cut flowers to the value of all flower products declined significantly during the 10-year period 1949-1959. Cut flowers represented 65 percent in 1949 as compared to 49 percent in 1959 of the wholesale value of all flowers, flowering plants, etc. Potted plants represented 19 percent in 1949 as compared to 33 percent in 1959 of the wholesale value of all flower products.

The value at wholesale prices for foliage plants sold exceeded that of any other flower products in 1959 and represented 27 percent of the value for all potted plants sold. In importance as measured by value of the crop at wholesale prices, geranium plants ranked second and chrysanthemum plants, third.

RANK OF CUT FLOWERS, FLOWERING AND FOLIAGE PLANTS (INCLUDING CACTI AND SUCCULENTS), BEDDING PLANTS, AND CULTIVATED FLORIST GREENS BY VALUE AT WHOLESALE PRICES, FOR THE CONTERMINOUS UNITED STATES: 1959 AND 1949

Crop	1959			1949		
	Rank	Value at wholesale prices (dollars)	Percent distribution	Rank	Value at wholesale prices (dollars)	Percent distribution
A. Unpotted plants, rooted cuttings, etc., total.....		54,586,152	100.0		30,591,286	100.0
Bedding plants, flowers, and vegetables.....	1	32,843,783	60.1	1	16,924,653	55.3
Foliage or green plants.....	2	6,882,228	12.6	3	3,315,505	10.8
Chrysanthemum, standard, Fuji spider.....	3	4,792,525	8.8	4	1,437,673	4.7
Chrysanthemum, pompon.....	4	4,382,539	8.0			
Geranium <sup>1</sup> .....	5	1,792,824	3.3	2	5,154,518	16.8
Carnation.....	6	853,166	1.5	6	435,111	1.4
Cacti and succulents.....	7	392,026	.7			
Poinsettia.....	8	388,289	.7	8	163,329	.5
Azalea.....	9	255,697	.5	5	1,113,107	3.7
Hydrangea.....	10	250,142	.5	7	369,857	1.2
Begonias.....	11	204,664	.4			
African violet.....	12	115,784	.2			
Gardenias.....	13	32,185	.1			
All other.....	14	1,400,300	2.6		1,677,533	5.5
B. Potted plants, total.....		95,076,448	100.0		36,743,696	100.0
Foliage or green plants.....	1	25,606,986	26.9	1	9,842,266	26.8
Geranium.....	2	16,387,934	17.2			
Chrysanthemum <sup>1</sup> .....	3	11,733,853	12.3			
Poinsettia.....	4	8,963,194	9.4	2	4,715,209	12.8
Azaleas.....	5	8,253,144	8.7	3	4,315,222	11.8
Lily.....	6	5,779,511	6.1	5	3,555,517	9.7
Hydrangea.....	7	4,159,390	4.4	4	4,197,117	11.4
African violet.....	8	2,276,146	2.4	7	1,116,897	3.0
Begonias.....	9	1,388,064	1.5	6	1,182,318	3.2
Cacti and succulents.....	10	1,227,876	1.3			
Rose.....	11	982,404	1.0	8	713,647	2.0
Orchid, cattleya.....	12	801,705	.8			
Orchid, all other.....	13	730,544	.8			
Gardenia.....	14	521,332	.6			
Orchid, cymbidium.....	15	292,937	.3			
All other.....		5,971,418	6.3		7,105,503	19.3
C. Cut flowers and foliage, total.....		142,640,171	100.0		123,574,474	100.0
Rose.....	1	30,942,064	21.7	1	30,582,022	24.8
Carnation.....	2	30,508,596	21.4	2	19,908,968	16.1
Chrysanthemum, pompon.....	3	19,027,540	13.3	4	10,403,022	8.4
Chrysanthemum, standard, Fuji, and spider.....	4	16,433,420	11.5	5	7,289,625	5.9
Gladiolus.....	5	15,473,799	10.8	3	14,868,387	12.0
Orchid, cattleya.....	6	6,276,016	4.4	6	7,169,354	5.8
Snapdragon.....	7	4,562,007	3.2			
Asparagus plumosus.....	8	2,433,054	1.7	8	2,902,865	2.3
Stock.....	9	2,238,745	1.6			
Orchid, cymbidium.....	10	1,841,070	1.3			
Gardenia.....	11	1,474,594	1.0	7	4,018,150	3.3
Aster.....	12	935,514	.7	12	185,557	.2
Lily.....	13	719,791	.5	9	1,364,030	1.1
Peony.....	14	608,942	.5	11	629,903	.5
Orchids, all other.....	15	579,336	.4	10	969,918	.8
All other.....		8,525,083	6.0		23,282,673	18.8

<sup>1</sup> In 1949, all sales reported as unpotted plants, rooted cuttings, etc.

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The value of cut chrysanthemums represented one-fourth of all cut flower sales. If the two groups of cut chrysanthemums are considered separate flower crops, then roses continue to rank first in cut flower sales, accounting for \$30,942,064, or 22 percent of value at wholesale prices for all cut flowers sold. Carnations rank second with 21 percent while pompon chrysanthemums are third with 13 percent of cut flower sales. Standard, Fuji, and spider chrysanthemums account for 12 percent while gladioli and

cut cattleya orchids represent 11 percent and 4 percent of all sales at wholesale prices, respectively.

The following table indicates the value at wholesale prices of many related products listed as separate items on the questionnaire. The values of related crops have been combined to show the importance of each kind of crop regardless of whether the crop was sold as propagating material, as potted plants, cut flowers, or bulbs, etc.

VALUE AT WHOLESALE PRICES OF RELATED PRODUCTS GROUPS INCLUDED IN TWO OR MORE CLASSIFICATIONS: 1959

Item	Value at wholesale prices (dollars)				
	Total	Unpotted plants, rooted cuttings, etc.	Potted plants	Cut flowers	Bulbs, nursery stock, corms, and tubers
Chrysanthemums <sup>1</sup> .....	56,369,877	9,175,064	11,733,853	35,460,960	xxx
Pompons.....	xxx	4,382,539	xxx	19,027,540	xxx
Standard.....	xxx	4,792,525	xxx	16,433,420	xxx
Gardenias <sup>2</sup> .....	2,028,111	32,185	521,332	1,474,594	xxx
					Bulbs
					Lily, longiflorum or Easter
					Lily, other than longiflorum or Easter
Lilies.....	8,815,777	xxx	5,779,511	719,791	1,822,106
					494,369
					Nursery stock
					Lining out
					Ornamental
Roses.....	47,842,243	xxx	982,404	30,942,064	102,672
					15,815,103
					Corms
Gladioli.....	18,189,476	xxx	xxx	15,473,799	2,715,677
					Tubers
Peonies.....	1,080,270	xxx	xxx	668,942	411,328
Carnations.....	31,361,762	853,166	xxx	30,508,596	xxx
African violets.....	2,391,930	115,784	2,276,146	xxx	xxx
Azaleas <sup>3</sup> .....	8,508,841	255,697	8,253,144	xxx	xxx
Begonias.....	1,592,728	204,664	1,388,064	xxx	xxx
Cacti and succulents.....	1,619,902	392,026	1,227,876	xxx	xxx
Foliage or green plants.....	32,489,224	6,882,228	25,606,996	xxx	xxx
Geraniums.....	18,180,758	1,792,824	16,387,934	xxx	xxx
Hydrangeas.....	4,409,532	250,142	4,159,390	xxx	xxx
Poinsettias.....	9,351,483	388,289	8,963,194	xxx	xxx
Orchids.....	10,522,208	xxx	1,825,186	8,697,022	xxx
Cattleya.....	7,077,721	xxx	801,705	6,276,016	xxx
Cymbidium.....	2,134,007	xxx	292,937	1,841,070	xxx
All other.....	1,310,480	xxx	730,544	579,936	xxx

<sup>1</sup> Does not include garden chrysanthemum plants which are included in the nursery products section under herbaceous plants.

<sup>2</sup> Does not include gardenia plants which are included in the nursery products section

under broad-leaved evergreens.

<sup>3</sup> Does not include azalea plants which are included in the nursery products section as lining out stock or as broad-leaved evergreens.

Section III.—NURSERY PRODUCTS

There were 6,757 establishments with nursery operations having sales of \$2,000 or more in 1959. This number was almost 50 percent greater than the number of nursery establishments in 1949. The increase in the number of operators growing ornamental plants accounted for a large part of the increase in the total number of nursery establishments.

The value of all nursery stock sold calculated at wholesale prices totaled \$155,505,957, and represented 30 percent of all horticultural specialty products grown and sold in 1959. Ornamental plants accounted for \$125,124,417, or 81 percent of the value at wholesale prices of all nursery products sold in 1959.

Deciduous fruit and nut trees and grapevines accounted for \$11,373,265, or 7 percent, while lining out stock accounted for \$7,559,271, and citrus and subtropical fruit trees, for \$7,409,449. Each of these groups of nursery products comprised about 5 percent of the value at wholesale prices of all nursery products. The value of small fruits such as strawberries, raspberries, and blueberries totaled \$4,039,555, and accounted for 3 percent of the value at wholesale prices for all nursery products.

The following table indicates the rank of all nursery crops according to value at wholesale prices for (1) lining out stock; (2) ornamental plants; (3) deciduous fruit and nut trees, grapevines, citrus and subtropical fruit trees, and small fruit plants; (4) citrus and subtropical fruit trees; and (5) small fruit plants.



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RANK OF NURSERY PRODUCTS BY VALUE AT WHOLESALE PRICES FOR THE CONTERMINOUS UNITED STATES: 1959 AND 1949

Product	1959			1949		
	Rank	Value at wholesale prices (dollars)	Percent distribution	Rank	Value at wholesale prices (dollars)	Percent distribution
<b>A. Lining out stock, total.....</b>		7,559,271	100.0		3,323,068	100.0
Evergreens, ornamental.....	1	5,050,972	66.8	1	2,112,508	63.6
Deciduous trees and shrubs.....	2	1,716,128	22.7	2	472,640	14.2
Deciduous fruit stock.....	3	512,442	6.8	3	383,858	11.5
Citrus stock.....	4	177,057	2.3	5	18,582	0.6
Rose stock.....	5	102,672	1.4	4	335,480	10.1
<b>B. Ornamental plants, total.....</b>		125,124,417	100.0		57,297,435	100.0
Coniferous evergreens.....	1	36,367,644	29.1	1	18,695,944	32.6
Broad-leaved evergreens.....	2	33,591,541	26.8	3	10,561,384	18.4
Deciduous shade and flowering trees.....	3	16,879,143	13.5	5	4,739,344	8.3
Rose plants.....	4	15,815,103	12.6	2	11,328,071	19.8
Deciduous shrubs (not roses).....	5	9,082,820	7.3	4	5,631,501	9.8
Herbaceous plants.....	6	3,481,647	2.8	6	2,614,703	4.6
Forest tree seedlings.....	7	3,276,830	2.6	7	1,456,595	2.5
Vines, woody (not grape).....	8	1,039,254	0.8	8	724,549	1.3
All other.....		5,590,435	4.5		1,545,344	2.7
<b>C. Deciduous fruit and nut trees, grapevines, citrus and subtropical fruit trees, and small fruit plants:</b>						
Deciduous fruit and nut trees and grapevines, total.....		11,373,265	100.0		6,120,648	100.0
Peach.....	1	2,687,547	23.6	1	1,326,902	21.7
Apple.....	2	2,384,422	21.0	2	1,243,560	20.3
Nut.....	3	1,989,686	17.5	3	805,899	13.2
Pear.....	4	1,052,733	9.2	6	471,765	7.7
Plum and prune.....	5	887,923	7.8	5	484,096	7.9
Grape.....	6	710,185	6.2	8	353,806	5.8
Cherry (sour).....	7	600,210	5.3	4	735,462	12.0
Cherry (sweet).....	8	576,332	5.1	7	441,336	7.2
All other.....		484,227	4.3		257,822	4.2
Citrus and subtropical fruit trees, total.....		7,409,449	100.0		1,795,404	100.0
Orange.....	1	5,557,678	75.0	1	712,969	39.7
Grapefruit.....	2	575,131	7.8	2	314,452	17.5
Lemon.....	3	433,408	5.8	4	189,264	10.6
Avocado.....	4	280,558	3.8	3	278,908	15.5
All other.....		562,674	7.6		299,811	16.7
Small fruit plants, total.....		4,039,555	100.0		2,516,164	100.0
Strawberry.....	1	3,514,671	87.0	1	1,579,959	62.8
Raspberry.....	2	233,020	5.8	2	442,338	17.6
Blueberry.....	3	196,534	4.9	3	216,793	8.6
All other.....		95,330	2.3		277,074	11.0

The value of ornamental evergreens comprised over two-thirds of the value at wholesale prices of all lining out stock. The value of coniferous evergreens comprised 29 percent while broad-leaved evergreens comprised 27 percent of the value at wholesale prices of all ornamental plants. Deciduous shade and flowering trees and rose plants were next in importance accounting for 14 percent and 13 percent, respectively, of the value at wholesale prices of all ornamental plants.

The value of peach and apple trees accounted for 24 percent and 21 percent, respectively, of the value at wholesale prices of all deciduous fruit and nut trees and grapevines. Nut trees, third in importance in this group, accounted for 18 percent of the total value at wholesale prices.

The value of orange trees accounted for three-fourths of the value at wholesale prices of all citrus and subtropical fruit trees. Strawberry plants accounted for 87 percent of the value at wholesale prices for all small fruit plants sold in 1959.

The per-unit value at wholesale prices of most flowers remained unchanged during the 10-year period. On the other hand, the average per-unit value at wholesale prices for most nursery products increased. For example, the average per-unit value at wholesale prices, for a broad-leaved evergreen increased from \$0.81 in 1949 to \$1.03 in 1959 while the average per-unit value for coniferous evergreens increased from \$1.51 to \$1.97, and shade and flowering trees from \$1.21 to \$2.24 from 1949 to 1959.

Broad-leaved evergreens include rhododendron, azalea,

camellia, and similar crops but do not include subtropical ornamental plants produced largely in Florida and California. "All other ornamental plants" include subtropical ornamental plants, such as crotons, palms, and ground covers grown outdoors as nursery crops in many of the Southern States.

The figures for forest tree seedlings do not represent the total production of such seedlings as many nurseries operated by the Federal and State Governments were not included.

### Section IV.—BULB CROPS

There were 861 bulb establishments included in the 1959 Special Census of Horticultural Specialties.

Sales of bulb crops totaled \$9,963,663, and represented only 1.9 percent of the value at wholesale prices of all horticultural specialty products in 1959.

Separate data for amaryllis bulbs, anemone roots, calla lily bulbs, canna roots, freesia corms, hyacinth bulbs, muscari bulbs, and ranunculus tubers are not given. These data have been combined with "All other bulbs, corms, etc." The tender and hardy varieties of narcissus have also been combined as one crop, "narcissus."

The following table indicates rank of bulb crops according to the value at wholesale prices in 1959. Data for 1949 are given for comparative purposes. Gladiolus corms and lily (longiflorum or Easter) bulbs were the only two crops with a value at wholesale prices of \$1,000,000 or more in 1959.

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RANK OF BULB CROPS BY VALUE AT WHOLESALE PRICES FOR THE CONTERMINOUS UNITED STATES: 1959 AND 1949

Bulb crop	1959			1949		
	Rank	Value at wholesale prices (dollars)	Percent distribution	Rank	Value at wholesale prices (dollars)	Percent distribution
Total.....		9,963,663	100.0		9,236,989	100.0
Gladiolus.....	1	2,715,677	27.2	1	3,820,578	41.4
Lily (longiflorum or Easter) ..	2	1,822,106	18.3	3	1,007,541	10.9
Caladium.....	3	776,784	7.8	10	151,691	1.6
Narcissus.....	4	767,907	7.7	2	1,369,737	14.8
Iris (rhizomatous).....	5	758,788	7.6	7	407,970	4.4
Lily (other than Easter).....	6	494,369	5.0	9	187,946	2.0
Dahlia.....	7	445,670	4.5	5	430,355	4.7
Iris (bulbous).....	8	435,992	4.4	4	459,227	5.0
Peony.....	9	411,328	4.1	8	243,392	2.6
Tulip.....	10	237,542	2.4	6	420,609	4.6
All other.....		1,097,500	11.0		737,943	8.0

## Section V.—FLOWER SEED

There were 85 producers of flower seed in 1959. In 1959 growers produced seed valued at \$2,592,824. California accounted for 89 percent of the value at wholesale prices of all flower seeds sold.

Detailed data are not available for begonia, delphinium, larkspur, and nasturtium seed in 1959. Data for these crops have been combined in "All other" flower seed. Petunia (regular) and petunia (fancy or double) are combined as "Petunia." Snapdragon (regular) and snapdragon (hybrid) are combined as "Snapdragon."

The following table indicates the rank of all flower seed crops according to the value at wholesale prices for 1959 and 1949.

RANK OF FLOWER SEED BY VALUE AT WHOLESALE PRICES, FOR THE CONTERMINOUS UNITED STATES: 1959 AND 1949

Flower seed	1959			1949		
	Rank	Value at wholesale prices (dollars)	Percent distribution	Rank	Value at wholesale prices (dollars)	Percent distribution
Total.....		2,592,824	100.0		1,826,226	100.0
Sweet pea.....	1	353,077	13.6	3	152,784	8.4
Snapdragon.....	2	254,672	9.8	5	120,681	6.6
Petunia.....	3	226,480	8.7	1	232,371	12.7
Marigold.....	4	217,560	8.4	7	67,343	3.7
Aster.....	5	207,974	8.0	6	113,484	6.2
Zinnia.....	6	191,502	7.4	2	177,211	9.7
Stock.....	7	82,284	3.2	4	137,904	7.6
All other.....		1,059,275	40.9		824,448	45.1

## Section VI.—VEGETABLES GROWN UNDER GLASS AND PROPAGATED MUSHROOMS

There were 819 establishments reporting greenhouse vegetable crops, and 665 establishments producing propagated mushrooms in 1959. The number of farms producing propagated mushrooms has increased about 50 percent since 1949.

Greenhouse vegetable crops and propagated mushrooms accounted for \$55,316,062, or 11 percent of the value at wholesale prices for all horticultural specialty products in 1959.

The following table indicates the rank of all greenhouse vegetable crops and propagated mushrooms, according to value at wholesale prices, in 1959 and 1949.

RANK OF VEGETABLES GROWN UNDER GLASS AND PROPAGATED MUSHROOMS BY VALUE AT WHOLESALE PRICES, FOR THE CONTERMINOUS UNITED STATES: 1959 AND 1949

Item	1959			1949		
	Rank	Value at wholesale prices (dollars)	Percent distribution	Rank	Value at wholesale prices (dollars)	Percent distribution
Total.....		55,316,062	100.0		27,612,267	100.0
Propagated mushrooms.....	1	35,770,419	64.7	1	14,565,807	52.8
Tomato.....	2	16,152,412	29.2	2	10,077,398	36.5
Lettuce.....	3	2,455,882	4.4	3	1,393,021	5.0
Cucumber.....	4	477,766	0.9	4	1,277,176	4.6
All other vegetables.....		459,583	0.8		298,865	1.1