
CHAPTER IX.-FRUITS AND NUTS, AND HORTICULTURAL SPECIALTIES

CONTENTS

	Page		Page
Introduction-----	823	Cherries-----	830
Farms reporting-----	823	Peaches-----	831
Value-----	823	Pears-----	831
Comparability of previous statistics-----	824	Plums and prunes-----	832
Units of measure and conversion factors-----	824	Grapes-----	832
Summary of all crops-----	825	Apricots-----	832
Individual crops-----	825	Nuts-----	832
Small fruits-----	825	Citrus fruits-----	832
Land in tree fruits, vineyards, and planted nut trees-----	826	Oranges and grapefruit-----	832
Apples-----	830	Horticultural specialties-----	832

MAPS

	Page		Page
Value of fruits and nuts harvested, 1939-----	835	Peaches—Trees of all ages-----	834
Value of fruits and nuts sold or traded, 1939-----	835	Pears—Trees of all ages-----	834
Strawberries harvested-----	835	Plums and prunes—Trees of all ages-----	835
Cranberries harvested-----	835	Grapes—Vines of all ages-----	835
Land in fruit orchards, vineyards, and planted nut trees-----	834	Pecans (all)—Trees of all ages-----	835
Farms reporting fruit or nut trees and vines, 1940, and/or production, 1939-----	834	Tung nuts—Trees of all ages-----	835
Farms reporting nut trees, 1940, and/or production, 1939-----	834	Walnuts (English or Persian)—Trees of all ages-----	835
Farms reporting citrus fruit trees, 1940, and or production-----	834	Oranges—Trees of all ages-----	835
Apples—Trees of all ages-----	834	Grapefruit—Trees of all ages-----	835
Cherries—Trees of all ages-----	834	Lemons—Trees of all ages-----	835

TABLES FOR THE UNITED STATES

	Page
All crops—Acreage and value, for the United States: 1879 to 1939-----	824
Conversion factors used in converting fruit production from the units of measure reported to the units shown in the tables in this volume where such conversions were necessary-----	825
Specified small fruits—Farms reporting, acreage, quantity harvested, and value, for the United States: 1899 to 1939-----	826
Specified tree fruits, grapes, and nuts—Summary for the United States: 1840 to 1940-----	827
Farms reporting, area, and value of horticultural specialties, for the United States: 1869 to 1939-----	833

TABLES FOR SPECIFIED STATES

	Page
Peaches, by specified varieties—Farms reporting and number of trees, 1940; and quantity harvested and value, 1939; for Arizona and California-----	831
Pears, by specified varieties—Farms reporting and number of trees, 1940; and quantity harvested and value, 1939; for specified States-----	831
Plums and prunes—Farms reporting and number of trees, 1940; and quantity harvested and value, 1939; for Arizona and California-----	831
Grapes, by specified varieties—Farms reporting and number of vines, 1940; and quantity harvested and value, 1939; for Arizona and California-----	832
Other small fruits—Farms reporting, acreage, quantity harvested, and value, by States, 1939-----	838
Miscellaneous orchard fruits—Farms reporting and number of trees, 1940; and quantity harvested and value, 1939; by States-----	860
Other nuts—Farms reporting and number of trees, 1940; and quantity harvested and value, 1939; by States-----	861
Oranges—Farms reporting and number of trees, 1940, 1935, and 1930; quantity harvested, 1939, 1934, and 1929; and value, 1939; with similar data for the several varieties of oranges, Census of 1940; by States-----	862
Grapefruit (all varieties)—Farms reporting and number of trees, 1940, 1935, and 1930; quantity harvested, 1939, 1934, and 1929; and value, 1939; with similar data for seedless and all other grapefruit, Census of 1940; by States-----	863
Other citrus fruits—Farms reporting and number of trees, 1940; and quantity harvested and value, 1939; by States-----	863

TABLES FOR THE GEOGRAPHIC DIVISIONS AND STATES

	Page
Specified small fruits—Farms reporting, acreage, and quantity harvested, 1939 and 1929; and value, 1939; by divisions and States-----	836
Land in fruit orchards, vineyards, and planted nut trees—Farms reporting and acreage, 1940, 1935, and 1930; with farms reporting classified by number of acres, 1940; and irrigated and nonirrigated acreage, 1940; by divisions and States-----	840
Apples—Farms reporting and number of trees, 1940, 1935, and 1930; quantity harvested, 1939, 1934 and 1929; and value, 1939; by divisions and States-----	842
Apples, by trees of bearing age—Farms reporting with number of bearing and nonbearing trees, 1940, and quantity harvested, 1939; and farms reporting trees of non-bearing age, classified by number of trees; by divisions and States-----	843
Cherries—Farms reporting and number of trees, 1940, 1935, and 1930; quantity harvested, 1939, 1934, and 1929; and value, 1939; with similar data for sour and sweet cherries, Census of 1940; by divisions and States-----	846
Peaches and apricots—Farms reporting and number of trees, 1940, 1935, and 1930; quantity harvested, 1939, 1934, and 1929; and value, 1939; by divisions and States-----	850
Pears and quinces—Farms reporting and number of trees, 1940, 1935, and 1930; quantity harvested, 1939, 1934, and 1929; and value, 1939; by divisions and States-----	852
Plums and prunes and nectarines—Farms reporting and number of trees, 1940, 1935, and 1930; quantity harvested, 1939, 1934, and 1929; and value, 1939; by divisions and States-----	854
Grapes and figs—Farms reporting and number of vines or trees, 1940, 1935, and 1930; quantity harvested, 1939, 1934, and 1929; and value, 1939; by divisions and States-----	856
Pecans (improved and wild)—Farms reporting and number of trees, 1940 and 1930; quantity harvested, 1939 and 1929; and value, 1939; with similar data for improved and wild pecans, Census of 1940; by divisions and States-----	858
Horticultural specialties—Farms reporting and value of sales, 1939 and 1929; and area, 1939; by divisions and States-----	864

CHAPTER IX.—FRUITS AND NUTS, AND HORTICULTURAL SPECIALTIES

Introduction.—This chapter presents statistics for small fruits, tree fruits, nuts, and grapes; and for nurseries, greenhouses, and other similar horticultural specialties, collected in the 1940 Census. The data on small fruits (blackberries, raspberries, strawberries, and other berry crops) include the number of farms reporting, acreage, production, and value for each crop harvested in 1939. For fruit orchards, planted nut trees, and vineyards, the acreage in such crops is given as of April 1, 1940, along with the number of farms reporting this area (either a fractional part of an acre or more). Likewise, the number of bearing and nonbearing trees or vines, with the number of farms reporting these items, is given as of the census date. Production and value of these fruits and nuts are for the crop season 1939, except for the citrus fruits. The production and value of citrus fruit in Arizona and California relate to the crop year 1938-1939 or the crop following the bloom of 1938, while, in all other citrus regions, the production and value of such fruit relate to the crop year 1939-1940, following the bloom of 1939. For horticultural specialties, the data cover the farms reporting, the acreage or other measure of the areas of these crops, and the value of sales for the year of 1939. Totals for the above items are given for the United States and, in most cases, are given also for the 9 geographic divisions and for each of the 48 States, if reports were obtained for such areas.

When figures for earlier census years are available, these data are included for the United States in summary tables, with footnotes or explanations covering the factors affecting comparability between the years. Some comparative data are given also by divisions and States. In comparing the statistics for one year with another, it should be borne in mind that the acreage of crops (or the number of fruit trees or vines) and the number of farms reporting are, on the whole, a better index of the general changes or trends in agriculture than the quantity of crop production, since variation in the quantity harvested may be due largely to favorable or unfavorable seasons or to other factors. The tendency for certain fruits to produce a good crop only once in two years also affects the significance as to trend where enumerations are made only every 5 or 10 years.

Chapter VIII "Field Crops and Vegetables" immediately preceding this chapter, gives detailed data for grains, hay and forage, seeds, cotton, tobacco, sugar crops, other miscellaneous field crops, potatoes (Irish and sweet), farm gardens, and vegetables harvested for sale. An over-all picture of crop production in the United States as a whole is presented in the first summary table in each of these chapters.

Small fruits, tree fruits, grapes, and nuts are distinctly regional crops. Units of measure for these crops vary widely among the various regions of production. In the preparation of the 1940 Farm and Ranch Schedule, the United States was divided into nine regions. The crop inquiries were designed for the various regions so that specific questions could be carried to include the crops widely grown in each region and also in the unit of measure most prevalent in those areas for reporting production. If a separate question was not carried for a

particular crop, that crop was to be reported under one of several "catch-all" questions on the schedule. The regions and States included in each were:

<u>Region 1</u>	<u>Region 2</u>	<u>Region 6</u>
Connecticut	Kentucky	Arkansas
Delaware	Missouri	New Mexico
District of Columbia	North Carolina	Oklahoma
Illinois	Tennessee	
Indiana	Virginia	<u>Region 7</u>
Iowa		Louisiana
Maine	<u>Region 3</u>	Texas
Maryland	Alabama	
Massachusetts	Georgia	<u>Region 8</u>
Michigan	Mississippi	Idaho
Minnesota	South Carolina	Nevada
New Hampshire		Oregon
New Jersey	<u>Region 4</u>	Utah
New York	Florida	Washington
Ohio		
Pennsylvania	<u>Region 5</u>	<u>Region 9</u>
Rhode Island	Colorado	Arizona
Vermont	Kansas	California
West Virginia	Montana	
Wisconsin	Nebraska	
	North Dakota	
	South Dakota	
	Wyoming	

Maps have been prepared to show graphically the areas of production for a number of small fruits, tree fruits, grapes, and nut crops. An increase and decrease map illustrating the changes in orchard acreage in the last decade appears in chapter VIII.

Farms reporting.—The term "farms reporting" indicates the number of farms for which a separate crop was reported and is, for practical purposes, the number of farms having such crop. If there were 2,922 farms in a county and only 465 of these harvested strawberries in 1939, and the enumeration of that item was complete, the number of farms reporting strawberries for that year would be 465.

Demand has been made for the number of farms reporting orchard fruits, the number of farms reporting citrus fruits, and the number of farms reporting nuts. Table 12 presents this type of data. In addition to these totals, two frequency distribution tables are presented, one for farms reporting land in fruit orchards classified by orchard acreage, table 12; and the other for apples, which gives a frequency distribution of farms reporting by trees of bearing age with farms reporting trees of nonbearing age, classified by number of nonbearing trees, table 14.

Value.—Prior to 1920, the values of fruit and nuts produced were enumerated. The values shown for the small fruits, tree fruits, grapes, and nuts for the 1920 and succeeding censuses are calculated values obtained by multiplying production by average unit price. For the 1920 Census of Agriculture, the values of these crops were calculated by counties, using a State average unit price for each crop. In 1925, the values were

CENSUS OF AGRICULTURE: 1940

also calculated by counties, but using average unit prices established for crop reporting districts (groups of contiguous counties). Values reported in 1935 were calculated by States only, using State average unit prices. In 1930 and 1940, the values shown were calculated by counties using, for most items, county average unit prices. These unit values were based, for the most part, upon average prices obtained and calculated cooperatively by the Division of Agricultural Statistics, Agricultural Marketing Service, Department of Agriculture, and the Bureau of the Census, Department of Commerce. The values of horticultural specialties sold were secured by the enumerators

for each census year that these questions were listed on the schedule.

Comparability of previous statistics.—The comparability of the statistics for 1939 with those of previous censuses is affected by the wording of the specific inquiries, the inclusion or exclusion on the schedule of related items, the number of questions included, their relative position, the units of production used, and many other factors. Reference notes on the tables or comments in the text under the individual crops call attention to the more important differences resulting from changes in the schedule.

TABLE 1.—ALL CROPS—ACREAGE AND VALUE, FOR THE UNITED STATES: 1879 TO 1939

(The First Agricultural Census was in 1840. Total acreage of crops not secured prior to 1879 and total value of crops not secured prior to 1899)

ITEM AND YEAR	ACREAGE			VALUE (DOLLARS)			
	Total	Increase or decrease (-)		Total	Percent increase or decrease (-)	Average per acre	
		Acres	Percent				
Cropland harvested-----	1939	321,242,430	25,618,254	8.7	xxxxxxxxxxxx	xxxxxxxx	
	1934	295,624,176	-63,617,915	-17.7	xxxxxxxxxxxx	xxxxxxxx	
	1929	359,242,081	14,692,824	4.3	xxxxxxxxxxxx	xxxxxxxx	
	1924	544,549,267	-----	-----	xxxxxxxxxxxx	xxxxxxxx	
All crops ¹ -----	1939	324,238,361	25,596,013	8.6	5,705,464,370	27.4	17.60
	1934	298,642,548	-63,302,209	-17.5	4,479,015,137	-45.5	15.00
	1929	² 361,944,557	-----	-----	8,223,514,886	10.0	22.72
	1924	(s)	(s)	(s)	7,472,534,858	-49.0	(s)
	1919	346,603,729	37,310,347	12.0	14,646,177,769	177.0	42.01
	1909	311,293,382	28,075,102	9.9	5,287,773,834	83.1	16.99
	1899	283,218,280	63,512,716	28.9	2,888,049,680	-----	10.20
	1889	219,705,564	53,518,980	32.2	(s)	(s)	(s)
	1879	166,186,584	-----	-----	(s)	(s)	(s)
	Field crops and vegetables-----	1939	318,713,646	26,518,973	9.1	5,174,572,362	26.6
1934		⁵ 292,194,673	-63,277,044	-17.8	4,086,754,249	-44.9	13.99
1929		355,471,717	7,172,252	2.1	7,422,105,931	-46.2	20.88
1919		348,299,465	37,377,409	12.0	13,807,034,128	175.7	39.64
1909		310,922,056	28,082,345	9.9	5,008,415,454	83.8	16.11
1899		282,839,711	-----	-----	2,725,292,203	-----	9.64
Fruits and nuts and horticultural specialties-----	1939	5,524,715	-922,960	-14.3	530,892,008	35.3	96.09
	1934	⁶ 6,447,675	-25,165	-0.4	392,260,888	-51.1	60.84
	1929	² 6,472,840	(e)	(e)	801,408,955	-4.5	123.81
	1919	7304,264	-67,062	-18.1	839,143,641	200.4	xxxxxxxx
	1909	7371,326	-7,243	-1.9	279,358,380	71.6	xxxxxxxx
	1899	7378,569	-----	-----	182,757,477	-----	xxxxxxxx

¹ Total acreage of crops for which figures are available.² Acreage for horticultural specialties not included.³ Not available.⁴ 14,502,932 acres of corn cut for fodder were excluded as most of this acreage was probably duplicated in the acreage of corn harvested for grain. The value of this fodder, \$206,934,650, was also excluded.⁵ Only strawberries reported in small fruits; other small fruits included in field crops.⁶ Data not comparable. See note 7.⁷ Acreage in fruit orchards, vineyards, and planted nut trees not secured prior to 1930.

Units of measure and conversion factors.—The unit of measure for reporting production of some crops has varied from one census year to the next. The 1940 Farm and Ranch Schedule made it possible to secure the production of certain crops in varying units between the major geographic regions. In the earlier censuses, production of a crop was quite generally, though not universally, asked for in a standard unit for all areas. This was confusing because the quantity harvested was frequently asked for in terms of containers or units of measure not widely used, or not used at all in some areas.

Types of containers and their cubic content have varied over the years with changes in production and marketing practices. In the State bulletins and in volume I, which carry data by counties, the current production of each crop is shown in the unit called for on the schedule for the particular region in which the State is located. In the tables in this volume, the 1939 production figures are carried in a common unit of measure for all States. For example, the 1940 schedule asked for the production of peaches in bushels in all States except Arizona and California, where tons or fractions thereof were used. In the State bulletins for Arizona and California, peach production was carried in tons, while in table 16 of this volume, the production for Arizona and California has been converted from tons to bushels on the basis of 48 pounds per bushel.

The production of noncitrus fruits, grapes, and nuts (except avocados, loquats, mangoes, pineapples, sapodillas, and

sugar apples) is shown in the same unit for all years. The production figures for each crop listed in the parentheses as exceptions, and for all citrus fruits, are carried for each year in the units of production reported in those years. Cherry production which, previous to 1939 was carried in bushels, was converted to pounds for all years using the weight of 56 pounds per bushel. For 1929 and earlier, the production of Japanese persimmons was carried in bushels and has been converted to pounds using 48 pounds per bushel. Fig production for 1939 has been carried in the summary tables in fresh weight. The schedule called for fresh weight of this fruit in all States, except in Arizona and California where the production was asked for in dry weight. For the tables in this volume dry weight was converted to fresh weight by multiplying by 4 for Arizona and by 3 for California.

The production of small fruits was carried on the 1940 schedule in quarts except for Region 8 (Idaho, Nevada, Oregon, Utah, and Washington), where the unit of measure was pounds. The production for these States was converted from pounds to quarts on the basis of a quart weighing 1½ pounds. In earlier censuses, small fruit production has been shown in quarts.

Nuts were carried on the schedule in pounds for all States except Arizona and California where the ton unit (2,000 pounds) was used in reporting English, or Persian, walnuts and almonds. The production for all States is shown in pounds in the summary tables.

TABLE 2.—CONVERSION FACTORS USED IN CONVERTING FRUIT PRODUCTION FROM THE UNITS OF MEASURE REPORTED TO THE UNITS SHOWN IN THE TABLES IN THIS VOLUME WHERE SUCH CONVERSIONS WERE NECESSARY

CROP	Units used in the tables in this volume	REGIONS ¹ WHERE OTHER UNITS WERE REPORTED AND THE UNITS OF MEASURE CARRIED IN THE STATE BULLETINS		Conversion factors
		Region	Unit ²	
Apples	Bushel	Region 8	Ton	1 bu. = 48 lbs.
Apricots	Bushel	Region 8 Region 9	Pound Ton	1 bu. = 48 lbs. 1 bu. = 48 lbs.
Peaches	Bushel	Region 9	Ton	1 bu. = 48 lbs.
Pears	Bushel	Region 9	Ton	1 bu. = 50 lbs.
Plums and prunes	Bushel	Region 8 Region 9 ³	Pound Ton	1 bu. = 56 lbs. 1 bu. = 56 lbs.
Quinces	Bushel	Regions 8 and 9	Pound	1 bu. = 48 lbs.
Loquats	Pound	Region 7	Bushel	1 bu. = 48 lbs.
Nectarines	Bushel	Region 9	Ton	1 bu. = 50 lbs.
Oranges ⁴	Ton	Region 3	Bushel	1 bu. = 56 lbs.
Satsuma oranges	Ton	Region 4 Region 7	Field Box Bushel	1 f.b. = 90 lbs. 1 bu. = 56 lbs.
Tangerines and mandarins	Ton	Region 4	Field Box	1 f.b. = 90 lbs.
Other early and midseason oranges	Ton	Region 4	Field Box	1 f.b. = 90 lbs.
Valencia and other late oranges	Ton	Region 4	Field Box	1 f.b. = 90 lbs.
Grapefruit ⁴	Ton	Region 3	Bushel	1 bu. = 50 lbs.
Seedless grapefruit	Ton	Region 4	Field Box	1 f.b. = 82 lbs.
All other grapefruit	Ton	Region 4	Field Box	1 f.b. = 82 lbs.
Tangeloes	Pound	Region 4	Field Box	1 f.b. = 90 lbs.
Lemons	Ton	Region 3 Region 4	Bushel Field Box	1 bu. = 56 lbs. 1 f.b. = 90 lbs.

¹ See Introduction of this chapter for list of States included in each region.

² The U.S. short ton (2,000 lbs.) has been used.

³ Prunes, reported in dry weight in Arizona and California, were converted to fresh weight by multiplying by 2.5. Figs, also reported in dry weight in these two States, were converted to fresh weight by multiplying by 4 for Arizona and by 3 for California.

⁴ In regions where this fruit was not broken down into subclasses.

Summary of all crops.—Table 1 presents, for the United States, acreage and value totals for all crops produced on farms. Comparative data are given for earlier years. Table 3 includes data for all small fruits reported in 1940, with comparable totals for earlier census years where such totals are available. The figures given represent the acreage and production of tame or cultivated varieties only, with the exception that wild blueberries were included if the land was used primarily for their production. The 1940 schedule specified that nonbearing acreage of small fruits was not to be included. The 1935 reports of strawberries include some planted acreage from which no crop was harvested in 1934, due to the practice of planting strawberries one year for harvest the following year and also because of failure to bear on account of the drought of that year. When reported without a production, the acreage was retained in that the plants were considered as constituting a crop whether or not strawberries were harvested. The reports for all small fruits for other years may also contain some planted acreage from which no crops were harvested.

Summary table 4 carries data for all fruits, grapes, and nuts reported in 1940. Land in tree fruits, vineyards, and planted nut trees is the total acreage reported for such trees

or vines, April 1, 1940. This acreage does not include land occupied by wild or seedling pecan trees or nurseries.

The regionalization of the 1940 Farm and Ranch Schedule made it possible to cover those fruits and nuts most commonly grown in each region and permitted the production to be reported in the unit most commonly used. In 1935, a short and limited schedule was used for all States which carried only 8 inquiries for tree fruits. For California, however, the schedule was varied so as to secure the production of these tree fruits in units of production more commonly used in that State. In 1930, a standard schedule was used for all States. In that year 2 supplemental schedules were utilized to secure additional information on fruit and nut crops in several of the States. Of these schedules 1 was used in California, in 3 counties in Arizona, 4 in Idaho, 13 in Oregon, and 4 in Washington. The other was used in Florida, in 4 counties in Alabama, 6 in Mississippi, 12 in Texas, and 9 parishes in Louisiana.

In 1925, a classification was made for apples only, as to whether the trees were of bearing or not of bearing age. For crops for which no separate questions were carried on the 1925 schedule, the reports are probably less complete than for the listed crops. The production of pears, as shown in the 1935 volumes, and of apricots and pears, as shown in the 1930 volumes, have been recomputed on the basis of revised conversion factors. For a more complete explanation of this change, see the text covering each of these crops.

In several regions, a separation was secured in the 1940 Census for sweet and sour cherries; for peaches, either clingstone or freestone; for pears, either Bartlett or other pears; for plums, either plums or prunes; and for grapes, either table, raisin, wine or juice varieties. This information is carried in table 15 for cherries, and in tables 5, 6, 7, and 8 for the other crops.

Three inquiries concerning horticultural specialties were made a part of each regionalized schedule to obtain the area and the amount of sales of such products. Special emphasis was given in the instructions to enumerators that production in mushroom cellars, nurseries, greenhouses, and similar establishments were considered agricultural operations, for which a 1940 Farm and Ranch Schedule should be secured, if minimum requirements on value of agricultural products of a farm were met. Data for these crops, where available for the earlier census years, are included in table 9.

Individual crops.—Data for individual fruit crops, nuts, and horticultural specialties are presented for the United States in tables 3 to 9 and for divisions and States in tables 10 to 26. In presenting the statistics, averages have been calculated for a number of the fruit productions to give yields per tree and per vine. For some purposes these averages may have more utility than the basic data.

Small fruits.—The 1940 farm schedule called for the acreage and quantity of each small fruit harvested in 1939. Figures were secured for blackberries and dewberries, blueberries, boysenberries, cranberries, currants, gooseberries, loganberries, raspberries, strawberries, and youngberries, in appropriate regions.

A separation of tame and wild blueberries was called for in Region 1, which is the region covering those States where wild blueberries are of importance. Acreage was reported for wild blueberries only where the land was used primarily for their production.

Currants and gooseberries were not included on any of the 1940 regionalized schedules, but the acreage and production of these crops were reported and specified under the inquiry "Other small fruits."

Raspberries were separated into the two groups, black raspberries and red raspberries, in two Regions (1 and 8). Figures for these two groups are carried in table 11.

Strawberries were the only small fruit carried on the 1935 farm schedule. As was pointed out in the summary for all crops, in that year nonbearing acreage was considered as constituting a crop and was included in the total strawberry acreage. The acreage of strawberries harvested in 1939 was 175,217 or 27.8 percent smaller than the 1929 acreage of 242,829 and 22.8 percent less than the 226,996 acres in the drought year, 1934.