

*D. Curtis Mumford*

Extension Circular No. 360

December 1941

## SPECIALTY HORTICULTURAL CROPS—1940

PRODUCTION AND INCOME STATISTICS FOR OREGON

By

M. D. Thomas, L. R. Breithaupt, and  
N. I. Nielsen

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State, district, and county estimates of acreage, production, price and income  
prepared by the Oregon State College Extension Service and the United States  
Department of Agriculture

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OREGON STATE COLLEGE -- EXTENSION SERVICE  
Wm. A. Schoenfeld, Director, Corvallis, Oregon  
Cooperative Extension work in Agriculture and Home Economics  
Oregon Agricultural College and United States Department of Agriculture  
cooperating  
Printed and distributed in furtherance of the  
Acts of Congress of May 8 and June 30, 1914

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\* EXPLANATION OF TERMS \*  
\* (Unless otherwise noted) \*  
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\* Estimates are expressions of judgment regarding what  
\* is true at any given time based upon partial data, past  
\* relationships, calculation, appraisement, and general know-  
\* ledge of the subject under consideration and are published  
\* subject to revision.

\* Acreage grown is the estimated total acreage devoted  
\* to production during the crop year ending in the calendar  
\* year indicated.

\* Cash farm income is intended to represent the money  
\* income to the producer from the sale of products grown by  
\* the seller and sold during the usual marketing season which  
\* began in the year indicated. It does not include the value  
\* of products bought for direct resale. The marketing season  
\* for greenhouse products and winter bulbs is usually the cal-  
\* endar year while the marketing season for nursery crops and  
\* gladiolus bulbs usually begins the latter half of one year  
\* and extends into the first half of the next.

\* TYPE OF FARMING DISTRICTS \*  
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\* Much of the data for the State has been broken down  
\* into the following districts:-

- \* Dist. No. 1.- Willamette Valley counties: Benton,  
\* Clackamas, Lane, Linn, Marion, Multnomah  
\* Polk, Washington, and Yamhill.  
\* Dist. No. 2.- Coast and Lower Columbia counties:  
\* Clatsop, Columbia, Coos, Curry, Lincoln,  
\* and Tillamook.  
\* Dist. No. 3.- Southern Oregon counties: Douglas  
\* Jackson, and Josephine  
\* Dist. No. 4.- Columbia Basin counties: Gilliam, Hood  
\* River, Morrow, Sherman, Umatilla, Wasco  
\* and Wheeler.  
\* Dist. No. 5.- Snake River Basin counties: Baker,  
\* Malheur, Union, and Wallowa.  
\* Dist. No. 6.- South Central counties: Crook,  
\* Deschutes, Grant, Harney, Jefferson  
\* Klamath, and Lake.

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REVIEW OF OREGON'S SPECIALTY HORTICULTURAL CROPS

Oregon's commercial nursery and flower industry accounted for a cash income to growers of \$3,115,000 from the sale of crops grown in 1940. This is the largest income realized by this highly specialized agricultural industry during the 5-year 1936-1940 period.

Of the total of 3,900 acres in specialty horticultural crops in 1940, nursery crops accounted for 46 per cent of the acreage and flower bulbs 40 per cent. The sale of highly intensified greenhouse crops, however, produced 36 per cent of the income while nursery crops accounted for 30 per cent; flower bulbs 26 per cent; cut flowers 4 per cent; holly 3 per cent; and flower seeds 1 per cent. (See table 1)

Production of specialty horticultural crops, although most concentrated in the three northern Willamette Valley counties surrounding Portland, is rather widely scattered over the state as shown in tables 2 to 11 inclusive. Nearly every county has some greenhouse crops and nursery acreages are found in widely separated areas. Most of the flower bulbs and seeds, cut flowers, and holly

(Continued on page 2)

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1/ These estimates are based on information assembled from growers, shippers, dealers, county agricultural agents, state department of agriculture officials, and other informed persons throughout the state. The assistance of Mr. J. S. Wieman and his staff of the Oregon Nursery Service was especially helpful. The cooperation of growers who gave information through questionnaires and personal interviews is gratefully acknowledged.

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are located in the western half of the state. The climate and certain soils of the Willamette Valley are adapted to the production of narcissus, iris, lily, gladiolus and other bulbs. Certain areas along the coast have been found especially favorable to the growing of narcissi and lilies. A few years ago Josephine and Jackson counties led in production of gladioli but in recent years the acreage has expanded in the Willamette Valley to put that district in the lead. More than 100 carloads of bulbs were shipped from Oregon during the 1940 marketing season.

The acreage of specialty horticultural crops as a group changed little between 1937 and 1940 but there have been shifts within the group as shown in table 1. The acreage of several kinds of flower bulbs, cut flowers, and holly has been increasing. The nursery acreage increased considerably between 1936 and 1937 but since then the area of fruit and nut tree stock and small fruit plants has declined and some old plantings of ornamentals have been consolidated. The production of broadleaf evergreens and roses, on the other hand, has been increasing but these combined shifts have resulted in a reduction in the acreage in nursery crops in recent years. There has been moderate expansion in the area under glass while the small acreage of flower seeds has changed little.

Preliminary information for 1941 indicates that the acreage of specialty horticultural crops was somewhat larger than in 1940 and that prices for most items were higher but data were too incomplete for estimates at the time this bulletin was published.

Data in subsequent tables give information for 1940 in further detail by kinds and areas. Comparable data for 1936, 1937, 1938, and 1939 were published in Oregon Extension Circulars Nos. 318, 319, 334, and 353.

Table 1.- Specialty horticultural crops and products, Oregon 1936-1940

Item	1/ 1936	2/ 1937	3/ 1938	4/ 1939	1940
<b>Greenhouse products:</b>					
Area grown (acres)	60	60	60	65	65
Cash farm income (dol.)	1,152,000	1,200,000	1,120,000	1,210,000	1,120,000
<b>Nursery crops: 5/</b>					
Area grown (acres)	1,860	2,350	2,200	2,000	1,800
Cash farm income (dol.)	746,000	881,000	757,000	775,000	930,000
<b>Flower bulbs: 6/</b>					
Area grown (acres)	1,040	1,200*	1,330	1,450	1,540
Cash farm income (dol.)	720,000	831,000	665,600	735,000	815,000
<b>Flower seeds: 7/</b>					
Area grown (acres)	15	15	20	20	20
Cash farm income (dol.)	35,000	35,000	35,000	35,000	35,000
<b>Cut flowers: 7/</b>					
Area grown (acres)	50	60	60	75	100
Cash farm income (dol.)	53,000	75,000	90,000	120,000	130,000
<b>Holly: 7/</b>					
Area grown (acres)	75	165	250	350	375
Cash farm income (dol.)	50,000	60,000	75,000	75,000	85,000
<b>Total specialty horticultural crops and products:</b>					
Area grown (acres)	3,100	3,850*	3,920	3,960	3,900
Cash farm income (dol.)	2,756,000	3,082,000	2,742,600	2,950,000	3,115,000

\* Revised

1/ See Extension Circular 318. 2/ See Extension Circular 319. 3/ See Extension Circular 334. 4/ See Extension Circular 353. 5/ See table 3 for crops included. 6/ See table 4 for kinds included. 7/ See page 12.

COMMERCIAL GREENHOUSE AREA AND INCOME  
OREGON, 1940

There was little difference in the total area of commercial greenhouses operated in 1940 compared to 1939. Income from sales of crops grown declined about  $7\frac{1}{2}$  per cent but still totaled more than a million dollars.

During the 5-year period 1936-1940 the area under glass in Oregon increased about 9 per cent although several houses were removed. According to table 2, about 82 per cent of the greenhouse area is located in the Willamette Valley but there are sizable establishments in each of the other five districts where some expansion has taken place in recent years.

Methods of operating vary widely between growers in the greenhouse industry. Gross returns of individual growers reporting in the survey ranged from 9 cents to \$1.10 per square foot. Crops produced under glass in Oregon vary from the intensive and highly specialized production of orchids, gardenias, potted plants, cut flowers, etc. to the production of vegetables, mainly tomatoes and cucumbers, and many kinds of vegetable plants. Some growers sell all they produce wholesale to distributors and retailers. Others retail all they grow directly to the consumers while there are all gradations between. Those reporting in the survey accounted for 77 per cent of their sales at wholesale and 23 per cent at retail in 1940. Some growers grow practically all the crops they sell while others buy considerable to fill in orders. The survey showed 7 per cent of the total 1940 sales to be derived from crops bought for direct resale. Such resales are not included in the cash farm income.

Table 2.- Estimates of greenhouse area and income,  
Oregon, 1940

District 1/	: Area under glass	: Cash farm income
	<u>Square feet</u>	<u>Dollars</u>
District 1	2,325,000	930,000
District 2	65,000	40,000
District 3	90,000	30,000
District 4	230,000	45,000
District 5	70,000	55,000
District 6	50,000	20,000
State total	2,830,000	1,120,000

1/ See frontpiece for counties included.

# NURSERY CROPS - 1940

Although the acreage devoted to nursery crops was smaller in 1940 than in 1939, sales totaling \$930,000, were about 20 per cent greater during the 1940-41 marketing season than a year earlier. A good demand for most items developed during the past season both locally and out-of-state. Most growers sold their marketable stock quite closely. Acreage of fruit tree stock and small fruit plants grown in 1940 was smaller and some old planting of ornamentals have been consolidated but this decline was partly offset by increased plantings of ornamentals.

Table 3 shows the distribution of nursery crops by counties in 1940 while table 1 shows the trend for the state since 1936. In recent years 80 to 90 per cent of the state's nursery acreage has been grown in the Willamette Valley with at least 50 per cent or more in Multnomah county alone, but there have been large plantings in Umatilla and Columbia counties and smaller acreages in many others.

Conditions in Oregon favor the cultivation of a great many kinds of nursery crops. Nursery catalogues list species and varieties numbering into the thousands of deciduous, broadleaf, and conifer shrubs, bushes and trees. Much of the marketable crop is shipped out of the state to other parts of this country and some abroad. Some nurserymen grow many kinds of crops; others specialize on a few kind.

Practices vary considerably from grower to grower. Some grow all the crops they sell, although even these may buy lining out stock, etc., from other nurserymen. Others grow only part of their stock and buy such items as are needed to fill their orders. Such purchases accounted for 10 per cent of the total sales of growers reporting in the survey but such resales are not considered a part of or included in the cash farm income.

Methods of marketing vary considerably also. Some growers sell entirely at wholesale and some sell entirely at retail. Other growers combine the methods in varying proportions. Growers in this survey accounted for about 70 per cent of their income through sales made wholesale and 30 per cent retail.

Table 3.- Estimates of nursery area and income, Oregon 1940 1/

County or district	Total area grown	Cash farm income
	Acres	Dollars
Benton	5	1,800
Clackamas	50	35,000
Lane	25	17,500
Linn	5	1,700
Marion	100	52,000
Multnomah	1,000	530,000
Polk	15	2,000
Washington	175	85,000
Yamhill	40	25,000
District 1	1,415	750,000
Columbia	140	80,000
Douglas	10	8,000
Umatilla	200	83,000
Other counties 2/	35	9,000
State total	1,800	930,000

1/ Includes grafted fruit and nut trees, seedling trees, berry plants and cuttings, rose stock and ornamental shrubs, bushes and trees.

2/ Coos, 1 A.; Lincoln, 2 A.; Jackson, 5 A.; Josephine, 5 A.; Hood River, 10 A.; Malheur, 1 A.; Union, 1 A.; Klamath, 4 A.; all others, 6 A.

# FLOWER BULBS

Oregon's flower bulb industry continues to expand. The sale of bulbs from 1,540 acres grown in 1940 accounted for a return to growers of \$815,000. This compares to 1,450 acres grown in 1939 when sales amounted to \$735,000. Five years earlier only 1,040 acres were grown and sales are estimated to have been \$720,000.

In addition to the income from the sale of bulbs, corms, etc., the growers derive some income from the sale of flowers from bulb fields.

From the standpoint of both acreage and income, gladiolus bulbs rank first; narcissus second; and tulips third. (See table 4)

As shown in tables 5 to 11 inclusive most of the bulb acreage is in the Willamette Valley.

Carlot shipments of these bulbs during the 1940-41 marketing season totaled 100 cars. In addition considerable quantities moved in smaller lots.

Table 4.- Flower bulb crops and products, Oregon 1936-1940

Kind of flower bulb	:	1936	:	1937	:	1938	:	1939	:	1940
<u>Gladiolus:</u>	:									
Area grown (acres)	:	450		550		635		635		650
Cash farm income (dol.)	:	360,000		452,000		315,000		326,000		310,000
<u>Narcissus:</u>	:									
Area grown (acres)	:	400		410		440		500		525
Cash farm income (dol.)	:	224,000		216,000		190,000		226,000		242,000
<u>Bulbous iris:</u>	:									
Area grown (acres)	:	40		65		70		75		90
Cash farm income (dol.)	:	31,000		46,000		47,600		50,000		65,000
<u>Tulip:</u>	:									
Area grown (acres)	:	35		50		65		90		115
Cash farm income (dol.)	:	9,000		15,000		17,500		40,000		68,000
<u>Lily:</u>	:									
Area grown (acres)	:	60		65		70		85		90
Cash farm income (dol.)	:	45,000		50,000		48,000		40,000		65,000
<u>Dahlia:</u>	:									
Area grown (acres)	:	30		30		25		30		35
Cash farm income (dol.)	:	20,000		18,000		17,500		20,000		15,000
<u>Other bulbs, corms, and</u>	:									
<u>rhizomes:</u>	:									
Area grown (acres)	:	25		30		25		35		35
Cash farm income (dol.)	:	31,000		34,000		30,000		33,000		50,000
<u>Total flower bulb crops</u>	:									
<u>and products</u>	:									
Area grown (acres)	:	1,040		1,200		1,330		1,450		1,540
Cash farm income (dol.)	:	720,000		831,000		665,600		735,000		815,000

## GLADIOLUS BULBS

The acreage of gladiolus bulbs grown in Oregon in 1940 was slightly larger than in 1939 while cash farm income dropped a little. Marketings during the 1940-41 season totaled \$310,000 compared to \$326,000 the previous season.

As shown in table 5, about 60 per cent of the 1940 acreage was located in the Willamette Valley. Most of the remaining acreage was in Southern Oregon. There has been considerable expansion in the acreage of gladiolus in the former area during the past 5 years but acreage in the latter area has been declining since 1937.

There were 34 carloads of gladiolus bulbs shipped during the 1940-41 marketing season. This figure does not include less than carlot shipments which account for a considerable part of the total movement. According to growers about 10 per cent of the crop was dumped but this was not considered to be above normal. Reports indicate that prices to growers were down about 4 per cent compared to 1939. Prices and returns vary with variety and size of bulb and method of marketing. Growers indicate that about 20 per cent of their returns come from retail and catalogue sales while the balance or 80 per cent was accounted for by wholesale movement to jobbers and other bulb handlers.

Some growers sell gladiolus flowers cut from their bulb acreage while others do not. Reports indicate that the sale of cut flowers in 1940 equaled about 10 per cent of the sale of bulbs from the acreage grown. Returns from these sales are not included in the income from bulbs but are a part of the cut flower income reported in table 12.

Table 5.- Estimates of gladiolus bulbs, Oregon 1940

District <u>1/</u>	: Total area grown :	Cash farm income
	<u>Acres</u>	<u>Dollars</u>
District 1	400	160,000
District 3	245	147,000
Other districts	5	3,000
State total	650	310,000
	:	

1/ See frontpiece for counties included.



## NARCISSUS BULBS

Acreage and income from narcissus and daffodil bulbs grown in Oregon in 1940 was a little larger than in 1939, according to data in table 4. Table 6 shows that about three-fourths of the acreage in 1940 is in the Willamette Valley while about one-fifth is along the coastline and most of the rest is in Southern Oregon. The increase in acreage between 1939 and 1940 came in the latter districts. More recent information indicates that the acreage grown in 1941 was increased a little and that the acreage planted for 1942 is still larger.

Fifty-two carloads of these bulbs, not including less than carlot shipments, moved from Oregon in 1940. Growers market very few narcissus bulbs at retail. Better than 99 per cent of the value of sales were reported as being made at wholesale.

Prices received by growers in 1940 were only slightly better than in 1939 although prices during the marketing season were irregular and ended strong when it became apparent that importations were limited.

An additional income from the bulb acreage is realized by some growers who sell out flowers. Many growers do not sell cut flowers but available information indicates that returns from the sale of flowers reported in table 12, equaled 10 to 12 per cent of the income from bulbs. A few grow the bulbs for cut flowers only. This is practiced most extensively in the Brookings district of Curry county where daffodils bloom very early.

Table 6.- Estimates of narcissus bulbs, Oregon 1940

District 1/	: Total area grown	: Cash farm income
	: <u>Acres</u>	: <u>Dollars</u>
District 1	: 400	: 196,000
District 2	: 100	: 40,000
District 3	: 23	: 5,700
Other districts	: 2	: 300
State total	: 525	: 242,000
	:	:

1/ See frontpiece for counties included.

## IRIS BULBS

A total of 90 acres of bulbous iris were grown for commercial purposes in Oregon in 1940 compared to 75 acres in 1939 and income from sale of bulbs increased from \$50,000 to \$65,000. This bulb is grown principally in the Willamette Valley and Southern Oregon.

Growers reports indicate that prices were about 5 per cent higher in 1940 than 1939. Some losses due to disease were experienced locally but they were not above normal.

Many of the iris bulbs are shipped in cars along with daffodils. Probably the equivalent of 3 cars were so shipped. Less than carlot shipments would account for a considerable part of the marketings. Very few bulbous iris are retailed by growers. Most of them are sold wholesale.

Some growers sell cut flowers also from their iris plantings but sales of cut flowers made by growers reporting accounted for only  $7\frac{1}{2}$  per cent as much cash income as did bulb sales and are not included in the figures in table 7.

Table 7.- Estimates of bulbous iris,  
Oregon 1940

District <u>1/</u>	: Total area grown :	Cash farm income
	: <u>Acres</u>	<u>Dollars</u>
District 1	: 67	45,000
District 2	: 3	500
District 3	: 20	19,500
State total	: 90	65,000
	:	

1/ See frontpiece for counties included.

## TULIP BULBS

In recent years the acreage of tulip bulbs grown in Oregon has expanded more rapidly than has the acreage of any other kind of flower bulb. The 115 acres grown in 1940 compared to 90 in 1939, rank tulips in third place in importance although this acreage is still small alongside gladiolus and narcissus bulbs. Most of the tulips are grown in the Willamette Valley.

Considerable marketable stock had been held back for increased plantings prior to 1940 when heavier marketing occurred and cash farm income rose to \$68,000 from \$40,000 in 1939. Another factor bolstering income was an advance in prices of around 15 per cent received by growers.

Five cars of tulips were shipped in 1940. This does not include less than carlot shipments. Some growers sell a large part of their crop at retail but of the total income to all growers from bulbs about 95 per cent is accounted for on a wholesale basis.

Most tulip growers sell some cut flowers during the blooming season. The income from cut flowers in relation to income from bulbs varies considerably between growers but cut flower sales were probably not more than 20 per cent as large as bulb sales. The return from these sales is not included in the bulb income but are in the income from cut flowers.

Table 8.- Estimates of tulip bulbs,  
Oregon 1940

District <u>1/</u>	:	Total area grown	:	Cash farm income
	:	<u>Acres</u>	:	<u>Dollars</u>
District 1	:	108	:	64,000
District 3	:	7	:	4,000
State total	:	115	:	68,000
	:		:	

1/ See frontpiece for counties included.

## LILY BULBS

There were 90 acres of lilies grown in Oregon in 1940 or 5 acres more than in 1939. This increase in acreage came in the southern coastal counties where considerable interest in the growing of the Croft Easter lily is developing. Increased marketings of this kind as well as the regals and miscellaneous types produced primarily in the northern half of the Willamette Valley resulted in a cash farm income of \$65,000 in 1940 compared to \$40,000 in 1939.

Six full cars of lily bulbs were shipped in 1940. In addition to this there was considerable less than carlot shipment. Growers indicate that prices received were a little better in 1940 than in 1939.

Very few lily bulbs are retailed by the grower. Probably 99 per cent of sales in 1940 were accounted for by wholesale movement to jobbers and other large handlers. Selling cut flowers from the bulb acreage is practiced by a few growers, usually only to a limited extent. Cut flower sales equaling altogether probably about 5 per cent as much as the bulb sales are not included in the income from bulbs.

Table 9.- Estimates of lily bulbs,  
Oregon 1940

District <u>1/</u>	: Total area grown :	Cash farm income
	: <u>Acres</u>	<u>Dollars</u>
District 1	: 60	38,000
District 2	: 25	23,000
District 3	: 5	4,000
State total	: 90	65,000
	:	

1/ See frontpiece for counties included.

## DAHLIA BULBS

Several growers specialize in the production of dahlia tubers. This acreage is all in the Willamette Valley and has not changed much in recent years although sales were down considerably in 1940.

Table 10.- Estimates of dahlia bulbs,  
Oregon 1940

District <u>1/</u>	: Total area grown :	Cash farm income
	: <u>Acres</u>	<u>Dollars</u>
District 1 and	:	
State total	: 35	15,000

1/ See frontpiece for counties included.

## OTHER BULBS, CORMS, AND RHIZOMES

There is quite an assortment of miscellaneous bulbous crops grown in Oregon. The principal kind included in this group is rhizomous iris, although the acreage of some of the other kinds is increasing.

Table 11.- Estimates of other flower bulbs, corms,  
and rhizomes, Oregon 1940 1/

District <u>2/</u>	: Total area grown :	Cash farm income
	: <u>Acres</u>	<u>Dollars</u>
District 1 and	:	
State total	: 35	50,000

1/ Includes miscellaneous bulbs such as muscari, etc.; miscellaneous corms such as montbretia, etc.; rhizomes such as bearded iris; and herbaceous perennials such as peonies and delphinium, etc.

2/ See frontpiece for counties included.

## FLOWER SEEDS, CUT FLOWERS, AND HOLLY

The acreage of holly has increased considerably in the last 3 years. Most of the planting has been in the Willamette Valley. Only a small part of the 375 acres of holly in 1940 was old enough to cut for sprays or berries and much of the crop marketed came from the pruning of hedges and ornamental plantings. (See table 12)

The production of cut flowers grown in the open is increasing in importance. A considerable part of these flowers comes as additional production and income from the bulb acreage as pointed out in comments accompanying the previous bulb tables. The acreage in table 12 represents the area grown especially for the production of flowers and is in addition to the acreage from which bulbs were sold. Asters, peonies, and chrysanthemums are the principal other kinds of flowers grown in the open for sale. Most of the cut flower production is in the Willamette Valley although the area around Brookings in Curry county has specialized in the production of daffodils and many other kinds are grown locally throughout the state.

Pansy seed is the principal kind of flower seed produced in Oregon. This is a specialty of a few growers located in the Willamette Valley and Josephine county. Small quantities of other kinds have been grown. Sweet peas were tried in 1940 in a limited way.

Table 12.- Estimates of miscellaneous specialty horticultural crops, Oregon 1940

Item	: Total area grown : Cash farm income	
	<u>Acres</u>	<u>Dollars</u>
Holly	375	85,000
Flower seeds	20	35,000
Cut flowers 1/	100	130,000
Total	495	250,000

1/ Grown in open. Acreage indicated is in addition to bulb acreage from which flowers were sold but the income includes returns totaling about \$80,000 from the sale of flowers cut from bulb acreage.



