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# Oregon's Food Fiber & Industry









# Oregon's Food and Fiber Industry

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# Preface

☐ Oregon farmers received \$524 million in 1967 for the commodities they produced. Processing and handling added \$310 million, bringing Oregon's processed pack to \$834 million—a new record.

☐ Production tonnage in 1967 totaled 6½ million, 440,000 larger than in 1963.

☐ This increase in tonnage was produced with 6,000 fewer farm workers than in 1963. Employment in Oregon's food and fiber industry is increasing, however, at the processing level and increasing considerably—

20 percent in four years—at retail and wholesale levels. More than 18,000 persons are employed in wholesale and retail food distribution in Oregon.

☐ Inshipments of farm commodities and food tonnages exceed outshipments, but both are important, providing railroads and motor carriers with at least \$42 million in operating revenues annually.

☐ Oregonians spent \$1 billion for food in 1967 including meals in restaurants. This amounts to an average of \$500 per person.

☐ The processed vegetable pack in Oregon was worth more than any other commodity group—nearly \$200 million in 1967, a new record.

☐ Livestock and livestock products in 1967 were 22 percent of the total tonnage sold, which produced 45 percent of the total income.

☐ Oregon's cattle industry continues to expand. Cattle feeding increased 40 percent since 1963; pounds slaughtered in the state increased by 35 million.

☐ Total milk production in Oregon continued to decline, largely because per person

consumption is going down. Yet, the industry is more viable than ever with record production per cow, larger herds, and more efficient processing and distribution.

☐ Wheat, pears, potatoes, and peppermint were among the leaders in pushing Oregon's cash farm sales to record levels in 1967.

☐ Oregon fruit and nut growers received \$29 million or 68 percent more for their crop in 1967 than in 1963, due to higher tonnage and higher prices.

☐ More than 11,000 annual worker equivalents were involved

in packing Oregon's \$350 million fruit and vegetable crop.

☐ Hops production in Oregon has increased 36 percent since 1963.

☐ Mint growers increased production 91 percent between 1963 and 1967 and still received a record price.

☐ Nursery and greenhouse sales increased 43 percent between 1963 and 1967.

☐ Tonnage increases in the years ahead likely will be most significant in beef cattle, broilers, vegetables (for processing), and grain.



# Introduction

Oregon's agricultural industry contributes to the growth and well being of the state's economy. The purpose of this publication is to describe briefly the magnitude of this contribution.

That a continually expanding economy is vital to the total and balanced growth of Oregon is a truism. Employment opportunities must enlarge if the economy is to expand. The same income-generating activities provide public revenues necessary to finance state and local government services for quality living. The important question is how best to accomplish this growth within the framework of the state's natural resources and economic environment.

Industries vary considerably in the way they stimulate economic activity. This activity can take two forms. One is the inputs—hired labor, gas and oil, fertilizers, herbicides, insecticides, for example—used in production; the other is the extent to which additional processing is required.

The material presented in this publication demonstrates that agriculture generates considerable employment and economic activity in both respects. Agricultural products typically require many purchased inputs by the farmer for successful production. Many products also require considerable processing, packaging, and marketing by sophisticated handling and distribution systems.

Moreover, the increases in agricultural production in Oregon have been accomplished with a constantly decreasing percentage of the state's employed labor force. A hundred years ago, approximately 85 percent of the total labor force was engaged in agricultural production. Today, not more than 5 or 6 percent of the state's employed civilians is so engaged. The reasons for this shift are many, but one thing is certain: many of the activities that used to be done on the farm have moved beyond the farm gate. This shift has been incorporated as part of our state's industrial

growth and the people living in our cities and suburbs who make it work are part of our dynamic agribusiness complex.

The information in this publication suggests that the production of food and fiber commodities in Oregon is the basis for a multimillion dollar pre-production activity as well as a multimillion dollar post-production processing and distribution business. These agribusiness activities provide employment for thousands of Oregonians. They exist in their present magnitude only because agricultural production requires heavy annual demands for cash and the products sold require much processing and handling.

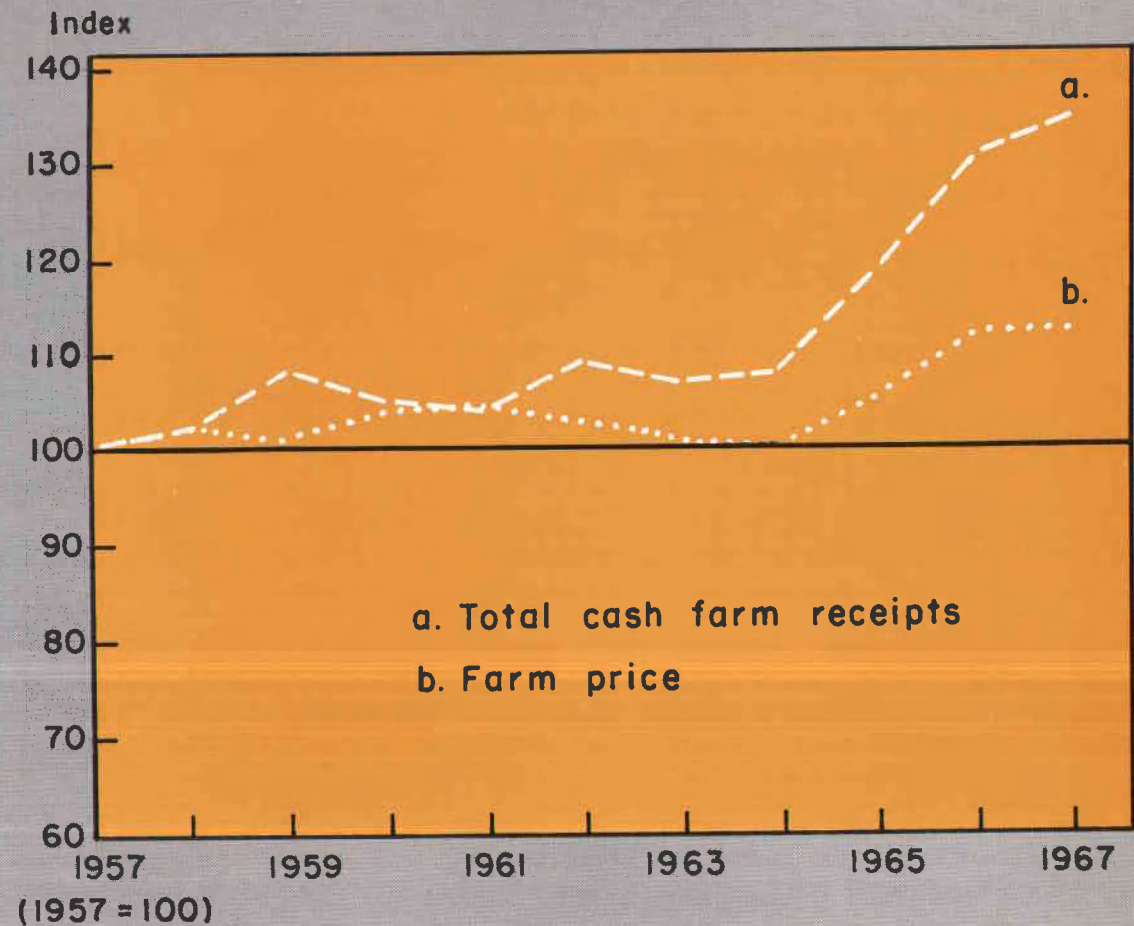
The full significance of the farm and ranch complex in the state's economy is not detailed in this publication. Only the value added by the first handler plus the number of jobs provided is emphasized. Agricultural producers together absorb annually about \$300 million worth



of supply inputs in addition to farm capital consumption of approximately \$70 million which is constantly being replaced. Advalorem property taxes, interest on farm mortgage debt, and rent to non-farm landlords amount to another \$80 million annually. These expenditures have the same beneficial multiplier effect in the economy as the economic activity generated by processing and distribution.

The total package of storing, financing, transporting, wholesaling, jobbing and retailing of agricultural products after processing generates additional multimillion dollars of economic activity and employment for additional thousands. It has not been the intent of this study to detail the multiplier effect of these services. However, these multiplier effects—though complicated in nature and difficult to measure precisely—must not be ignored in evaluating the importance of agriculture as a base for stimulating Oregon's economic growth.

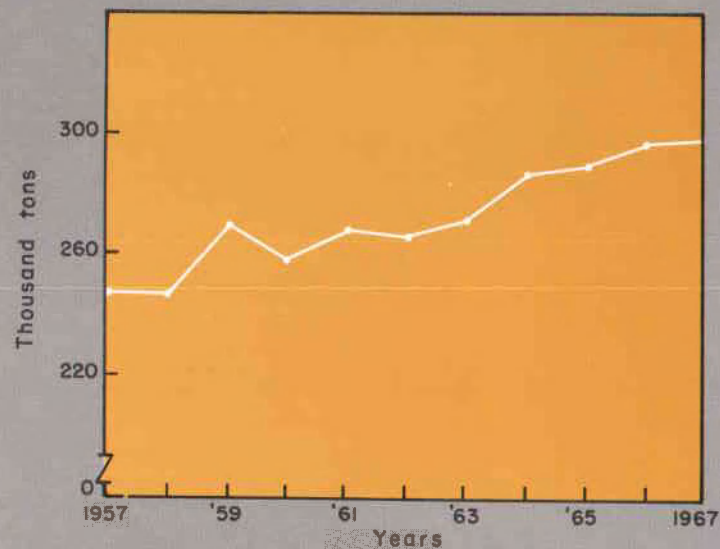
# **I. Comparison of cash receipts from farm marketings and prices received, 1957-1967.**



Cash Farm Receipts: 1957 = \$395,561,000 1967 = \$523,643,000

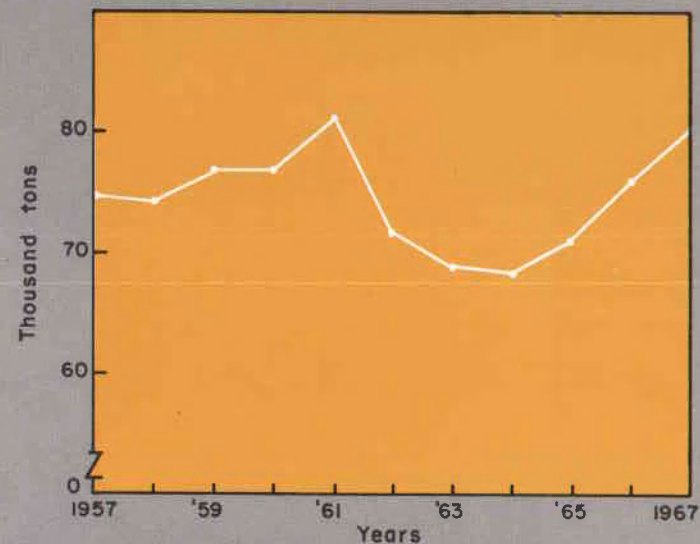
# Our progress charted

## Meat Animals



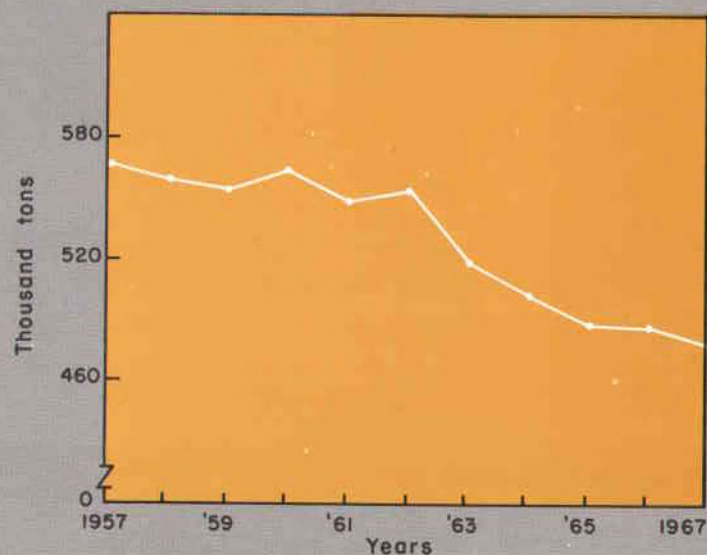
II. Tonnage of meat animals produced in Oregon.

## Poultry and Eggs



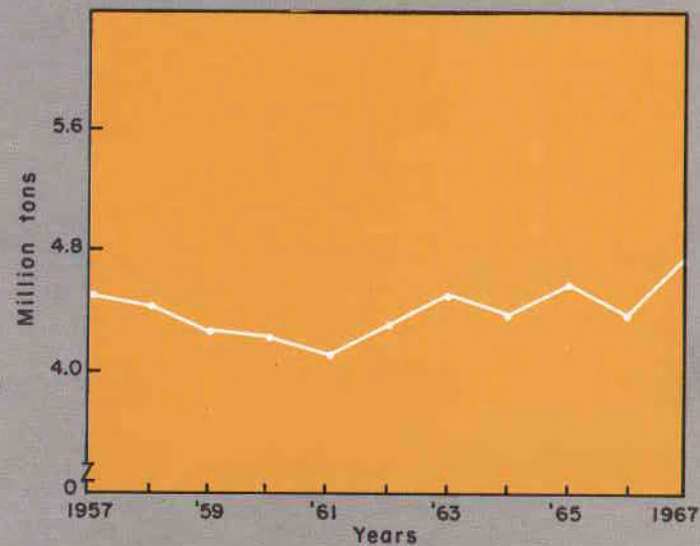
IV. Tonnage of poultry produced in Oregon.

## Milk



III. Milk tonnage produced in Oregon.

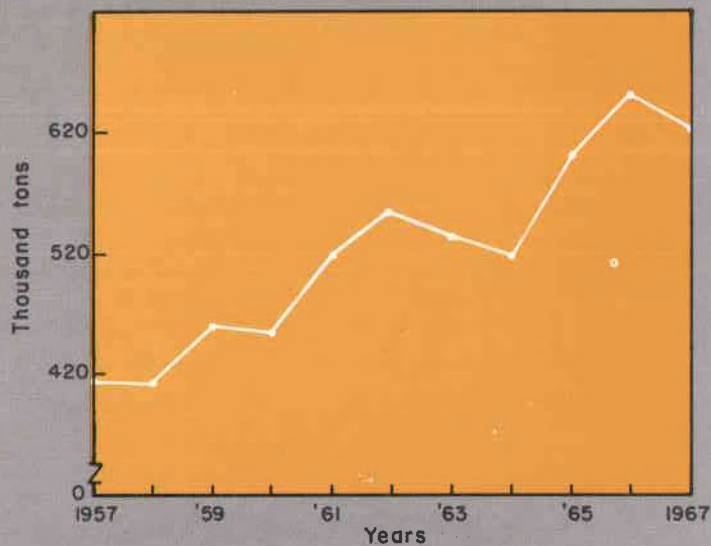
## Total Field Crops



V. Total tonnage of field crops produced in Oregon.

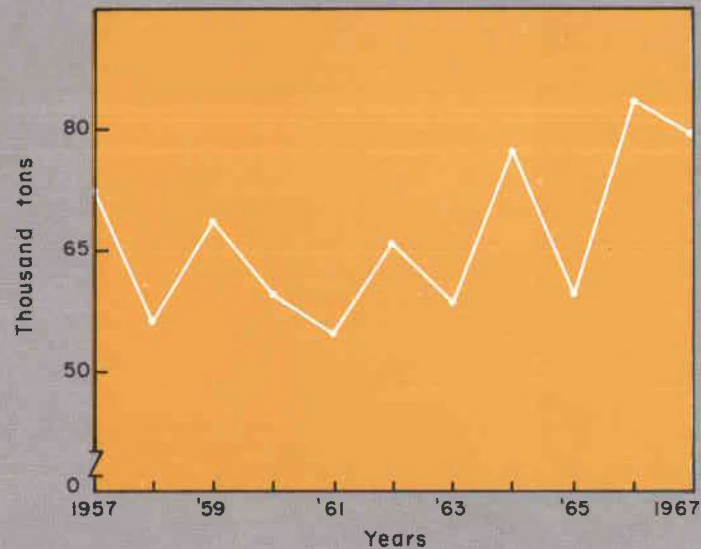


### **Vegetables/Processing and Fresh**



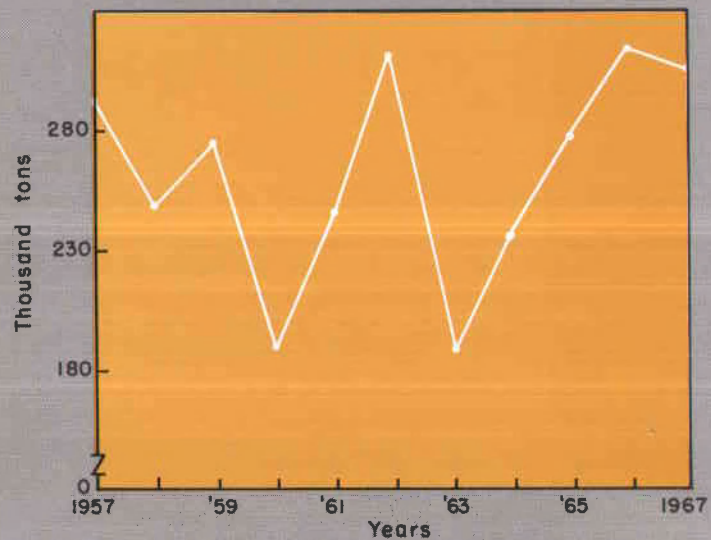
VI. Vegetable tonnage produced in Oregon for canning, freezing, and fresh market.

### **Berries**



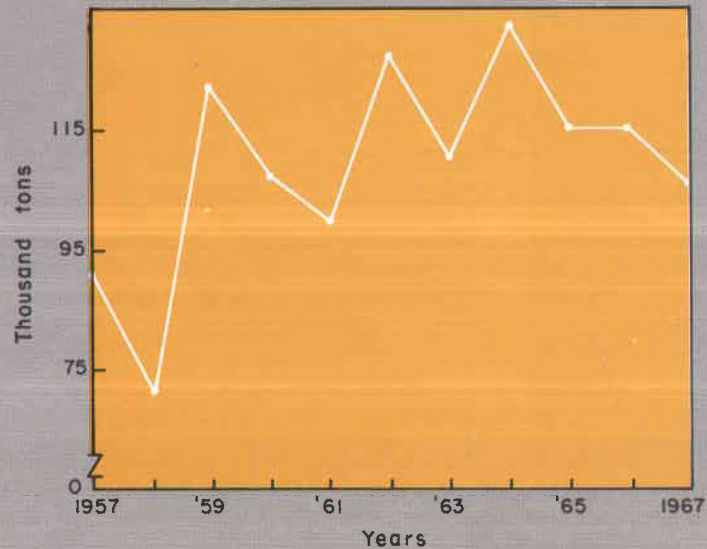
IIIX. Berry tonnage produced in Oregon.

### **Tree Fruits and Nuts**



VII. Tonnage of tree fruits and nuts produced in Oregon.

### **Grass Seeds**



IX. Grass seed tonnage produced in Oregon.





**Summary: Cash Receipts From Farm Marketings and Value Added by Processing, by Commodity Groups,  
Oregon, 1967**

Commodity groups	Income received by farmers <sup>b</sup>	Value added by processing <sup>a</sup>				Total processed value
		Payroll	Packaging materials	Other <sup>c</sup>	Total	
	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
<b>Livestock products</b>						
Meat animals .....	135,612,000	13,710,000	4,033,000	9,140,000	26,883,000	162,495,000
Dairy products .....	49,860,000	17,241,500	8,620,750	8,620,750	34,483,000	84,343,000
Poultry and eggs .....	33,003,000	6,587,000	3,035,000	4,611,000	14,233,000	47,236,000
Miscellaneous livestock .....	10,602,000	462,000		173,000	635,000	11,237,000
Total livestock .....	229,077,000	38,000,500	15,688,750	22,544,750	76,234,000	305,311,000
<b>Crops</b>						
Grain and hay .....	72,856,000	5,981,000		4,957,000	10,938,000	83,794,000
Fruits, nuts .....	71,195,000	21,895,000	26,613,000	33,581,000	82,089,000	153,284,000
Vegetables .....	70,647,000	41,342,000	36,243,000	50,207,000	127,792,000	198,439,000
All other crops .....	79,868,000	7,014,000	1,705,000	4,895,000	13,614,000	93,482,000
Total crops .....	294,566,000	76,232,000	64,561,000	93,640,000	234,433,000	528,999,000
<b>All commodities</b>	523,643,000	114,232,500	80,249,750	116,184,750	310,667,000	834,310,000

<sup>a</sup> Value added in processing includes all the activities performed by processors or first handlers such as meat packers, canners, freezers, or simply cleaning, grading, and sacking as in the case of grass seeds. Also, it includes delivery when generally practiced and costs connected with selling the product. It does not include wholesaling and retailing.

<sup>b</sup> From sales of farm products. These data were taken from *Farm Income State Estimates*, USDA, ERS, August 1968. The data showing cash receipts from marketings for each commodity produced in Oregon were also taken from this publication.

<sup>c</sup> Includes other ingredients, depreciation, repairs, power, heat, lights, water, telephone, office supplies, advertising, licenses, insurance, rent, taxes, interest, bad debt loss, and profit. Profit in most cases is a minor item in terms of total expenses in processing and handling farm products.



# Contents

Preface 2

Introduction 4

Commodity Graphs 6

Commodity Summaries 11

Meat Animals 11

Dairy Products 12

Poultry and Eggs 13

Miscellaneous Livestock 14

Grain and Hay Crops 15

Fruits and Nuts 16

Vegetables 18

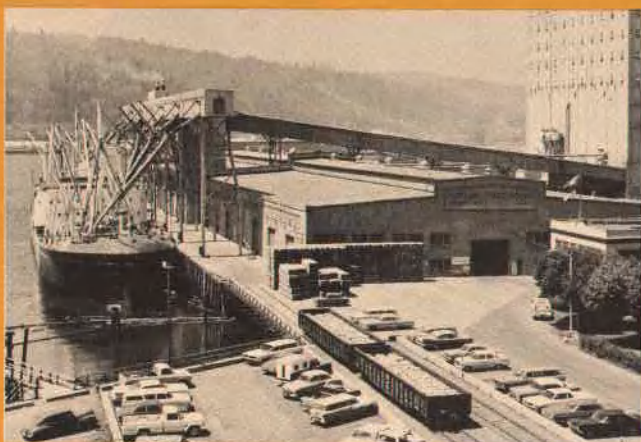
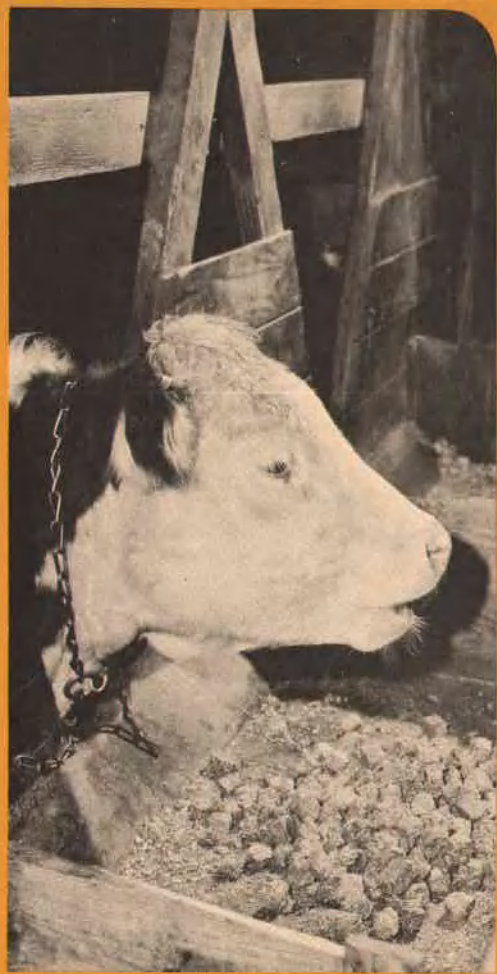
All Other Crops 21

Employment Needed to Provide  
Agricultural Equipment, Supplies,  
and Services to Farmers 23

Transportation 24

Expenditures for Food—  
Wholesale and Retail Activity 22







# Commodity summaries

## MEAT ANIMALS

### SUMMARY:

Received by producers for all meat animals .....	\$135,612,000
Total value added through packing and delivery ..	26,883,000
Total received by producers plus value added through packing and delivery .....	\$162,495,000

### Number of employees:

Meat packing, processing, and delivery .....	1,696
Commercial feeding .....	140
Livestock auctions and livestock buyers .....	255
Animal husbandry services <sup>1</sup> .....	337

Total ..... 2,428

The total pounds of livestock slaughtered in Oregon declined by 8,000,000 pounds, or 2 percent, between 1963 and 1967. This decline occurred even though beef slaughter increased by 35,000,000 pounds, or 12 percent, during the past four years. All other classes of livestock declined in importance.

It should be kept in mind that while lamb and hog production has declined in total importance, there are growers who, because of their ability and resources, produce these red meats at a profit. Furthermore, it may be their best alternative. For these reasons, lamb and hog production should be encouraged wherever economically feasible. Both of these products add to the viability and balance of Oregon's agriculture.

### Cattle and Calves

Amount paid to producers .....	\$119,156,000
Number of cattle slaughtered in Oregon .....	316,700
Number of calves slaughtered in Oregon .....	18,700
Number of cattle and calves sold outside Oregon <sup>2</sup> .....	504,000

### Sheep and Lambs

Amount paid to producers .....	\$ 7,921,000
Number of sheep and lambs slaughtered in Oregon .....	147,400
Estimated number of sheep and lambs sold outside Oregon .....	218,000

### Hogs

Amount paid to producers .....	\$ 8,535,000
Number slaughtered in Oregon .....	266,000
Number produced in Oregon .....	189,000
Estimated number shipped in for slaughter ..	77,000

### Livestock slaughtered

Cattle: 317,333,000 lbs. (\$21.20/cwt.) .....	\$ 67,275,000
Calves: 6,040,000 lbs. (\$25.20/cwt.) .....	1,522,000
Sheep and lambs: 15,330,000 lbs. (\$20.80/cwt. <sup>3</sup> ) .....	3,189,000
Hogs: 60,116,000 lbs. (\$20.00/cwt.) .....	12,023,000

Total received by producers and feeders for livestock slaughtered in Oregon .....	\$ 84,009,000
Payroll (51%) .....	\$ 13,710,000
Packaging materials (15%) .....	4,033,000
Other (34%) .....	9,140,000

Total value added through packing and delivery<sup>4</sup> ..... \$ 26,883,000

<sup>1</sup> This figure includes veterinarians, meat graders, market news service employees, and others who are employed here because a livestock industry exists in the state.

<sup>2</sup> Data obtained from the Oregon State Department of Agriculture.

<sup>3</sup> Five percent estimated to be ewes and 95 percent lambs. Prices received are weighted accordingly.

<sup>4</sup> *Financial Facts About the Meat Packing Industry, 1966*, published by the American Meat Institute, shows value added to the cost of livestock through meat packing (slaughter, processing, delivery) amounted to 30 percent in 1966. This includes the activities of prepared-meat plants, but because Oregon may have a higher proportion than the national average, value added is raised by two percentage points to 32 percent.



## DAIRY PRODUCTS

### SUMMARY:

Received by producers for sales of milk .....	\$ 49,860,000
Value added in processing and distribution of milk and milk products .....	34,483,000

Total value of Oregon-produced milk after processing and home delivery .....	\$ 84,343,000
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Number of people employed .....	2,717
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Compared with 1963, Oregon dairy farms are now producing 8.6 percent less milk. With reference to use, the reduction was largely in milk for fluid consumption. Actually, there was a slight increase in the production of butter, cheddar cheese, and ice cream in Oregon between 1963 and 1967.

It is assumed that consumption of milk in Oregon is declining on a per person basis as in the rest of the country; hence, there is less demand for fluid milk.

In several respects, the dairy industry in Oregon has never been more viable. Annual production per cow is 8,210 pounds, up 11 percent since 1963. Furthermore, the number of herds over 100 cows is increasing and small herds are disappearing. On the processing side, there have been consolidations and mergers of firms which, no doubt, increase the efficiency of the dairy industry in Oregon and will continue to be one of the most essential and important industries in the years to come.

### All Milk

Amount paid to producers .....	\$ 49,860,000
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Total pounds of milk produced:	
In Oregon <sup>5</sup> .....	961,000,000
Less home use .....	60,000,000

Total pounds sold .....	901,000,000
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### Value Added in Processing and Distribution—All Uses<sup>6</sup>

Payroll (50%) .....	\$ 17,241,500
Packaging materials (25%) .....	8,620,750
Other (25%) .....	8,620,750

Total value added by processing and distribution .....	\$ 34,483,000
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<sup>5</sup> Data are from *Milk Production, Disposition, and Income, 1966-67*, USDA, April 1968.

<sup>6</sup> Value added to milk sold as fluid was calculated at \$5.75 a hundredweight. The other one-half of the supply going into manufactured products shows value added at \$1.90 a hundredweight.



## POULTRY AND EGGS

### SUMMARY:

Total received by producers .....	\$ 33,003,000
Total value added in processing .....	14,233,000
<hr/>	
Total value after processing and delivery .....	\$ 47,236,000
Number of people employed in poultry processing and delivery .....	617
Number of people employed in chicken egg processing and delivery .....	275
Number of people employed in turkey hatching egg processing and delivery .....	140

Broiler production increased by 62 percent between 1963 and 1967, and this happened in the face of severe competition from other states.

Turkey production also increased during this same four-year period, amounting to 21 percent. Income received by turkey growers, however, was down 5 percent simply because of a drastic reduction in price of 26 percent between 1963 and 1967. This illustrates what can happen to growers when prices received decline severely.

Egg production declined 8 percent since 1963 and prices are also down, resulting in a 15 percent income received by growers.

The poultry industry in Oregon must be considered one of the best in the agricultural sector. Its stress on efficiency and excellence with respect to quality has benefited all of us.

As with most other segments, poultry generates economic activity beyond that shown here, but it is difficult to specifically assign these activities. For example, it is estimated that more than 50 percent of all manufactured feed is consumed by poultry. Employment and transportation thus generated are shown elsewhere in this report as totals for all of agriculture.

Broilers	
Amount paid producers .....	\$ 8,095,000
Total pounds sold (17.1¢/lb. live wt.) .....	47,339,000
Total pounds sold dressed weight <sup>7</sup> .....	34,084,000
Total payroll (58%) .....	\$ 2,452,000
Packaging materials (15%) .....	633,000
Other (27%) .....	1,141,000

Value added by processing, sales, and delivery .....	\$ 4,226,000
Total value when processed and delivered .....	\$ 12,321,000

Farm Chickens	
Amount paid producers .....	\$ 391,000
Total pounds sold (5.0¢/lb. live wt.) .....	7,820,000
Total pounds sold dressed weight <sup>7</sup> .....	5,630,000
Total payroll (63%) .....	\$ 511,000
Packaging materials (10%) .....	81,000
Other (27%) .....	219,000

Value added by processing, sales, and delivery .....	\$ 811,000
Total value when processed and delivered .....	\$ 1,202,000

Turkeys	
Amount paid producers .....	\$ 6,716,000
Total pounds sold (17.5¢/lb. live wt.) .....	38,377,000
Total pounds sold dressed weight <sup>8</sup> .....	30,702,000
Total payroll (41%) .....	\$ 1,196,000
Packaging materials (21%) .....	612,000
Other (38%) .....	1,108,000

Value added by processing, sales, and delivery .....	\$ 2,916,000
Total value when processed and delivered .....	\$ 9,632,000

Eggs	
Amount paid producers .....	\$ 13,972,000
Dozen sold (33.6¢/doz.) .....	41,583,000
Total payroll (38%) .....	\$ 1,580,000
Packaging materials (36%) .....	1,497,000
Other (26%) .....	1,082,000

Value added in processing—grading, cleaning, packaging, and delivery .....	\$ 4,159,000
Total value when processed and delivered .....	\$ 18,131,000

Turkey Hatching Eggs	
Amount paid producers .....	\$ 3,829,000
Total number of eggs sold (22.0¢/each) .....	17,400,000
Payroll (40%) .....	\$ 848,000
Packaging materials (10%) .....	212,000
Other (50%) .....	1,061,000
Total value added by processing and handling <sup>9</sup> .....	\$ 2,121,000
Total value after processing and handling .....	\$ 5,950,000

<sup>7</sup> The dressing percentage was estimated to be 72 percent.

<sup>8</sup> The dressing percentage was estimated to be 80 percent.



## MISCELLANEOUS LIVESTOCK

### SUMMARY:

Total received by producers .....	\$ 10,602,000
Total value added in handling .....	635,000

Total value after processing and handling .....	\$ 11,237,000
Number of persons employed .....	70

#### Wool<sup>10</sup>

Amount paid to growers .....	\$ 1,894,000
Total pounds sold (40¢/lb.) .....	4,735,000
Payroll (55%) .....	\$ 39,000
Other (45%) .....	32,000

Value added in grading, handling, marketing .....	\$ 71,000
Value of marketed wool .....	\$ 1,965,000

#### Mink<sup>11</sup>

Amount paid to growers .....	\$ 5,640,000
Total pelts sold (\$14.28 each) .....	395,000
Payroll (75%) .....	\$ 423,000
Other (25%) .....	141,000

Value added as result of selling costs .....	\$ 564,000
Value including selling costs .....	\$ 6,204,000

#### Honey and Beeswax

Amount paid to producers .....	\$ 441,000
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#### Mohair

Amount paid to producers .....	\$ 18,000
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#### Other Livestock<sup>12</sup>

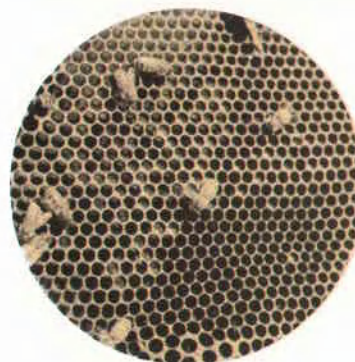
Amount paid to producers .....	\$ 2,609,000
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<sup>9</sup> About 50 percent of the eggs were shipped out of the state by hatcherymen who receive 5¢ per egg for this function. Of the remaining 50 percent, 6,000,000 salable poults were hatched and sold for an average price of 60¢ each.

<sup>10</sup> Most wool in Oregon is now purchased directly by mills from county wool pools. The buying commission is estimated at 1.5¢ a pound.

<sup>11</sup> Pelts are nearly all processed into fur pieces in other states. However, *Mink, The Jewel of American Agriculture*, National Board of Fur Farms Organizations, Milwaukee, Wisconsin, estimates selling costs amount to 10 percent of the value of pelts at the farm level.

<sup>12</sup> Includes horses, goats, rabbits, ducks, geese, and other livestock and products.





## GRAIN AND HAY CROPS

### SUMMARY:

Total received by growers .....	\$ 72,856,000
Value added in handling and transport .....	10,938,000
<hr/>	
Total value after handling and transport .....	\$ 83,794,000
Total number of people employed .....	745

Wheat production continues to be one of Oregon's most important industries. It is a crop controlled by federal programs which means that, to a large measure, the future production depends on these programs.

Feed production in Oregon is very short of requirements. In spite of these shortages, cattle feeding and broiler production have increased in the past four years, which indicates considerable confidence on the part of these producers to meet competition. The inshipment of millions of dollars worth of feed each year creates economic activity in the transportation, feeding, and processing areas.

#### Wheat

Amount paid to growers .....	\$ 46,074,000
Total bushels sold (\$1.42/bu.) .....	32,400,000
Payroll (50%) .....	\$ 3,431,000
Other (50%) .....	3,431,000

Total value added by handling and transport <sup>13</sup> .....	\$ 6,862,000
Value of 85% of crop delivered in Portland .....	\$ 52,936,000

#### Rye

Amount paid to growers .....	\$ 271,000
Total bushels sold (\$1.16/bu.) .....	233,000
Payroll (50%) .....	\$ 24,000
Other (50%) .....	24,000

Total value added by handling and transport .....	\$ 48,000
Value of crop delivered to market .....	\$ 319,000

<sup>13</sup> It was estimated that 85 percent of the crop was moved to Portland for export or domestic sale. The average margin between Portland and the farm price was slightly over 21¢ a bushel.

#### Barley<sup>14</sup>

Amount paid to growers .....	\$ 9,990,000
Total tons sold (\$46.70/ton) .....	212,000
Payroll (52%) .....	\$ 289,000
Other (48%) .....	267,000

Total value added by handling and transport .....	\$ 556,000
Value of crop delivered to markets or feeders .....	\$ 10,546,000

#### Hay<sup>15</sup>

Amount paid to growers .....	\$ 13,557,000
Total tons sold (\$24) .....	565,000
Payroll (65%) .....	\$ 2,158,000
Other (35%) .....	1,162,000

Total value added by handling and transport .....	\$ 3,320,000
Value when delivered to markets or feeders .....	\$ 16,877,000

#### Oats<sup>14</sup>

Amount paid to growers .....	\$ 2,362,000
Total tons sold (\$51.25) .....	46,000
Payroll (52%) .....	\$ 62,000
Other (48%) .....	58,000

Total value added by handling and transport .....	\$ 120,000
Value of crop delivered to markets or feeders .....	\$ 2,482,000

#### Corn<sup>14</sup>

Amount paid to growers .....	\$ 602,000
Total tons sold (\$49.60/ton) .....	12,000
Payroll (52%) .....	\$ 17,000
Other (48%) .....	15,000

Total value added by handling and transport .....	\$ 32,000
Value of crop delivered to markets or feeders .....	\$ 634,000

<sup>14</sup> It was estimated that about 65 percent of the crop was transported in nonfarm trucks (or rail or water) and/or a handling charge was involved.

<sup>15</sup> It was estimated that 75 percent of all hay sold moved in nonfarm trucks. Nearly all of the value added is believed to be for transportation, although some hay does move through feed stores.



## FRUITS AND NUTS

### SUMMARY:

Amount paid to growers .....	\$ 71,195,000
Total value added in processing .....	82,089,000
Total value of processed products .....	\$153,284,000
Total number of year-round worker equivalents .....	3,900

The crop year 1967 was a "good year" for Oregon fruit and nut growers from the point of view of both production and price. Compared to 1963, growers received \$29,000,000, or 68 percent more income. Production in 1967 was higher for strawberries, pears, cherries, plums-prunes, filberts, and cranberries. Production was lower for apples, peaches, and walnuts.

Prices of all fruits and nuts were higher in 1967 than in 1963.

The production of tree fruits and nuts may vary greatly from year to year almost entirely due to the weather. The 1968 fruit crop was poor, largely because of late frosts.

### Strawberries

Amount paid to growers .....	\$ 12,915,000
Total pounds sold (14.2¢/lb.) .....	90,950,000
Payroll (25%) .....	\$ 4,197,000
Packaging materials (33%) .....	5,541,000
Other (42%) .....	7,052,000
Total value added by processing .....	\$ 16,790,000
Value of processed pack .....	\$ 29,705,000

### Pears<sup>16</sup>

Amount paid to growers .....	\$ 21,810,000
Total tons sold (\$143/ton) .....	153,000
Payroll (27%) .....	\$ 5,829,000
Packaging materials (31%) .....	6,692,000
Other (42%) .....	9,067,000
Total value added in processing (fresh and processed) .....	\$ 21,588,000
Value of processed pack (fresh and processed) .....	\$ 43,398,000

<sup>16</sup> About 60 percent was sold in fresh form and 40 percent was canned and processed.

### Cherries<sup>17</sup>

Amount paid to growers .....	\$ 15,235,000
Tons sold: sweet and sour (\$364/ton) .....	42,000
Payroll (22%) .....	\$ 4,022,000
Packaging materials (30%) .....	5,485,000
Other (48%) .....	8,775,000
Total value added by processing .....	\$ 18,282,000
Value of processed pack .....	\$ 33,517,000

### Apples<sup>18</sup>

Amount paid to growers .....	\$ 5,299,000
Total bushels sold (\$2.34/bu.) .....	2,265,000
Payroll (41%) .....	\$ 2,683,000
Packaging materials (33%) .....	2,159,000
Other (26%) .....	1,701,000
Total value added by processing and packaging .....	\$ 6,543,000
Value of processed pack .....	\$ 11,842,000

### Filberts

Amount paid to growers .....	\$ 3,450,000
Total tons sold (\$500/ton) .....	6,900
Payroll (50%) .....	\$ 518,000
Packaging materials (15%) .....	155,000
Other (35%) .....	362,000
Total value added by processing .....	\$ 1,035,000
Value of processed nuts .....	\$ 4,485,000

### Plums and Prunes

Amount paid to growers .....	\$ 2,626,000
Total tons sold, all uses (\$98.90/ton) .....	26,600
Payroll (25%) .....	\$ 1,805,000
Packaging materials (45%) .....	3,250,000
Other (30%) .....	2,167,000
Total value added by processing .....	\$ 7,222,000
Value of processed products .....	\$ 9,848,000

<sup>17</sup> About 90 percent of the 1967 crop consisted of sweet cherries.

<sup>18</sup> About 20 percent of Oregon apples are canned or processed.

<sup>19</sup> Nearly all Oregon peaches are now sold fresh, most of them in local markets; therefore, the value added at the first stage of the marketing process is estimated at only 2¢ a pound.



<b>Peaches<sup>19</sup></b>		
Amount paid to growers .....		\$ 845,000
Total sold, fresh form (8.2¢/lb.) .....	10,305,000	
Payroll (50%) .....	\$ 103,000	
Other (50%) .....	103,000	

Total value added by packaging and delivery .....	\$ 206,000
Total delivered value .....	\$ 1,051,000

<b>Walnuts</b>		
Amount paid to growers .....		\$ 791,000
Total tons sold, all uses (\$510/ton) .....	1,550	
Payroll (60%) .....	\$ 167,000	
Packaging materials (15%) .....	42,000	
Other (25%) .....	70,000	

Total value added by processing .....	\$ 279,000
Value of processed nuts .....	\$ 1,070,000

<b>Cranberries<sup>20</sup></b>		
Amount paid to growers .....		\$ 983,000
Total pounds sold (15¢/lb.) .....	6,553,000	
Payroll (45%) .....	\$ 79,000	
Other (55%) .....	97,000	

Total value added in Oregon .....	\$ 176,000
Value of Oregon crop when delivered in Washington .....	\$ 1,159,000

<b>Other Berries<sup>21</sup></b>		
Amount paid to growers .....		\$ 7,120,000
Payroll (25%) .....	\$ 2,492,000	
Packaging materials (33%) .....	3,289,000	
Other (42%) .....	4,187,000	

Total value added by processing .....	\$ 9,968,000
Value of processed crop .....	\$ 17,088,000

<b>Other Fruits and Nuts<sup>22</sup></b>		
Amount paid to growers .....		\$ 121,000

<sup>20</sup> Oregon cranberries are processed in Aberdeen, Washington. Value added in Oregon amounts to (1) receiving and cleaning, (2) freezing and storage, and (3) transportation to Washington. Value added in Oregon was 2.68¢ a pound in 1967.

<sup>21</sup> At least 80 percent of "Other Berries" are raspberries and blackberries.

<sup>22</sup> Value added in processing and handling probably would be nominal even if information were available upon which to base an estimate.







## VEGETABLES

### SUMMARY:

Total received by growers .....	\$ 70,647,000
Total value added in processing and handling .....	127,792,000
Value of processed vegetables .....	\$198,439,000
Total number of year-round worker equivalents ..	7,400

A vegetable pack valued at nearly \$200,000,000 in 1967 is \$64,000,000, or 48 percent, greater than in 1963. The increased value is due to both greater tonnage and higher prices.

During the four-year period from 1963 to 1967, potato production increased 63 percent, onions 51 percent, sweet corn 90 percent, cabbage 94 percent, and lettuce 100 percent. Smaller increases in tonnage occurred in snap beans, carrots, cauliflower, and tomatoes. Tonnage of beets, green peas, broccoli, and asparagus declined only slightly.

There is every indication that tonnage of vegetables will continue to increase. The industry is so large and important that buyers now look to Oregon for both quality and quantity to meet their requirements. This should tend to increase our comparative advantage relative to some of the other producing areas.

### Potatoes

Amount paid to growers .....	\$ 22,182,000
Total hundredweight sold, all uses (\$1.86/cwt.) ..	11,925,000
Less potatoes sold for live-stock feed and seed (18%) ..	2,146,000
Estimated total hundredweight sold for food .....	9,779,000
Payroll (25%) .....	\$ 9,168,000
Packaging materials (35%) .....	12,835,000
Other (40%) .....	14,669,000
Total value added by processing (90¢/cwt. for potatoes sold fresh—57% of salable crop; and \$7.50/cwt. for potatoes processed—43% of crop—weighted average of \$3.75/cwt.) ..	\$ 36,672,000
Value of processed pack .....	\$ 58,854,000



### Snap Beans

Amount paid to growers .....	\$ 14,964,000
Total tons sold (\$113/ton) .....	132,400
Payroll (32%) .....	\$ 10,535,000
Packaging materials (25%) .....	8,230,000
Other (43%) .....	14,156,000
<hr/>	
Total value added by processing .....	\$ 32,921,000
Value of processed pack .....	\$ 47,885,000

### Onions

Amount paid to growers .....	\$ 10,542,000
Total hundredweight sold (\$4.60/cwt.) .....	2,292,000
Payroll (35%) .....	\$ 1,003,000
Packaging materials (35%) .....	1,003,000
Other (30%) .....	859,000
<hr/>	
Value added by grading, sacking, and handling (\$1.25/cwt.) .....	\$ 2,865,000
Value of processed (graded and sacked) pack .....	\$ 13,407,000

### Sweet Corn

Amount paid to growers .....	\$ 6,911,000
Tons sold, all uses (\$29.40/ton) .....	235,000
Payroll (34%) .....	\$ 6,814,000
Packaging materials (26%) .....	5,211,000
Other (40%) .....	8,017,000
<hr/>	
Total value added by processing .....	\$ 20,042,000
Value of processed pack .....	\$ 26,953,000

### Green Peas

Amount paid to growers .....	\$ 5,599,000
Total tons sold, all uses (\$106/ton) .....	53,000
Payroll (26%) .....	\$ 3,203,000
Packaging materials (24%) .....	2,956,000
Other (50%) .....	6,159,000
<hr/>	
Total value added by processing .....	\$ 12,318,000
Value of processed pack .....	\$ 17,917,000

### Broccoli

Amount paid to growers .....	\$ 1,574,000
Total hundredweight sold (\$9.15/cwt.) .....	172,000
Payroll (50%) .....	\$ 2,204,000
Packaging materials (20%) .....	881,000
Other (30%) .....	1,322,000
<hr/>	
Total value added by processing .....	\$ 4,407,000
Value of processed pack .....	\$ 5,981,000

### Carrots

Amount paid to growers .....	\$ 1,065,000
Total hundredweight sold (\$1.28/cwt.) .....	832,000
Payroll (55%) .....	\$ 4,100,000
Packaging materials (28%) .....	2,087,000
Other (17%) .....	1,268,000
<hr/>	
Total value added by processing .....	\$ 7,455,000
Value of processed pack .....	\$ 8,520,000

### Cabbage<sup>23</sup>

Amount paid to growers .....	\$ 856,000
Total hundredweight sold (\$1.94/cwt.) .....	441,000
Payroll (55%) .....	\$ 184,000
Packaging materials (30%) .....	101,000
Other (15%) .....	50,000
<hr/>	
Total value added by packing and delivery .....	\$ 335,000
Value of packed and delivered product .....	\$ 1,191,000

### Dry Peas

Amount paid to growers .....	\$ 515,000
Total hundredweight sold (\$4.70/cwt.) .....	109,000
Payroll (40%) .....	\$ 44,000
Packaging materials (23%) .....	25,000
Other (37%) .....	40,000
<hr/>	
Total value added by processing .....	\$ 109,000
Value of clean and sacked crop .....	\$ 624,000

<sup>23</sup> It is estimated 35 percent of this crop was processed into sauerkraut.



**Lettuce<sup>24</sup>**

Amount paid to growers .....	\$	775,000
Total hundredweight sold (\$6.80/cwt.) .....	114,000	
Payroll (55%) .....	\$	64,000
Packaging materials (10%) .....		12,000
Other (35%) .....		40,000
<hr/>		
Total value added in grading, crating, and delivery .....	\$	116,000
Value of lettuce pack .....	\$	891,000

**Cauliflower**

Amount paid to growers .....	\$	856,000
Total hundredweight sold (\$5.35/cwt.) .....	160,000	
Payroll (40%) .....	\$	1,062,000
Packaging materials (16%) .....		425,000
Other (44%) .....		1,167,000
<hr/>		
Total value added by processing .....	\$	2,654,000
Value of processed pack .....	\$	3,510,000

**Beets**

Amount paid to growers .....	\$	689,000
Total tons sold (\$21.60/ton) .....	32,000	
Payroll (40%) .....	\$	1,791,000
Packaging materials (42%) .....		1,881,000
Other (18%) .....		806,000
<hr/>		
Total value added by processing .....	\$	4,478,000
Value of processed pack .....	\$	5,167,000

**Asparagus<sup>25</sup>**

Amount paid to growers .....	\$	496,000
Total hundredweight sold (\$15.50/cwt.) .....	32,000	
Payroll (55%) .....	\$	70,000
Packaging materials (10%) .....		13,000
Other (35%) .....		45,000
<hr/>		
Total value added by crating and delivery .....	\$	128,000
Value of delivered crop .....	\$	624,000

**Tomatoes<sup>25</sup>**

Amount paid to growers .....	\$	515,000
Total hundredweight sold (\$9.40/cwt.) .....	55,000	
Payroll (55%) .....	\$	61,000
Packaging materials (10%) .....		11,000
Other (35%) .....		38,000
<hr/>		
Total value added by crating and delivery .....	\$	110,000
Value of delivered crop .....	\$	625,000

**Cucumbers<sup>26</sup>**

Amount paid to growers .....	\$	1,287,000
Total hundredweight sold (3.50/cwt.) .....	368,000	
Payroll (30%) .....	\$	736,000
Packaging materials (15%) .....		369,000
Other (55%) .....		1,350,000
<hr/>		
Total value added by processing .....	\$	2,455,000
Value of processed pack .....	\$	3,742,000

**Watermelons<sup>27</sup>**

Amount paid to growers .....	\$	479,000
Total hundredweight sold (\$2.35/cwt.) .....	204,000	
Payroll (65%) .....	\$	33,000
Other (35%) .....		18,000
<hr/>		
Total value added by delivery .....	\$	51,000
Value of delivered crop .....	\$	530,000

**Miscellaneous Vegetables<sup>28</sup>**

Amount paid to growers .....	\$	1,342,000
Payroll (40%) .....	\$	270,000
Packaging materials (30%) .....		203,000
Other (30%) .....		203,000
<hr/>		
Total value added by processing .....	\$	676,000
Value of processed pack .....	\$	2,018,000

<sup>24</sup> This crop is sold fresh, so *value added* takes the form of crates, labor, and local transportation. The amount is considered to be nominal because farm workers are largely involved in these operations.

<sup>25</sup> Nearly all Oregon-grown asparagus and tomatoes are sold fresh, so *value added* takes the form of crates, labor, and local transportation. The amount is considered to be nominal because mainly farm workers are involved in these operations.

<sup>25</sup> *Op. cit.*

<sup>26</sup> It is estimated that 80 percent of Oregon cucumbers are processed into dill pickles, sweet pickles, and relish.

<sup>27</sup> It is estimated that about 50 percent of Oregon-grown watermelons move into market in other than farmer-owned trucks at an average cost of \$10 a ton.

<sup>28</sup> Included are lima beans for processing, celery, Brussels sprouts, green peppers, spinach, cantaloupes, garlic, and miscellaneous vegetables.



## ALL OTHER CROPS

### SUMMARY:

Total amount received by growers .....	\$ 79,868,000
Total value added by processing and handling ....	13,614,000
<hr/>	
Value of processed crops .....	\$ 93,482,000
Total number of people employed .....	1,170

Oregon has a national reputation in the grass seed business. We produce most of the nation's ryegrass and bentgrass seed. Many of the fine golf courses and lawns of the United States were started with high-quality grass seed produced in Oregon.

Nursery and greenhouse products continue to increase in importance in Oregon. Between 1963 and 1967, nursery and greenhouse sales increased 43 percent. During this same period, prices increased about 15 percent, which means quantities sold increased about a fourth.

The production of peppermint oil in Oregon is a booming industry, increasing 91 percent in the past four years.

A few years ago, it was believed hops could not be grown in Oregon, largely because of a serious disease problem. This has been corrected, and hops production has increased 36 percent since 1963.

### Sugar Beets

Amount paid to growers .....	\$ 6,442,000
Total tons sold (\$13.20/ton) .....	488,000
Payroll (50%) .....	\$ 2,191,000
Packaging materials (15%) .....	657,000
Other (35%) .....	1,534,000
<hr/>	
Total value added by processing .....	\$ 4,382,000
Value of processed crop .....	\$ 10,824,000





### Seed Crops<sup>29</sup>

Amount paid to growers (all seeds) .....	\$ 26,822,000
Total pounds sold, all seeds, (clean-seed basis) ..	206,901,000
Payroll <sup>30</sup> (41%) .....	\$ 1,310,000
Packaging materials (22%) .....	703,000
Other (37%) .....	1,182,000
Total value added by cleaning, sacking, and handling .....	\$ 3,195,000
Value of clean, sacked seed .....	\$ 30,017,000

### Nursery and Greenhouse<sup>31</sup>

Amount paid to growers .....	\$ 25,852,000
Payroll (60%) .....	\$ 1,551,000
Other (40%) .....	1,034,000
Total value added in handling and wholesaling <sup>32</sup> .....	\$ 2,585,000
Value at wholesale level .....	\$ 28,437,000

### Farm Forest Products<sup>33</sup>

Total received by producers .....	\$ 4,054,000
Payroll (55%) .....	\$ 1,270,000
Other (45%) .....	1,040,000
Total value added by processing .....	\$ 2,310,000
Value of processed materials .....	\$ 6,364,000

<sup>29</sup> Includes ryegrass seed, 132,145,000 pounds; all fescue seed, 25,846,000 pounds; Kentucky blue grass seed, 17,134,000 pounds; Alfalfa seed, 8,362,000 pounds; bentgrass seed, 7,958,000 pounds; crimson clover, 5,837,000 pounds; vetch seed, 5,094,000 pounds; red clover seed, 2,270,000 pounds; Merion Kentucky bluegrass seed, 1,940,000 pounds; and white clover, 315,000 pounds.

<sup>30</sup> Payroll was reduced 30 percent because a substantial amount of grass seed was cleaned on farms by labor that is counted as part of agricultural employment.

<sup>31</sup> The 1964 Census of Agriculture (Oregon) shows that trees, shrubs, vines, and ornamentals accounted for 41 percent of sales; cut flowers, potted plants, florist greens, and bedding plants accounted for another 30 percent; and the remaining sales of 29 percent were composed of vegetables under glass, flower and vegetable seeds, vegetable plants, bulbs, and mushrooms.

<sup>32</sup> It is estimated that 85 to 90 percent of all products are sold outside the state, with most sales being made direct by producers.

### Mint

Amount paid to growers .....	\$ 10,231,000
Total pounds of oil sold (\$5.80/lb.) .....	1,764,000
Payroll (60%) .....	\$ 460,000
Packaging materials (40%) .....	307,000
Total value added in transport, storage, and selling <sup>34</sup> .....	\$ 767,000
Value at market center .....	\$ 10,998,000

### Hops

Amount paid to growers .....	\$ 3,571,000
Total pounds sold (49.0¢/lb.) .....	7,288,000
Payroll (80%) .....	\$ 160,000
Other (20%) .....	40,000
Total value added by storage and selling .....	\$ 200,000
Total value at time of shipment to market .....	\$ 3,771,000

### Other (Miscellaneous Crops)

Amount paid to growers <sup>35</sup> .....	\$ 2,896,000
Payroll (41%) .....	\$ 72,000
Packaging materials (22%) .....	38,000
Other (37%) .....	65,000
Total value added by cleaning, sacking, and handling .....	\$ 175,000
Value of processed products .....	\$ 3,071,000

<sup>33</sup> According to the 1964 Census of Agriculture (Oregon), the sale of standing timber accounted for 56 percent of the total, and sale of firewood, pulpwood, fence posts, christmas trees, and saw logs accounted for the remaining 44 percent.

<sup>34</sup> Most growers own or share ownership in a still (a small percentage is custom distilled), so processing is largely a farm operation. Some value is added, however, through transport to Portland (when in nonfarm-owned trucks) and about 50 percent of the crop is stored in Portland for varying periods of time. About 30 percent of the U.S. crop of mint oil is exported (some from Portland) so this adds to its value. It is estimated that the functions cited above add 7.5 percent to farm value.

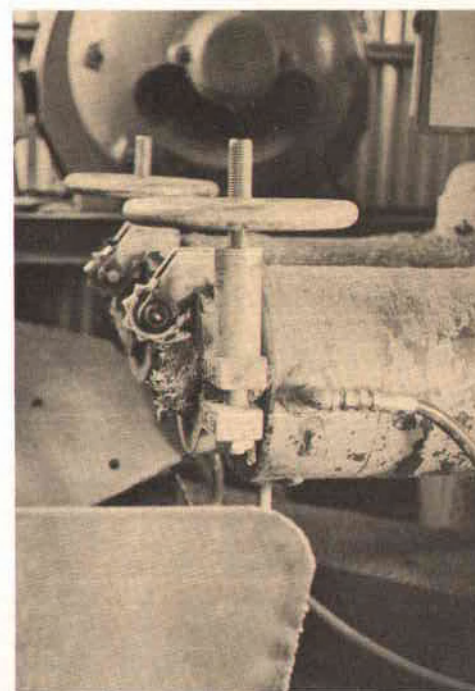
<sup>35</sup> It is estimated that over half of this amount comes from the sale of miscellaneous seeds.



**Employment Needed to Provide  
Agricultural Equipment, Supplies,  
and Services to Farmers**

Activity	Estimated annual average employment <sup>36</sup>
	Number
Agricultural pesticides .....	308
Agricultural services .....	198
Extension of credit—banking services .....	535
Farm machinery equipment and supplies distribution—wholesale .....	400
Farm supply stores .....	450
Fertilizer handling and mixing .....	67
Food products machinery—manufacturing .....	470
Hardware and farm equipment—retail .....	1,100
Making prepared feeds for animals and fowls .....	672
Manufacturing of bags, except textile .....	125
Manufacturing of corrugated and solid fiber boxes .....	140
Manufacturing of folding paperboard boxes .....	60
Manufacturing of glass containers and metal cans .....	600
Manufacturing of sanitary food containers .....	336
Public warehousing of farm products .....	300
Textile bags manufacturing .....	160
<b>Total</b> .....	<b>5,921</b>

<sup>36</sup> These data are based on State of Oregon Department of Employment records.





## TRANSPORTATION

### SUMMARY:

Operating revenues received by motor and rail  
carriers for transportation of agricultural  
commodities—food \_\_\_\_\_ \$ 42,000,000  
Persons employed \_\_\_\_\_ 4,500 to 4,800

Agricultural commodities move both in and out of Oregon. Large quantities of processed fruits and vegetables are shipped to other states (and overseas) along with grass seeds, turkeys, nursery crops, feeder cattle, and mint oil.

In tonnage, in-shippments exceed out-shippments. A large amount of feed is shipped into the state, plus hogs, broilers, citrus fruit, and, of course, many prepared food items.

Incomplete data<sup>37</sup> show that the operating revenues of motor and rail carriers exceeded \$42,000,000 *per annum* in moving food and fiber in and out of Oregon. This does not include the cost of transportation within the state, but much of this information is included elsewhere in this report.

It is estimated that between 4,500 and 4,800 persons in Oregon, counting longshoremen, are involved directly in the transportation and handling of agricultural commodities. This includes rail, truck, water, and air transport.

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<sup>37</sup> Calculated from data published by the Public Utility Commission of Oregon, Transportation Department, Salem.

## EXPENDITURES FOR FOOD Wholesale and Retail Activity

### SUMMARY:

Food expenditures per annum \_\_\_\_\_ \$1,000,000,000  
Employment in wholesale and retail food  
establishments \_\_\_\_\_ 18,319

Oregonians spent an estimated \$875,000,000 for food in 1967 for off-premise consumption (at home and for institutional uses) and another \$125,000,000 for meals in restaurants.<sup>38</sup>


It can be seen that when all of the economic activities for the suppliers of farm inputs through the retail store and restaurant levels are added together, we have a multi-billion dollar industry in Oregon.

Oregon Department of Employment data show an increase of over 3,000 persons employed in wholesaling and retailing between 1963 and 1967. It seems that efficiency in food wholesaling and retailing may, for the time being at least, have reached a plateau. In fact, trading stamps and other promotional schemes may have increased the cost of doing business at the retail level for each dollar of sales.

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<sup>38</sup> Estimates are based on national data in the *Survey of Current Business*, U.S. Department of Commerce, July 1967.





ACKNOWLEDGMENTS: Use has been made of United States Department of Agriculture, United States Department of Commerce, and other data, most of which has been made available from current files maintained by Mrs. Elvera C. Horrell, extension agricultural economist. She has assisted in an important way by locating reference reports and checking the statistical contents of this report. The author, however, developed the estimates of value added in processing to arrive at the totals presented herein.

This publication could not have been developed without the full cooperation of many business and professional people in Oregon. Estimates pertaining to value added and employment were obtained first-hand from processors and handlers of agricultural commodities.

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