

Part 3

FARM PRODUCTION EXPENSES

	<i>page</i>
General Information	
Historical Background	81
Other Published Data	81
Definitions and Explanations	
Changes in Reporting Items	81
Definitions of Selected Items	83
Summary of Findings	
All Expenditures	85
Livestock and Poultry Purchased	87
Feed for Livestock and Poultry	87
Expenditures for Seeds, Bulbs, Plants, and Trees	88
Expenditures for Commercial Fertilizer	88
Expenditures for Gasoline and Other Petroleum Fuel and Oil for the Farm Business	88
Hired Farm Labor	89
Expenditures for Contract Labor	89
Expenditures for Machine Hire and Customwork	89
Expenditures for Lime	90
Expenditures for Agricultural Chemicals Other Than Lime and Commercial Fertilizer	90
All Other Production Expenditures	90
Total Production Expenditures	90
Changes in Selected Farm Expenditures Since 1964	91
CHART: Specified Expenditures, 1969 and 1964, and as a Percent of Total, 1969	86

TABLES

TABLE 1.	Other Published Data for Farm Production Expenses	81
2.	Specified Expenditure Items: 1950 to 1969	82
3.	Farm Production Expenses by Value of Sales, United States: 1969	85
4.	Farm Production Expenses by Type of Farm, United States: 1969	85
5.	Specified Expenditures and Adjustments to 1910-14 Price Levels: 1944 to 1969	92
	ALL FARMS	
6.	Farm Production Expenses: 1969 and 1964	93
7.	Farm Production Expenses—Farms by Expenditure Per Farm: 1969	97
8.	Livestock and Poultry Purchased—Farms by Expenditures Per Farm: 1969 and 1964	98
9.	Feed Purchased for Livestock and Poultry—Farms by Expenditure Per Farm: 1969 and 1964	99
10.	Commercially Mixed Formula Feeds Purchased—Farms by Expenditure and Tons Purchased Per Farm: 1969 and 1964	101
11.	Seeds, Bulbs, Plants, and Trees Purchased—Farms by Expenditure Per Farm: 1969 and 1964	103

Part 3

Farm Production Expenses—Continued

TABLES—Continued

page

	ALL FARMS—Continued	
TABLE 12.	Commercial Fertilizer Purchased—Farms by Expenditure Per Farm:	
	1969 and 1964	104
13.	Gasoline and Other Petroleum Fuel and Oil Purchased—Farms by Expenditure Per Farm: 1969 and 1964	106
14.	Lime Purchased—Farms by Expenditure Per Farm: 1969	108
15.	Agriculture Chemicals Purchased Other Than Commercial Fertilizer and Lime—Farms by Expenditure Per Farm: 1969	109
16.	Hired Farm Labor—Farms by Expenditure Per Farm: 1969 and 1964	110
17.	Contract Labor, Machine Hire and Customwork—Farms by Expenditure Per Farm: 1969 and 1964	112
18.	All Other Production Expenses—Farms by Expenditure Per Farm: 1969	114
	CLASS 1-5 FARMS	
19.	Farm Production Expenses: 1969 and 1964	115
20.	Farm Production Expenses—Farms by Expenditure Per Farm: 1969	121
21.	Livestock and Poultry Purchased—Farms by Expenditure Per Farm: 1969 and 1964	122
22.	Feed Purchased for Livestock and Poultry—Farms by Expenditure Per Farm: 1969 and 1964	124
23.	Commercially Mixed Formula Feeds Purchased—Farms by Expenditure and Tons Purchased Per Farm: 1969 and 1964	126
24.	Feed Ingredients Purchased for Livestock and Poultry—Farms by Expenditure and Tons Purchased Per Farm: 1969	128
25.	Whole Grains Purchased for Feed—Farms by Expenditure and Tons Per Farm: 1969	129
26.	Hay, Green Chop and Silage Purchased for Feed—Farms by Expenditure and Tons Per Farm: 1969	130
27.	Seeds, Bulbs, Plants, and Trees Purchased—Farms by Expenditure Per Farm: 1969 and 1964	131
28.	Commercial Fertilizer Purchased—Farms by Expenditure Per Farm: 1969	132
29.	Gasoline and Other Petroleum Fuel and Oil Purchased—Farms by Expenditure Per Farm: 1969 and 1964	133
30.	Gasoline Purchased—Farms by Expenditure Per Farm: 1969	134
31.	Diesel Fuel Purchased—Farms by Expenditure Per Farm: 1969	135
32.	LP Gas, Butane, and Propane Purchased—Farms by Expenditure Per Farm: 1969	136
33.	Motor Oil, Grease, Piped Gas, Kerosene, and Fuel Oil Purchased—Farms by Expenditure Per Farm: 1969	137
34.	Lime Purchased—Farms by Expenditure and Tons Used Per Farm: 1969	138
35.	Agricultural Chemicals Purchased Other Than Commercial Fertilizer and Lime—Farms by Expenditure Per Farm: 1969	139
36.	Expenditures for Specified Agricultural Chemicals: 1969	140
37.	Hired Farm Labor—Farms by Expenditure Per Farm and by Number of Days Worked: 1969 and 1964	141
38.	Contract Labor—Farms by Expenditure Per Farm: 1969	143
39.	Machine Hire and Customwork—Farms by Expenditure Per Farm: 1969	144
40.	All Other Production Expenses—Farms by Expenditure per Farm	145

PART 3. FARM PRODUCTION EXPENSES

GENERAL INFORMATION

Historical Background

The significant increase in the productivity of the Nation's agriculture has been largely the result of gains made in technology. This technology has allowed the farmers to substitute capital inputs such as fertilizer, chemicals, commercial feeds, hybrid seeds, for land; and machines and other labor-saving devices for labor. The inputs related to current agricultural production were included in the 1969 census. In 1969, these expenditures as measured by the census amounted to \$37.6 billion.

Capital investments, such as those for the purchase of land, buildings, improvements to land and buildings, and equipment were by definition not to be included. Data for these items will be shown in Volume V, Special Reports, Part 11, Farm Finance for 1970.

In each of the 16 censuses since 1870, except for the 1935 census, data have been obtained for selected expenditure items. In the censuses of 1964, 1959, 1954, and 1950, information was based on a sample of approximately 20 percent of the farms. For 1969, 1964, 1959, and 1954, expenditures relate to the census year. For earlier censuses, expenditures cover the calendar year prior to the census year.

In the 1969 census, an attempt was made to obtain reports for total farm-production expenditures. Data for 1969 are pre-

sented in separate tables for all farms and class 1-5 farms (those with sales of \$2,500 and over). Data for institutional farms, grazing associations, and Indian reservations are included only in the tables for all farms.

Other Published Data

Data enumerated in 1969 for farm expenditures, in addition to those published in this chapter, are located as indicated in table 1.

DEFINITIONS AND EXPLANATIONS

Changes in Reporting Items

The expenditure inquiries included in the 1969 census are shown on the facsimilies of the expenditure sections of the two forms used. For 1969, the expenditures were for the calendar year and were to be reported for each farm whether incurred by the operator, partners, landlords, or other involved parties. Farm operators who also rented land to others were to report only expenditures related to the land they operated. The value of the landlord's share of crops or livestock was not to be reported as a production expense. Unpaid family labor and the value of the operators' labor (except for hired managers) were not to be counted as production expenses.

Table 1. Other Published Data for Farm Production Expenses

Where found	Geographical area for which available	Period	Classification	Subjects covered
<u>Volume I</u>				
<u>State tables:</u>			<u>All Farms</u>	
5.....	State.....	1969 - 1959.....	Total farms.....	Production expenses, farms and dollars.
			<u>Class 1-5 farms</u>	
14.....	State.....	1969 - 1959.....	All class 1-5 farms.....	Production expenses, farms and dollars.
24.....	State.....	1969.....	Tenure of operator and type of organization.....	Production expenses, farms and dollars.
25.....	State.....	1969.....	Age of operator.....	Production expenses, farms and dollars.
26.....	State.....	1969.....	Farms by size.....	Production expenses, farms and dollars.
27.....	State.....	1969.....	Farms by economic class.....	Production expenses, farms and dollars.
28.....	State.....	1969.....	Farms by type.....	Production expenses, farms and dollars.
29.....	State.....	1969.....	Farms by type and economic class.....	Production expenses, farms and dollars.
30.....	State.....	1969.....	Large scale farms by type.....	Production expenses, farms and dollars.
<u>County tables:</u>			<u>All Farms</u>	
5.....	County and State.....	1969 - 1964.....	Total farms.....	Production expenses, farms and dollars.
			<u>Class 1-5 Farms</u>	
15.....	County and State.....	1969 - 1964.....	All class 1-5 farms.....	Production expenses, farms and dollars.
<u>County Summary table for selected items:</u>			<u>All Farms</u>	
8.....	County and State.....	1969.....	Total farms.....	Production expenses, farms and dollars.
<u>Volume II:</u>			<u>Class 1-5 Farms</u>	
Chapter 7.....	United States.....	1969.....	Farms by economic class.....	Production expenses, farms and dollars.
Chapter 8.....	United States.....	1969.....	Farms by type.....	Production expenses, farms and dollars.

In previous censuses, data were not obtained on a regular basis, if at all, for many production expenses, such as repair of buildings and machinery, electricity, interest on farm mortgages and production credit loans, taxes, and depreciation. These items were combined into one inquiry item and included in the 1969 report forms as "All other production expenses," making it possible to determine the total production expenses. The sum of the selected expenditure items from prior censuses is not comparable to "Total production expenses in 1969." Data on expenditures for earlier censuses are presented only for items included in the 1969 census. The items of expenditure which have been included in one census of agriculture or more are given in table 2. With the exception of hired labor, machine hire, and custom and contract work, only minor changes have been made from census to census in the wording of the inquiries for the various items of farm expenditures.

Table 2. Specified Expenditure Items: 1950 to 1969

	1969	1964	1959	1954 ¹	1950
Inquiry on report form:					
Livestock and poultry purchased.....	X	X	X	-	² X
Feed for livestock and poultry.....	X	X	X	X	² X
Seeds, bulbs, plants, and trees.....	X	X	X	-	² X
Commercial fertilizer.....	X	X	⁴ X	X	-
Gasoline and other petroleum products.....	X	X	X	X	² X
Hired labor.....	X	X	X	X	X
Contract labor, machine hire, and customwork.....	X	-	-	-	-
Lime.....	X	-	⁵ X	X	-
Insecticides, fungicides, etc.....	X	-	⁵ X	-	-
All other production expenses ⁶	X	-	-	-	-
Machine hire.....	-	X	X	X	² X
Tractor repairs.....	-	-	-	-	⁷ X
Other machinery repairs.....	-	-	-	-	⁷ X
Land clearing, breaking, and draining.....	-	-	⁸ X	-	-
Total and production expenses.....	X	-	-	-	-

¹No inquiries for Alaska and Hawaii for any items. ²No inquiry for Alaska.
³No inquiry for Hawaii. ⁴Inquiries for Alaska and Hawaii only. ⁵Inquiry for Hawaii only.
⁶All production expenses for 1969 other than those specified above. ⁷No inquiries for Alaska and Hawaii. ⁸Inquiry for Alaska only.

Facsimile of Section 34, Form 69-A1

Section 34 - Production EXPENSES for this place in 1969.

Include your best estimate of expenses paid by others - your landlord, contractors, buyers, etc. - for crops, livestock or livestock products produced on this place.
(See Leaflet, section 34.)

				CENTS NOT REQUIRED	
				Dollars	Cents
1. Livestock and poultry purchased - cattle, calves, hogs, pigs, sheep, lambs, goats, horses, baby chicks, poult, started pullets, etc.				630	
2. Total feed purchased for livestock and poultry - grain, hay, silage, mixed feeds, concentrates, etc. <i>(Total of dollars for a, b, c, and d.)</i>				631	
a. Commercially mixed formula feeds purchased - complete, supplement, concentrates. <i>(Do not include ingredients purchased separately, such as soybean meal, cottonseed meal, and urea.)</i>				632	633
				Tons	Tenths
					10 \$
b. Ingredients purchased - such as soybean meal, cottonseed meal, urea, etc., millfeeds or other milling byproducts. <i>(Do not include whole grains.)</i>				634	635
					10 \$
c. Whole grains purchased - such as corn, oats, barley, grain sorghum, wheat, rye, etc. Include cracked grain. <i>(Do not include millfeeds or other milling byproducts, or green chop.)</i>				636	637
					10 \$
d. Hay, green chop, silage, etc.				638	639
					10 \$
3. Seeds, bulbs, plants, and trees purchased				640	
4. Commercial fertilizer purchased - all forms, including rock phosphate and gypsum				641	
5. Total gasoline and other petroleum fuel and oil purchased for the farm business - Diesel fuel, LP gas, butane, propane, piped gas, kerosene, fuel oil, motor oil, grease, etc. <i>(Total of a, b, c, and d.)</i>				642	
a. Gasoline for the farm business				643	
b. Diesel fuel for the farm business				644	
c. LP gas, butane, and propane for the farm business				645	
d. Motor oil, grease, piped gas, kerosene, and fuel oil for the farm business				646	
6. Hired farm labor - Include all money paid in cash for farm labor including payments to family members, and for Social Security taxes. <i>(Do not include housework, customwork, and contract work.)</i>				647	
7. Contract labor - Include expenditures primarily for labor, such as harvesting of fruit, vegetables, berries, etc., performed on a contract basis by a contractor, a crewleader, a cooperative, etc.				648	
8. Machine hire and customwork - Include expenditures primarily for use of equipment, and for customwork such as grinding and mixing feed, plowing, combining, corn picking, silo filling, spraying, dusting, etc.				649	
9. Agricultural chemicals purchased - Add dollars reported in section 33 and enter total here				650	
10. All other production expenses - Include current operating expenses, and depreciation, taxes, interest, cash rent, insurance, repairs, etc., for the farm business. <i>(See Leaflet, section 34.)</i>				651	
11. Total production expenses - Add dollars for items 1 through 10 and enter total here				652	

Facsimile of Section 7, Form 69-A2

Section 7 - Production EXPENSES for this place in 1969 - Report expenses paid by you and by others - your landlord, contractors, buyers, etc. - for crops, livestock, or livestock products produced on this place. Use estimates if exact figures are not available.

				CENTS NOT REQUIRED	
				Dollars	Cents
1. Livestock and poultry purchased - cattle, calves, hogs, pigs, sheep, lambs, goats, horses, baby chicks, poults, started pullets, etc.				900	
				\$	
2. Total feed purchased for livestock and poultry - grain, hay, silage, mixed feeds, concentrates, etc.				901	
				\$	
a. Commercial mixed formula feeds purchased - complete, supplement, concentrates (Do not include ingredients purchased separately, such as soybean meal, cottonseed meal, and whea.)	Tons purchased	Tenths	Dollars	Cents	
	902	903	\$		
3. Seeds, bulbs, plants, and trees purchased				904	
				\$	
4. Commercial fertilizer purchased - all forms, including rock phosphate and gypsum				905	
				\$	
5. Lime (Do not include land plaster or gypsum or lime for sanitation.)				906	
				\$	
6. All insecticides, herbicides, fungicides, other pesticides, growth control chemicals, and defoliants used for crops, livestock, and poultry on this place in 1969 - Include any of these materials paid for by your landlord and by custom operators.				907	
				\$	
7. Total gasoline and other petroleum fuel and oil purchased for the farm business - diesel fuel, LP gas, butane, propane, piped gas, kerosene, fuel oil, motor oil, grease, etc.				908	
				\$	
8. Hired farm labor - Include all money paid in cash for farm labor including payments to family members, and for Social Security taxes. (Do not include housework, customwork, and contract work.)				909	
				\$	
9. Contract labor, machine hire, and customwork - Include expenditures for labor performed on a contract basis by a contractor, a crew leader, a cooperative, etc., and expenditures for use of equipment and for customwork.				910	
				\$	
10. All other production expenses - Include current operating expenses, and depreciation, taxes, interest, cash rent, insurance, repairs, etc., for the farm business				911	
				\$	
11. Total production expenses - Add dollars for items 1 through 10 and enter total here				912	
				\$	

Definitions of Selected Items

Expenditures for purchase of livestock and poultry were to include all kinds of livestock and poultry, except for livestock purchased for resale within 30 days after purchase. Livestock fed under a contract arrangement were to be included, using the estimated value of the animals at the time they were brought to the feedlot. The value of chicks, started pullets, and turkey poults were to be included, whether purchased by the operator or by others under a contract arrangement.

Expenditures for feed for livestock and poultry include the value of all feed brought onto the farm. This included feed purchased by the farm operator and feed purchased or supplied by his landlord or by contractors when livestock or poultry were fed under contract. Payments made by a tenant to his landlord for feed grown on the place were not to be included.

The 1969 report forms had a separate inquiry for expenditures for and tons of commercially mixed formula feeds purchased. For class 1-5 farms, inquiries were also included on expenditures for and tons of ingredients purchased: whole grains; and hay, green chop, silage and other roughages. The tonnage figures are only for gross tons of combined classes of feed types and do not reflect either the kind or the quality of the feed. For example, data for tons of hay, green chop, and silage contain both dry weight and wet weight tonnages.

Expenditures for seeds, bulbs, plants, and trees have been included in each census since 1945. These expenditures do not include the value of seeds or plants produced on the farm or of florist and nursery products purchased for resale without further growth.

Expenditures for fertilizer has specified commercial fertilizer in 1940 and all later censuses. The only data obtained on fertilizer for farms with sales of less than \$2,500 in 1969 was the cost of purchases. For class 1-5 farms, expenditures, tons purchased, and use of commercial fertilizer on various crops and pasture were obtained. Information on use of fertilizer is included in part 4, section A of this chapter.

Expenditures for gasoline and other petroleum fuel and oil used in the farm business were obtained for all farms. Expenditures were obtained separately for (a) gasoline, (b) diesel fuel, (c) LP gas, butane, and propane, and (d) motor oil, grease, piped gas, kerosene, and fuel oil only for class 1-5 farms. The cost of petroleum fuels used for curing tobacco, heating poultry houses or other farm buildings, or used in the family automobiles for the farm business was to be included.

Expenditures for hired labor have been obtained in the conterminous States for every census since 1870, except for 1935, and in Alaska and Hawaii for every decennial census since

1920. Since 1940, housework and construction work and charges for labor included in the cost of machine hire and customwork have been excluded by definition from the hired farm-labor question.

Distinctions between contract labor, hired labor, and labor involved in machine hire and customwork are not always clearly defined nor are the definitions easily applied in a consistent manner. Differences in terminology among the various parts of the country and differences in the record-keeping systems used by farmers have undoubtedly contributed to some misclassifications in the reporting of labor expenditures.

Contract labor is considered to be crew-type hand labor, such as berry and fruit picking, or vegetable harvesting performed by a crew of workers under a contract with a labor contractor, cooperative, processor, or dealer. Farm operators often do not consider such contract workers as hired farm labor as they do not hire the workers individually and many times do not know the number of workers in the crew.

Expenditures for contract labor were obtained as a separate item for the first time in 1969, but only for class 1-5 farms. These farms probably account for 98 percent or more of the total contract labor used, as farms with a smaller value of sales rarely use this type of labor.

In the 1964 census, contract labor expenditures were included as part of the overall question on machine hire and customwork as they were in 1969 on form A2. Prior to 1964, specific instructions were made in censuses of 1954 and 1959 to include expenditures for contract labor as a hired labor expenditure. Specific instructions for contract labor were not provided in the 1950 census; however, the question on the number of hired workers provided for the reporting of workers hired on a piece-rate basis.

Expenditures for customwork and machine hire were obtained separately only for class 1-5 farms, but these farms had 95 percent of the total expenditures for all farms for contract labor, machine hire, and customwork. Expenditures for customwork and machine hire were to include the cost of the machine operators when they were provided, as well as payments for rent of the machines. Tractor rental, custom combining, plowing, spraying, etc., are examples of machine hire and customwork. Payments for hauling, trucking, freight, etc., were not to be included.

Expenditures for lime were the only data on lime collected for all farms. The cost of lime used in 1969, rather than cost of lime purchased was obtained in the 1969 census for class 1-5 farms. The difference in concept should be minimal, as some of the lime used in 1969 may have been purchased in 1968, and some of the lime purchased in 1969 may not have been used in 1969. For counties where the use of lime is a common practice, especially where there are a large number of farms in a county, the cost of lime applied and cost of lime purchased would be almost the same. Tons of lime used and acreage limed were obtained for class 1-5 farms. However, nearly 90 percent of the expenditure for lime was on these farms.

Expenditures for other agricultural chemicals (other than lime and commercial fertilizer) used in 1969, rather than the cost of chemicals purchased, was obtained in the 1969 census. This included the cost of sprays, dusts, fumigants, etc., to control insects on livestock and insects and diseases on crops, and chemicals for defoliation or for growth control of crops or thinning of fruit. For information on acreages treated and cost of some types of chemical treatment, see part 4, section B of this chapter.

"All other production expenses" were included to cover production expenses not specifically mentioned in previous expenditure items and to make it possible to determine "Total production expenses." All current operating expenses not specifically included in prior items, such as taxes, insurance, electricity, veterinary services and medicine, trucking cost, charges for water for irrigation, and depreciation, were to be included, whether paid by landlord or tenant.

Cash rent, but not the value of the landlord's share of crops in cropshare or livestock in livestock-share rental arrangements, was included in "All other production expenses." Thus, the 1969 census data makes it appear that production expenses were higher for a tenant paying cash rent than if a share of the crop, of equivalent cash value, had been paid as rent.

In general, this question was subject to a higher degree of reporting error than other expenditure items because of its definitional problems and its catch-all nature. Undoubtedly, capital expenditures, some personal living expenditures, and some nonfarm business expenditures were included. On the other hand, noncash expenditures such as depreciation, and cash expenditures such as interest, insurance, repairs and some taxes appear to have been left out by many respondents. Because of the wide range of acceptable values for this item, it was feasible to review only the most apparent inconsistent entries for possible error and correction during the processing of the data.

Total production expenses were determined for each farm in 1969. As pointed out in the discussion of labor expenditures and of cash rent versus crop-share and livestock-share rent, total production expenses were influenced by definitional factors, along with the overreporting and underreporting of individual expenditure items. Prior censuses did not cover all production expenses, so there are no comparable data. However, it is possible to make comparisons for the sums of those expenditure items which were reported in earlier censuses. For some counties, particularly those where a high percentage of the farms had sales of less than \$2,500, the reported total production expenses were equal to or greater than the total value of all farm products sold. In a few counties, commercial feedlots which began operation late in 1969 had large expenditures for the purchase of cattle and feed, but little or no sales. Counties with total expenditures exceeding total value of sales were reviewed and significant reporting and tabulating errors were corrected.

SUMMARY OF FINDINGS

All Expenditures

In 1969, one or more of the 11 items of farm production expenditure applicable to all farm data were reported by nearly all of the 2,730,250 farms in the United States. The total of \$37.6 billion for all farm production expenses represented 82.4 percent of the value of all farm products sold in 1969. The proportion of farms having each item of expenditure varied

from 97 percent for gasoline and other petroleum products to 13 percent for lime. The graph, page 86, shows the relationship of individual 1969 expenditures to the total and compares 1969 to 1964 for similar items.

Expenditures varied considerably by class of farm and by type of farm. The relationship of each expenditure item to total expenditures and to the total value of agricultural products sold is shown in table 3 by value of sales and in table 4 by type of farm.

Table 3. Farm Production Expenses by Value of Sales, United States: 1969

	All farms	\$100,000 and over	\$40,000 to \$99,999	\$20,000 to \$39,999	\$10,000 to \$19,999	\$5,000 to \$9,999	\$2,500 to \$4,999	Under \$2,500	Abnormal— no limit on value of sales
Total value of sales (\$1,000).....	45,609,090	15,327,298	10,073,830	9,267,476	5,693,030	2,814,078	1,345,546	935,276	152,556
Total farm production expenses (\$1,000).. Percent of total value of sales.....	37,581,597 82.4	13,665,600 89.2	7,839,296 77.8	6,788,141 73.2	4,203,060 73.8	2,188,266 77.8	1,563,092 116.2	1,201,361 128.4	132,780 87.0
Livestock and poultry purchases (\$1,000).... Percent of total production expenses.....	8,081,639 21.5	4,472,578 32.7	1,568,781 20.0	955,710 14.1	489,681 11.7	243,131 11.1	186,834 12.0	149,731 12.5	15,194 11.4
Feed for livestock and poultry (\$1,000)..... Percent of total production expenses.....	7,100,396 18.9	2,959,750 21.7	1,630,174 20.8	1,240,649 18.3	614,438 14.6	275,869 12.6	170,698 10.9	181,545 15.1	27,272 20.5
Seeds, bulbs, plants, and trees (\$1,000).... Percent of total production expenses.....	871,471 2.3	196,536 1.4	194,183 2.5	198,592 2.9	135,995 3.2	70,146 3.2	43,000 2.8	30,992 2.6	2,028 1.5
Commercial fertilizer (\$1,000)..... Percent of total production expenses.....	2,209,185 5.9	436,113 3.2	513,546 6.6	520,326 7.7	337,464 8.0	183,537 8.4	115,895 7.4	95,636 8.0	6,669 5.0
Gasoline and other petroleum fuel and oil (\$1,000)..... Percent of total production expenses.....	1,906,579 5.1	265,488 1.9	356,365 4.5	435,070 6.4	347,927 8.3	209,485 9.6	143,387 9.2	143,914 12.0	4,943 3.7
Agricultural Chemicals (\$1,000)..... Percent of total production expenses.....	805,939 2.1	265,534 1.9	197,368 2.5	162,082 2.4	93,609 2.2	44,847 2.0	24,951 1.6	15,010 1.2	2,538 1.9
Lime (\$1,000)..... Percent of total production expenses.....	102,097 0.3	12,952 0.1	21,608 0.3	23,122 0.3	16,284 0.4	10,527 0.5	8,007 0.5	9,131 0.8	466 0.4
Hired labor (\$1,000)..... Percent of total production expenses.....	3,375,203 9.0	1,629,836 11.9	697,601 8.9	467,891 6.9	247,809 5.9	125,775 5.7	93,953 6.0	76,049 6.3	36,290 27.3
Contract labor, machine hire, and customwork (\$1,000)..... Percent of total production expenses.....	1,405,259 3.7	436,793 3.2	245,033 3.1	247,534 3.6	194,396 4.6	125,657 5.7	88,188 5.6	64,811 5.4	2,847 2.1
All other production expenses (\$1,000)..... Percent of total production expenses.....	11,723,828 31.2	2,990,020 21.9	2,414,638 30.8	2,537,165 37.4	1,725,456 41.1	899,292 41.1	688,180 44.0	434,543 36.2	34,534 26.0

Table 4. Farm Production Expenses by Type of Farm, United States: 1969

	Total all farms	Cash grain	Tobacco	Cotton	Other field crop	Vegetable
Total value of sales (\$1,000).....	44,521,258	6,631,130	941,283	813,748	1,358,226	1,174,981
Total farm production expenses (\$1,000).. Percent of total value of sales.....	36,247,455 81.4	4,793,760 72.3	575,125 61.1	816,973 100.4	1,124,122 82.8	980,168 83.4
Livestock and poultry (\$1,000)..... Percent of total production expenses.....	7,916,714 21.8	251,066 5.2	19,456 3.4	13,845 1.7	23,325 2.1	8,986 0.9
Feed for livestock and poultry (\$1,000).... Percent of total production expenses.....	6,891,579 19.0	168,586 3.5	20,773 3.6	7,955 1.0	13,772 1.2	5,851 0.6
Seeds, bulbs, plants, and trees (\$1,000).... Percent of total production expenses.....	838,452 2.3	242,038 5.0	11,678 2.0	31,464 3.9	69,752 6.2	34,427 3.5
Commercial fertilizer (\$1,000)..... Percent of total production expenses.....	2,106,881 5.8	600,360 12.5	78,874 13.7	73,132 9.0	133,527 11.9	88,666 9.0
Gasoline and other petroleum fuel and oil (\$1,000)..... Percent of total production expenses.....	1,757,722 4.8	454,846 9.5	67,788 11.8	68,497 8.4	56,592 5.0	33,990 3.5
Agricultural Chemicals (\$1,000)..... Percent of total production expenses.....	788,391 2.2	200,620 4.2	17,292 3.0	75,571 9.3	55,975 5.0	57,314 5.8
Lime (\$1,000)..... Percent of total production expenses.....	92,500 0.3	22,432 0.5	2,803 0.5	2,717 0.3	3,488 0.3	2,167 0.2
Hired labor (\$1,000)..... Percent of total production expenses.....	3,262,865 9.0	337,189 7.0	117,329 20.4	135,763 16.6	235,494 20.9	261,847 26.7
Contract labor, machine hire, and customwork (\$1,000)..... Percent of total production expenses.....	1,337,601 3.7	253,770 5.3	21,427 3.7	63,825 7.8	75,001 6.7	123,362 12.6
All other production expenses (\$1,000)..... Percent of total production expenses.....	11,254,751 31.0	2,262,851 47.2	217,704 37.9	344,203 42.1	457,197 40.7	363,558 37.1

Specified Expenditures, 1969 and 1964, and as a Percent of Total, 1969

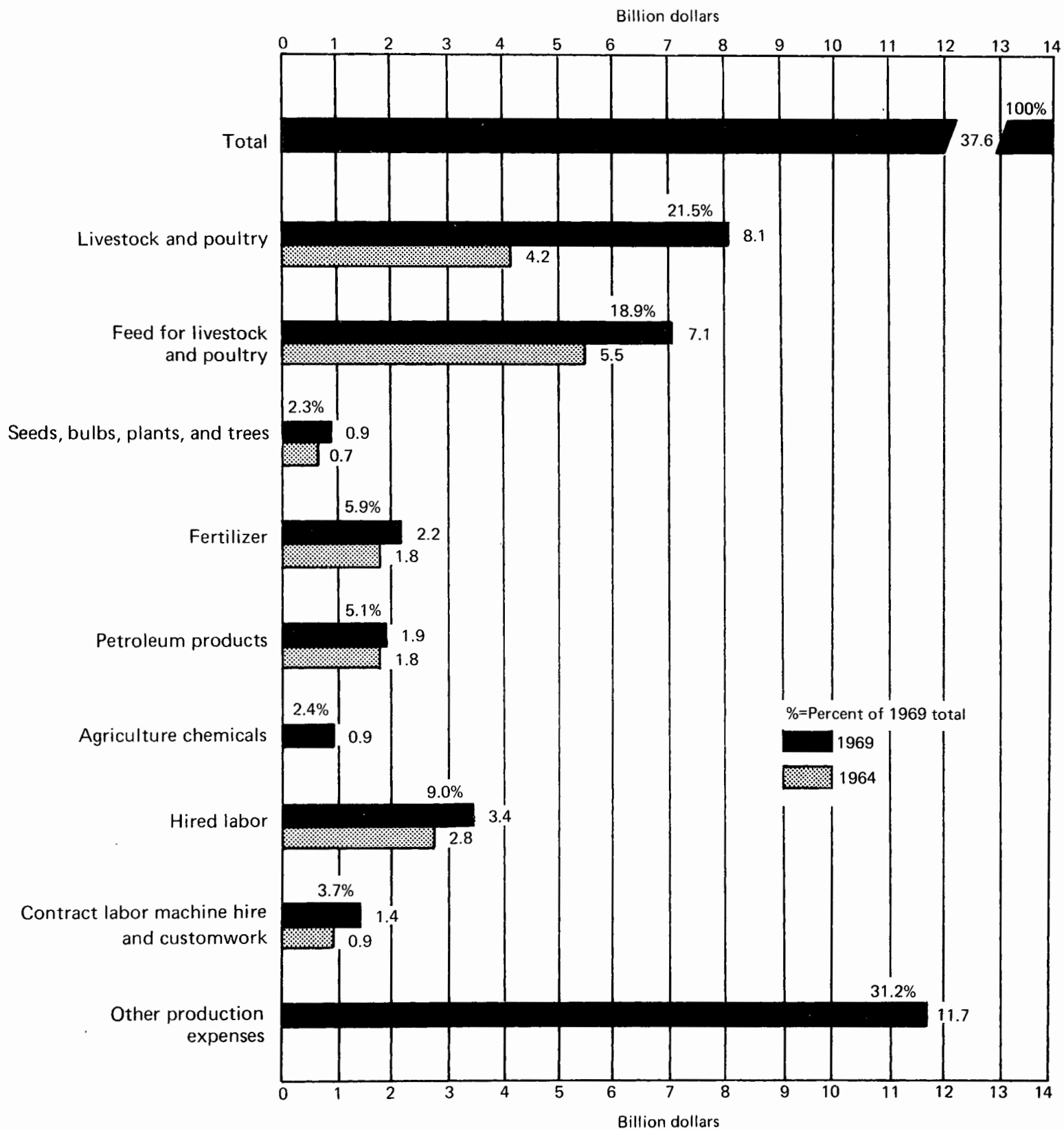


Table 4. Farm Production Expenses by Type of Farm, United States: 1969—Continued

	Fruit and nut	Poultry	Dairy	Livestock other than poultry and dairy	Livestock ranches	General	Miscellaneous
Total value of sales (\$1,000).....	1,682,339	3,959,670	6,580,182	15,169,431	2,635,119	2,421,477	1,153,672
Total farm production expenses (\$1,000)...	1,430,016	3,504,116	4,674,006	12,947,814	2,427,754	1,996,166	977,435
Percent of total value of sales.....	85.0	88.5	71.0	85.4	92.1	82.4	84.7
Livestock and poultry purchases (\$1,000)....	7,169	683,013	376,254	5,277,202	1,032,599	176,948	46,851
Percent of total production expenses.....	0.5	19.5	8.0	40.8	42.5	8.9	4.8
Feed for livestock and poultry (\$1,000).....	6,897	2,071,733	1,386,693	2,590,655	422,024	145,759	50,883
Percent of total production expenses.....	0.5	59.1	29.7	20.0	17.4	7.3	5.2
Seed, bulbs, plants, and trees (\$1,000).....	14,693	6,189	81,759	189,054	6,561	72,742	78,095
Percent of total production expenses.....	1.0	0.2	1.7	1.5	0.3	3.6	8.0
Commercial fertilizer (\$1,000).....	87,489	22,229	229,063	536,973	37,290	199,004	20,272
Percent of total production expenses.....	6.1	0.6	4.9	4.1	1.5	10.0	2.1
Gasoline and other petroleum fuel and oil (\$1,000).....	48,970	60,255	222,515	486,249	74,150	142,908	40,963
Percent of total production expenses.....	3.4	1.7	4.8	3.8	3.1	7.2	4.2
Agricultural Chemicals (\$1,000).....	104,422	7,803	42,569	129,464	8,219	78,818	10,323
Percent of total production expenses.....	7.3	0.2	0.9	1.0	0.3	3.9	1.1
Lime (\$1,000).....	2,563	1,450	15,834	28,362	1,733	7,666	1,285
Percent of total production expenses.....	0.2	(¹)	0.3	0.2	0.2	0.4	0.1
Hired labor (\$1,000).....	418,312	176,784	394,913	469,338	164,164	228,688	323,044
Percent of total production expenses.....	29.3	5.0	8.4	3.6	6.8	11.5	33.1
Contract labor, machine hire, and customwork (\$1,000).....	207,419	23,619	99,208	267,912	45,420	137,236	19,401
Percent of total production expenses.....	14.5	0.7	2.1	2.1	1.9	6.9	2.0
All other production expenses (\$1,000).....	532,083	451,040	1,825,198	2,972,607	635,596	806,397	386,317
Percent of total production expenses.....	37.2	12.9	39.0	23.0	26.2	40.4	39.5

¹ Less than 0.05 percent.

Livestock and Poultry Purchased

Forty-three percent of all farms reported livestock or poultry purchases in 1969. Farms with sales of \$2,500 and over, while only 64 percent of all farms, accounted for 98 percent of the total expenditures for livestock and poultry. Farms with sales of \$100,000 and over, 2 percent of all farms, accounted for 55 percent of all livestock and poultry purchases in 1969. Almost 80 percent of the total purchases on class 1-5 farms were on livestock farms other than poultry and dairy, and on livestock ranches. Commercial feedlots accounted for a large portion of the total. By States, Texas accounted for \$945 million; Iowa, \$888 million; California, \$575 million; and Kansas, \$574 million. Together, these four States accounted for \$2,982 million, 37 percent, of the total of \$8,082 million spent for the purchase of livestock and poultry.

Feed for Livestock and Poultry

The purchase of feed for livestock and poultry was reported for 66 percent of all farms in 1969. The total feed expenditure of \$7,100 million accounted for 19 percent of all farm production expenses. Almost three-fifths of the farms with feed expenditures purchased less than \$1,000 of feed. In comparison, slightly over 3 percent of the farms had feed expenditures of \$20,000 and over. More than 97 percent of the total feed expenditure and 98 percent of the expenditure for commercially mixed

formula feeds was on class 1-5 farms. Most of the expenditure for feed was by poultry, dairy, and livestock farms, as shown in the percentage distribution below.

Distribution of Feed Expenditure by Type of Farm

	Total	Poultry	Dairy	Livestock farms other than poultry and dairy, and live- stock ranches	Other types
All Feed	100.0	30.1	20.1	43.7	6.1
Commercially mixed formula feeds	100.0	44.4	19.7	29.8	6.1
Feed ingredients	100.0	7.3	32.0	52.6	9.2
Whole grains	100.0	5.2	10.9	79.2	4.7
Hay, silage, etc.	100.0	0.6	40.2	51.3	7.9

Expenditures for commercially mixed formula feeds accounted for 64 percent of the total expenditures for feed. Figures on farms with feed expenditures, the amount of expenditures, and the tons purchased of the four categories of feed for class 1-5 farms are presented on the following page.

Farms Reporting Expenditures and Amount of Feed

	Farms reporting		Expenditures		Amount	
	Number (1,000)	Percent of total	Dollars (million)	Percent of total	Tons (1,000)	Percent of total
Total	1,236.9	100.0	6,891.6	100.0	118,265.1	100.0
Commercially mixed formula feeds	984.7	79.6	4,392.3	63.7	53,431.8	45.2
Feed ingredients	319.2	25.8	605.9	8.8	8,466.4	7.2
Whole grains	413.0	33.4	1,479.1	21.5	35,410.7	29.9
Hay, silage, etc.	247.8	20.0	414.2	6.0	20,956.2	17.7

Expenditures for Seeds, Bulbs, Plants, and Trees

Sixty-two percent of all farms had an expenditure for seeds, bulbs, plants, and trees in 1969. Expenditures for these items totaled \$871.5 million, an average of \$519 per farm reporting this expenditure. Three-fourths of the farms with seed expenditures had purchases of less than \$500. Less than 1 percent of the farms had purchases of \$5,000 or more.

Expenditures for Commercial Fertilizer

In 1969, 72 percent of all farms had some expenditures for commercial fertilizer and fertilizing materials. These farms averaged \$1,131 per farm in fertilizer expenditure. However, the expenditure for fertilizer was less than \$500 for 57 percent of the farms reporting the purchase of fertilizer. Slightly over 24,000 farms, or 1.2 percent, reported fertilizer expenditures of \$10,000 and over. Class 1-5 farms accounted for 95 percent of the total expenditure for fertilizer. Class 1 farms (those with sales of \$40,000 or more) accounted for 43 percent of the expenditures. For detailed data on fertilizer use in 1969, see part 4, section A of this chapter.

Expenditures for Gasoline and Other Petroleum Fuel and Oil for the Farm Business

The total expenditure for petroleum products was \$2,209 million in 1969. Ninety-seven percent of all farms reported some expenditure for petroleum products, but only 39 percent reported an expenditure of \$500 or more. Class 1 farms, which make up 8 percent of all farms, accounted for 32 percent of the total expenditure for petroleum products in 1969. Class 1-5 farms had expenditures for petroleum products of \$1,758

million or 92 percent of the total for all farms. The expenditures for the four subcategories of petroleum products reported for these farms are given below.

Expenditures for Petroleum Products

	Farms reporting		Expenditures	
	Number (1,000)	Percent of farms reporting	Dollars (million)	Percent of total
Total petroleum products .	1,721.7	100.0	1,757.7	100.0
Gasoline	1,666.2	96.8	1,061.4	60.4
Diesel oil.	656.4	38.1	317.9	18.1
LP gas, butane, and propane	431.2	25.0	167.1	9.5
Motor oil, grease, etc. .	1,718.8	99.8	211.3	12.0

States in the North Central Region accounted for more than one-half of the gasoline expenditures by class 1-5 farm operators, 45 percent of the diesel oil, and one-third of the LP gas, butane, and propane. The Southern States accounted for a third of the gasoline and diesel oil expenditures, but had more than one-half of the LP gas, butane, and propane expenditures.

Diesel oil and LP gas, butane, and propane are fuels most commonly used for the higher horsepower tractors, which are most often found on the larger farms. Data shown in the table following indicate that almost 74 percent of the diesel oil and 70 percent of the LP gas, butane, and propane are used on class 1 and 2 farms (those with sales of \$20,000 and over). Although the use of these fuels is significant on the class 1 and 2 farms, gasoline represented more than one-half of the total fuel and oil expenditures on these farms. Additional data relating expenditures to value-of-sales class of farm can be found in chapter 7.

Percent Distribution for Gasoline and Other Petroleum Fuels and Oil Expenditures and Value-of-Sales Classes

	Total	Gasoline	Diesel oil	LP gas, butane and propane	Motor oil, grease, piped gas, kerosene and fuel oil
Total	100.0	100.0	100.0	100.0	100.0
Class 1	35.4	29.8	48.6	45.1	35.7
Class 2	24.8	25.1	25.3	25.0	22.1
Class 3	19.8	21.7	15.8	16.1	19.2
Class 4	11.9	13.7	6.7	8.5	13.4
Class 5	8.2	9.7	3.6	5.4	9.6
Class 1	100.0	50.9	24.9	12.1	12.1
Class 2	100.0	61.2	18.5	9.6	10.7
Class 3	100.0	66.2	14.4	7.7	11.6
Class 4	100.0	69.6	10.1	6.8	13.5
Class 5	100.0	71.4	8.0	6.3	14.2

Hired Farm Labor

Expenditures for hired farm labor were reported for 51 percent of all farms in 1969. More than 56 percent of the farms with expenditures for hired farm labor had an expenditure of less than \$500. The 1.1 million class 1-5 farms that reported hired labor expenditures spent a total of \$3,263 million for hired labor, which represented 97 percent of the total for all farms. Large-scale farms (those with farm sales of \$100,000 and over) spent \$1,630 million for hired labor, or 48 percent of the total, even though there were only 52 thousand of these farms.

Some 7,500 farms reported labor expenditures of \$50,000 and over. Hired labor expenditures represented a higher proportion of the total production expenditures on farms in the larger value of sales groups. For the large-scale farms, hired labor expenses accounted for almost 12 percent of the total expenditures, compared to about 6 percent for farms with less than \$10,000 in sales.

By type of farm, the proportion of the total expenditures which was represented by hired labor ranged from 33 percent for miscellaneous farms and 29 percent for fruit and nut farms to a low of less than 4 percent for livestock farms other than poultry and dairy.

Three States—California, Florida, and Texas,—accounted for 31 percent of the expenditure for hired farm labor. These States produce a large portion of such crops as vegetables, fruits, citrus, and nuts, which have high labor requirement. More detailed data on the number of hired workers are included in part 2 of this chapter.

Expenditures for Contract Labor

The expenditures for contract labor were obtained as a separate item only for class 1-5 farms. For farms with sales of less than \$2,500, the expenditures for contract labor, machine hire, and customwork were combined. However, the class 1-5 farms

accounted for 95 percent of the total combined expenditures of all farms for contract labor, machine hire, and customwork. The expenditure for contract labor alone on these farms was more than 7 times the expenditures for contract labor, machine hire, and customwork on farms with sales of less than \$2,500. In total, 139 thousand farms or 8 percent of the class 1-5 farms reported expenditures totaling \$463 million for contract labor.

About 40 percent of the farms reporting contract labor had expenditures of less than \$500 in 1969. Less than 3 percent of the farms had expenditures for contract labor of \$20,000 and over. The large numbers of farms with relatively low expenditures indicates that there may have been a tendency for some farm operators to report some types of regular hired labor, machine hire, or customwork as contract labor. In some cases, machine hire or customwork may have been misreported; in others the expenditure for hired workers who were paid on a piece-rate basis may have been misreported. Undoubtedly, there were cases where actual contract labor expenditures were included and reported as a hired labor expenditure.

Even though the misreporting of contract labor may have had a significant effect on the number of farms reporting this expenditure, it is estimated that the effect on the dollar amount was not significant.

California, Texas, and Florida were the leading States in amount spent for contract labor, with \$153 million, \$37 million, and \$97 million respectively. The farms with sales of \$100,000 and over spent \$259 million for contract labor, 56 percent of the total for class 1-5 farms.

Expenditures for Machine Hire and Customwork

This item was obtained separately only for class 1-5 farms. As mentioned earlier in the text, nearly all of the total expenditure for machine hire and customwork was on the 1.1 million class 1-5 farms reporting this item in 1969. The average expenditure was \$831 per farm, even though 58 percent of these farms reported expenditures of less than \$500. Only 5,672 of the class 1-5 farms reported expenditures of \$10,000 and over. As shown in the table below, class 1 farms (those with sales of \$40,000 and over) spent \$343 million for machine hire and customwork, or 39.2 percent of the total for the class 1-5 farms.

Expenditures for Machine Hire and Customwork

	Number of farms	Percent of farms	Dollar expenditures (1,000)	Percent distribution of expenditure
Total	1,052,442	100.0	875,061	100.0
Class 1	143,372	13.6	342,791	39.2
Class 2	222,823	21.2	193,275	22.1
Class 3	256,252	24.3	160,277	18.3
Class 4	227,470	21.6	105,576	12.1
Class 5	202,525	19.2	73,143	8.4

Expenditures for Lime

Most of the lime and liming materials used in 1969 were used in the eastern half of the United States. Of the 356,000 farms reporting lime expenditures, 36 percent had expenditures of less than \$100 and 51 percent had expenditures of \$100 to \$499. The average expenditure was only \$287 per farm. Of the total cost of lime used in 1969, \$102 million, over 91 percent, was accounted for by class 1-5 farms.

Expenditures for Agricultural Chemicals Other Than Lime and Commercial Fertilizer

The use of sprays, dusts, fumigants, and other chemicals has become increasingly important to agricultural production. For many types of crops and livestock production, chemicals appear to be essential to achieve the high production levels and the quality of products required for the Nation's market.

The expenditure data collected in the census relates to those chemicals which were purchased directly by the farm operator and not those purchased indirectly. For example, the cost of chemicals used to treat seeds before they were purchased by the farm operator, would not be included in expenditures, but would be included in the cost of seeds, bulbs, plants, and trees purchased.

In 1969, 1.3 million farms reported spending \$806 million for agricultural chemicals. Of these farms, 77 percent reported expenditures of less than \$500, in comparison to less than 2 percent with expenditures of \$5,000 or more.

Class 1-5 farms accounted for 79 percent of the farms reporting the purchase of agricultural chemicals and 98 percent of the expenditures. For class 1-5 farms, an additional detailed

breakdown of the expenditures for agricultural chemicals by use was obtained for 1969.

These class 1-5 data indicate that chemical expenditures for the control of insects on crops and the control of weeds or grasses in crops accounted for four-fifths of the total expenditures for agricultural chemicals. Chemical control of weeds or grass in crops was the expenditure most frequently reported. The total expenditures for agricultural chemicals exceed the sum of the specified uses by \$5.7 million at the U.S. level. Small expenditures for unspecified uses or for chemicals used for other than the specified items accounted for this difference. More detailed data for acreages treated with agricultural chemicals are shown in part 4, section B of this chapter. The table above shows a summary of the expenditures for agricultural chemicals for class 1-5 farms, by purpose of treatment.

All Other Production Expenditures

This was the largest single item in terms of dollars spent of the itemized expenditures reported in the 1969 census, encompassing such major farm operating costs as depreciation, cash rent, interest on production loans and other farm debts, real estate and other taxes. About \$11.7 billion of unspecified production expenditures were reported in 1969. This represented 31 percent of all farm expenditures, 31 percent of the expenditures on class 1-5 farms, and 35 percent of the expenditures on farms with sales of less than \$2,500.

The data reported for all other expenditures are less reliable than that for the other itemized expenditures. The catch-all nature of the item, and the intended exclusion of capital expenditure items made it difficult for the farm operator to report accurately. Almost all reports were subject to varying degrees of under reporting and over reporting.

Class 1-5 farms accounted for 96 percent of the total for all farms. The importance of this category of expenditures varied significantly by type of farm. In relation to total production expenditures, other expenses represented a high of 47 percent for cash-grain farms and a low of 13 percent for poultry farms.

**Expenditures for Agricultural Chemicals, by
Purpose of Treatment**

	Farms reporting expendi- ture	Percent of farms reporting	Dollar expendi- ture (1,000)	Percent distrib- ution
Total	1,033,536	100.0	788,391	100.0
To control—				
Insects on hay	49,911	4.8	8,628	1.1
Insects on crops	403,484	39.0	296,971	37.7
Nematodes in crops ...	34,059	3.3	17,335	2.2
Disease in crops and orchard	45,669	4.4	54,803	7.0
Weeds or grass in crops .	644,984	62.4	345,684	43.8
Weeds or brush in pasture	78,056	7.6	9,679	1.2
Defoliation & growth control	68,788	6.7	23,096	2.9
Insects on livestock and poultry	352,047	34.1	26,428	3.4
Unspecified	(NA)	(NA)	5,767	0.7

Total Production Expenditures

In 1969, farm production expenditures as reported in the census totaled \$37.6 billion. The difference between the value of products sold in 1969 and the production expenditures amounted to about \$8 billion. This difference, calculated from census data, is not directly comparable to the net farm-income figures published by the U.S. Department of Agriculture. When comparing census income data with similar data from U.S. Department of Agriculture (USDA), the following points should be taken into consideration: (1) Census data for sales and expenditures are subject to errors of both underreporting and overreporting by farmers, (2) the census does not include all farms. (See volume 5, special reports, part 16 for a discussion of census coverage), (3) some of the USDA income figures include government payments whereas the census data for sales do not. (4) The gross farm income figures of the USDA include estimates for the value of farm products consumed directly in farm households, the gross rental value of farm dwellings, and

net change in farm inventory, whereas the census data do not. (5) Total production expenses as published by the USDA include the value of net rent paid to nonfarm landlords. Census farm expenses include all cash rent paid, but exclude the value of any share rent paid.

The following figures show approximately comparable data for 1969 from the census and the U.S. Department of Agriculture Farm Income Situation report.

	Billions
Census of agriculture—Value of products sold	\$45,609
USDA—Cash receipts from marketings, excluding gov't payments	48,143
Census of agriculture—Total farm production expenses ...	37,582
USDA—Total production expenses, excluding net rent and governments payments to nonfarm landlords	37,462

Data from the 1969 census indicated that more than one-third of the farms reported that their expenses exceeded the value of farm products sold. Three-fourths of the farms which showed losses reported farm sales of less than \$5,000. Government payments have not been taken into consideration in these calculations; not all errors in the overreporting of personal or other nonfarm and capital expenditures have been eliminated from the data. Errors of this nature, which are often small in dollar amounts, are more significant in their effect on the farms with small gross sales than on farms with high gross sales. The table below provides counts of farms with positive and negative balances between farm sales and expenditures by class of farm.

Number of Farms by Relation of Expenditures to Sales

	Number of farms	Farms with expenditures—			
		Less than farm sales		More than farms sales	
		Number	Percent of farms	Number	Percent of farms
Total	2,730,250	1,749,792	64.1	980,458	35.9
Class 1	221,690	183,529	82.8	38,161	17.2
Class 2	330,992	281,007	84.9	49,985	15.1
Class 3	395,472	325,139	82.2	70,333	17.8
Class 4	390,425	296,832	76.0	93,593	24.0
Class 5	395,104	219,213	55.5	175,891	44.5
Class 6	192,564	95,754	49.7	96,810	50.3
Part time ...	574,546	232,026	40.0	342,520	59.6
Part retire-ment	227,346	115,152	50.7	112,194	49.4
Abnormal ...	2,111	1,140	54.0	971	46.0

Data by class of farm in the following table provide a picture of the relationship of production expenditures to the value of farm products sold. The average per-farm net difference between sales and expenses ranges from \$17,575 for class 1 farms to a negative (loss) of \$551 for class 5 farms. Each of the four classes of farms with sales of less than \$5,000 show expenses exceeding

the value of products sold. Class 1-5 farms accounted for 98 percent of the total value of all farm products sold and 97 percent of the total production expenditures. For these farms, the value of sales exceeded expenditures by 8.3 billion or an average per farm of \$4,772. Additional detailed data for value of products sold and for value-of-sales class comparisons can be found in chapter 7.

Relation of Production Expenditures to Value of Farm Products Sold

	Number of farms	Value of sales (million)	Expenditures (million)	Net difference (million)	Average net difference per farm
Total	2,730,250	\$45,609	\$37,582	\$8,027	\$2,940
Class 1	221,690	25,401	21,505	3,896	17,575
Class 2	330,992	9,267	6,788	2,479	7,491
Class 3	395,472	5,693	4,203	1,490	3,768
Class 4	390,425	2,814	2,188	626	1,603
Class 5	395,104	1,346	1,563	-217	-551
Class 6	192,564	188	224	-36	-189
Part time ...	574,546	532	740	-208	-362
Part retire-ment	227,346	215	237	-22	-95
Abnormal ...	2,111	153	133	20	9,368

Changes in Selected Farm Expenditures Since 1964.

The use of increasing amounts of off-farm inputs such as purchased feed, livestock, petroleum products, machine hire, custom and contract work, commercial fertilizer, etc., has continued during the period from 1964 to 1969. For the seven specified expenditure items shown in the table below, for which data are available for 1969 and 1964, the total of these expenditures increased 42 percent from \$17.6 billion to \$24.9 billion. As with value of market products sold, part of the increase is the result of the changing level of prices. Essentially all of the increased expenditure took place on class 1-5 farms. The total of the comparable expenses for 1964 and 1969 for farms with sales of less than \$2,500 actually decreased, as a result of the large decrease in the number of such farms.

The expenditures for livestock and poultry, which nearly doubled, showed the largest increase since 1964; however, much of the increase was due to significantly higher livestock prices. Texas, which showed the largest increase in expenditures for the purchase of livestock and poultry, increased from \$277 million to \$945 million.

Although all of the comparable expenditure items showed sizable increases over the last two decades, most were affected to some degree by changes in prices paid by farmers. Between 1964 and 1969, only the cost of fertilizer and fertilizing materials showed a decrease according to the index of prices paid by farmers. Table 5 presents a number of selected major items of expenditures for several censuses adjusted to constant dollars. With this constant-dollar adjustment only the expendi-

ture for hired labor shows any substantial decrease. Other purchase inputs such as purchase of livestock and poultry, feed, seeds, and fertilizer still show large increases from census to census.

Changes in Selected Farm Expenditures, 1964 to 1969				
	1969	1964	Increase or decrease	Percent change
Comparable expenses, total dollars million..	24,950	17,577	7,373	41.9
Livestock and poultry farms (1,000)..	1,177	1,331	-153	-11.5
dollars million..	8,082	4,178	3,904	93.4
Feed for livestock & poultry farms (1,000)..	1,804	2,268	-464	-20.5
dollars million..	7,100	5,512	1,588	28.8

	1969	1964	Increase or decrease	Percent change
Seeds, bulbs, plants, & trees farms (1,000)..	1,680	2,324	-644	-27.7
dollars million..	871	661	210	31.8
Commercial fertilizer farms (1,000)..	1,954	2,224	-270	-12.2
dollars million..	2,209	1,772	437	24.7
Gasoline & other petroleum farms (1,000)..	2,640	2,755	-115	-4.2
dollars million..	1,907	1,787	120	6.7
Hired farm labor farms (1,000)..	1,393	1,585	-192	-12.1
dollars million..	3,375	2,799	576	20.6
Contract labor, machine hired, and customwork farms (1,000)..	1,465	1,643	-178	-10.8
dollars million..	1,405	870	535	61.5

Table 5. Specified Expenditures and Adjustments to 1910-14 Price Levels: 1944 to 1969

	Expenditures as reported by the census		Expenditures adjusted to 1910-14 price levels		Index of prices paid by farmers (1910-14 = 100) ²
	Amount (million dollars)	Dollars per farm (based on all farms)	Amount (million dollars)	Dollars per farm (based on all farms)	
Purchase of livestock and poultry.....1969..	8,082	2,960	1,854	679	436
1964..	4,178	1,323	1,339	424	312
1959..	3,857	1,039	1,015	273	380
1949..	2,390	444	695	129	344
1944 ¹ .	1,317	225	652	111	202
Feed for livestock and poultry.....1969..	7,100	2,601	3,463	1,268	205
1964..	5,512	1,745	2,689	851	205
1959..	4,755	1,282	2,389	644	199
1954 ¹ .	3,906	817	1,728	361	226
1949..	3,031	562	1,471	273	206
1944 ¹ .	2,427	414	1,403	239	173
Seeds, bulbs, plants, and trees.....1969..	871	319	343	126	254
1964..	661	209	289	92	229
1959..	492	133	244	66	202
1949..	543	101	228	42	238
1944 ¹ .	296	51	158	27	187
Commercial fertilizer and fertilizing materials.....1969..	2,209	809	1,556	570	142
1964..	1,772	561	1,174	372	151
1954 ¹ .	1,079	226	683	143	158
Gasoline and other petroleum fuel and oil.....1969..	1,907	698	1,004	368	190
1964..	1,787	566	1,027	325	174
1959..	1,554	419	898	242	173
1954 ¹ .	1,366	286	843	176	162
1949..	1,139	211	780	145	146
Hired labor.....1969..	3,375	1,236	334	122	1,010
1964..	2,799	886	404	128	693
1959..	2,622	707	428	115	612
1954 ¹ .	2,279	477	447	93	510
1949..	2,476	459	576	107	430
1944 ¹ .	1,865	318	586	100	318

¹Alaska and Hawaii not included.

²USDA Agricultural Statistics, 1962, 1967, 1970.