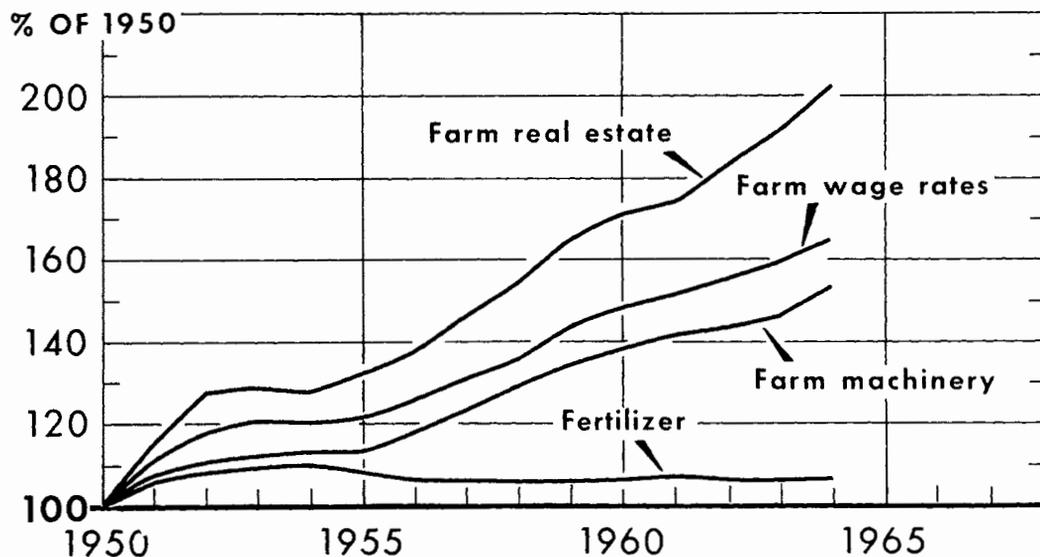


NOVEMBER 1964
FOR RELEASE
NOV. 16, A.M.

The FARM COST SITUATION

PRICES OF SELECTED FARM INPUTS



1964 DATA PRELIMINARY

U. S. DEPARTMENT OF AGRICULTURE

NEG. ERS 1375X-64 (10) ECONOMIC RESEARCH SERVICE

Increases in prices paid account for less than one-half of the 37 percent rise in total farm production expenses since 1950-54. Average prices paid by farmers for commodities, interest, taxes, and wage rates have risen about 14 percent. Prices of some input items have increased more than others since the early 1950's. For example, farm wage rates rose about 43 percent, in contrast with the relatively unchanged level of fertilizer prices. Machinery prices have risen about 38 percent. But prices paid for production items of farm origin--feed, seed, and livestock--are now generally lower than in 1950-54.

Published once a year by:

ECONOMIC RESEARCH SERVICE . U. S. DEPARTMENT OF AGRICULTURE

Goods and services used in production: Index numbers of cost rates and prices paid by farmers, United States

(1957-59=100)

Period	Commodities, interest, taxes and wage rates	Commodities only	Feed	Livestock	Motor supplies	Motor vehicles	Farm machinery	Farm supplies	Building and fencing materials	Ferti- lizer	Seed	Wage rates
1950-----	89	94	105	113	86	78	78	94	81	94	109	73
1951-----	98	104	118	137	90	83	83	100	89	100	111	81
1952-----	100	104	126	115	91	87	86	106	90	102	125	87
1953-----	95	97	114	83	93	86	87	104	91	103	114	88
1954-----	95	97	113	85	94	86	87	100	90	102	107	88
1955-----	94	96	106	83	95	87	87	98	92	102	114	89
1956-----	95	95	103	77	97	89	91	95	96	100	99	92
1957-----	97	98	101	86	100	96	96	100	99	100	103	96
1958-----	101	101	99	107	100	100	100	100	99	100	101	99
1959-----	102	101	100	107	100	104	104	100	102	100	96	105
1960-----	103	101	97	100	101	102	107	100	102	100	101	109
1961-----	104	101	98	100	102	102	110	101	101	100	100	110
1962-----	106	103	100	104	101	105	111	101	101	100	103	114
1963-----	108	104	104	98	101	109	113	101	101	100	110	116
July-----	108	104	104	99	---	---	---	---	---	---	---	117
Aug.-----	108	104	104	99	---	---	---	---	---	---	---	117
Sept.-----	108	104	105	96	101	108	114	101	101	100	111	117
Oct.-----	108	104	104	95	---	108	---	---	---	---	---	117
Nov.-----	108	103	103	94	---	---	---	---	---	---	---	117
Dec.-----	107	103	105	86	101	110	114	101	100	---	---	117
1964:												
Jan.-----	109	104	106	94	---	---	---	---	---	---	---	116
Feb.-----	108	103	105	91	---	---	---	---	---	---	110	116
Mar.-----	108	104	104	94	101	111	115	102	100	---	110	116
Apr.-----	109	104	104	92	---	---	---	---	---	99	110	121
May-----	108	103	103	87	---	111	---	---	---	---	110	121
June-----	108	103	102	83	101	111	116	102	100	---	110	121
July-----	108	103	101	82	---	---	---	---	---	---	---	121
Aug.-----	108	103	101	84	---	---	---	---	---	---	---	121
Sept.-----	108	103	103	88	100	110	118	102	101	100	107	121
Oct.-----	108	103	103	87	---	110	---	---	---	---	---	119

Source: Statistical Reporting Service.

THE FARM COST SITUATION

Approved by the Outlook and Situation Board, November 3, 1964

CONTENTS

	<u>Page</u>		<u>Page</u>
GENERAL SITUATION-----	3	Feeder and replacement	
HIGHLIGHTS-----	8	livestock-----	25
FARM LABOR-----	10	OVERHEAD COSTS-----	27
NONFARM INPUTS-----	13	Taxes-----	27
Farm power and machinery-----	13	Interest-----	28
Building materials-----	15	Insurance-----	30
Fertilizer-----	16	FARM REAL ESTATE-----	30
Pesticides-----	17	COSTS BY TYPE OF FARMS-----	31
FARM PRODUCED INPUTS-----	18		
Feed-----	18		
Seed-----	22		

GENERAL SITUATION

Production Expenses Continue to Increase

Farm production expenses through the first 3 quarters of 1964 were about \$300 million or 1 percent higher than a year earlier (table 1). Most of this increase was due to higher depreciation charges and increases in interest and tax payments. Expenses in 1964 for goods and services of non-farm origin were about 2 percent higher than in 1963. Expenditures this year for items of farm origin -- feed, seed, and livestock -- declined from a year ago. Prices paid for feed, seed and livestock as a whole averaged lower than in 1963. Net income realized from farming during the first 3 quarters of 1964 was about the same as in that 1963 period, but average net income per farm was slightly higher than the record-high level of 1963 because of the decline in number of farms.

Another rise in total production expenses is indicated for 1965. Expenditures for several important production items, including feed, livestock, and fertilizer, are expected to increase. Interest and tax payments, as well as depreciation of farm capital items, are also expected to increase.

Farms Becoming Larger, but Family Farms Predominate

The volume of resources needed to provide an adequate farm family income continues to increase in line with technological advances and rising standards of living. Many farmers are reorganizing into larger units. Others are leaving agriculture or are supplementing their farm incomes by nonfarm employment, thus providing more adequate incomes for people who remain in farming. According to a recent analysis of census data, the total

Table 1.--Gross farm income, production expenses, net income, and related indexes, specified years, 1950 to 1964 ^{1/}

Item	1950-54 average	1955-59 average	1963	1964 ^{2/}			
				First quarter	Second quarter	Third quarter	Year ^{3/}
	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.
Cash receipts from farm marketings-----	31.0	31.4	36.9	36.7	36.8	36.2	36.6
Nonmoney income and Government payments-----	4.2	4.2	4.8	5.2	5.2	5.4	5.3
Realized gross farm income-----	35.2	35.6	41.7	41.9	42.0	41.6	41.9
Farm production expenses-----	21.4	23.9	29.2	29.6	29.7	29.1	29.5
Farmers' realized net income-----	13.8	11.7	12.5	12.3	12.3	12.5	12.4
Net change in farm inventories-----	.5	.3	.5	.3	.3	.1	.2
Farmers' total net income-----	14.3	12.0	13.0	12.6	12.6	12.6	12.6
Index numbers (1957-59=100)							
Volume of farm marketings:							
Livestock and livestock products-----	86	99	113	---	---	---	117
Crops-----	87	98	118	---	---	---	116
All farm products-----	86	98	115	---	---	---	117
Volume of purchased inputs-----	94	99	109	---	---	---	113
Productivity, or output per unit of total input-----	88	98	110	---	---	---	108
Prices received by farmers:							
Livestock and livestock products-----	112	96	95	93	88	93	---
Crops-----	112	102	106	109	109	103	---
All farm products-----	112	98	100	100	97	97	---
Prices paid by farmers for commodities used in production, interest, taxes and wage rates-----	95	98	108	108	108	108	---
Ratio of prices received to prices paid for production items (including interest, taxes and wage rates) ^{4/} -----	118	100	93	93	90	90	---

^{1/} 48-State data.

^{2/} Dollar figures are seasonally adjusted at annual rates.

^{3/} Preliminary. Dollar figures are averages of first three quarters.

^{4/} Not to be confused with Parity Ratio, which includes prices paid for items used in family living, and has a 1910-14 base.

number of commercial farms, excluding part-time farms and rural residences decreased 27 percent from 1949 to 1959. This decline occurred as the result of a 42-percent decrease in the number of farms having less than \$10,000 value of sales. The number of farms having \$10,000 or more of sales increased 64 percent from 1949 to 1959.

Although the number of farms having \$10,000 or more sales is increasing, family farms -- those on which the operator and his family do most of the work -- continue to be the predominant types of business within agriculture. They accounted for over 70 percent of all farm marketings in 1959 compared with about 66 percent in 1944. Adoption of new and improved technology has enabled farm families to operate larger units with available labor.

Upward Trend in Farm Productivity

Increases in the volume of farm output since 1957-59 have been accompanied by increased productivity as follows:

Item	:	1962	:	1963	:	1964 <u>1/</u>
	:		:		:	
	:	<u>Index numbers: 1957-59=100</u>				
Farm output per unit of input-----:	:	107	:	110	:	108
Farm output per man-hour-----:	:	127	:	135	:	137
Crop production per acre-----:	:	116	:	119	:	118
Livestock production per breeding unit-----:	:	108	:	110	:	111

Source: Changes in Farm Production and Efficiency. U. S. Dept. Agr. Stat. Bul. 233. Revised July 1964.

1/ Preliminary. Based on October estimates.

Farm output per unit of total input in agriculture increased to a record-high level in 1963. Estimates based on October indications point to a slight decline in this measure of aggregate productivity in 1964. Farmers have produced more output since 1957-59 with little change in total inputs as a result of farm reorganization and the continuing substitution of the more productive inputs for those giving lower returns. In total, farmers' purchases of goods and services have increased but the greater volume of purchased inputs has been offset by the dramatic reduction in use of non-purchased inputs, largely operator and unpaid family labor. An important source of the greater productivity in agriculture is the nonfarm sector of the economy, which has provided inputs such as mechanical power and equipment, commercial fertilizers, a wide array of chemicals for pest and weed control, feed additives, and custom services.

In addition to the overall measure of productivity, or total farm output per unit of total inputs, 3 partial measures of productivity are often used to illustrate the effects of dramatic changes in resource use and the

resulting output. As indicated in the above tabulation, farm output per man-hour increased 37 percent since 1957-59. Farm output in 1964 was 11 percent higher than in 1957-59, whereas the total number of man-hours used to produce the greater output decreased 19 percent. Crop production per acre in 1964 was 18 percent higher than in 1957-59, while livestock production per breeding unit was 11 percent above the 1957-59 average.

Resource Savings From Increasing Productivity

An increase in overall productivity of inputs used in agriculture means that fewer resources are required to produce a given level of output. For example, the 1963 level of farm output was 12 percent greater than in 1957-59, while the total quantity of resources (inputs) used increased only 2 percent. Farm productivity, or output per unit of input, increased 10 percent. Without this gain in productivity, approximately a tenth more resources would have been required to produce the 1963 level of farm output. If these displaced resources were valued at the same per unit return received by the production resources actually used in 1963, the dollar "savings" of resources would amount to about \$3.6 billion in 1963 alone. Similarly, if we assume that the 1940 level of technology was used to produce the 1963 level of farm output, it would have required 53 percent, or \$19.1 billion, more resources to produce this level of output. Although these calculations provide only a rough approximation of the value of resource savings gained through increased productivity, they obviously illustrate that outstanding progress has been made in providing food and fibers for an expanding population and, at the same time, in releasing resources to other sectors of the economy. With such rapid changes in productivity, agriculture's capacity to produce many commodities has outrun existing demand, thereby creating a downward pressure on prices. But viewed with a long-term perspective, substantial benefits to the Nation's economy are derived from increases in productivity. 1/

Market Values of Real Estate Up

The average market value of farm real estate on January 1, 1964 was about \$48,000 per farm, compared with about \$19,000 per farm in 1955. This reflects both the steady increase in size of farm and the rise in per-acre values. Strong demand for land for farm enlargement has been a major factor in the upward trend in land prices. The market value of real estate per acre has increased faster than prices of most other resources used in farming. USDA estimates indicate that the average annual rate of return to real estate capital is currently better than 5 percent; this compares favorably with 1955, when real estate values were about two-thirds those of 1963 (table 2).

1/ For example, see Agriculture and Economic Growth, Agr. Econ. Rpt. No. 28, ERS, USDA, March 1963. Also, R. A. Loomis and G. T. Barton, Productivity of Agriculture, U. S., 1870-1958. Tech. Bul. No. 1238, USDA, April 1961.

This means that since 1955 imputed returns to farm real estate capital have about kept pace with the rise in market values of farm real estate. These estimates are based on one method of allocating income to other productive factors such as labor and nonreal estate capital. The results vary depending upon the allocative assumptions made and the cost rates used. Returns to real estate capital vary widely from one type of farm to another and between farms of a given type among areas. But these data do provide an indication of overall trends in the relationship between earnings and real estate values.

Since 1955, the annual rate of return to farm real estate capital has been lower in most years than the interest rate paid on new farm mortgages. However, the current rate of return, in addition to the substantial annual appreciation of real estate values, apparently is still attractive to present and prospective land owners.

Table 2.--Imputed returns on market values of farm real estate

Period or year	Value, land and service buildings	Imputed rate of return on farm real estate capital
	<u>Billion dollars</u>	<u>Percent</u>
Average:		
1935-39-----	28.5	6.0
1945-49-----	56.5	11.3
1950-54-----	77.7	7.2
1955-59-----	97.5	4.6
1960-63-----	121.2	5.2
Annual:		
1955-----	85.8	4.5
1956-----	90.9	4.4
1957-----	98.0	4.7
1958-----	102.6	6.3
1959-----	110.3	3.4
1960-----	116.0	4.4
1961-----	117.5	5.4
1962-----	123.5	5.7
1963-----	128.8	5.2

Source: Farm Real Estate Market Developments, CD-66, ERS, USDA, October 1964.

HIGHLIGHTS

Farm Labor

The national average of all types of cash farm wage rates is expected to be about 90 cents per hour in 1964, or a 2-percent increase from 1963. Wage increases in 1965 are expected to exceed the 1963-64 rise. During the last decade, farm wage rates have increased at an average of about 3 percent annually. Earnings of production workers in manufacturing averaged \$2.52 per hour during the first 8 months of 1964, up 3 percent from the corresponding period in 1963. General substitution of machines for labor, fewer and larger farms, and other labor-saving developments are expected to contribute to a continued reduction in farm labor needs in 1965 and succeeding years.

Farm Power and Machinery

Prices paid by farmers for tractors, farm machinery and equipment during the first 3 quarters of 1964 have increased about 2 percent from the same period in 1963. Similar increases have occurred annually since 1961, following increases of 4 to 5 percent annually from 1955 to 1960. Expenditures for repair, replacement, and operation of machinery and motor vehicles now account for about 22 percent of total farm production expenses. The average horsepower of tractors shipped for farm use has increased from 29 belt horsepower in 1950 to 62 belt horsepower in 1964. Tractor horsepower on farms per 100 acres of crops harvested has more than doubled since 1950.

Building Materials

Expenditures for building materials and nonfarm labor used in new construction, addition, and repairs of farm service buildings totaled about \$1.3 billion in 1963, or about the same as in 1962. These expenditures have ranged from 4-1/2 to 6-1/2 percent of total farm production expenses during the last decade.

Fertilizer

Farm consumption of the 3 principal plant nutrients in 1963 totaled about 9.5 million tons; this was 13 percent above 1962 and 41 percent above the 1957-59 average. Preliminary estimates indicate an increase in 1964 comparable to the gain in 1963 over 1962. The average cost per ton of plant nutrients in 1963 was about 10 percent below the 1957-59 average.

Pesticides

Wholesale prices of pesticides have remained relatively firm during 1964. Agricultural use of pesticides in 1964 was generally above that of 1963. Among pesticides, the greatest rate of increase was in the use of herbicides, while insecticides showed a moderate advance.

Feed

The supply of feed concentrates in 1964-65 is estimated to be about 240 million tons, about 12 million tons less than a year earlier and the lowest since 1958-59. Production of feed grains is expected to be about 11 million tons less than utilization during the year. Supplies of concentrates per animal unit will decline about 3 percent from a year earlier. Feed grain prices in 1964-65 will probably average a little above a year earlier. Soybean meal prices are expected to be a little lower than last year.

Seed

Prices paid by farmers for seed were generally lower this fall than a year earlier and, with some exceptions, supplies were generally larger.

Feeder and Replacement Livestock

Prices paid by farmers for all livestock this fall averaged below a year ago. Prices paid for stocker and feeder steers have risen moderately since early June, while prices received for fat cattle have risen sharply, thus providing cattle feeders their widest margins since the fall of 1962. With more favorable price margins, demand for feeders is likely to remain strong. Prospects for profits from feeding cattle bought at current prices appear favorable.

Taxes

Taxes levied on farm real estate in 1963 totaled nearly \$1.5 billion, up 5 percent from 1962. The U. S. average tax was \$1.43 per acre in 1963, compared with \$1.36 a year earlier. The effective rate of tax on farm real estate rose slightly from the 1962 level to \$1.03 per \$100 of full value. All indicators point to a further rise in tax levies in 1964.

Interest

Farmers will pay nearly \$2 billion in interest this year on their real estate loans and production credit, up 200 million from 1963. The main reason for this increase is the sharp rise in farmers' use of credit; interest rates have remained relatively stable. Total farm debt (excluding CCC loans) is expected to reach \$36.4 billion by the end of 1964, up \$3.4 billion during the year.

Insurance

An estimated \$2.0 billion in premiums will be paid by farmers in 1964 for their farm business and personal insurance, and for social security coverage. These payments in total have increased more than 50 percent since 1955. Insurance expenditures will probably increase again in 1965 due to broader coverage of risks and larger amounts of existing insurance; premium rates as a whole are expected to rise slightly.

Farm Real Estate

Market prices of farm real estate increased 6 percent per acre in the year ended July 1, 1964, an increase equal to that of the preceding year. Since 1957-59, the greatest increases in real estate prices have occurred in the Southeast, Delta, and Southern Plains States. Real estate market values averaged \$48,000 per farm in 1964, compared with \$33,600 per farm in 1959. This increase reflects both larger farms and higher prices. About half of all current purchases are made for the purpose of farm enlargement. About 1 in 7 buyers was a farm tenant prior to purchase.

Costs by Type of Farm

Preliminary estimates for 1964 on 8 selected types of farms indicate that average prices paid for items used in production have leveled off after several years of successive increases. Operating expenses per unit of production will be about the same or lower than in 1963 on 7 of the 8 types of farms. Net farm incomes in 1964 will probably be lower on 4 of these 8 selected farms, primarily because of lower prices received. Net farm incomes on hog-beef fattening farms in the Corn Belt in 1964 are expected to be considerably higher than last year's unusually low income.

FARM LABOR

On October 1, 1964, the national composite of all types of cash farm wage rates was about 92 cents per hour, 2 percent higher than on October 1, 1963. Rates were higher in all regions with the increases reaching 5 and 7 percent in the South Atlantic and East South Central Regions, respectively.

Estimates for the first 3 quarters indicate that the composite farm wage rate will average 90 cents per hour nationally in 1964 (table 3). This represents an increase of a little more than 2 percent from the 1963 average. Higher wage rates are expected in 1965 with the increase exceeding the 1963-64 rise. During the last decade, the average annual rise has been about 3 percent.

Cash farm wage rates converted to an hourly basis are expected to average \$1.33 per hour in the Pacific Region in 1964 and \$1.13 in the New England States, the regions having the largest dollar increases since 1954 (fig. 1). From 1963 to 1964, however, the increase was greatest in the South Atlantic States, where the composite cash rate rose 6 cents per hour compared with 2 or 3 cents in all other regions. A 10-percent rise in Florida rates to about 80 cents an hour this year contributed heavily to the regional increase.

The higher wage rates paid to most nonfarmworkers are among those factors that influence farm wage rates. Earnings of production workers in manufacturing averaged \$2.52 per hour during the first 8 months of 1964, up 8 cents or 3 percent over the same period in 1963. Wage rates of factory workers are higher than those paid in some other industries. Employees in retail trade, for example, earned an average of \$1.80 per hour in 1963. By law, many retail and other workers were granted higher minimum rates this year and another increase is provided for in 1965. In 1961, the Fair Labor

Table 3.--Labor used on farms, wage rates, and related data, United States, 1940-64 ^{1/}

Year	Farm employment			Man-hours of farm work	Farm output index (1957-59=100)		Average hourly wage rates	
	Total	Family	Hired		Total	Per man- hour	Farm workers	Industrial workers
	^{2/}	^{2/}			^{3/}		^{4/}	^{5/}
	Thousands	Thousands	Thousands	Millions			Dollars	Dollars
1940-----	10,979	8,300	2,679	20,472	70	36	0.17	0.66
1945-----	10,000	7,881	2,119	18,838	81	46	.48	1.02
1950-----	9,926	7,597	2,329	15,137	86	61	.56	1.44
1951-----	9,546	7,310	2,236	15,222	89	62	.62	1.56
1952-----	9,149	7,005	2,144	14,504	92	68	.66	1.65
1953-----	8,864	6,775	2,089	13,966	93	71	.67	1.74
1954-----	8,651	6,570	2,081	13,310	93	74	.66	1.78
1955-----	8,381	6,345	2,036	12,808	96	80	.68	1.86
1956-----	7,852	5,900	1,952	12,028	97	86	.70	1.95
1957-----	7,600	5,660	1,940	11,059	95	91	.73	2.05
1958-----	7,503	5,521	1,982	10,548	102	103	.76	2.11
1959-----	7,342	5,390	1,952	10,301	103	106	.80	2.19
1960-----	7,057	5,172	1,885	9,825	106	115	.82	2.26
1961-----	6,919	5,029	1,890	9,473	107	120	.83	2.32
1962-----	6,700	4,873	1,827	9,060	108	127	.86	2.39
1963-----	6,518	4,738	1,780	8,821	112	135	.88	2.46
1964 ^{6/} -----	6,137	4,539	1,598	8,574	111	137	.90	2.52

^{1/} Data on farm employment and farm wage rates are from the Statistical Reporting Service, USDA.

^{2/} Includes farm operators and members of their families.

^{3/} Net calendar-year production for eventual human use.

^{4/} Composite or hourly equivalent of all types of rates, excluding perquisites.

^{5/} Average hourly earnings of production workers in manufacturing. From the Bureau of Labor Statistics, U. S. Dept. of Labor. Figure for 1964 is average of first 8 months.

^{6/} Preliminary. Estimates of farm output and man-hours based on October 1964 "Crop Production" report and other releases of the Statistical Reporting Service, USDA.

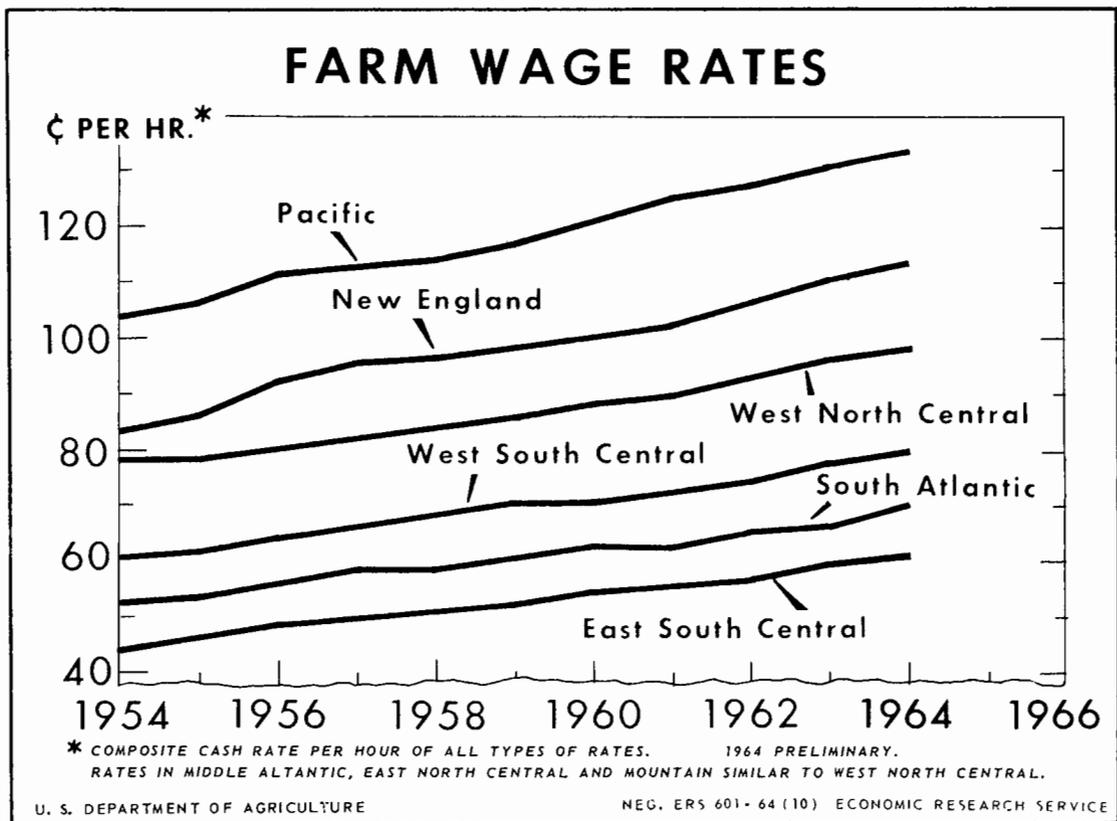


Figure 1

Standards Act was amended to provide that coverage be extended to workers in certain large retail, construction, and service enterprises, with their minimum wage being raised to \$1.15 per hour in September 1964 and to \$1.25 per hour in September 1965. The Department of Labor estimates that about 565,000 workers received higher wage rates this September as a result of these amendments. Provisions of the original act and amendments do not apply to farmworkers, but the legislation affects farm wage rates indirectly.

In some States, however, legislation or regulations provide for minimum wages under certain conditions for some farmworkers, such as women and youth of specified ages. In addition, certain programs administered by the Departments of Labor or Agriculture provide for minimum wage rates for certain farmworkers.

Since 1962, "adverse-effect" wage rates have been established for 35 States by the Secretary of Labor. The rates are \$1.00 per hour in 24 States but varied down to 65 and 60 cents per hour in Tennessee and Arkansas, respectively. ^{2/} They are the minimum rates that may be offered and paid to

^{2/} Farm Labor Market Developments, U. S. Dept. of Labor, Bur. Employment Security, June 1964.

domestic and foreign workers by employers of foreign contract nationals. The rates are applicable to employers of workers brought in for temporary farm jobs from Mexico under provisions of Public Law 78 and from British West Indies and other countries under the Immigration and Nationality Act (PL 414).

In recent years many Mexican aliens have immigrated to United States as permanent residents for agricultural employment. The "adverse-effect" wage rates have also been used (particularly since July 1963) as minimum guidelines by the Secretary of Labor in connection with this admissions program. Job offers made by U. S. employers are reviewed from the standpoint of protection of domestic workers from adverse effects of such immigration. Of the 9,229 cases reviewed during the year ended July 1, 1964, permanent visas were approved for 23 percent. The others were rejected because of the availability of U. S. workers for the jobs or to prevent adverse effect on U. S. workers.

The Sugar Act, administered by the Department of Agriculture, provides that "fair and reasonable" minimum wage rates shall be determined by the Secretary for workers employed in producing sugarcane and sugarbeets. Several criteria are used in setting the rates, including changes in the cost of living and in the economic position of producers. These minimum rates have increased; those for sugarbeet workers, for example rose from 85 cents per hour in 1961 to \$1.15 per hour in 1964. Such increases account for some of the increase in average wage rates in the areas where these crops are grown.

General substitution of machines for labor, fewer and larger farms, and other labor-saving developments are expected to contribute to a continued reduction in farm labor needs in 1965 and in succeeding years.

NONFARM INPUTS

Farm Power and Machinery

Trends in some of the major factors affecting costs of farm power and machinery are shown in table 4. These factors may be divided into 2 groups: (1) Those relating to machinery prices and costs of operation, and (2) those relating to changes that farmers have made to reduce costs per unit of production and/or to increase net income.

Wholesale prices and prices paid by farmers for tractors, farm machinery, and equipment increased about 2 percent from September 1963 to September 1964. Similar increases have occurred annually since 1961. These prices increased more than 10 percent a year from 1945 to 1951, changed little from 1951 to 1955, and increased 4 to 5 percent annually from 1955 to 1960.

Over the years, expenditures for repairs and operation of machines and motor vehicles (excluding fuel and oil) involved both higher prices and an increasing volume of equipment to be maintained. When related to total farm production expenses, repairs and operation of machinery show increasing importance. Repairs and operation accounted for 4.5 percent of total farm production expenses in 1940, reached a peak of 7.1 percent in 1957, and declined moderately to 6.3 percent in 1963. Total expenditures for repair, replacement, and operation of farm machinery and motor vehicles (including fuel and

Table 4.--Factors related to costs of operating farm power and equipment, United States, 1940-1964 ^{1/}

Year	Index of whole-sale prices of agricultural machinery and equipment 1957-59=100 ^{2/}	Index of prices paid by farmers 1957-59=100 ^{3/}			Expenditures for repairs and operation of machinery and motor vehicles ^{4/}	Average size of farm ^{3/}	Crops harvested per farm ^{3/}	Horsepower of tractors ^{5/}			
		Farm machinery	Motor vehicles	Motor supplies				Total on farms	Average per tractor	On farms	Shipped for farm use
					Million dollars	Acres	Acres	Million horse-power	Horse-power	Horse-power	Horse-power
1940----	49.7	43	40	58	306	174	52	42.3	27	27	13
1945----	52.6	49	53	67	760	195	58	63.6	27	28	18
1950----	79.8	78	78	86	1,119	213	60	91.6	27	29	27
1951----	86.6	83	83	90	1,290	222	62	103.0	28	29	31
1952----	87.7	86	87	91	1,419	232	66	109.4	28	32	32
1953----	88.2	87	86	93	1,397	242	68	118.9	29	35	35
1954----	88.1	87	86	94	1,336	251	70	123.0	29	39	36
1955----	88.8	87	87	95	1,375	258	71	130.4	30	41	39
1956----	92.0	91	89	97	1,549	265	70	138.9	31	41	44
1957----	96.3	96	96	100	1,657	273	72	141.7	31	44	45
1958----	100.3	100	100	100	1,709	280	75	147.8	32	46	47
1959----	103.4	104	104	100	1,821	288	80	154.2	33	46	47
1960----	105.3	107	102	101	1,738	297	82	159.3	34	51	49
1961----	107.4	110	101	102	1,652	307	81	164.5	35	53	53
1962----	109.5	111	106	101	1,741	316	82	168.8	36	56	56
1963----	111.1	113	109	101	1,833	325	86	172.8	37	58	56
1964 ^{6/-}	112.7	116	111	101	---	332	88	181.6	39	62	59

^{1/} Alaska and Hawaii not included.

^{2/} Bureau of Labor Statistics, U. S. Department of Labor. 1964 index based on Jan. - Sept. average.

^{3/} Statistical Reporting Service data. 1964 index numbers are averages of the first 3 quarters.

^{4/} Operating costs exclusive of motor fuel and oil (for automobiles, 50 percent of costs in period 1942-45, 40 percent thereafter).

^{5/} Maximum belt horsepower.

^{6/} Preliminary.

oil) were nearly \$6.4 billion in 1963, or about 22 percent of total farm production expenses.

Size of farm and, more directly, acreage of crops harvested per farm (along with size of equipment) affect costs of owning and operating machinery. This is borne out in a recent study of machinery costs in Ohio. 3/

Original investment in power and machinery was \$76.91 per acre of cropland on 80-acre farms and \$53.02 on 320-acre farms. Annual costs of all operations, including charges for operator labor, were \$13.22 per acre of cropland on small farms and \$8.74 on large farms.

The average horsepower of tractors on farms includes a large stock of old tractors. Many farms have a second or third tractor which is older and smaller than the main tractor. The size of tractors shipped for farm use is more indicative of the tractors being used on the larger farms where most of the new tractors begin their service. On small farms, machinery overhead costs are commonly held down by joint ownership of new equipment, by purchasing used equipment, or by hiring or renting equipment.

Tractor horsepower per 100 acres of crops harvested has more than doubled since 1950. This not only reflects a higher degree of mechanization but also more standby and convenience power. Many of the tractors contributing to this marked increase represent little current investment to the farmer. For example, recent auction prices for 1937 models average about \$100; 1959-61 models sell for one-third to one-half of the factory list price.

As these trends in machinery prices and farm organization continue in the years ahead, machinery management will become increasingly important in holding down farm costs. Timeliness will need to be balanced against the cost of owning or hiring equipment. Even on large farms, small enterprises may not justify new equipment for certain operations such as harvesting.

Building Materials

Expenditures for building materials and nonfarm labor used in new construction, additions, and repairs of farm service buildings were about \$1.3 billion in 1963. This was slightly higher than in 1962 and within the range of \$1.2 to \$1.5 billion spent annually during the last 15 years. These expenditures have ranged from 4-1/2 to 6-1/2 percent of total farm production expenditures during the last decade. This percentage has been gradually declining in recent years because of stepped-up purchases of other agricultural inputs.

3/ Vermeer, James, et. al. Costs of Farm Machinery in Crop Production, Northwestern Ohio, by Size of Farm. ERS-175, ERS, USDA, August 1964.

Expenditures for capital additions, not including repairs, have exceeded the estimated depreciation of capital items during the last 20 years (fig. 2). Immediately after World War II, expenditures were about \$400 million higher than depreciation and in recent years they have been between \$200 and \$300 million higher. The excess of capital expenditures over depreciation represents a net addition to the physical plant. Expenditures for capital additions to service buildings in recent years have been about twice those for making repairs.

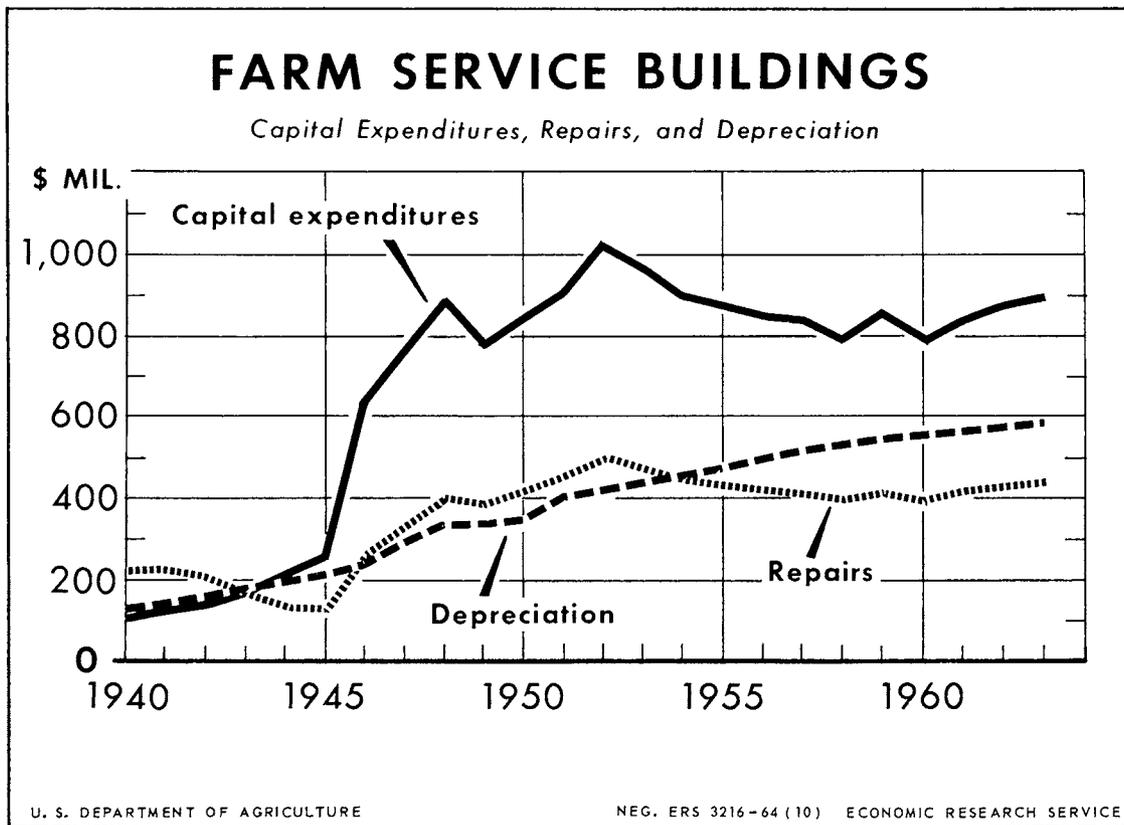


Figure 2

Fertilizer

Farm consumption of principal plant nutrients (N, P₂O₅, and K₂O) in 1963 totaled about 9.5 million tons. This tonnage was 41 percent greater than in 1957-59 and 13 percent greater than in 1962. Preliminary estimates indicate an increase in 1964 of about 10 percent over 1963. The continued increase can be attributed to higher rates of application and the favorable cost position of plant nutrients (particularly N) relative to other purchased inputs. The upsurge in use of high-analysis nitrogen materials, which cost less per pound of N, has been the principal factor in reducing costs per pound of plant nutrients used by farmers. The average cost per ton of plant nutrients in 1963 was about 10 percent below the 1957-59 average.

Estimated domestic capacity for producing anhydrous ammonia was about 7.5 million tons at the start of this year. This is expected to have grown to about 8.7 million tons by the beginning of 1965, through expansion of 5 existing plants and construction of 11 new plants.

Increases in capacity for producing P_2O_5 have been largely obtained through addition of ammonium phosphate plants. Expansion and construction of the plants now in progress or announced will almost double the current capacity of 1.2 million tons of P_2O_5 in the form of ammonium phosphate. Concentrated superphosphate capacity is about 1.4 million tons. The number of plants for producing normal superphosphate has declined some, with current capacity from this source estimated at slightly less than 2.8 million tons of P_2O_5 .

Domestic capacity for production of K_2O , now at about 3.0 million tons, will be increased by addition of a new plant in Utah and expansion of facilities at Carlsbad, N. Mex. A second Canadian facility has just been added and a third plant is expected to begin operation soon, giving Canada a K_2O capacity about two-thirds that of the United States.

In the 8 Corn Belt and Lake States in 1963, rates of application of N, P_2O_5 and K_2O per fertilized acre of corn grain were 2.6, 1.7 and 1.5 times, respectively, those of 1954. Yield response information indicates that about one-half of the increase in corn yield per fertilized acre (1963 over 1954) may be associated with increases in rates of application. The remaining half can be associated with changes in other technology, weather, weather-technology interactions and shifts in acreage. On a harvested acre basis, about 40 percent of the yield increase is associated with higher rates of application, with the remainder attributed to the other factors mentioned above, plus the fact that 87 percent of the acreage of corn for grain was fertilized in 1963 compared with about 66 percent in 1954.

At 1963 average rates of fertilizer application (145 pounds of plant nutrients per acre) the regional average corn yield per fertilized acre in the Corn Belt and Lake States was nearly 82 bushels. Research shows that yields much higher than this can be obtained through the use of more fertilizer.

Some improved technologies tend to offset the effect of less favorable seasons on yields. Examples are proper placement of initial applications, and seasonal use of nitrogen in conjunction with moisture conserving practices, and better weed and pest control.

Pesticides

Wholesale prices of pesticides remained firm or rose slightly during the 1964 season, a situation common to the chemical industry as a whole, with supply becoming more closely balanced with demand. Sodium chlorate, priced at 9 cents a pound since 1955, increased to 10 cents a pound last January. Since late 1958, parathion was quoted at 84 cents but went to 88 cents early in 1964. Lead arsenate and pyrethrum flowers rose again to the price levels of 2 years ago. Copper salts underwent price increases this year in sympathy

with the market for the metal. Some well-known insecticides, however, have maintained the same price level for many years, for example, chlordane at 65 cents for nearly 15 years.

The value of U. S. exports of pesticides in 1963 was \$121 million, nearly \$10 million less than the record-high level in 1962. This was the first year since 1958 that export value did not increase. Pesticide exports during the first 6 months of 1964 were valued at \$67 million. Exports during the second half of the year are generally less in value than in the first half.

Agricultural usage of pesticides in 1964 was generally above that of 1963. The greatest rate of increase was in use of herbicides, while insecticides showed a more moderate advance. Farmers are not only more conscious of their need for pesticides but are more aware of safety measures in their application and the risk of illegal residues on food and feed crops.

Infestations of armyworm and fall armyworm in 1964 were dominant insect problems in field corn, small grains, and forage in many areas over the eastern half of the United States. Corn rootworm infestations were at serious levels from Michigan to Colorado. Spider mites damaged fruit orchards severely in drouth stricken areas from Ohio eastward. The boll weevil was generally light in numbers except in areas from Louisiana to Alabama receiving above average rainfall.

FARM PRODUCED INPUTS

Feed

The feed concentrate supply for 1964-65 is estimated at about 240 million tons, about 12 million less than a year earlier and the lowest since 1958-59 (table 5). This includes 206 million tons of feed grains, about 6 percent less than a year ago. Wheat used for feed is expected to total about 3 million tons, a million more than last year. Byproduct feed supplies may total about 30.3 million tons, up slightly from last year. Allowing for the small reduction in grain-consuming animal units -- from 170 million units in 1963-64 to 167 million in 1964-65 -- the supply of feed concentrates per animal unit would be down about 3 percent from a year earlier. Prices of feed grains may average a little higher than 1963-64. Higher 1964 loan rates for feed grains and reduced production will give strength to prices. If the feeding rate for livestock continues near the 1963-64 level, about 148 million tons of concentrates would be fed in 1964-65 -- about 3 million tons less than last year. Carryover of feed grains into 1965-66 is expected to be about 58 million tons, nearly 11 million tons less than a year earlier and the smallest since 1956.

Current production of the 4 feed grains, based on October 1 indications, is expected to be about 137 million tons, nearly 19 million less than a year ago. Production of each of the 4 feed grains decreased from last year as follows: corn, 13 percent; oats, 9 percent; barley, 3 percent; and sorghum grain, 16 percent.

Table 5.--Supply and utilization of feed concentrates, and livestock fed, United States, 1937-64 1/

Year beginning Oct. 1	Supply				Utilization			Stocks of feed grains, end of year <u>4/</u>	Number of grain-consuming animal units	Per grain-consuming animal unit		
	Stocks of feed grains, beginning of year	Production of feed grains <u>2/</u>	Other feed concentrates <u>3/</u>	Total supply	Seed, human food, industry, and export	Concentrates fed to livestock <u>2/</u>	Production of feed grains			Supply of concentrates	Concentrates fed	
	Mil. tons	Mil. tons	Mil. tons	Mil. tons	Mil. tons	Mil. tons	Mil. tons	Millions	Tons	Tons	Tons	
Average:												
1937-41-----	16.9	92.2	19.9	129.0	12.1	97.9	19.9	153.1	0.60	0.84	0.64	
1942-46-----	14.7	109.2	29.4	153.3	14.8	124.9	13.5	176.9	.62	.89	.71	
1947-51-----	22.2	108.8	25.5	156.5	17.1	115.9	23.5	162.2	.67	.96	.71	
1952-56-----	32.2	114.7	27.1	174.0	18.4	117.7	38.0	160.7	.71	1.08	.73	
1957-61-----	66.9	144.5	29.7	241.0	26.1	143.3	71.5	166.0	.87	1.45	.86	
1962-64-----	68.1	145.3	32.4	245.8	31.9	150.1	63.5	169.9	.86	1.45	.88	
1952-----	20.1	111.0	27.9	159.0	16.9	114.0	27.0	158.9	.70	1.00	.72	
1953-----	27.0	108.3	27.8	163.1	16.0	116.6	31.7	156.9	.69	1.04	.74	
1954-----	31.7	114.1	26.0	171.8	18.5	116.2	39.1	161.6	.71	1.06	.72	
1955-----	39.1	120.8	26.9	186.8	20.6	121.9	43.2	165.3	.73	1.13	.74	
1956-----	43.2	119.3	27.0	189.5	19.9	119.7	48.8	160.9	.74	1.18	.74	
1957-----	48.8	132.4	28.4	209.6	22.9	129.0	59.0	159.9	.83	1.31	.81	
1958-----	59.0	144.1	29.2	232.3	25.8	139.5	67.5	167.7	.86	1.39	.83	
1959-----	67.5	149.6	29.4	246.5	25.2	144.7	74.6	165.7	.90	1.49	.87	
1960-----	74.6	155.6	30.2	260.4	25.4	150.3	84.7	167.6	.93	1.55	.90	
1961-----	84.7	140.6	31.1	256.4	31.1	152.9	71.8	169.0	.83	1.52	.90	
1962-----	71.8	142.9	31.4	246.1	30.3	152.0	63.9	172.5	.83	1.43	.88	
1963 <u>5/</u> -----	63.9	155.9	32.1	251.9	32.6	150.6	68.7	170.3	.92	1.48	.88	
1964 <u>6/</u> -----	68.7	137.1	33.8	239.6	32.9	147.7	58.0	167.0	.82	1.43	.88	

19

1/ Grain and Feed Statistics, U. S. Department of Agriculture, Economic Research Service.
2/ Includes corn for grain. Omits seeds and corn for silage and other forage purposes.
3/ Includes byproduct feeds, imported grains, and domestic wheat and rye fed.
4/ Stocks do not necessarily equal supply less feed and other utilization because of a difference in the crop year for different feed grains.
5/ Preliminary.
6/ Preliminary estimates based on indications in October 1964.

The total corn supply for 1964-65 is estimated to be about 142 million tons, 7 percent less than a year earlier. The sorghum grain supply is estimated at 31.8 million tons, 8 percent below a year earlier. The oat supply, 19.4 million tons, is about 4 percent less than last year. The barley supply, 12.9 million tons, is about 4 percent less than last year.

Nearly 17 million tons of high-protein feeds (in terms of 44-percent soybean-meal equivalent) are expected to be available in the feeding year 1964-65, about 3 percent more than was fed in 1963-64. The 16.5 million tons fed in 1963-64 was slightly smaller than the year before. The 4-percent decline in feeding of soybean meal was partly offset by increased feeding of other protein feeds.

Prices received by farmers for feed grains in 1964-65 probably will average a little above a year earlier, continuing the general upward movement of the last 3 years. On October 15, 1964, sorghum grain prices averaged \$1.86 per cwt., up 16 cents from a year earlier and 24 cents above 1962 (table 6). Prices of corn and barley increased moderately, while oats remained about the same.

Soybean meal prices paid by farmers on October 15, 1964, were \$4.86 per cwt. compared with \$5.04 per cwt. a year earlier and \$4.85 2 years earlier. Soybean meal prices are expected to be a little lower in 1964-65 than the relatively high level of the last 2 years. Prices of other protein feeds probably will continue low in relation to soybean meal, but the difference may not be as great as in 1963-64.

On October 15, 1964, prices of commercial formula feeds purchased by farmers had decreased from 1 to 2 percent from a year earlier. Other by-product feeds and alfalfa hay were also down 1 or 2 percent.

The number of high-protein consuming animal units -- animal numbers weighted by consumption of high-protein feeds -- in 1964-65 is currently estimated at 144.8 million, down slightly from the 146.0 million fed in 1963-64. Based on these early prospects, the quantity of protein feeds available per animal unit would total 232 pounds, 3 percent above the amount fed in 1963-64.

Feed inputs per unit of livestock production for the period 1940-1963 are shown in figure 3. These estimates show decreases from 1962-63 to 1963-64 for all classes of livestock except for hogs. Although feed conversion ratios are sometimes used as measures of efficiency in livestock enterprises, the costs of many other inputs are also important in determining the most profitable combination of resources in each feeding operation.

Gross returns from livestock enterprises per dollar of feed cost, based on October 15 prices, are given in table 7. For broilers, milk, and sheep raising, gross returns increased 3, 2, and 12 percent, respectively, from a year ago. Eggs showed about the same gross returns as a year ago. Turkeys, butterfat, hogs, and beef raising showed declines of 6, 3, 2, and 9 percent, respectively.

Table 6 .--Average prices of selected feeds, United States, Oct. 15, 1962-64

Item	Unit	1962	1963	1964 <u>1</u> /	Percentage change from 1963 to 1964
		<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Percent</u>
Prices received by farmers:					
Corn-----	Bushel	1.02	1.08	1.10	2
Oats-----	do.	.62	.63	.62	-2
Barley-----	do.	.89	.91	.94	3
Sorghum grain-----	Cwt.	1.62	1.73	1.86	8
Hay, baled-----	Ton	20.30	23.00	22.90	0
Prices paid by farmers:					
Mixed dairy feed, 16 percent protein----	Cwt.	3.69	3.78	3.70	-2
Laying feed-----	do.	4.41	4.53	4.46	-2
Broiler grower feed-----	do.	4.69	4.85	4.81	-1
Cottonseed meal, 41 percent protein----	do.	4.36	4.72	4.41	-7
Soybean meal, 44 percent protein-----	do.	4.85	5.04	4.86	-4
Bran-----	do.	3.01	3.11	3.08	-1
Middlings-----	do.	3.12	3.22	3.16	-2
Alfalfa hay, baled-----	Ton	30.40	32.70	32.20	-2
Average value of concentrate ration fed to:					
poultry and milk cows: <u>2</u> /					
Fed to poultry-----	Cwt.	3.43	3.55	3.43	-3
Fed to milk cows, in milk-selling areas-----	do.	2.95	3.05	3.03	-1
Fed to milk cows, cream-selling areas-----	do.	2.43	2.53	2.50	-1

1/ Preliminary.

2/ Value of corn, oats, oilmeal, millfeed, commercial mixed feed, and so on, which makes up 100 pounds of "grain" ration.

FEED INPUTS* PER UNIT OF PRODUCTION

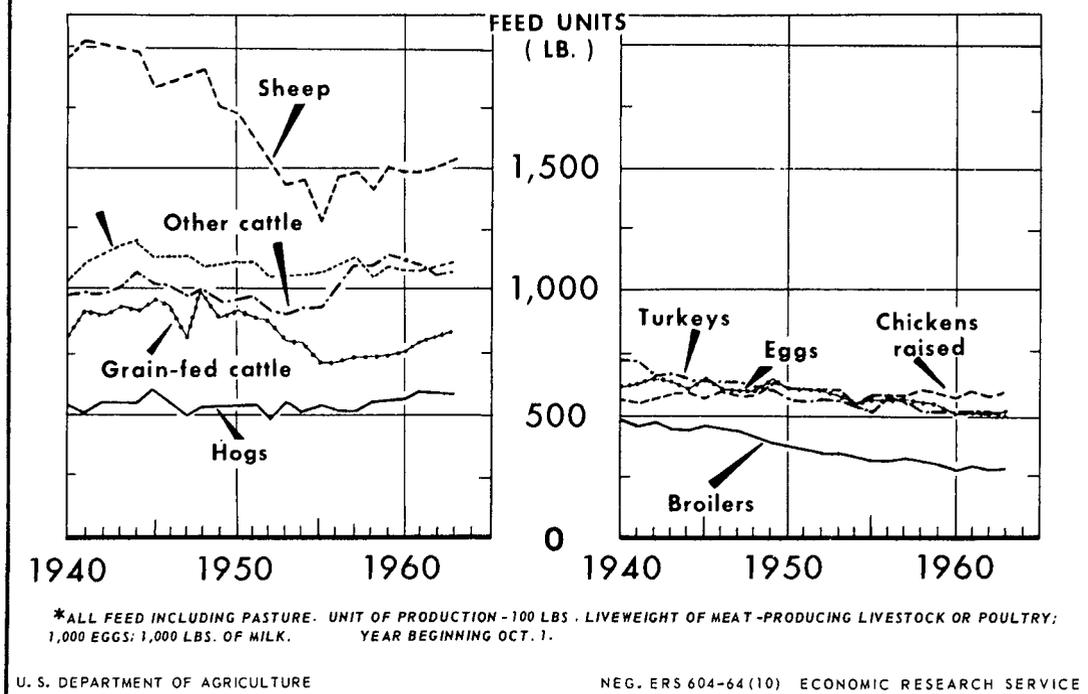


Figure 3

Trends in gross returns from various livestock enterprises per dollar of feed cost from 1950 to 1964, based on October 15 prices, are shown in figure 4. In general, downward trends in these returns were experienced in broilers, turkeys, eggs, and sheep raising. Trends in returns from milk, butterfat and hogs remained about level. Returns from beef raising showed the greatest upward trend. Considerable variation in returns was indicated for most of these enterprises.

Seed

Prices paid by farmers for seed used in fall planting of winter grain crops and most of the legumes, grasses, and winter cover crops were lower in mid-September 1964 than a year earlier. Tall fescue prices were down 32 percent from a year earlier; common crimson clover seed, down 28 percent; and noncertified alfalfa seed, down 26 percent. Other price declines were as follows: 17 percent for seed oats, 16 percent for certified alfalfa, 15 percent for seed wheat, and 14 percent for annual ryegrass. Important increases were recorded for redbud and sweet lupine seed--up 21 percent and 17 percent, respectively. Timothy seed prices were 11 percent above a year earlier.

Table 7 .--Gross returns from livestock enterprises per \$1.00 of feed costs, United States, based on Oct. 15 prices, 1957-59 average and 1962-64 1/

Livestock enterprise or product	Gross return per \$1.00 of feed cost				Percentage change from 1963 to 1964
	Average 1957-59	1962	1963	1964	
	Dollars	Dollars	Dollars	Dollars	Percent
Eggs-----	1.64	1.52	1.44	1.44	0
Broilers-----	1.18	1.28	1.17	1.21	3
Turkeys-----	1.43	1.43	1.40	1.32	-6
Milk-----	2.34	2.14	2.00	2.04	2
Butterfat-----	1.55	1.40	1.32	1.28	-3
Hogs-----	1.87	1.93	1.67	1.64	-2
Sheep raising---	1.54	1.38	1.23	1.38	12
Beef raising---	2.33	2.37	1.93	1.76	-9
Index numbers (1957-59=100)					
Eggs-----	100	93	88	88	---
Broilers-----	100	108	99	103	---
Turkeys-----	100	100	98	92	---
Milk-----	100	91	85	87	---
Butterfat-----	100	90	85	83	---
Hogs-----	100	103	89	88	---
Sheep raising---	100	90	80	90	---
Beef raising---	100	102	83	76	---

1/ The following quantities of feed were used to calculate the cost of feed:

Eggs (per dozen)-----	7 lbs. poultry ration
Broilers (per lb.)-----	2.5 lbs. broiler mash
Turkeys (per lb.)-----	4.5 lbs. poultry ration
Milk (per cwt.)-----	31 lbs. concentrates and 110 lbs. hay
Butterfat (per lb.)-----	7.75 lbs. concentrates and 27 lbs. hay
Hogs (per cwt.)-----	7.5 bu. corn and 20 lbs. soybean meal
Sheep raising (per cwt.)-----	2 bu. corn and 1,500 lbs. hay
Beef raising (per cwt.)-----	3 bu. corn and 600 lbs. hay

To estimate costs of all harvested forages and pasture in the above quantities of feed, feeds from these sources were converted into hay equivalent and the price received by farmers for "all hay" was applied. Feed nutrients from pasture were assumed to cost one-fourth as much as the nutrients in hay. About one-third of the feed consumed by sheep is used in the production of wool. During the period 1957-64, the quantities of broiler mash used to calculate the broiler feed costs were: 1957-60, 2.8 pounds; 1961, 2.6 pounds; 1962-64, 2.5 pounds. During the same period, the quantities of poultry ration used to calculate turkey feed costs were: 1957-61, 4.75 pounds; 1962-64, 4.5 pounds.

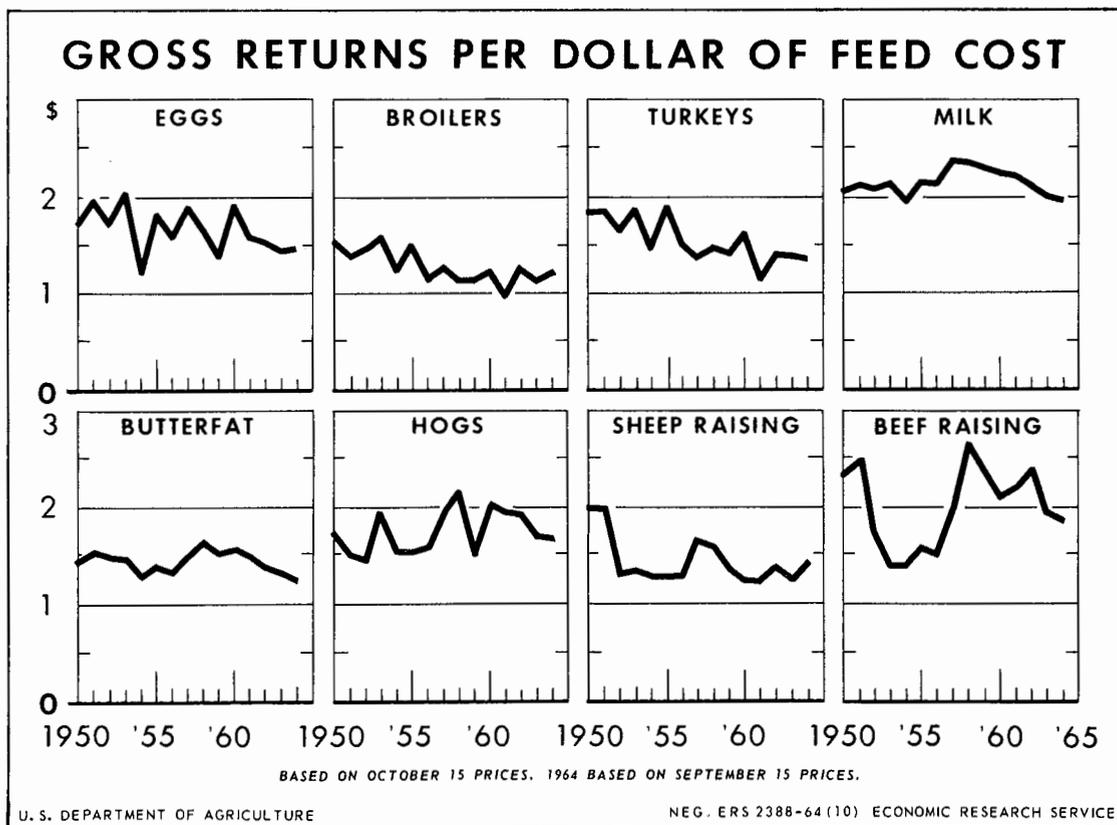


Figure 4

Supplies (carryover July 1 plus 1964 production) of several winter cover crop seeds are smaller than a year ago. The supply of hairy vetch seed is down 14 percent; purple vetch, down 46 percent; and Austrian winter peas, down 7 percent. On the other hand, supplies of common vetch seed and crimson clover seed are up 34 percent and 6 percent, respectively. The supply of lupine seed is 59 percent above 1963.

The supply of sweet clover seed is expected to be about 41 million pounds, the largest since 1960. Supplies of white clover and ladino clover seeds are down 8 percent and 14 percent, respectively, from year-ago levels.

Supplies of several grass seeds are above last year. The supply of tall fescue seed is up 40 percent; smooth brome grass, up 43 percent; and timothy, up 11 percent. Supplies of Merion Kentucky bluegrass and red fescue seeds are near year-ago levels. A much smaller supply of several other grass seeds is likely. Supplies of Chewings fescue seed, crested wheatgrass seed, and redbud seed ranged from 16 percent to 26 percent below last years' levels. Production of Kentucky bluegrass seed in the Midwest and Kentucky districts was 37 percent larger than last year's small crop but 77 percent smaller than the 1958-62 average.

Feeder and Replacement Livestock

From July 1964 to October 1964, prices paid by farmers for all feeder and replacement livestock rose about 5 percent; most of this increase resulted from the rise in prices paid for cattle and calves (table 8). Compared with a year ago, prices paid for all livestock in October averaged 9 percent lower, but prices paid for feeder lambs were 14 percent higher and feeder pigs were about 5 percent higher.

Since mid-June 1964, prices paid for stocker and feeder steers have risen moderately while prices received for fat cattle rose sharply, thus providing cattle feeders their widest margins since the fall of 1962. Both the relation of prices received for fat cattle to prices of feeders 7 months earlier, and the relation of current prices of fat cattle to current prices of feeders are the most favorable in 2 years (fig. 5).

Shipments of stocker and feeder cattle into the 8 Corn Belt States during the first 9 months of this year were 10 percent larger than during the comparable period in 1963. During the second quarter of 1964, shipments were 20 percent below those of a year earlier, but this decline was more than offset by heavy shipments in the first and third quarters.

The number of cattle on feed October 1, 1964, in 28 States was 2 percent less than a year earlier, and 1 percent less than on July 1, 1964. In the 8 Corn Belt States, the number of cattle on feed October 1, 1964, was 4 percent less than a year earlier. Fewer cattle on feed, despite heavier shipments of feeders into the main feeding areas, indicates a higher ratio of sales of fat cattle to feeders this year than a year ago. Also, prices of fat cattle have been rising during this period of heavy marketings, thus indicating a strong demand for beef. With favorable price margins, prices of feeder cattle likely will remain near present levels.

Prospects for profits from feeding cattle bought at current prices appear favorable. Feed prices in the Corn Belt currently are about the same as a year ago but the seasonal rise may be greater. With improved margins, however, the outlook for profits is brighter.

Margins in lamb feeding also are more favorable than a year ago. Prices received for fat lambs at Chicago rose about \$7.00 a hundredweight from August 1963 to \$23.50 in August this year. Prices of feeder lambs rose only about \$1.40 a hundredweight during the same period, and averaged \$19.57 at Denver in August 1964. Each month since February 1964, shipments of stocker and feeder sheep and lambs into the 8 Corn Belt States have been running up to 70 percent ahead of a year earlier. However, shipments still were considerably below those in the same months of 1962.

The favorable outlook for livestock feeding is clouded somewhat by the present high level of meat production. Production of all red meat and production of fed beef per capita are at record levels. Numbers of cattle on feed remain high. Profits from feeding depend on a continued strong demand for meat. The demand for meat, especially beef, has recently been bolstered by Government purchases of 3 to 4 percent of beef production.

Table 8.--Feeder and replacement livestock: Prices paid by farmers, United States, high and low months in year ending October 1964

Commodity and unit	High month		Low month		October 1964
	Month	Price	Month	Price	
		Dollars		Dollars	Dollars
Cattle and calves, per cwt.-----	Oct. '63	22.40	July '64	18.50	19.80
Lambs, per cwt.-----	May-June '64	20.00	Dec. '63	16.30	18.80
Pigs, per cwt.-----	Sept. '64	18.40	Dec. '63	15.00	17.30
Baby chicks, per 100-----	April '64	14.60	Aug. '64	11.40	11.80
Turkey poults, per 100-----	April '64	63.20	Oct. '64	49.20	49.20
Milk cows, per head-	Oct. '63	213.00	Oct. '64	207.00	207.00
All livestock (Index: 1910-14=100)-----	Oct. '63	340	July '64	294	309

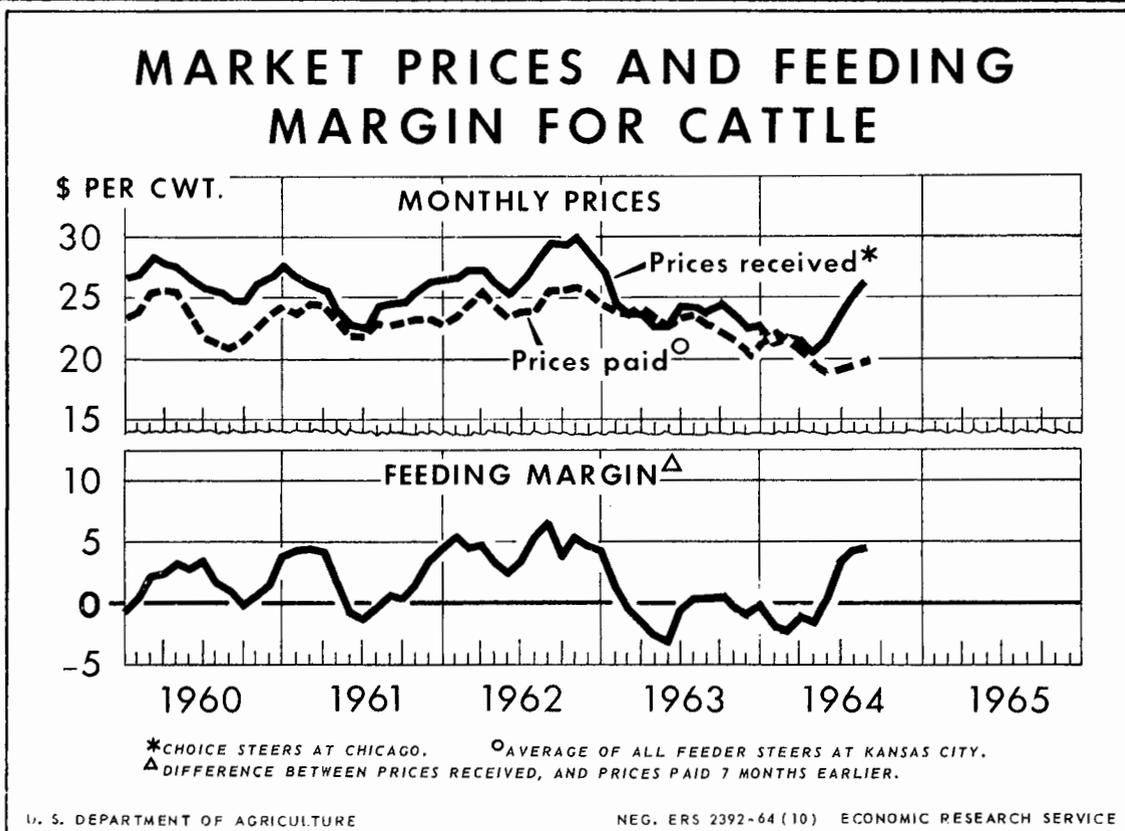


Figure 5

OVERHEAD COSTS

Taxes

Taxes levied on farm real estate in 1963 were up 5 percent over 1962 to a record \$1,468 million. This was the 21st consecutive annual increase in farm real estate taxes. The 1963 level was almost double that of 1950. The U. S. average tax per acre in 1963 was \$1.43, compared with \$1.36 in 1962.

The increase in taxes exceeded the rise in market value of privately owned farm real estate, with the result that the effective rate of tax on farm real estate (tax per \$100 full value) increased from \$1.02 in 1962 to \$1.03 in 1963 (fig. 6).

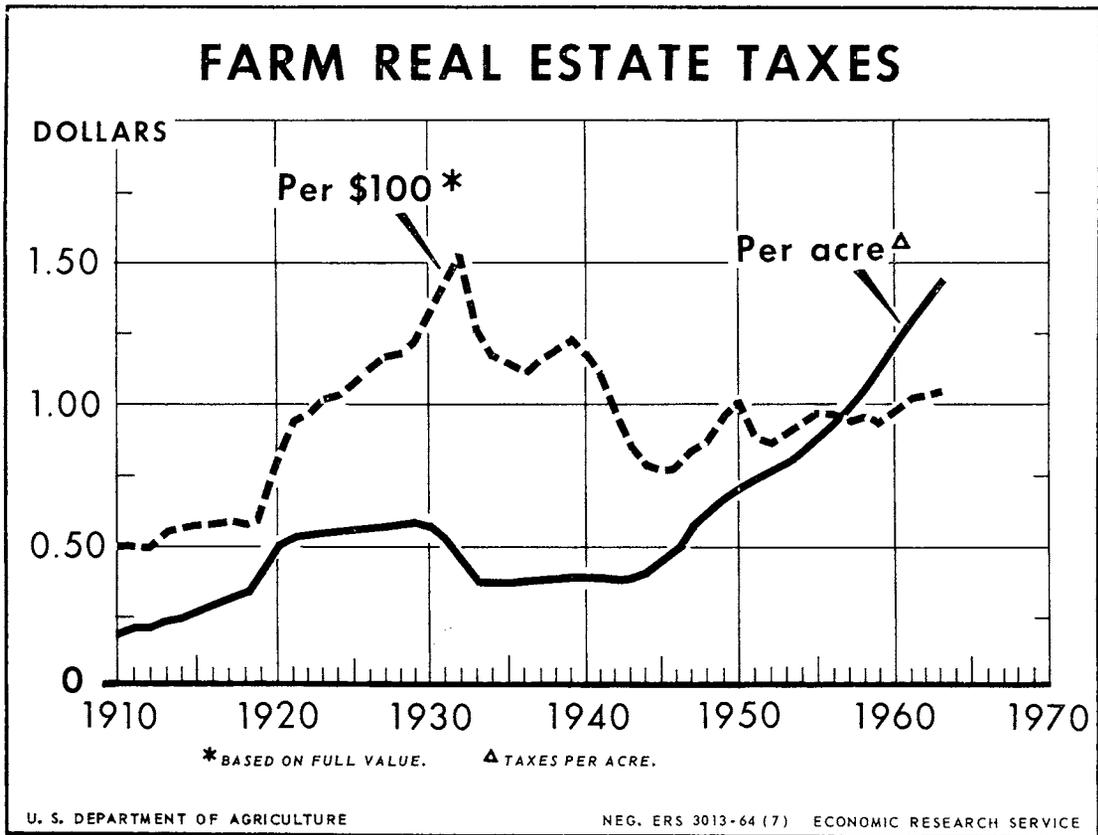


Figure 6

Taxes on farm personal property have also been rising steadily. In 1963, these taxes totaled about \$295 million.

The rise in farm property taxes during the last 2 decades is a direct outgrowth of the expanding revenue requirements of State and local governments, especially for schools. Expanding public service requirements, rising salary levels for public employees, and higher costs of materials are largely

responsible for the rising State-local government expenditures and taxes.

State and local expenditures and taxes are expected to continue to rise during the remainder of the 1960's for the same reasons that they have in the past. The extent to which these expenditures will be reflected in higher farm property taxes will depend largely on the type of taxes used and the degree to which the States assist in the financing of functions that are presently the responsibility of the local governments. The property tax currently provides about 88 percent of all local tax revenue.

Interest

Farmers are incurring interest costs of almost \$2 billion for the farm mortgage and the short-and intermediate-term credit used in their farming businesses this year. This will be nearly \$200 million greater than their interest costs in 1963, and \$750 million more than in 1959 (table 9). The reason for this increase is that farmers' use of credit has been rising sharply.

Total farm debt (excluding Commodity Credit Corporation loans) by the end of 1964 is expected to reach \$36.4 billion; this would be an increase of \$3.4 billion during the year. Such a rise would be about the same as that occurring during 1963. Farm mortgage debt appears to be increasing by a greater amount in 1964 than last year, but the growth of nonreal estate debt has slowed somewhat.

The underlying technological and economic forces, leading to increases in farm size and efficiency and to the accompanying increases in use of credit, remain strong. However, in the livestock feeding areas, lower prices of feeder cattle during the last several months have moderated credit needs, and uncertainty over the prospect for fat cattle prices have made borrowers and lenders more cautious in the use and granting of credit. Repayments on loans have generally remained strong and delinquencies few, although there have been more renewals than usual of short-term loans in the livestock areas.

Loan funds of both short-term and long-term farm lenders have remained large. In particular, time deposits of banks in rural areas are still rising considerably, though not quite as rapidly as during 1963.

Interest rates charged on new farm mortgage loans have continued exceptionally stable during 1964. Most of the 12 Federal land banks are charging 5-1/2 percent on their loans. One bank reduced its rate on January 1, 1963, and another in September 1963. Nine of the banks have not changed rates in more than 3 years. Interest rates charged on farm mortgage loan commitments by the major life insurance companies averaged 5.73 percent in the first half of 1964, little changed from the average 5.75 percent during 1963.

Rates charged on short-and intermediate-term farm borrowings in 1964 are probably somewhat higher than in 1963. Following the rise after mid-1963 in short-term rates in the central money markets, the cost of funds to the Federal intermediate credit banks increased--the rate on FICB debentures outstanding on October 1, 1964, was 0.6 percent higher than a year earlier. The credit banks have raised their discount rates charged the production

Table 9. --Annual interest charges on the farm debt, selected years, 1950-1964

Year	Total	Charges on mortgage debt	Charges on short-term debt owed to--				
			All lenders <u>1/</u>	Commercial banks	Production credit associations <u>2/</u>	Farmers Home Administration	Merchants, dealers and miscellaneous creditors <u>3/</u>
	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars
1950----	585	264	321	134	32	17	138
1955----	838	402	436	186	47	21	182
1959----	1,217	572	645	277	98	21	249
1960----	1,343	627	716	307	120	21	268
1961----	1,431	685	746	324	117	24	281
1962----	1,582	758	824	363	125	27	309
1963----	1,773	848	925	407	142	30	346
1964 <u>4/-</u>	1,969	948	1,021	445	162	33	381

1/ Includes service fees. Excludes interest charges on Commodity Credit Corporation price support loans and interest charges on debt for family living purposes.

2/ In addition to production credit associations, includes Federal intermediate credit bank loans to and discounts for livestock loan companies and agricultural credit corporations.

3/ A substantial upward revision in the estimated amount of interest charged by these creditors has not yet been reflected in the USDA farm income statistics.

4/ Preliminary.

credit associations, and some of the PCA's have raised their rates to farm borrowers. Rates charged by PCA's in 1964 will average higher than in 1963. There is little current information about rates charged on bank loans to farmers; rates on bank loans to business borrowers have not changed much from 1963.

Credit is one of the major tools used by beginning farmers to obtain the resources with which to start farming, and by established farmers to expand and improve their farms and increase their incomes. The growing farm credit costs reflect the expansion in the use of credit at relatively stable interest rates. The small numbers of loan delinquencies and foreclosures, and the willingness of lenders to make available large amounts of loanable funds suggest that most farm borrowers are using credit constructively and are able to absorb the higher interest costs.

Insurance

For 1964, total farm business and personal insurance premiums and Social Security payments by farmers are estimated at \$2.0 billion, an increase of more than 50 percent since 1955. The total outlay for business and personal insurance in 1964 averaged approximately \$575 per farm. About a third of the total payment can be considered a farm overhead cost, with the remainder a personal or family expense,

Since 1955, the value of farm buildings, livestock, machinery, and crop inventories subject to losses by fire, windstorm, and other hazards has increased about \$12 billion. The need for more insurance of all types than formerly is indicated by the increasing capital values on farms, greater financial obligations and higher risks.

Insurance expenditures will probably increase again in 1965. Premium rates for motor vehicle, health, and fire insurance will probably increase, but the main reason for higher costs will be broader coverage of risks and larger amounts of insurance on each type of risk.

FARM REAL ESTATE

Farm real estate market prices continued to climb higher during the year ended July 1, 1964. As measured by the index of average value per acre, farmland values were up 6 percent, nationally, from July 1963. This rate of increase equals that of the preceding 12-month period. Regional average gains ranged from 3 percent in the Lake States and 5 percent in the Corn Belt and Mountain States to 10 percent in the Southeast and Delta States. Since 1957-59, the cumulative increase in market value per acre averaged 35 percent for the 48 States. In 3 regions--Southeast, Delta States, and Southern Plains--the rise over this period was 50 percent or more.

Strong demand for land from all segments of the economy, but especially from active farmers, in the face of limited offerings has provided the stimulus for this upward movement of land values in recent years. Hope of realizing a sizeable capital gain at the time of sale, if values continue moving to higher levels, will further strengthen demand. Moreover, it also tends to

discourage sales. A reflection of the current tight supply situation can be found in the limited numbers of voluntary sales of rural land. In the 12 months ended March 1, 1964, an estimated 90,500 parcels of farm property changed hands. Even though farmland prices are at record highs in nearly every State, this is the second smallest number of voluntary transfers in about 30 years.

Much of the activity in the rural land market originates with farm owners--primarily owner-operators--who want to enlarge their farms. At the present time about half of all purchases are for this purpose. As a result of the shifts in farm ownership and land rentals, the average size of farm is slightly more than 15 percent larger than 5 years ago.

Changes in both farm sizes and values per acre have pushed the average value of real estate per farm sharply higher. Nationally, the average value per farm was \$48,000 on March 1, 1964. This was \$14,400--or 43 percent--more than the \$33,600 reported March 1, 1959 (table 10). Among regions, 1964 average values per farm ranged from a low of \$20,700 in the Appalachian region to a high of \$126,800 in the Pacific region. This compares with \$14,500 in the Appalachian region and \$86,000 in the Pacific region 5 years earlier.

At the regional level, increases in market values per farm over the 5 years from 1959 to 1964 ranged from 21 percent in the Lake States to 70 percent in the Southern Plains. Per farm values rose about two-thirds in the Southeast, Delta States, and Southern Plains--roughly the entire southeast quarter of the country. In some of the southern States, annual increases of 10 percent in average values per acre were not uncommon.

Average values per farm represent the amount of capital required for an average operating unit, without distinguishing between the portions that may be owned or rented. As the cost of an average operating unit has continued to mount, owner-operators increasingly have turned to land rental as a means of expanding their operations. Also, the proportion of tenants who become full owners has lessened. Recently, 1 buyer out of 7 was a tenant prior to purchase; in 1958, tenants accounted for 1 of 5 farmland purchases.

The outlook for 1965 is for a continuation of the trend toward larger farms. Demand for land is likely to remain strong. As a consequence, average values per farm will likely advance further.

COSTS BY TYPE OF FARM

Preliminary estimates for 1964 on 8 selected types of farms indicate that the general upward trend in average prices paid for items used in production continued on 4 of the farms and that prices have remained about the same or lower than in 1963 on the other 4. Operating expenses per unit of production will be about the same or lower than in 1963 on all of the 8 types of farms except on the grade A dairy farms in eastern Wisconsin. Increases in purchased feeds and a slight increase in prices paid accounted for the increase in the operating expense per unit of production on these eastern Wisconsin dairy farms.

Table 10.--Average market value of farmland with improvements per farm, by farm production regions, selected years

Region	1959	1961	1962	1963	1964	Percentage change from 1959 to 1964
	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Percent</u>
Northeast-----	25,200	28,400	30,500	32,500	35,300	40
Lake States-----	26,300	27,700	29,400	30,200	31,900	21
Corn Belt-----	40,100	41,800	44,300	46,900	50,500	26
Northern Plains-----	43,800	47,700	51,000	54,200	58,000	32
Appalachian-----	14,500	16,500	18,100	19,300	20,700	43
Southeast-----	21,800	26,300	29,500	32,000	36,100	66
Delta States-----	17,300	20,300	22,800	25,000	28,600	65
Southern Plains-----	42,600	53,400	58,900	66,700	72,300	70
Mountain-----	69,600	79,900	86,500	91,800	98,400	41
Pacific-----	86,000	102,200	108,300	115,600	126,800	47
48 States-----	33,600	38,100	41,200	44,200	48,000	43

The relative importance of production inputs varies greatly by enterprises and by types of farms. Thus, changes in prices paid for production inputs affect operating expenses differently on different types of farms. The series on farm costs and returns, representative of important segments of commercial agriculture, provide an illustration of these differences (fig. 7).

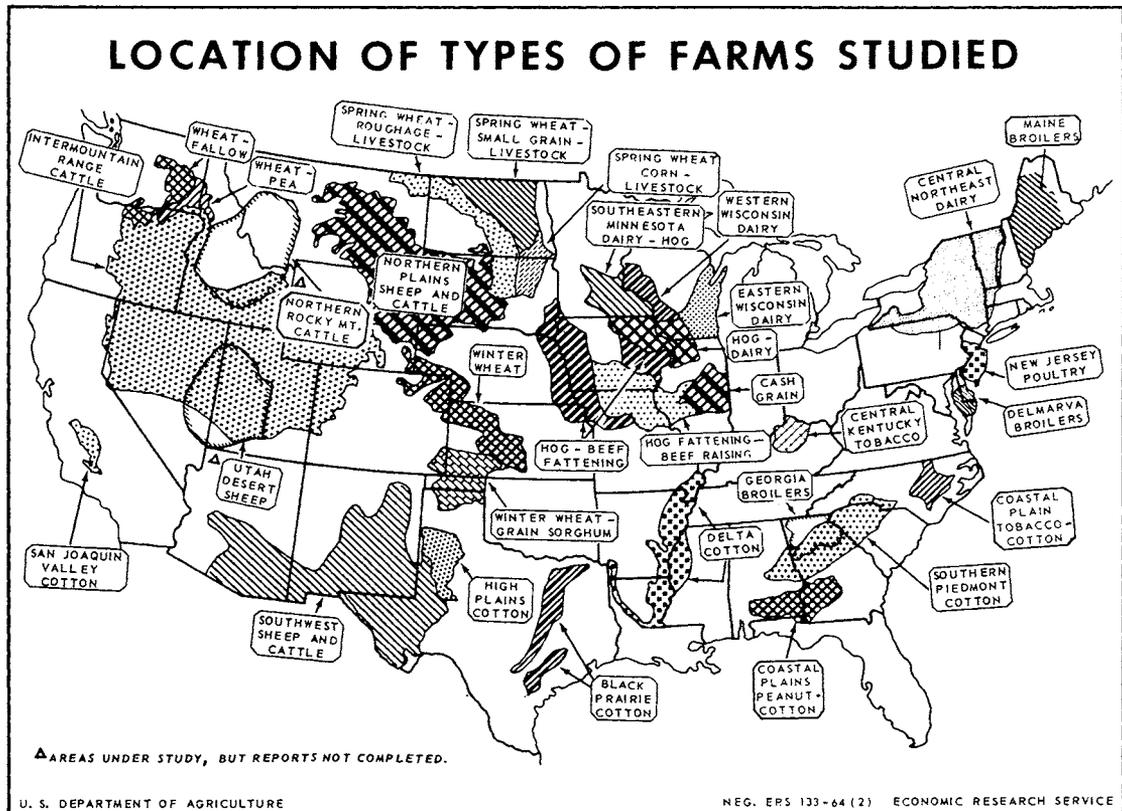


Figure 7

The net effect of changes in prices paid and production efficiency on operating expenses per unit of production is shown in table 11.

On some types of farms, farm expenses relative to production were at or near record-high levels in 1963. This was true of the Corn Belt farms with the exception of cash grain, the wheat farms in the Southern Plains, and the cattle and sheep ranches in the Southwest. In contrast, expenses per unit of production were lower than in 1962 on grade B dairy farms in western Wisconsin; the egg-producing farms in New Jersey; the cash grain farms in the Corn Belt; the cotton farms in the Mississippi Delta and in the Black Prairie of Texas; the peanut-cotton farms in the Southern Coastal Plains; the tobacco farms in the North Carolina Coastal Plain and in the Kentucky Bluegrass Region; and on the wheat farms and ranches in the Northern Plains.

Table 11.--Operating expense per unit of production: Index numbers, selected types of farms, with comparisons 1/

(1957-59=100)

Type of farm and location	Average			1961	1962	1963 <u>2/</u>
	1945-49	1950-54	1955-59			
Dairy farms:						
Central Northeast-----	86	95	96	104	110	112
Eastern Wisconsin:						
Grade A-----	---	104	99	102	104	107
Grade B-----	91	106	99	97	99	100
Western Wisconsin, Grade B-----	98	106	100	98	95	95
Dairy-hog farms, Southeastern Minnesota-----	86	102	97	107	111	108
Egg-producing farms, New Jersey-----	118	121	102	87	92	92
Broilers:						
Maine-----	---	107	98	98	104	109
Delmarva-----	---	112	100	93	99	101
Georgia-----	---	87	96	106	109	108
Corn Belt farms:						
Hog-dairy-----	90	106	101	112	119	116
Hog fattening--beef raising-----	85	104	99	113	121	117
Hog-beef fattening-----	74	104	101	111	119	130
Cash grain-----	75	99	97	111	111	97
Cotton farms:						
Southern Piedmont-----	88	106	99	98	101	97
Mississippi Delta:						
Small-----	67	97	95	101	100	93
Large-scale-----	104	115	96	89	87	78
Texas:						
Black Prairie-----	85	109	105	107	103	92
High Plains (nonirrigated)-----	---	144	116	88	108	101
High Plains (irrigated)-----	---	110	106	90	99	101
San Joaquin Valley, Calif. (irrigated):						
Cotton-specialty crop-----	---	93	97	113	109	110
Cotton-general crop (medium-sized)-----	---	98	99	113	106	108
Cotton-general crop (large)-----	---	100	100	116	109	112
Peanut-cotton farms, Southern Coastal Plains-----	---	94	96	96	102	87
Tobacco farms:						
North Carolina Coastal Plain:						
Tobacco-----	---	87	98	97	97	97
Tobacco-cotton-----	---	91	98	97	96	95
Kentucky Bluegrass:						
Tobacco-livestock, Inner Area-----	71	88	97	108	104	92
Tobacco-dairy, Intermediate Area-----	64	84	97	101	98	96
Tobacco-dairy, Outer Area-----	68	89	98	108	99	99
Spring wheat farms:						
Northern Plains:						
Wheat-small grain-livestock-----	75	101	90	208	60	76
Wheat-corn-livestock-----	79	111	105	103	102	99
Wheat-roughage-livestock-----	69	97	96	139	53	64
Winter wheat farms:						
Southern Plains:						
Wheat-----	78	104	111	94	99	121
Wheat-grain sorghum-----	---	110	109	88	106	122
Pacific Northwest:						
Wheat-pea-----	81	101	106	118	102	105
Wheat-fallow-----	---	118	116	129	110	115
Cattle ranches:						
Northern Plains-----	65	95	99	87	102	93
Intermountain Region-----	64	109	102	115	111	119
Southwest-----	92	136	111	98	104	121
Sheep ranches:						
Northern Plains-----	84	116	109	108	103	90
Southwest-----	99	146	115	96	102	115

1/ Exclusive of charges for capital and unpaid labor. 2/ Preliminary.

In contrast to the generally increasing prices paid for items used in production, inputs per unit of production were lower in 1963 than in 1955-59 on all of the 40 types of farms except hog-beef fattening farms in the Corn Belt and dairy farms in the Central Northeast (table 12). No appreciable change in efficiency, as measured by inputs per unit of production, has occurred on the Central Northeast dairy farms since 1955-59, whereas inputs used for production on the hog-beef fattening farms have been increasing faster than output.

Prices paid for goods and services on most of the 40 farm types averaged at or near a record-high in 1963. On one type of farm, the egg-producing farms in New Jersey, the index of prices paid was considerably lower in 1963 than in 1950-54. Lower feed prices explains this decline in the index of prices paid. Lower operating expense per unit of production on these farms is a reflection of lower feed prices and increased rate of lay. In general, the greatest increases in prices paid since 1950-54 have occurred on both the large and medium-sized cotton-general crop farms in the San Joaquin Valley in California. However, substantial increases in prices paid also have occurred on several other types of farms. Higher prices for inputs contributed to higher operating expenses per unit of production on about half of the 40 farm types, particularly on tobacco farms. Operating expenses per unit of production were lower in 1963 than in 1950-54 on 20 of the farms, including the cotton and wheat farms, and the cattle and sheep ranches.

Commercial Dairy Farms, Eastern Wisconsin, Grade A

Total operating expenses on representative grade A dairy farms in eastern Wisconsin are expected to continue to trend upward in 1964 (table 13). Prices paid for inputs are expected to be slightly higher and quantities of inputs used, particularly purchased feed, are expected to increase substantially from a year earlier. Total operating expense per unit of production is expected to increase about 4 percent from a year ago.

Prices paid for dairy feed are expected to average only slightly higher in 1964 than a year ago, but total feed expense probably will increase more than 6 percent. Lower production of corn and oats as a result of lower yields, combined with an expected 6 percent increase in total grain fed in 1964, accounts for the increase in feed purchased.

Gross farm income is expected to increase only about 3 percent in 1964--not enough to offset higher operating expenses. Net farm income, therefore, will be slightly lower than in the previous year.

The total volume of milk sold per farm in 1964 is expected to average more than 7 percent higher than in 1963, primarily because of increased production per cow. Milk production per cow in 1964 probably will increase about 4 percent from last year's level, largely because of much-improved spring and early summer pasture conditions. Prices received for milk sold by these dairymen are expected to average about 10 to 12 cents per hundredweight higher in 1964 than in 1963. Prices received in 1964 for cattle, calves and hogs are expected to average lower than in 1963. Increased quantities sold

Table 12.--Input per unit of production: Index numbers, selected types of farms, 1963, with comparisons 1/

(1957-59=100)

Type of farm and location	Average			1961	1962	1963 ^{2/}
	1945-49	1950-54	1955-59			
Dairy farms:						
Central Northeast-----	115	105	99	97	100	99
Eastern Wisconsin:						
Grade A-----	---	115	102	93	93	93
Grade B-----	125	114	101	92	93	92
Western Wisconsin, Grade B-----	136	115	102	93	88	86
Dairy-hog farms, Southeastern Minnesota-----	134	117	101	97	100	96
Egg-producing farms, New Jersey-----	117	106	102	95	98	95
Broilers:						
Maine-----	---	147	107	90	91	93
Delmarva-----	---	137	105	89	95	95
Georgia-----	---	121	102	95	95	92
Corn Belt farms:						
Hog-dairy-----	126	115	103	104	105	101
Hog fattening--beef raising-----	125	117	102	103	107	95
Hog-beef fattening-----	110	109	105	106	111	116
Cash grain-----	115	114	100	92	92	78
Cotton farms:						
Southern Piedmont-----	119	119	101	91	96	88
Mississippi Delta:						
Small-----	100	107	97	93	91	83
Large-scale-----	120	114	98	87	83	73
Texas:						
Black Prairie-----	121	116	109	101	96	83
High Plains (nonirrigated)-----	---	175	125	79	104	94
High Plains (irrigated)-----	---	110	106	83	92	93
San Joaquin Valley, Calif. (irrigated):						
Cotton-specialty crop-----	---	107	101	104	100	100
Cotton-general crop (medium-sized)-----	---	114	104	104	96	98
Cotton-general crop (large)-----	---	114	104	106	99	102
Peanut-cotton farms, Southern Coastal Plains-----	---	119	102	93	96	79
Tobacco farms:						
North Carolina Coastal Plain:						
Tobacco-----	---	105	100	89	86	84
Tobacco-cotton-----	---	107	100	89	86	83
Kentucky Bluegrass:						
Tobacco-livestock, Inner Area-----	104	100	99	102	95	84
Tobacco-dairy, Intermediate Area-----	109	104	101	95	91	83
Tobacco-dairy, Outer Area-----	111	107	102	98	90	86
Spring wheat farms:						
Northern Plains:						
Wheat-small grain-livestock-----	100	113	92	201	55	73
Wheat-corn-livestock-----	106	116	107	100	91	94
Wheat-roughage-livestock-----	90	103	97	144	48	61
Winter wheat farms:						
Southern Plains:						
Wheat-----	101	110	113	87	89	108
Wheat-grain sorghum-----	---	138	120	75	89	101
Pacific Northwest:						
Wheat-pea-----	109	106	105	117	96	97
Wheat-fallow-----	---	124	117	123	106	110
Cattle ranches:						
Northern Plains-----	97	100	102	94	101	89
Intermountain Region-----	117	126	106	106	100	103
Southwest-----	102	123	113	91	92	106
Sheep ranches:						
Northern Plains-----	118	121	111	108	98	84
Southwest-----	101	126	114	92	97	102

1/ Includes charges for capital and unpaid labor. 2/ Preliminary.

Table 13.--Costs and returns, selected types of farms, average 1957-61, 1963, and preliminary 1964

Type of farm	Unit	Average 1957-61	1963	1964
Dairy farms (grade A) Eastern Wisconsin:				
Gross farm income-----	Dollar	13,676	15,547	16,008
Operating expenses-----	do.	7,974	9,822	10,341
Net farm income-----	do.	5,702	5,725	5,667
:				
Cows, 2 years old and over-----	Number	28.2	32.0	33.3
Milk production per cow-----	Pound	9,610	10,210	10,620
:				
Total farm capital, Jan. 1-----	Dollar	56,030	67,680	72,210
Index numbers (1957-59=100):				
Net farm production-----	---	105	122	123
Operating expense per unit of production---	---	101	107	111
Total cost per unit of production-----	---	100	104	108
Prices paid-----	---	102	110	111
Prices received-----	---	101	98	99
:				
Hog-beef fattening farms, Corn Belt:				
Gross farm income-----	Dollar	23,459	31,024	32,948
Operating expenses-----	do.	15,955	27,350	26,900
Net farm income-----	do.	7,504	3,674	6,048
:				
Fat cattle sold-----	Cwt.	583	885	955
Hogs sold-----	do.	358	477	508
:				
Total farm capital, Jan. 1-----	Dollar	79,700	98,920	103,850
Index numbers (1957-59=100):				
Net farm production-----	---	103	113	115
Operating expense per unit of production---	---	104	130	123
Total cost per unit of production-----	---	103	116	111
Prices paid-----	---	101	99	93
Prices received-----	---	98	92	94
:				
Egg-producing farms, New Jersey:				
Gross farm income-----	Dollar	27,234	27,842	27,612
Operating expenses-----	do.	24,166	25,834	24,755
Net farm income-----	do.	3,068	2,008	2,857
:				
Layers on hand during year-----	Number	4,189	4,696	4,718
Egg production-----	Dozen	67,864	76,310	77,454
:				
Total farm capital, Jan. 1-----	Dollar	42,870	44,080	45,620
Index numbers (1957-59=100):				
Net farm production-----	---	106	127	140
Operating expense per unit of production---	---	96	92	87
Total cost per unit of production-----	---	97	92	88
Prices paid-----	---	97	95	92
Prices received-----	---	101	92	89
:				
Cattle ranches, Intermountain region:				
Gross ranch income-----	Dollar	17,170	17,460	15,484
Operating expenses-----	do.	6,582	7,622	7,775
Net ranch income-----	do.	10,588	9,838	7,709
:				
Cows, 2 years old and over-----	Number	131.5	149.5	143.5
:				
Total ranch capital, Jan. 1-----	Dollar	77,790	95,550	92,270
Index numbers (1957-59=100):				
Net ranch production-----	---	99	102	104
Operating expense per unit of production---	---	108	119	120
Total cost per unit of production-----	---	106	117	115
Prices paid-----	---	103	110	111
Prices received-----	---	98	95	81

Table 13.--Costs and returns, selected types of farms, average 1957-61, 1963, and preliminary 1964
--Continued

Type of farm	Unit	Average 1957-61	1963	1964
Tobacco farms, Coastal Plain, North Carolina:				
Gross farm income-----	Dollar	10,442	12,581	12,653
Operating expenses-----	do.	5,428	6,460	6,219
Net farm income-----	do.	5,014	6,121	6,434
Tobacco harvested-----	Acre	7.9	8.4	7.6
Yield per acre-----	Pound	1,742	2,058	2,216
Total farm capital, Jan. 1-----	Dollar	23,240	27,640	29,440
Index numbers (1957-59=100):				
Net farm production-----	---	111	134	134
Operating expense per unit of production---	---	98	97	93
Total cost per unit of production-----	---	97	94	92
Prices paid-----	---	102	110	112
Prices received-----	---	104	103	103
Cotton farms (large-scale) Mississippi Delta:				
Gross farm income-----	Dollar	65,940	85,294	82,203
Operating expenses-----	do.	42,815	42,600	43,121
Net farm income-----	do.	23,125	42,694	39,082
Cotton harvested-----	Acre	235	241	245
Yield per acre-----	Pound	514	686	648
Total farm capital, Jan. 1-----	Dollar	202,100	249,070	281,780
Index numbers (1957-59=100):				
Net farm production-----	---	106	128	130
Operating expense per unit of production---	---	96	78	78
Total cost per unit of production-----	---	96	82	84
Prices paid-----	---	101	108	110
Prices received-----	---	101	109	104
Wheat-small grain-livestock farms, Northern Plains:				
Gross farm income-----	Dollar	9,566	<u>1/</u> 12,980	13,345
Operating expenses-----	do.	5,876	5,820	5,980
Net farm income-----	do.	3,690	<u>1/</u> 7,160	7,365
Wheat harvested-----	Acre	140.2	129.5	147.7
Yield per acre-----	Bushel	16.7	22.3	24.2
Total farm capital, Jan. 1-----	Dollar	59,530	57,540	61,340
Index numbers (1957-59=100):				
Net farm production-----	---	93	130	146
Operating expense per unit of production---	---	119	76	70
Total cost per unit of production-----	---	119	79	74
Prices paid-----	---	100	104	102
Prices received-----	---	103	94	83
Winter wheat farms, Southern Plains:				
Gross farm income-----	Dollar	15,489	<u>1/</u> 15,094	14,700
Operating expenses-----	do.	5,735	6,725	6,635
Net farm income-----	do.	9,754	<u>1/</u> 8,369	8,065
Wheat harvested-----	Acre	209.2	215.9	236.0
Yield per acre-----	Bushel	22.3	18.5	19.8
Total farm capital, Jan. 1-----	Dollar	87,870	110,320	113,540
Index numbers (1957-59=100):				
Net farm production-----	---	109	96	101
Operating expense per unit of production---	---	96	121	115
Total cost per unit of production-----	---	95	121	117
Prices paid-----	---	102	109	109
Prices received-----	---	100	105	86

1/ Revised.

and slightly higher average prices received on these farms in 1964 are expected to increase total cash receipts more than 7 percent from 1963.

Hog-Beef Fattening Farms, Corn Belt

Total operating expenses on representative hog-beef fattening farms are expected to be about 2 percent lower in 1964 than in 1963. This decrease resulted from a decline in prices paid for feeder cattle and protein supplement. A 5-percent increase in the quantity of production inputs purchased partly offset the effect of lower prices paid for production inputs.

A continued expansion in farm size in 1964 is reflected in increases in production of hogs and cattle and in acreage. Crop production probably will not equal last year's level because of a 3-percent drop in crop yields.

Prices received for fat cattle may average about \$1 per cwt. more than in 1963, whereas hog prices likely will average a little less than a year ago. Net farm income in 1964 will be considerably higher than last year's unusually low income because of higher fat cattle prices, increased production of hogs and cattle, and lower operating expenses.

Commercial Egg-Producing Farms, New Jersey

Total operating expenses in 1964 on typical commercial egg-producing farms in New Jersey are expected to average about 4 percent less than in 1963. A reduction in prices paid for all types of poultry feed and a smaller replacement flock will more than offset additional inputs purchased for a slightly larger laying flock.

Operating expense per unit of production in 1964 is expected to be favorable compared with 1963 and previous years, as a result of an increased rate of lay and other management improvements. Since 1959 many marginal producers have discontinued farming. Some producers have expanded their operations in the last several years by renting additional poultry facilities and thus have reduced their fixed costs.

Compared with year-earlier months, egg production per layer on these farms averaged slightly higher during 8 of the first 9 months of 1964. The rate of lay is expected to average at least 1 percent higher in 1964 despite a larger ratio of hens to pullets compared with the previous year.

During the first 3 quarters of 1964, prices received for New Jersey eggs averaged about 1 cent per dozen below the comparable period of 1963 with about the same relationship anticipated for the last quarter. A change in egg prices of 1 cent per dozen means a difference in total receipts of about \$770 per farm for these operators. The increase in production in 1964 due to the higher rate of lay and the larger flock size will largely offset the drop in egg prices from 1963; therefore, with lower operating expenses in 1964, net farm incomes on these farms will average about 40 percent higher than in 1963.

Cattle Ranches, Intermountain Area

Total operating expenses on typical Intermountain cattle ranches probably will average around 2 percent higher in 1964 compared with a year ago. Small increases in quantities of inputs purchased together with slight increases in prices paid for most items, particularly of nonfarm produced items, will account for the increase in total ranch operating expense. Hay prices advanced slightly in the area in the fall of 1963 and continued upward in the spring of 1964. However, typical cattle ranchers in this area purchase relatively little hay, and those whose hay crop is short of their needs usually buy early. Consequently, the increase in hay prices should not affect these cattle ranches significantly. Fees paid in the current year per animal unit of cattle grazed on Federal land in the Western States are set in relation to prices received the previous year by cattle producers. Thus, grazing fees were slightly lower in 1964 than in 1963. Total expenditures for feed, a very important item on these ranches, are expected to average only slightly higher than in 1963.

Prices paid for farm machinery generally increased slightly, but prices paid for fuel, oil, lubricants, and miscellaneous items used in operating machines averaged a little lower in 1964 than in 1963. Total machinery operating costs including replacements, averaged around 2 percent higher in 1964. Property taxes, labor, and building repair and replacement costs increased over 1963.

Net ranch production in 1964 averaged about 2 percent higher than a year earlier. Range production, the life-blood of these operators, varied considerably over this area in 1964. On the average, range conditions were better than in 1963. The south and southwestern portions, although still relatively poor, were improved from a year earlier. Late spring rains and cold weather held cattle off the range in the early part of the grazing season but increased forage production later; thus, cattle came off the range in relatively good condition. Late spring frosts and early fall frosts reduced hay production in some localities. Generally, improved production was the chief factor in reducing total costs per unit of production.

Relatively low prices received for cattle and calves compared with the previous 2 years reduced gross ranch income in 1964. In 1964, good feeder calves from these ranches averaged around \$20.50 per hundredweight compared with around \$24.60 in 1963 and \$27.50 in 1962. Net ranch income in 1964 probably will average around a fifth lower than a year ago. With reduced returns, producers probably will not increase breeding herds as they did during the last few years.

Tobacco Farms, Coastal Plain, North Carolina

Operating expenses per farm are expected to average about 4 percent lower than in 1963 on typical tobacco farms in the Coastal Plain of North Carolina. Net farm income is estimated to be slightly higher than in 1963.

Based on preliminary information, prices paid for production goods and services will average nearly 2 percent above those in 1963. However, the

quantity of inputs used may be down about 5 percent in 1964. A cut of 10 percent in flue-cured tobacco acreage allotments is largely responsible for the reduction in use of inputs.

Production of tobacco in 1964 is expected to average only about 3 percent less than in 1963, as a higher yield per acre has offset much of the 10 percent reduction in acreage. Corn production per farm is expected to be greater in 1964 with a slightly larger acreage and a higher average yield per acre.

Cash receipts from tobacco will be less than in 1963, but other crop receipts are expected to increase. As of October 15, 1964, prices received for flue-cured tobacco in this area, with approximately 69 percent of the crop sold, averaged a little below last year's season average price. Prices received for all products sold on these farms in 1964 are expected to average about the same as a year earlier.

Large-Scale Cotton Farms, Mississippi Delta

Total operating expenses on large-scale cotton farms in the Mississippi Delta are expected to exceed only slightly those of 1963. The acreage of cotton was a little larger and that of soybeans about 10 percent greater. Expenditures for machinery, fertilizer, and herbicides were higher than a year ago, but those for insecticides and labor were lower.

Net income is estimated to be about 8 percent lower than in 1963, assuming the price of cotton continues about the same as in mid-October. Cotton yields on these farms are expected to be somewhat lower than the record-high level in 1963. Lower yields and prices received are expected to result in lower income from cotton than last year, although the income from soybeans will be higher.

Wheat-Small Grain-Livestock Farms, Northern Plains

Total operating expenses in 1964 on wheat-small grain-livestock farms are expected to average about 3 percent higher than in 1963 and 2 percent higher than in 1957-61. Prices paid for goods and services used in production in 1964 are expected to be 2 percent lower than in 1963 but 2 percent higher than in 1957-61.

Net farm incomes in 1964 are expected to average about \$7,400, compared with about \$7,200 in 1963. Net farm production in 1964 is expected to average about 12 percent higher than in 1963. The reduction in prices received in 1964 was in large part offset by the value of wheat certificates.

Per acre yields for most crops were generally higher in 1964 than in 1963 and beef cattle numbers continued to increase.

Winter Wheat Farms, Southern Plains

Total operating expenses in 1964 on typical winter wheat farms in the Southern Plains are expected to be about 1 percent lower than in 1963 but 16

percent higher than in 1957-61. Prices paid for goods and services are expected to be about the same in 1964 as in 1963 and about 7 percent higher than 1957-61.

Net farm production probably will be about 5 percent higher than in 1963 but about 7 percent lower than in 1957-61. The wheat crop in 1964 is expected to be somewhat larger than in 1963. This will be offset to some extent by a decrease in grain sorghum production. Livestock production on these farms has been increasing and currently accounts for about one-third of total income.

Net farm incomes in 1964 are expected to average about \$8,100, compared with about \$8,400 in 1963. The substantial reduction in prices received in 1964 was in large part offset by the value of wheat certificates.

U. S. Department of Agriculture
Washington, D. C. 20250

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. Department of Agriculture

NOTICE

If you no longer need this publication,
check here return this sheet, and
your name will be dropped from the mailing
list.

If your address should be changed, write
the new address on the sheet and return
the whole sheet to:

Division of Administrative Services (ML)
Office of Management Services
U. S. Department of Agriculture
Washington, D. C. 20250

FCS-36 -- Farm Cost Situation