1973
FARM COST
Situation
FARM COST SITUATION

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SUMMARY

Farm production expenses, which went up about 7 percent in 1972, are likely to rise more sharply in 1973. Farm output will expand in response to unusually heavy demand at home and abroad, so farmers will use more and higher priced inputs.

Leading items likely to show larger than average cost increases are purchased feed, purchased seed, and wages of hired labor. In 1972, nearly every category of expenses rose. Some of the highest percentage increases came in purchased livestock, purchased seed, interest on debts, and wages of hired labor.

Farm Power and Machinery

Expenses for farm power and machinery represent one of the largest groups of farm costs. These expenses in 1972 rose 3 percent, advancing for all items in the group except petroleum fuel and oil. They all will rise in 1973 with the acreage expansion of several major field crops and some increase in fuel prices.

Farm Buildings and Structures

Expenses for buildings and structures (combined maintenance and depreciation) rose 4 percent in 1972. New investments in new buildings and structures advanced 7 percent, considerably more than the 0 percent increase in estimated depreciation. Further increases are likely in 1973.

Fertilizer

Strong demand in 1973 will press fertilizer prices against the voluntary restraints of Phase III. There is plenty of capacity to produce ammonia, but shortages of natural gas may restrict its production in some local areas and result in shortages. More urea will be used in formula feeds for ruminant animals as a substitute for short supplies of proteins. Strong overseas demand for high analysis phosphates will keep domestic supplies tight. North American capacity to produce potash is far above consumption needs, but transportation problems may affect fertilizer delivery to some areas. Fertilizer costs rose 4 percent last year.

The Farm Cost Situation is published annually.
Farm Pesticides

Farm expenditures for chemical pesticides rose 9 percent in 1972 and will probably advance again in 1973. However, the potential for expanded use has diminished in recent years. The outlook for individual pesticides will be influenced by environmental factors, tougher regulatory policies, new pest control procedures that minimize quantities applied, and development of resistance by certain pests to specific pesticides.

Purchased Seed

Seed expenditures are likely to rise sharply in 1973, with increased acreages of grains and soybeans, and higher prices for seeds generally. Germination quality of soybean seed in some localities may have been affected by the damp and delayed 1972 harvest period.

Feed Purchased

Expenditures for feed rose 6 percent last year and will rise still more in 1973, because of effects of domestic and foreign developments on prices. At home, the high prices for livestock and livestock products mean a strong demand for feed grains. Sharp growth of the export market since last summer has added a further dimension. Protein feed prices are exceptionally high because of shortages around the world.

Livestock Purchased

Farmer expenditures for feeder and replacement livestock rose 18 percent in 1972. Despite a less exuberant rise expected in 1973, these expenditures will stay high under the pressure of consumer demand for finished livestock products.

Hired Farm Labor

Total wages of hired farmworkers rose nearly 8 percent in 1972, and may rise as much in 1973. The number of farmworkers is not expected to change much, and percentage rises in farm wage rates tend to be about the same as those for industrial wages. An increase in Social Security taxes paid by farmers on behalf of hired farmworkers became effective January 1, 1973. This alone will add more than 0.5 percent to the total farm wage bill.

Taxes on Farm Property

Taxes on farm property (mainly on real estate) will continue to advance in 1973, as they have in each year of the last 3 decades. They rose 5 percent last year. The future trend, however, is uncertain. The constitutionality of financing public schools from local property taxes is being challenged, and a Texas case has been appealed to the U.S. Supreme Court. If the Court upholds the lower court ruling that this method of financing is unconstitutional, the role of the property tax may change. The possible use of revenue sharing and the slowing in the increase of the school age population are other factors.

Interest Paid by Farmers

Interest paid by farmers on non-real estate debt rose nearly 9 percent in 1972, and may repeat in 1973 as current high prices and expectations of high net farm incomes encourage the use of more credit. Tightening interest rates may determine the outcome.

Interest charges on farm mortgage debt will be higher in 1973 as new loans at higher rates are taken on and older loans at lower rates are paid off.

Farm Real Estate Values

Farm real estate prices are expected to continue upward in 1975 in response to 2 years of favorable farm incomes and strong nonfarm demand for land. Per acre values were up a tenth last year. If the Federal Reserve Board follows a tight money policy through the year, interest rates may rise on long-term funds, slowing the rate of increase in land values.
INTRODUCTION

General Considerations

The general economy will continue moving upward in 1973. The rise in economic activity has been associated with a substantial increase in industrial production since the end of 1971. Total employment has risen and the unemployment rate has declined. Price increases have been moderate, but prices of some goods and services are still going up.

Farm costs in 1972 were influenced by the provisions of the Phase II program to prevent inflation. The program placed restraints on prices of inputs of nonfarm origin. Prices of inputs of farm origin were less directly affected and rose in response to strong demand factors. Developments were partly reflected in the ratio of the index of prices received by farmers to the index of prices paid for all items which rose from 95 (1967=100) in December 1971 to 105 in December 1972.

One of the notable events of 1972 was the large purchase of wheat and feed grains by the USSR. Stocks of these commodities have been reduced and their prices have risen sharply.

Adverse weather in the last months of 1972 interfered with the harvest of corn, sorghum grain, and soybeans. The year ended on a note of uncertainty about the final outcome of these crops, especially soybeans. Prices of soybeans and soybean meal rose to record levels as shortages of protein feeds developed around the world.

The influence of the USSR, China, and other countries as markets for our farm products will be felt through 1973, but the longer run effect will need to be reappraised from time to time. The present situation rests partly on a combination of circumstances, such as bad weather in USSR and India, that may not persist. However, the present situation also reflects strong long-term growth in food demand here and abroad and the relaxation of international tensions.

The recent devaluation of the dollar will have some upward influence on the prices of several farm input items, both imports and exports. Imports of petroleum fuel will cost more; exports of feed grains and high analysis phosphate fertilizers coming out of already tight domestic supplies will also exert some upward pressure on domestic prices.

Farm Production Expenses

Farm production expenses will continue upward in 1973, influenced both by higher prices and by larger inputs of many items used to expand production. Expenses were about 7 percent higher in 1972 than in 1971 (table 1). The increase in 1972 was related to the general rise in worldwide demand for feed grains and protein feeds, the higher price of feeder livestock, and the fact that Phase II controls did not restrain prices of farm inputs as much as expected. These factors will continue to operate in 1973. The voluntary general price standards of Phase III may not provide as much restraint as did the more visible controls of Phase II.

The farm production expenses shown in table 1 include variable operating expenses and such regular expenditures as taxes on farm property, interest on farm debt, and net rent to nonfarm landlords. All these items are cash flows. Expenses also include depreciation and other forms of farm capital consumption which are not cash flows but represent approximations of current replacement costs of equipment and buildings. In a sense, they are like moving annual averages over a period of several years. Actual cash expenditures for machinery and buildings in a given year may be more or less than depreciation and capital consumption. For example, farmers in 1972 brought more tractors than usual largely because they had the money.

Prices of inputs of farm origin are likely to fluctuate more than prices of those of nonfarm origin. Because of annual supply changes related to weather, expenditures for feed may change abruptly. Nevertheless, given time, the prices of some inputs of nonfarm origin change as much as those of farm origin. But there are differences. For example, prices of fertilizer have changed relatively little since 1960, while consumption of fertilizer has risen considerably. In the same time span, prices of farm machinery have doubled, while volume has gone up a third. (fig 1 and 2).
### Table 1—Farm production expenses, United States, 1970 and 1971, percentage change 1971 to 1972, and forecasted change 1972 to 1973

<table>
<thead>
<tr>
<th>Item</th>
<th>1970(^1)</th>
<th>1971(^1)</th>
<th>Change 1971 to 1972(^2)</th>
<th>Forecast 1972 to 1973(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Million dollars</td>
<td>Million dollars</td>
<td>Percent</td>
<td>Direction</td>
</tr>
<tr>
<td>Farm power and machinery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petroleum fuel and oil</td>
<td>1,767</td>
<td>1,833</td>
<td>-2</td>
<td>+</td>
</tr>
<tr>
<td>Repairs and maintenance on motor vehicles</td>
<td>1,695</td>
<td>1,762</td>
<td>2</td>
<td>+</td>
</tr>
<tr>
<td>Repairs on other machinery</td>
<td>865</td>
<td>894</td>
<td>4</td>
<td>+</td>
</tr>
<tr>
<td>Depreciation on motor vehicles</td>
<td>2,314</td>
<td>2,547</td>
<td>4</td>
<td>+</td>
</tr>
<tr>
<td>Depreciation on other machinery</td>
<td>2,453</td>
<td>2,644</td>
<td>6</td>
<td>+</td>
</tr>
<tr>
<td>Total</td>
<td>9,094</td>
<td>9,680</td>
<td>3</td>
<td>+</td>
</tr>
<tr>
<td>Farm buildings and structures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repairs and maintenance</td>
<td>704</td>
<td>747</td>
<td>7</td>
<td>+</td>
</tr>
<tr>
<td>Depreciation on farm buildings</td>
<td>1,729</td>
<td>1,774</td>
<td>3</td>
<td>+</td>
</tr>
<tr>
<td>Total</td>
<td>2,433</td>
<td>2,521</td>
<td>4</td>
<td>+</td>
</tr>
<tr>
<td>Fertilizer and lime</td>
<td>2,222</td>
<td>2,522</td>
<td>4</td>
<td>+</td>
</tr>
<tr>
<td>Farm pesticides</td>
<td>896</td>
<td>959</td>
<td>9</td>
<td>+</td>
</tr>
<tr>
<td>Purchased seed</td>
<td>829</td>
<td>978</td>
<td>9</td>
<td>++</td>
</tr>
<tr>
<td>Feed purchased</td>
<td>7,189</td>
<td>7,956</td>
<td>6</td>
<td>++</td>
</tr>
<tr>
<td>Livestock purchased</td>
<td>4,345</td>
<td>4,759</td>
<td>8</td>
<td>++</td>
</tr>
<tr>
<td>Hired labor, total wages</td>
<td>3,643</td>
<td>3,809</td>
<td>8</td>
<td>++</td>
</tr>
<tr>
<td>Insurance(^4)</td>
<td>227</td>
<td>215</td>
<td>5</td>
<td>++</td>
</tr>
<tr>
<td>Taxes on farm property</td>
<td>2,957</td>
<td>3,093</td>
<td>5</td>
<td>++</td>
</tr>
<tr>
<td>Interest on non-real estate debt</td>
<td>2,011</td>
<td>2,016</td>
<td>13</td>
<td>–</td>
</tr>
<tr>
<td>Interest on farm mortgage debt</td>
<td>1,717</td>
<td>1,849</td>
<td>11</td>
<td>++</td>
</tr>
<tr>
<td>Net rent to nonfarm landlords</td>
<td>1,302</td>
<td>1,328</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Other expenses(^5)</td>
<td>2,226</td>
<td>2,321</td>
<td>7</td>
<td>+</td>
</tr>
<tr>
<td>Total farm production expenses</td>
<td>41,091</td>
<td>44,006</td>
<td>7(^6)</td>
<td>++</td>
</tr>
</tbody>
</table>

\(^1\) Expense data for 1970 and 1971 from Farm Income Situation, FIS-220, July 1972, plus unpublished data for pesticides and insurance. \(^2\) Preliminary estimates. \(^3\) Forecast: + = up to 5 percent increase; ++ = more than 5 percent. \(^4\) Net costs for fire, wind, and crop insurance (premium minus indemnity payments for losses). \(^5\) Includes electricity and telephones (business share), livestock marketing charges, ginning, milk hauling, irrigation, grazing, binding materials, horse and mule expense, blacksmithing and hardware, veterinary services and medicine, and other services and supplies. \(^6\) Preliminary estimate of 1972 total farm production expenses is $47,200 million.
Farm Power and Machinery

Farmers' expenditures for petroleum fuel decreased about 2 percent in 1972. They are certain to rise in 1973 with increased acreages of some field crops, other upward trends in demand, and less stringent restraints on fuel prices. In 1972, fuel prices were slightly lower, and somewhat less fuel was used because acreages of several major crops were down from the year before.

The general projection of tighter fuel supplies as the Nation's expanding economy begins to press on limited domestic fuel resources suggests that higher fuel prices are ahead for 1973 and later years. Rearrangement of international trade patterns may bring some relief. Relaxation of import restrictions will also help to relieve this situation.

Shifts toward diesel fuel and LP-gas may eventually help reduce cost as these fuels are less expensive than gasoline. Environmental considerations and the search for alternatives to chemical pesticides may lead to changes in tillage practices that will alter fuel consumption rates. Increasing needs for using crop-drying equipment and for heating livestock shelters may add significantly to demand for heating fuels.

Purchases of motor vehicles and other machinery by farmers in 1972 rose nearly twice as much as the depreciation items included in table 1. This kind of investment appears to be more closely related to farm incomes and availability of cash than to other factors. The investment credit feature of the Federal income tax, reinstated in 1971, also provides an additional stimulus, especially in years of high income.

Sales of farm tractors in 1972 were up about 22 percent, according to the Farm and Industrial Equipment Institute. Sales in the 100 horsepower and above sizes increased about 40 percent and exceeded increases in the smaller sizes.

Safety and antipollution regulations may add something to farm machinery prices as they come increasingly into the picture in the next few years. A complete safety tractor cab, for example, will add about $1,200 to the cost of a tractor; a roll bar, $400. It should be recognized that a cab offers some real advantages, not only in terms of greater personal comfort and safety for the operator but also in strict economic terms, by providing protection from accidents, weather, noise, and poisonous sprays and dusts.

Farm Buildings and Structures

Total expenses for farm buildings and structures (repairs, maintenance, and depreciation) rose about 4 percent in 1972. Repairs and maintenance, which are cash outlays, were up about 7 percent. This reflects higher rates for labor and materials. These items will rise further in 1973. Depreciation, which reflects past investment rather than current cash outlay, rose at a rate of about 3 percent.

Farm buildings and structures include fences, windmills, dams, ponds, terraces, drainage ditches, and other soil conservation facilities, as well as farm dwellings and farm service buildings.

As with farm machinery, amounts spent for investments in new buildings and structures vary from year to year. The depreciation item shown in table 1 represents a kind of average. The cash outlays on new structures in 1972 increased about 7 percent over 1971, or considerably more than the current depreciation shown in table 1.

Fertilizer

Demand for fertilizer will be strong in 1973 as farmers try for good yields in response to favorable current prices for crops, and as more land goes into farm output this year in response to the reduction of acreage set-asides. Prices for fertilizer will be high and for a number of items seem likely to press on the voluntary restraints of Phase III. Specific examples are urea, concentrated superphosphate, and some of the ammonium phosphates where foreign and other demands are booming. The one soft spot that might develop is in the price of potash.

The U.S. capacity to produce ammonia, the source of nearly all fertilizer nitrogen, will continue considerably above consumption in 1973, but the gap will narrow. If U.S. ammonia producers were to operate their plants at designed capacity, they would turn out 15 to 20 percent more than current output. However, the critical shortages of natural gas that have developed this winter will restrict ammonia production in some plants or local areas. Natural gas is the principal source of the hydrogen used in producing ammonia. Its use for domestic heating and even for drying 1972 corn and soybeans may be given preference over ammonia when circumstances force such choices. Ammonia producers have stockpiled nitrogen fertilizer materials, where feasible, against this contingency, but some localities may have shortages because needed fertilizers could not be shipped to points of use in time for application.

The supply of high-analysis phosphate fertilizers will continue tight through 1973. Strong overseas demand has pushed world prices for these materials well above domestic levels and domestic prices are mainly at their ceilings. World markets will tend to siphon off any additional supplies that become available. New plants to produce phosphoric acid are
under construction and more are planned for completion in 1974. If all new plants come into production as planned, added capacity by late 1974 will be equal to about 1.9 million tons of $P_2O_5$, or 40 percent of the domestic use in fertilizer in fiscal 1972.

Combined Canadian and U.S. potash capacity remains far above market demand. The prorating scheme of the Saskatchewan government sets allowable production at a little above 50 percent of capacity for the 12 months ending June 30, 1973, but this can be revised if market conditions warrant. Farmers in the 12 North Central States seem likely to use more potash in 1973 in an effort to boost grain and soybean yields on the increased acreage. The transportation problem, growing mainly out of the unusual movement of grains for exports, is affecting shipments of both U.S. and Canadian potash supplies to points of use, and could cause some local shortage.

Prices for fertilizers in recent years have risen less than those of most other farm inputs. Price changes in 1972 were slight as competitive forces and price controls limited upward movements. The total farm bill for fertilizers in 1972 was about 4 percent above 1971’s $2.5 billion.

Use of fertilizer last fiscal year totaled a record 41.3 million tons but this was only slightly above that for fiscal 1971. On a plant nutrient basis, only K<sub>2</sub>O equivalent showed an increase. Nitrogen and $P_2O_5$ dipped slightly. Nevertheless, per acre use of the three main plant nutrients rose about 4 percent as the area in harvested crops dropped about 10.5 million acres in 1972.

Fertilizer exports rose 17 percent in dollar value in the year ending June 30, 1972. The United States was a net exporter of both nitrogen and phosphates. Most of the increase was for large quantities of concentrated superphosphate and ammonium phosphate.

**Farm Pesticides**

Farm expenditures for chemical pesticides will continue to rise in 1973, but the potential for further use has diminished considerably in recent years. The market penetration of pesticides used in the production of corn and cotton is almost complete and that of pesticides used in soybean production is showing signs of reaching an end.

Other factors have also contributed to a mixed growth picture in the pesticide industry. Opposition to pesticide use by environmentalists, tougher regulations by Federal and State governments, new pest control procedures that use smaller amounts of pesticides, and the development of resistance by certain insect pests to specific pesticides have added to the difficulty of predicting pesticide purchases.

The 1973 outlook for both herbicide and insecticide purchases will be influenced by acres of crop planted. An increase in soybeans and feed grains and a decrease in cotton will be the dominant acreage factors. Wheat acreage will also increase, but this crop customarily receives little pesticide treatment. The expected increases in acreages of soybeans and feed grains will add to herbicide purchases. The expected decrease in cotton acres will contribute to a leveling off in insecticide use. Dollar purchases of herbicides will increase over those in 1972, while purchases of insecticides and fungicides should be near 1972 levels.

Prices of most pesticides are expected to remain close to 1972 prices. However, the price of methyl parathion may be an exception.

Both the development of resistance to organochlorine insecticides by cotton insects and the restriction on DDT (a leading organochlorine), effective December 31, 1972, have caused cotton growers to substitute methyl parathion (an organophosphate) for organochlorine insecticides. The increased demand has put some upward pressure on methyl parathion prices.

**Purchased Seed**

Seed expenditures are likely to rise sharply in 1973. Expansion in acreage of grains and soybeans will have an important influence. Prices of seed will also be much higher. Some questions are being raised about germination of soybean seed. In some areas particularly affected by rainy weather and late harvest of the 1972 crops, germination has been reported to be lower than normal. Molds and virus diseases apparently spread more widely when the harvest period is damp.

**Purchased Feed**

Farmers will spend considerably more for feed in 1973. Demand continues strong in response to the current heavy export demand and high prices for livestock and livestock products. Although feed grain supplies are at a high level, adverse weather in recent months delayed harvests of corn, sorghum grain, and soybeans and resulted in some losses. Protein feed prices will continue high because of tight supplies and strong demand around the world. Tight supplies of hay in most areas, coupled with strong demand, will keep prices up until the new crop becomes available. The Northeast is experiencing short forage supplies because of both lower yield and poor quality. Of course, government program changes that allow grazing and haying of diverted acreages will help farmers meet feed needs.

Supplies of the four feed grains total 246 million tons or 5 million more than last year’s record volume. A larger carryover more than offset the 10-million-ton smaller 1972 production.

Corn supplies are 5 percent larger, but increased
total use will lower carryover next October 1. Corn prices are running well above a year ago, primarily because of the prolonged wet weather and delayed harvesting in the Corn Belt and growing domestic and export demand for feed. Prices this spring will reflect the final outcome of the 1972 crop, export developments, and 1973 planting prospects.

Sorghum grain supplies are near those of recent years, but prices will be well above last year’s level. Although supplies of oats and barley are slightly lower, domestic use probably will increase as more feeds come to market, since government loans to farmers on crops will not be extended beyond current maturity dates. Prices for these grains also are running higher than for many years.

Protein feed supplies are up only moderately from last year’s 20 million tons. A sizable gain in cottonseed meal will offset some of the reductions in fish meal. But the tightness of protein feed supplies is most evident in distribution. Ordinarily cottonseed meal goes primarily into cattle rations. Fish meal, used mainly in poultry rations, is in very scant supply because of the short Peruvian fish meal situation. Soybean meal, the major source of protein and acceptable in all animal rations, will probably show little increase. Other by-product sources are small. Prices for protein feeds have risen to exceptionally high levels.

Undoubtedly more urea will be substituted for protein in formula feeds intended for ruminant animals, and other adjustments will be tried in the face of this unusual situation.

**Purchased Livestock**

Expenditures for purchased livestock rose markedly in 1972. Annual average prices paid by farmers for feeder cattle and calves were about a fifth above 1971 levels. Prices paid for feeder lambs rose even more, and feeder pigs went up from $29.60 per 100 pounds in 1971 to $50.80 in 1972. Average prices for baby chicks and poults changed little.

Prices paid for all livestock items are expected to remain high in 1973. Prices for feeder cattle and herd replacements, especially, will be held up by the continued pressure of high consumer demand for finished beef, which will further encourage feeding operations.

A comprehensive study of cattle raising, completed early last year and published recently, appraised the future potential of domestic beef production and indicated trends in beef cow numbers in the 1970’s similar to those in the late 1960’s. More recent analysis suggests that the upward trend may be somewhat greater under the stimulus of prices higher than those assumed earlier. Such an expansion would apparently keep pace with expected trends in beef consumption.


**Table 2.** Livestock: Annual average prices paid by farmers, United States, 1967-72

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeder cattle, 100 lb.</td>
<td>24.6</td>
<td>25.8</td>
<td>29.4</td>
<td>30.5</td>
<td>32.0</td>
<td>38.2</td>
</tr>
<tr>
<td>Lambs, per 100 lb.</td>
<td>21.3</td>
<td>24.2</td>
<td>26.9</td>
<td>26.3</td>
<td>24.3</td>
<td>29.5</td>
</tr>
<tr>
<td>Pigs, per 100 lb.</td>
<td>33.5</td>
<td>33.0</td>
<td>39.2</td>
<td>42.9</td>
<td>29.6</td>
<td>50.8</td>
</tr>
<tr>
<td>Baby chicks, per 100</td>
<td>11.4</td>
<td>11.7</td>
<td>11.8</td>
<td>11.7</td>
<td>11.4</td>
<td>11.3</td>
</tr>
<tr>
<td>Turkey poult, each</td>
<td>55.7</td>
<td>54.5</td>
<td>54.7</td>
<td>55.2</td>
<td>56.4</td>
<td>56.7</td>
</tr>
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</table>

**INDEX NUMBERS (1967 = 100)**

<table>
<thead>
<tr>
<th>All livestock</th>
<th>100</th>
<th>104</th>
<th>117</th>
<th>121</th>
<th>125</th>
<th>147</th>
</tr>
</thead>
</table>

1 Based on data derived from reports from farmers in 27 States on prices paid for feeder pigs weighing 40-60 lbs.

Source: Crop Reporting Board, SRS, USDA.

**Hired Farm Labor**

In the last few years, farmers’ total expenditures for hired labor have risen primarily in response to higher wage rates, because the number of hired farmworkers has tended to stabilize. Percentage increases in farm wage rates have been about the same as those in industry because farmers must compete with nonfarm businesses for the skilled workers they need to operate complicated modern farming equipment.

Average hourly wage rates without board or room for farmworkers as reported by the Statistical Reporting Service were $1.64 in 1970, $1.73 in 1971, and $1.84 in 1972. A similar rise can be expected in 1973. Even to keep their present relative position with
nonfarm wage earners, hourly wages of farmworkers would probably increase 6 percent during 1973. The magnitude of wage rate increases and the total increases in the farm wage bill will depend on employment opportunities, the size of any Federal minimum wage increase, the volume of farm production, social security taxes, and rising costs of fringe benefits.

As a result of new amendments to the social security law, social security taxes paid by farm operators on wages of their hired workers will rise significantly in 1973. The tax rate increased from 5.2 percent to 5.85 percent of wages on January 1. The maximum amount of wages on which taxes are paid was lifted from $9,000 to $10,800, but this part will not affect many farmers.

Activity in unionization of farmworkers continued in 1972 but at a slower pace. In some areas of California, problems have risen in connection with renegotiation of expired contracts.

Some added expenses, especially for large farms hiring labor, will occur as national safety standards are set for handling toxic materials and potentially dangerous farm implements and equipment. These costs may be assigned to physical inputs, but they are closely related to labor inputs.

The total farm wage bill nationally will also be affected by production changes flowing from the increase in volume of international trade stimulated in 1972 and continuing at least through 1973. Since much of the trade is in grains, which use relatively little labor, the effect on labor costs will be less than the volume might suggest.

Although there was no change in the minimum wage law during 1972, both Houses of Congress passed bills to raise minimum wage for most workers, including farmworkers. Similar bills will be considered in the new Congress. If a law is enacted that is like the Senate bill passed last year, the number of farms and farmworkers covered would be greatly expanded. Over a 3-year period, minimum hourly rates for farmworkers would be increased from $1.30 to $2.20 per hour. The House-passed version would increase the minimum for farmworkers to $1.70 with no additional coverage of farms or workers.

Since 1960, hourly wages of farmworkers have increased about 90 percent. This has improved their position in relationship to the hourly wages of production workers in manufacturing. In 1960, the farmworker’s hourly wage was about 43 percent of that paid production workers in manufacturing, and by July 1972 it had risen to 48 percent.

From 1960 to 1972, the total number of farmworkers in the United States declined about 2.7 million, or nearly 40 percent. During most of this period, family labor comprised about three-fourths of the farmworkers and the same proportion of their reduction in numbers. But since 1969, family workers have made up most of those leaving farm employment.

Until major shifts to mechanical harvesting of tobacco or fruits and vegetables occur, the number of hired farmworkers may show little further change. Nationally, numbers of hired farmworkers have declined less than 2 percent in the last 4 years (1969-72). With a national unemployment rate above 5 percent, the farm labor supply has been relatively adequate. Even so, farmers in some areas have had difficulty in finding competent help locally. Thus, during 1972, the U.S. Department of Labor certified the need for 14,500 aliens to work on farms in 10 Atlantic Seaboard States, and about 13,500 British West Indians and Canadians were actually hired to work, mainly in harvesting sugarcane, apples, and potatoes. In recent years, no foreign workers were legally brought in to work on farms in the Western States.

Insurance

The insurance expenses shown in table 1 include only fire, wind, and crop insurance. The discussion that follows is broader in scope and comments on property and liability insurance costs that are covered under other items in table 1. For example, auto and truck insurance is included in repairs and maintenance of motor vehicles.

Farmers’ expenditures for insurance premiums which are related to farm production, or to farm property used in production, were above 1971. The net cost was substantially less because of insurance indemnities but was still up about 5 percent.

Premium payments for property and liability insurance continue to rise and are mainly determined by property values, property replacement costs, and incomes. Higher operating cost of insurance companies may also be a factor, but loss rates are believed to be relatively stable. In 1972, premiums rose 8 percent to $636 million and are forecast to increase 7 percent further in 1973.

Automobile and truck insurance premiums in 1973 are expected to rise at a slightly lower rate than in recent years because State regulatory agencies are tightening up on requests for premium increases. Automobile insurance costs remain large, nevertheless, and legislative proposals for “no-fault” insurance stay alive in the Congress and many State legislatures. No-fault insurance is expected to reduce costs by curtailing the need for lengthy and expensive litigation. Although the proposals are controversial, a few States, in addition to the two that now have such programs, may adopt some form of “no-fault” insurance in 1973.

Payments of insurance premiums on growing crops in 1973 are likely to be somewhat higher than in 1972. The acreages planted to wheat, corn, soybeans,
cotton, and tobacco will mainly determine how much crop insurance farmers will buy.

The cost of workmen's compensation is estimated at $75 million for 1973, up from $70 million in 1972. Large farm payrolls and some increase in benefits in a few States will account for this expected rise. Only about a third of the States have workmen's compensation benefits for farm labor similar to those for other types of labor. A study, reported in 1972 by the National Commission on State Workmen's Compensation Laws, recommended that comparable coverage be required by July 1973 for hired workers on farms with an annual payroll of $1,000 or more and by July 1975 for all farmworkers. Early enactment of such legislation by all States is unlikely but liberalization of benefits for farmworkers will probably continue with gradually increasing costs to farm employers.

Taxes on Farm Property

Taxes on farm property consist mainly of taxes on farm real estate (more than four-fifths of the total in 1972). The remainder is made up almost entirely of personal property taxes on machinery and equipment and livestock. The personal property tax is one tax that has been declining in importance; some States have dropped it entirely because of inequities, difficulties in making assessments and collections, and other problems.

For many years, we have seen a steady increase in taxes levied on farm real estate (land and buildings). In 1971, the latest year for which complete data are available, taxes levied on farm real estate rose to $2.66 billion, 6.4 percent above the amount levied in 1970. This was the 29th consecutive annual increase, although the lowest percentage increase since 1964. The 1971 rate of increase, however, outpaced the rise in market value of farm real estate, increasing the effective rate of tax per $100 of value from $1.18 to $1.21 in 1971. Taxes per acre in 1971 were higher in 45 States, with the greatest increases in Washington (18 percent) and Michigan (15 percent). Eight other States had increases of over 10 percent, while taxes were up 5 to 10 percent in 17 States and less than 5 percent in 18 States. Alaska, Iowa, Louisiana, Minnesota, and West Virginia showed smaller taxes per acre in 1971, for a variety of reasons.

The future trend of farm real estate tax is somewhat uncertain at present. The last 2 years have seen a flurry of legal activity concerning public school financing and property taxes. A U.S. District Court in December 1971 ruled in the case of Rodriguez v. San Antonio Independent School District that the current method used in Texas of financing public elementary and secondary schools is unconstitutional. This case has been appealed to the U.S. Supreme Court with a decision expected sometime in 1973. If the lower court is upheld, the role of the property tax in financing public schools may be greatly altered. Another unsettling factor right now is the newly initiated Federal revenue sharing program. Its impact upon local property tax depends on the degree to which these funds are used for property tax relief. Considerable variation among States is expected. However, the funds presently available do not seem enough to afford much immediate relief for property taxes.

Revenue needs of State and local governments have been growing steadily in recent years because of greater demand for local services and rising costs of salaries and materials. However, one of the largest elements in local government costs, that of education, shows signs of leveling off as school age population is slowing in growth and in some instances is declining.

Interest Paid on Non-Real Estate Debt

Interest paid on non-real estate farm loans in 1972 totaled 9 percent more than in 1971. Another rise is likely in 1973 as continuation of good farm incomes encourages use of more credit.

Interest rates charged on short- and intermediate-term farm loans in 1971 and 1972 were 1 to 2 percentage points below rates in the 1969 tight-money period.

The increase in interest costs in 1972 resulted mainly from the greater use of credit by farmers since interest rates were about the same as those in 1971. Several respondents in an ERS survey, made late in 1972, commented that many farmers used some of the higher farm net income in 1972 to prepay outstanding debts, thereby cutting down slightly on interest charges.

Interest Paid on Farm Mortgage Debt

Interest charges on farm mortgage debt in 1972 were substantially more than the year before. The higher charges were due both to an increased volume of financing and to interest rates on new loans that were higher than the average rate on the outstanding debt.

Since 1970, the value of farm real estate has increased 20 percent. However, the total farm real estate debt has increased slightly less rapidly than the value of farm real estate. The total interest charge has risen 29 percent. Much of this large increase has resulted because interest rates on new loans made in the later years have been higher than those on loans made in the earlier years. The higher rates have increased the average interest rate on the total debt by 0.5 percent.

Financial correspondents, asked about the 1973 outlook, indicated that they expected an increased demand for farm mortgage loans as compared with 1972. Interest rates on new loans will be about the same or a little higher. The total charges will be
higher in 1973. An increased volume of new loans at current rates, which are substantially higher than rates on old outstanding loans, will further increase the average interest rate paid.

**Farm Real Estate**

Farm real estate prices are expected to continue upward in 1973 in response to 2 years of favorable income and a strong nonfarm demand for farmland. The rate of increase hinges largely on the supply of credit available and the rate of interest on long-term loans. If the Federal Reserve follows a tight money policy throughout the year, interest rates may rise on long-term funds and the rate of increase in land values may be slowed substantially.

In the year ending November 1, 1972, farm real estate prices increased at an annual rate of more than 10 percent for the first time since 1950. Sharpest increases in value were reported in the Appalachian and Southeast Regions, although all States except Maryland, South Dakota, and California showed increases of 5 percent or more.

The reported increase in values is based on crop reporter data supported by the opinions of realtors in the ERS October Real Estate Survey. Written comments on the survey form attributed the sharp rise in prices to higher income, nonfarm activities in the market, a short supply of land for sales, and an increased number of buyers. Reporters suggested that the number of farm sales may have increased slightly because of the increased demand. Thus, the rate of transfer may have increased above previous years.

Reporters indicated that credit availability was about the same in October 1972 as in March 1972. However, there was clearly more credit available in both these periods than in October 1971. In March 1972, 55 percent of the reporters indicated rates had remained unchanged while 38 percent said they had moved downward from the preceding October. About 81 percent of the reporters in October 1972 indicated that interest rates had remained unchanged over the preceding 6 months.

In the October 1972 survey, each reporter was asked for the first time to identify the major characteristics of his market—whether it was primarily a farm market or a nonfarm market. Comparison of the responses indicates that 30 percent of reporters in the nonfarm market said the number of farms offered for sale had increased while only 15 percent in the farm market had this opinion. In terms of inquiries for farmland, 61 percent of reporters in the nonfarm market believed that inquiries for farmland had increased. In the farm market, 54 percent held this opinion.

**AGRICULTURAL SERVICE INDUSTRIES**

In the past, farm expenses for service inputs may not have been as fully reported as expenses for more tangible inputs. Many items are small, and complete information is often difficult to obtain. Yet, the aggregate amounts spent by farmers for services are substantial. Some services are included in the "other expense" category shown in table 1, and some are also covered in specific input items. For example, fertilizer expense includes some of the services performed by fertilizer dealers in supplying fertilizer directly to farmers' fields.

Some new light on the subject is shed by a recent report of a special Census Bureau survey of businesses which mainly provide agricultural services. According to this survey, such firms sold $2.1 billion of services in 1969, of which $1.1 billion went to farmers. They furnished farmers such things as veterinary care for farm animals, cotton ginning, feed grinding and mixing, machine harvesting, contract labor, and spraying. The $1 billion of services provided to nonfarmers went for veterinary care, lawn and tree care, and other similar tasks. The farm and nonfarm services taken together are called "agricultural services."

Details in the special Census study concerning agricultural service establishments will help in improving future estimates of service expenses by providing better base information. In total, there were 32,565 establishments in 1969 (some firms had more than one establishment) whose main function was to provide agricultural services (table 3). They had a payroll of $593 million and employed 110,000 paid workers who put in 150 days or more plus 313,000 who put in fewer than 150 days. They also had 31,000 unpaid workers (owners and family members) who put in 150 days or more plus 6,000 who put in fewer days.

Most of these firms were small, and 4 in every 5 were individually owned. Although the average gross income was $64,000, 1 in 3 earned less than $10,000. Nearly half the sales were made by corporate establishments.

California, Texas, and Florida, in that order, had the largest sales of agricultural services and accounted for nearly a third of the United States total.

Leading kinds of farm services with sales of more than $100 million included veterinary care, poultry
Table 3.—Agricultural services: Number of establishments, number of workers, and gross receipts, by major kinds of services, 1969

<table>
<thead>
<tr>
<th>Kind of service</th>
<th>Establishments</th>
<th>Gross receipts</th>
<th>Number of workers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Million dollars</td>
<td>UnpaidThousands</td>
</tr>
<tr>
<td>Cotton ginning</td>
<td>980</td>
<td>80</td>
<td>(2)</td>
</tr>
<tr>
<td>Feed grinding and mixing</td>
<td>464</td>
<td>25</td>
<td>1</td>
</tr>
<tr>
<td>Corn shelling, hay baling, and combining</td>
<td>1,084</td>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td>Contract services for fruits and vegetables²</td>
<td>324</td>
<td>146</td>
<td>(2)</td>
</tr>
<tr>
<td>Other crop services⁴</td>
<td>2,837</td>
<td>247</td>
<td>3</td>
</tr>
<tr>
<td>Veterinarians and animal hospitals</td>
<td>10,098</td>
<td>537</td>
<td>13</td>
</tr>
<tr>
<td>Poultry hatcheries</td>
<td>615</td>
<td>145</td>
<td>1</td>
</tr>
<tr>
<td>Feedlots and other animal services</td>
<td>2,227</td>
<td>351</td>
<td>2</td>
</tr>
<tr>
<td>Lawn, tree, and landscaping</td>
<td>13,829</td>
<td>545</td>
<td>15</td>
</tr>
<tr>
<td>Hunting, and game propagation</td>
<td>107</td>
<td>1</td>
<td>(2)</td>
</tr>
<tr>
<td>Total agricultural services</td>
<td>32,565</td>
<td>2,094</td>
<td>37</td>
</tr>
</tbody>
</table>

¹ Nearly half the agricultural services shown in this table were performed for nonfarmers. For example, nonfarmers received about two-thirds of the veterinary and animal services, and almost all of the lawn, and landscaping services. ² Fewer than 500 workers. ³ Includes sorting, grading, and packing. ⁴ Includes services furnished by farm labor contractors, farm management hatcheries, and fruit sorting, grading, and packing. Farm services with somewhat smaller sales were cotton ginning, feed grinding and mixing, and grain and hay harvesting.

The Census survey also included an additional $87 million in sales of agriculture services by establishments classified in industries other than agricultural services. For these establishments, agricultural services accounted for only a tenth of their total sales.
