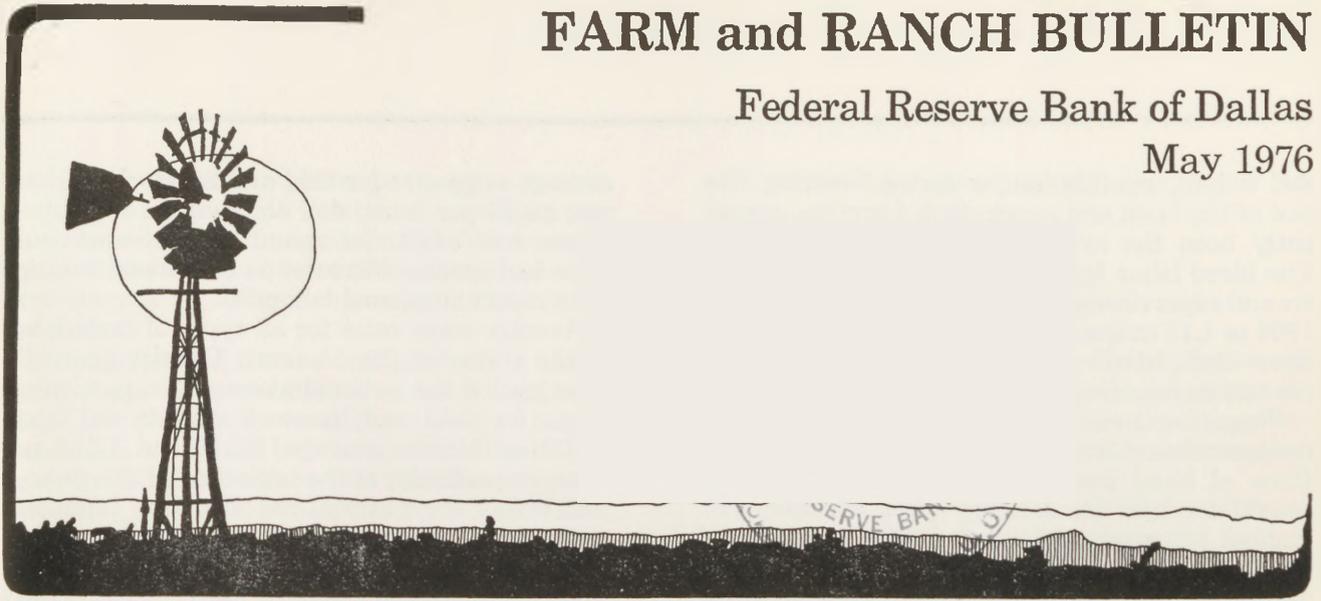


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# FARM and RANCH BULLETIN

Federal Reserve Bank of Dallas

May 1976



## FARM LABOR EXODUS RESUMES AT SLOW PACE

A dominant theme in agriculture for many years has been the contraction in the labor force on farms and ranches in the United States. While the downtrend continues, it has slowed in recent years. And 1976 is likely to see only a moderate reduction in farm labor.

### Influential factors

Contributing most to the decline in the labor force on farms and ranches are the use of resources purchased with capital to replace labor, financial requirements to purchase the capital resources, off-farm employment opportunities, and urban life. Much of the decline results from the substitution of capital for labor. Larger and more efficient tractors, machinery, and equipment have increased the productivity of workers, reducing the number of people needed in the production process. And the widespread use of chemical herbicides in agriculture has reduced the need for manual labor for controlling weeds in crops.

From 1966 to 1973, the average number of farm workers in the United States declined from 5.21 million to nearly 4.34 million—a drop of 17

percent. But the rural work force increased slightly to 4.39 million in 1974 before declining to 4.36 million last year.

Financial requirements in farming and ranching have expanded tremendously, especially in recent years, and have also contributed to the decline in the number of operators and family workers. Investment in land and machinery has increased substantially. From January 1966 to January 1976, the investment in real estate in the United States expanded from \$53,100 per farm to about \$151,900—nearly a threefold increase. And investment in machinery and equipment tripled in the past ten years from \$8,000 per farm to over \$24,000.

Many operators or family members lacking adequate financial support to acquire or maintain efficient capital inputs have had to leave farming. In fact, family labor—farm or ranch operators and unpaid family members—declined substantially in the past ten years. The number of family workers fell more than a fifth, from 3.85 million to 3.03 million.

Despite depressed employment opportunities stemming from the recession in the past year

and a half, another major factor lowering the size of the farm and ranch work force has apparently been the attractiveness of off-farm jobs. The hired labor force—field and livestock workers and supervisors—declined from 1.36 million in 1966 to 1.15 million in 1972, a drop of 15 percent. Since then, however, the number of hired workers has increased slightly.

Wages for manual labor in agribusiness and nonagricultural employment have averaged above those of hired workers on farms. For example, common wages in January 1976 for nonfarm manual labor in the United States—such as in food processing and packing, material handling, and hotels and laundries—ranged upward from \$3 per hour.

But farm wage rates in the United States for all hired workers averaged only \$2.76 per hour in January 1976. While this was 12 percent more than a year earlier, it still remained below the common wages for nonfarm manual labor. The

average wage rate for field and livestock workers was \$2.55 per hour, and the average for supervisors was \$4.34. In recent years, supervisors have had greater increases in wages and salaries than common manual laborers.

Average wage rates for all types of farm labor in the states of the Eleventh District generally have trailed the national averages. In particular, wages for field and livestock workers in Texas and New Mexico averaged \$2.13 and \$2.15 per hour, respectively, at the beginning of this year—well below the national average. The large migrant work force, both legal and illegal, in those states could be depressing hourly earnings.

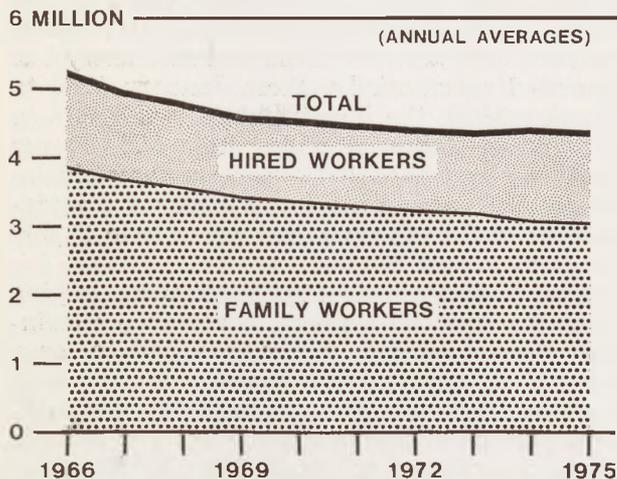
Although farm wage rates have been generally lower than off-farm rates, the income situation of hired farm labor can sometimes be misleading if only hourly earnings are considered. Most permanent farm labor—especially machine operators and supervisors—also receives perquisites. Farm and ranch operators often furnish housing, utilities, gas, and work vehicles. Therefore, cash wages or salaries usually must be adjusted for noncash benefits to determine actual income earned.

Too, the urban life-style has encouraged some rural-urban migration. Strenuous and often long hours of work in all types of weather conditions make farm and ranch jobs less attractive than off-farm work.

Nevertheless, the migration from farms has slowed in recent years. Agriculture experienced improved levels of net income in the past four years, with 1973 setting a record. Net income dropped in 1974 and 1975, however, as accelerating production costs more than offset higher levels of gross income. The improved farm income levels were associated with the increased demand for agricultural products, which, in turn, has boosted crop and livestock production. This would suggest selective increases in labor inputs, regardless of the expanded use of capital inputs.

Moreover, per capita disposable income from all sources has been consistently higher for the nonfarm population than for the farm population.

## U.S. FARM LABOR FORCE



SOURCE: U.S. Department of Agriculture

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But in the past four years, per capita income of the farm population relative to nonfarm income has increased significantly. Where per capita farm income equaled 72.4 percent of nonfarm income in 1971, it was about 90 percent last year.

These improved income and production levels would seem to be conducive to family employment. But the family work force in the United States has continued to decline. On the other hand, the hired labor force has increased slightly in recent years. Altogether, the farm labor force declined at an average annual rate of about 0.1 percent during the past three years, compared with an average of 2.3 percent in the previous seven years.

### **District changes**

Changes in the farm and ranch work force vary among the states of the Eleventh District. Although total farm labor has declined in each of the five states in recent years, the composition of the family and hired work force has fluctuated.

While the number of family workers in Arizona has moderately increased, the number in Oklahoma and Texas has steadily dropped. And except for a slight rise in 1974, family labor has also fallen in Louisiana and New Mexico. The downward trend in the number of hired workers in Texas and Louisiana was temporarily halted in 1974, with the number rising slightly before declining again last year. But the decline in hired labor continued in Arizona and Oklahoma. The hired work force in New Mexico, however, increased slightly in 1975.

### **Future trends**

The decline in the nation's farm labor force has slowed, and this trend is expected to continue in 1976. Off-farm employment opportunities and the attractiveness of urban life, as well as financial limitations to farming, will likely encourage the outflow of family workers. But high levels of food and fiber production require a given amount of labor, regardless of capital use, and—combined

with increasing wages—should help stabilize the number of hired workers.

## **SOYBEAN GROWERS FACE INCREASED COMPETITION**

Producers of soybeans in the United States are concerned about surging imports of palm oil, increasing soybean production in foreign countries, and the effects of Government intervention in soybean exports.

Imports of palm oil into the United States have been climbing, increasing from 207 million pounds in the 1970-71 marketing year to 757 million in 1974-75. The marketing year for edible fats and oils begins on October 1. And soybean production in Brazil has soared since 1968, increasing to 15 percent of the world total in 1975. The result has been much lower soybean prices.

### **Palm oil competition**

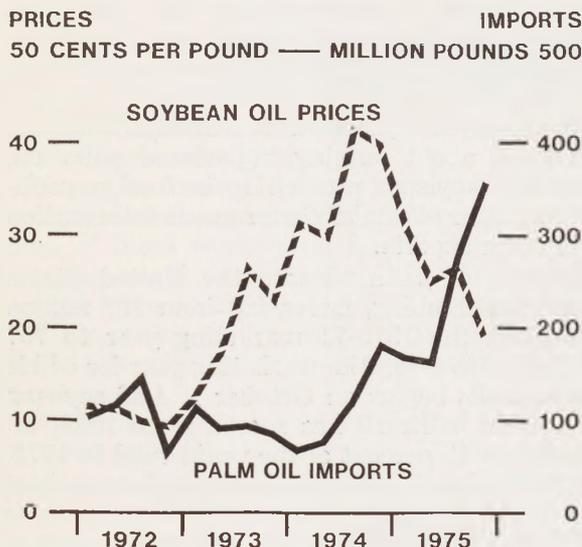
The big increase in palm oil supplies stems from increased growing of oil palm trees in Southeast Asia. Palm trees are extremely productive as they yield two crops a year and are commercially productive for about 30 years. Since many plantings are recent, the surge in world palm oil supplies is not likely to subside for some time. And because oil palms yield about 4,000 pounds of oil per acre, production costs are relatively low.

Palm oil imports into the United States more than doubled during the 1974-75 marketing year, and the U.S. Department of Agriculture expects a further increase of about 200 million pounds in 1975-76. Use of palm oil has skyrocketed, with 85 percent of the oil processed into shortening. Palm oil now accounts for 12 percent of the U.S. shortening market. New processing technology will allow its use in other cooking and salad oils.

### **Brazilian soybeans**

Soybean growers in the United States also face competition from soybean production worldwide, most notably in Brazil. Soybean production in Brazil increased from 23 million bushels in

## U.S. SOYBEAN OIL PRICES AND PALM OIL IMPORTS



SOURCE: U.S. Department of Agriculture

1968 to 356 million in 1975. By exporting over 80 percent of its production, Brazil has captured about 20 percent of the world export market. Brazilian production is expected to be up about 16 percent in 1975-76, with most of the additional output going into the export market.

Marketing of soybeans by Brazil was greatly aided by the U.S. embargoes on soybean exports. The interruptions in U.S. shipments resulted in a proposed long-term trade contract with Japan for 300,000 tons of soybeans per year. Because of its dependence on soybeans for human consumption, Japan wants assurance of reliable sources of supply. Japan currently buys 90 percent of its soybeans from the United States.

### Price effects

World demand for edible fats and oils is relatively stable. The rapid increase in the world supply of edible fats and oils, therefore, has had

a dramatic impact on prices. Soybean oil prices dropped from 34 cents per pound in January 1975 to near 16 cents in March this year. In the same period, the price of palm oil decreased from 31 cents per pound to 17 cents. Consequently, new palm oil orders slowed since sales are normally triggered when prices are at least 2 cents below soybean oil prices at Decatur, Illinois.

The drop in oil prices has resulted in lower prices for soybeans. Where the price of soybeans was \$5.31 a bushel in March last year, the price was \$4.46 at the same time this year. And with the prospective earnings per acre from growing soybeans lower than for growing corn and cotton, farmers intend to plant fewer acres of soybeans this year than they planted in 1975.

Demand for soybeans, however, should be bolstered because of the lower price and expected resurgence in livestock feeding. Soybean exports, helped by European feed demands, are running 25 percent above last year's levels. Also, increased domestic feeding is expected to boost U.S. consumption by 200 million bushels this year.

The only practical solution to depressed soybean prices is to allow the market situation to reduce production and increase consumption until soybean production becomes more profitable. The value of possible U.S. barriers against imports of edible fats and oil is negated by the fact that the United States exports almost half its soybean production. Import restrictions would merely divert these supplies to other overseas markets, displacing U.S. exports of soybeans and soybean oil. Changes in U.S. production will have a relatively marked effect on world prices, however, since the United States produces two-thirds of the world's soybeans.

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