

THE AGRICULTURAL SITUATION

OCTOBER 1939

A Brief Summary of Economic Conditions

Issued Monthly by the Bureau of Agricultural Economics, United States Department of Agriculture

Subscription price, 50 cents per year; single copy, 5 cents; foreign price, 70 cents; payable in cash or money order to the Superintendent of Documents, Government Printing Office, Washington, D. C.

VOLUME 23 - NUMBER 10 - WASHINGTON, D. C.



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EUROPEAN WAR was the big news of the month. Farm commodity prices advanced sharply. Some of the gains were subsequently lost as speculative demand subsided, nevertheless extension of the improvement in domestic demand in recent months is indicated during the remainder of this year. Farm cash income for the full year may exceed earlier estimates. * * * Surveys indicate that supplies of principal foods, feeds and fibers are sufficient to meet domestic and foreign demand and allow adequate carry-over stocks next year. It is indicated that no expansion in production of principal products will be required in 1940. Economists emphasize that even in time of war production may be overdone to the disadvantage of producers. In caution they point to the aftermaths of the World War, to the collapse of prices and values following World War inflation. Many of the present-day troubles of agriculture are traceable to over-expansion a quarter century ago.

Commodity Reviews

DEMAND: Improved

THE moderate improvement in industrial activity and consumer purchasing power in evidence for several months prior to September is expected to become more pronounced during the remainder of 1939. Markets for many farm products already have reflected speculative anticipation of improvement in export demand.

A further rise in consumer income was recorded in August, resulting in the highest total and per capita purchasing power for the nonagricultural population since September 1937. Relative to food costs, per capita non-agricultural income in August was the highest for any month for which records are available back to January 1919. Industrial production this fall is expected to exceed considerably the December 1938 peak of 104 percent of the 1923-25 average. In the final quarter it may approximate the best previous record for any corresponding period.

Continuation of the improvement in industrial production and consumer income had been expected prior to the outbreak of war in Europe. The war probably will result in even greater improvement than had previously been anticipated. The downward trend of commodity prices has been reversed, and more liberal buying policies are now in evidence. This will no doubt result in some accumulation of inventories.

After the initial spurt in production incident to this inventory accumulation, induced by the anticipation of further commodity price advances, there may be a period of readjustment until consumer buying is brought into better balance with the new conditions created by the war, and until expected increases in export trade actually make an appearance.—P. H. B.

FOOD SUPPLY: Ample

BAE survey indicates supplies of meats through the first half of 1940 will be the largest in 5 years—mostly in pork. Beef supply has been slightly smaller this year than last, but will increase in the next 12 months. A slight reduction from the 1938-39 high record output of dairy products is in prospect, but no shortage.

More poultry and eggs than in 1938-39 are indicated—poultry up about 8 percent, eggs about 2 percent. Much of the increase in poultry will be during fall and early winter, raised by the large increase in turkey production this year. Increased supplies of eggs will be spread over the entire 1939-40 season.

An export surplus of food fats will be available during the coming year, above domestic consumption of about 6,680 million pounds in 1938-39. Production of lard is at practically pre-drought figures. Domestic supply of wheat is large enough for domestic needs and probable exports, and a substantial carry-over next July 1.

Rice supplies are large, although smaller than the high record of the last 2 years. Production of fruit is larger than in 1938, but slightly smaller than the record output of 1937. Output of truck crops for fresh market shipment is slightly smaller than in 1938 but larger than in any other recent years. Supply of potatoes is smaller than in the last 2 years.

Sugar supply is ample for all requirements of consumers.

INCOME: Increase

Farmers' cash income increased in August over July, and was larger than in August last year. Income from marketings and from Government

payments was larger in August over July, but compared with August last year the increase was due to larger Government payments since income from marketings was less.

Income in the first 8 months of this year was only slightly smaller than in the like period of 1938, the smaller income from marketings being largely

offset by larger Government payments. Government payments in the first 8 months totaled 186 million dollars more than in the like period last year.

Vegetables are the only commodities showing any appreciable gain in income from marketings in the first 8 months of this year. Income from grains, meat animals, fruits, and chickens and eggs as a group, was about unchanged. Smaller income was reported for cotton and cottonseed, tobacco, and dairy products.

Index Numbers of Prices Received and Paid by Farmers

[1910-14=100]

Year and month	Prices received	Prices paid	Buying power of farm products ¹
1938			
September.....	95	121	79
October.....	95	121	79
November.....	94	121	78
December.....	96	120	80
1939			
January.....	94	120	78
February.....	92	120	77
March.....	91	120	76
April.....	89	120	74
May.....	90	120	75
June.....	89	120	74
July.....	89	120	74
August.....	88	119	74
September.....	98	122	80

¹ Ratio of prices received to prices paid.

Totals for August, and for January-August, with comparisons, are:

Month and year	Income from marketings	Income from Government payments	Total
August:			
1939.....	\$601,000,000	\$42,000,000	\$643,000,000
1938 ..	613,000,000	15,000,000	628,000,000
1937.....	766,000,000	5,000,000	771,000,000
January-August:			
1939.....	4,102,000,000	492,000,000	4,594,000,000
1938.....	4,306,000,000	306,000,000	4,612,000,000
1937.....	5,004,000,000	346,000,000	5,350,000,000

BAE estimated last month a total of 7.9 billion dollars of farm cash income for 1939, compared with

Prices of Farm Products

Estimates of average prices received by farmers at local farm markets based on reports to the Agricultural Marketing Service. Average of reports covering the United States weighted according to relative importance of district and States.

Product	5-year average, August 1909-July 1914	September average 1909-13	September 1938	August 1939	September 1939	Parity price, September 1939
Cotton, lb.....	12.4	12.2	8.23	8.70	9.13	15.87
Corn, bu.....	64.2	69.6	48.0	45.7	56.2	82.2
Wheat, bu.....	88.4	87.7	52.5	54.5	72.3	113.2
Hay, ton.....	11.87	11.39	6.70	6.77	7.17	15.19
Potatoes, bu.....	69.7	74.4	47.4	60.1	69.4	86.5
Oats, bu.....	39.9	38.8	21.8	25.4	31.5	51.1
Soybeans, bu.....	dollars (?)	(?)	.71	.64	.73
Peanuts, lb.....	4.8	4.7	3.24	3.39	3.44	6.1
Beef cattle, cwt.....	dollars 5.21	5.09	6.45	6.50	7.07	6.67
Hogs, cwt.....	7.22	7.49	8.07	5.47	7.06	9.24
Chickens, lb.....	11.4	11.6	14.3	13.0	13.6	14.6
Eggs, doz.....	21.5	20.5	24.9	17.5	20.6	² 27.8
Butterfat, lb.....	26.3	25.8	24.1	22.4	24.7	² 32.6
Wool, lb.....	18.3	18.6	19.1	22.0	24.3	23.4
Veal calves, cwt.....	dollars 6.75	6.78	8.31	8.13	8.92	8.64
Lambs, cwt.....	5.87	5.47	6.46	6.94	7.57	7.51
Horses, each.....	136.60	136.10	81.70	78.00	79.90	174.80

¹ Revised.

² Prices not available.

³ Adjusted for seasonality.

slightly more than 8.0 billions in 1938. The 1939 figure may be raised as a result of the September price gains and the prospects for improved consumer demand in the last quarter of this year.

PRICES: Sharply Higher

Farm products last month registered the sharpest price gains in more than a year, but are still below the general average of the 1909-14 base period. Sharpest gains were on grains, meat animals, dairy products, and chickens and eggs as a group.

The September 15 index of prices received was 98 percent of the 1909-14 average of 100. This compares with 88 as of August 15, and with 95 as of September 15 last year. Prices paid by farmers for commodities purchased also increased in September. The September 15 index was 122 percent of pre-war, compared with 119 as of August 15, and with 121 in September last year.

Farmers are receiving average prices approximately 2 percent below pre-war prices. For commodities bought they are paying 22 percent above pre-war prices. The September buying power of farm products was 20 percent below pre-war. ("Pre-war" is the 1909-14 base period of 100.)

WHEAT: Record Supply

World supply of wheat is the largest on record, but in the United States the supply is 100 million bushels smaller this year than last. Total for the United States is indicated at 990 million bushels. Domestic disappearance during the year beginning July 1, 1939, has been forecast at 695 million. Should exports total 70 million bushels, the carry-over next July 1 would be about 225 million.

The United States supply is about the same this year as in 1914, but world supplies are about 2 billion bushels larger than at that time.

Canada and the Argentine have large supplies this year as contrasted with 1914 when the small crops in these two countries made it possible for the United States to export large quantities of wheat. BAE looks for about the same world acreage of wheat for harvest in 1940 as in 1939.

United States wheat prices are high relative to export parity levels, since this year's crop is only moderately above domestic disappearance, a relatively large quantity of wheat is under Government loan, and the export aid program is being continued. Domestic prices in mid-September were above Government loan values, prices at Kansas City averaging about 9 cents above the loan rate in that market.

COTTON: Prices Up

Cotton in late September was higher priced than at the same time last year. Average for Middling $1\frac{1}{8}$ inch in the 10 spot cotton markets was 8.99 cents for the week ended September 29, compared with 8.41 cents in the corresponding period a year ago.

Sales in spot markets were unusually heavy in September, offerings of all qualities finding ready takers, with domestic mills the principal buyers. Domestic mill activity expanded in September. Exports also have been larger this season than last, totaling 761,000 bales from August 1 to September 28, as compared with 596,000 bales a year earlier.

Export sales and deliveries of cotton and cotton products under the Government export program totaled 2,530,000 bales through October 3, of which 106,000 bales represented the cotton equivalent of cotton products. (Sales reported under this program include cotton not yet exported.)

The export subsidy, exceptionally small stocks of American cotton in Europe, and the exchange of American cotton for British rubber are important factors favorable to higher exports this season than last. The domestic situation is favored by prospects for im-

provement in industrial activity and consumer incomes.

TOBACCO: Big Crop

Increased acreage and yields have resulted this year in the largest crop of flue-cured tobacco on Government record—slightly more than 1 billion pounds as compared with 800 million in 1938. The prospective supply of flue-cured tobacco—production plus carry-over—is close to 2 billion pounds. August prices were the lowest in 6 years.

When British buyers withdrew from the markets following outbreak of European War in September the auctions in flue-cured districts were closed. This greatly reduced the September income of flue-cured producers. In September a year ago, growers marketed approximately 46 million dollars worth of flue-cured.

No indications are available as to when British buyers will return to the market. Following outbreak of the World War, in 1914, British buyers withdrew from the market but returned in about 3 weeks.

Export prospects are less favorable to producers this year than last, but domestic demand may be somewhat better than in 1938. In Government referendum October 5, producers voted in favor of Government marketing quotas covering the 1940 crop.

FEED GRAINS: Abundant

Crop and livestock reports indicate abundant supplies of feed grains this fall and winter. Production of principal grains is slightly smaller this year than last, but the carry-over of old corn is the largest on record. The total supply of corn, estimated at slightly less than 3 billion bushels, is below the level requiring Government marketing quotas.

An increase of 7 to 8 percent in numbers of feed-grain consuming live-

stock on farms next January 1 compared with last has been indicated. Most of this increase is in hogs. The supply of feed grains for each animal will be smaller this year than last, but above the predrought average.

The Corn Belt area east of the Missouri River has large feed crops this year; west of the Missouri, the crops have been reduced by drought. Range and pastures in the western States also are below normal condition. A large movement of feeder cattle and feeder lambs from western States into the central and eastern Corn Belt has been reported.

CATTLE: Price Rise

Cattle prices advanced sharply in early September, fed steers selling up to \$12 at Chicago—highest price since early June. Part of the increase was subsequently lost as marketings increased and speculative demand subsided. A feature of the situation is the high price of feeder relative to slaughter cattle.

Slaughter supplies of grain-fed cattle will be larger this fall and winter than last. Total cattle slaughter may be smaller, because of smaller slaughter of cows and heifers and grass steers. This in turn will be offset by heavier average weight as result of the increased proportion of fed cattle.

Larger marketings of cattle are expected from the western States this fall than last, on account of dry weather and short feed supplies in most of the range area last summer. Nevertheless, the proportion of western cattle sold for immediate slaughter probably will be smaller than usual.

The 16-percent increase in number of cattle on feed in the Corn Belt this August 1 compared with last was the largest since the Government began to compile such records, in 1928. The increase reflects the large stocks of corn and the high prices of cattle relative to corn prices during most of the past year.

With feed crop production fairly large this year in the Corn Belt, no curtailment of feeding operations is now in prospect.

HOGS: Increased Demand

Increased supply and improved domestic consumer demand for hog products are indicated for the next few months. BAE looks also for larger United States exports of hog products as European supplies are reduced by the war. Exports during the marketing year just closed were much larger than in 1937-38.

A large seasonal increase in hog marketings is in prospect for the next few months, reflecting the big pig crop of last spring. Pig production this year has been at predrought levels, except in the western Corn Belt, where the number raised will be somewhat below the 1929-33 average.

Supplies of hogs will be much larger this marketing year—beginning October 1—than last. Hog production may be increased in 1940, since feed is abundant in most areas, but the increase probably will not be as large as in 1939. Feed production is short in the Corn Belt area west of the Missouri River.

Storage stocks of lard totaled 112 million pounds on September 1, compared with 117 million on the same date last year, and with 135 million September 1 average for 1933-37. Stocks of pork, totaled 362 million pounds, against 335 million last year, and 482 million the 5-year average.

LAMBS: Smaller Supply

Slaughter supplies of sheep and lambs will be smaller this fall than last, but some increase is likely during the fed-lamb marketing season, December through April. The lamb crop was only 1 percent smaller this year than last, nevertheless inspected slaughter of sheep and lambs in the first 4

months (May-August) of the current marketing season was 7 percent smaller than in the corresponding months last year.

Marketings of grass fat yearlings and other sheep from Texas were reduced, and a relatively large number of western lambs have been sold as feeders. An increase in marketings of sheep from the western States is expected this fall compared with last, but the proportion of western lambs in only feeder condition will be larger this fall, and above average.

Prices of slaughter sheep and feeder lambs advanced during the first week of September, but the rise was less pronounced than for slaughter lambs. In the second week of the month, prices of feeder lambs continued to advance in contrast with a decline in prices of slaughter lambs.

WOOL: Prices Rise

Wool prices—sensitive in time of war—advanced sharply in September. Important news from abroad was the canceling of 1939-40 wool sales in Australia, following arrangements for purchase of the entire Australian clip by the British Government. A committee was appointed to direct the appraisal and shipment of Australian wool to England and other countries to be designated by the British Government.

United States supplies of raw wool were smaller this August 1 than last, smaller also than the August 1 average of the preceding 5 years. Carry-over of wool into the 1939-40 season in the Southern Hemisphere was much smaller than in 1938. Supplies in Continental Europe and United Kingdom, however, are believed to be relatively large.

Mill consumption of apparel wool in the United States declined seasonally in July, but was 20 percent higher than in July last year. Consumption on a grease basis in the first 7 months of this year was 60 percent larger than

in the like period of 1938, and almost 20 percent larger than the 7-month average for the 10 years 1928-37.

FRUITS: Increase

Total production of fruits is larger this year than last, but slightly smaller than the record large crop in 1937. Larger crops this year include apples, apricots, cherries, cranberries, peaches, fresh plums and prunes, and strawberries. Smaller crops are citrus, pears, and grapes.

Domestic demand conditions have improved, nevertheless market prices of most fruit crops this season through September averaged somewhat lower than a year earlier. Prices of apples and grapes declined seasonally with the approach of heaviest marketing period. Prices of peaches, pears and citrus advanced slightly from the season's low levels of preceding weeks.

Fruit canning and drying operations were nearing completion in September. The total pack of canned fruits will be slightly larger this year than last, the total pack of dried fruits may show little change. Carry-over of canned fruits at the beginning of the 1939 season was about normal, carry-over of dried fruits was relatively large.

Commercial apple production was indicated at about 103 million bushels (as of September 1). This is about 25 percent more than the 1938 crop, and 7 percent more than the 10-year average. Exports to the United Kingdom may be decreased materially this season.

POTATOES: Higher Priced

Potatoes are being marketed from the late-producing States at prices much higher than at this time last year. These States will be principal sources of market supplies from now until April. Production in the late States has been indicated at about 291

million bushels (September 1 estimates), or about 4 million more than in 1938. Prospects are for slightly increased late potato supplies in the eastern States, and slightly smaller supplies in the central States.

Market prices of truck crops in general declined seasonally from early August to early September. September crop reports indicated larger late market crops of beets, celery, lettuce, onions, and sweetpotatoes this season than last, and smaller late crops of cabbage, carrots, green peas, and tomatoes. Plantings of vegetables in the Southern States and California for the winter market were reported as starting under fairly favorable conditions.

FATS, OILS: Price Rise

Prices of most food fats advanced sharply in early September, reflecting speculative anticipation of increased demand as result of the European war, increased war-risk insurance on ocean shipments, and generally improved business conditions. Prices rose from the lowest levels in 5 years.

Production of fats and oils from domestic materials for the current calendar year is expected to be the largest on record. But BAE says domestic demand will be strengthened somewhat during the next few months, since conditions favor increased industrial activity and improvement in consumer buying power.

(Domestic production and exports of animal fats were relatively stable during the World War, but production of cottonseed and flaxseed declined. Imports of copra and coconut oil, soybean oil, peanut oil, and flaxseed increased. Prices of fats and oils were not affected much until 1917, when prices increased sharply.)

DAIRY: Improvement

Prices of fluid milk and butter advanced seasonally in September.

Milk production declined, costs started up as cows began to shift from pasture to grain feeding. Increased consumer demand for dairy products is indicated this fall and winter by prospective expansion in industrial activity and consumer incomes.

Consumption of milk, cream, and manufactured dairy products was larger this summer than last. Distribution of butter for relief was an important factor in increased consumption of butter. In July there was a noticeable increase also in trade output of butter through regular commercial channels.

The movement of dairy products into storage has been smaller this season than last. Cold-storage stocks of butter were 14 percent smaller this September 1 than last, stocks of American cheese were 19 percent smaller. However, stocks of butter are above average for this date.

(United States exports of dairy products during the World War, particularly of cheese and concentrated milks, increased. Nevertheless, the milk equivalent of exports during 1915 and 1916 was a relatively small proportion of the total United States production of manufactured dairy products.)

POULTRY, EGGS: Plentiful

More layers are in farm flocks this fall than last but fewer than the average for the preceding 10 years. Largest increase this season—8 percent—is in the West North Central and South Central areas, reflecting gradual recovery since the drought years. Fewer layers this fall than last are reported in the highly commercial North Atlantic and Far Western areas. Egg production per hen continues at a high seasonal rate.

Besides layers, the number of pullets not yet of laying age was about the same this September 1 as last in the South Atlantic States, 3 percent more in the South Central, 4 percent

more in the North Atlantic, 8 percent more in the North Central areas. The far western States (in 1938 the number was 17 percent less than in 1937) shows an increase this year amounting to about 31 percent.

Ratio between feed and egg prices may be less favorable to producers the remainder of this year compared with last. This means that farmers may market a larger proportion of their hens and pullets. In this case laying flocks January 1 next would be only slightly larger than at the beginning of 1939.

TURKEYS: Plentiful

Turkey crop has been estimated at 32.0 million birds, a 22 percent increase over 1938 output. Largest previous production was 27.7 million turkeys in 1936. Producers report early marketings—12 percent in October or earlier, compared with 10 percent last year. November marketings may be 38 percent against 41 percent in 1938. These figures indicate large quantities for Christmas and later markets.

In mid-September fancy young hens were being quoted at 26 cents per pound wholesale in New York, or about 1 cent below the price on the same date last year; fancy young toms at 24 cents, or 9 cents below the price a year earlier. In 1938 prices of toms were 3 to 8 cents above prices of hens from September 1 to October 18, whereas this year the two quotations have been about the same.

Prices of fancy frozen turkeys also are well below last year. Until April, prices were slightly above a year earlier, but have declined since then. Fancy young toms on September 19 were 12½ cents per pound below quotations on that date last year. Frozen old hens and old toms were about 5 cents per pound below last year.

FRANK GEORGE.

The Farmer's Share

[Retail and farm values of 58 foods as compiled by the Bureau of Agricultural Economics show that while the farm-to-retail price spread has remained remarkably stable during the last 4 years the share of the consumer's food dollar received by the farmer has varied greatly. The farmer's share rose from a low of 35 cents in 1932 to a high of 45 cents in 1937, then dropped to 40 cents in 1938, and has shown no increase during the first 7 months of 1939.]

SINCE the recent outbreak of hostilities in Europe prices of many food products have increased sharply. For those foods produced by the American farmer, both producers and consumers are interested in finding out to what extent the increase in retail prices is associated with increases in prices received by farmers for their products. A small amount of scattered price information now available permits the making of certain rough comparisons among changes from mid-August to mid-September in farm, wholesale and retail prices for several important food products.

Some of the most spectacular advances in retail prices occurred in sugar, lard, fresh pork, and navy beans. Both retail and wholesale sugar prices advanced more than a cent a pound from August to September, but it is too early in the season to appraise the effect of this gain upon prices paid to growers of sugar beets and sugar cane.

Among meat products, sharp retail price increases were chiefly confined to lard and to a few fresh pork cuts, with cured products, beef, and lamb, showing moderate increases. Considering composites of all meat cuts it appears that wholesale meat prices advanced more rapidly than either retail or farm prices. The disparity between increases in retail and wholesale prices is most noticeable in pork

products. In general, the livestock producer appears to have shared to the full extent of the retail price increase, but his price did not keep pace with wholesale meat prices.

BREAD prices at retail have not changed although the retail price of flour is about 10 percent higher. The increase in retail flour price is somewhat below the rise in wholesale quotations from \$4.60 to \$5.65 a barrel. The farmers' wheat price seems to be maintaining a normal relation to the advancing wholesale price of flour.

Retail and wholesale prices of butter each rose almost 4 cents a pound while the advance in the price paid the farmer for the butter fat equivalent was less than half this amount.

While the price received by farmers for potatoes showed a negligible change from August to September and retail prices increased moderately, the level of wholesale potato quotations in New York and Chicago rose sharply by more than 30 percent.

The price of dry beans increased more than a cent a pound at retail and this entire increase was passed back to the farmer. The New York wholesale price of pea beans rose nearly 2 cents a pound during this same period.

The few data available at this time show uneven price increases in retail, wholesale, and farm prices. Farm price increases seem to have maintained a normal relationship to retail prices, but wholesale prices appear to be on a higher level. It is impossible to determine which agency initiates the price increase, or which makes the greatest gain through mark-up of inventory stocks.

With adequate supplies of food-stuffs the flurry in food prices should give way to readjustment to normal price relationships.

R. O. BEEN.

Thirty Years of Mortgage Debt

THE movements of outstanding farm-mortgage debt during the last 3 decades constitute an important part of the history of American agriculture during these eventful years. In view of recent European war developments added current significance attaches to the fluctuations associated with the World War. The accompanying table presents revised estimates for the census years 1910, 1920, 1925, 1930, and 1935, together with estimates for all intercensal years. The accompanying chart presents data for the entire country and for the several geographic divisions showing annual changes in farm-mortgage debt in terms of indexes based on the average for January 1, 1910-14.

THE peak in farm-mortgage debt for the entire period 1910-39 was in 1922-23, about 172 percent above the 1910-14 level. Agricultural prices and land values had collapsed early in 1920, nevertheless the total farm-mortgage debt continued to rise in 1920, 1921, and 1922. A number of factors contributed to this rise in mortgage debt: A large volume of mortgages was placed on farms during 1920 to finance sales made prior to the break in farm prices and land values; many loans previously made on an unsecured basis were converted to mortgage loans as lenders attempted to obtain the added protection of real estate security; many farm owners previously without mortgage debts financed their operating losses following 1920 by mortgaging their farms.

On January 1, 1920 only about 41 percent of the owner operators had mortgage debts, but it is probable that this percentage rose sharply during the next 3 years. Of great significance in the post-1920 increase of mortgage debt was the relatively strong position of the life insurance companies and the ability of the Federal and joint-stock land banks to expand their loans after

The farm-mortgage debt stands at approximately 7 billion dollars. This is the smallest figure in 20 years. It compares with the high record of nearly 11 billion dollars in the early 1920's. Farm-mortgage debt has been reduced markedly during the current decade, but is still much higher than in the years immediately preceding the World War a quarter century ago. The way in which the debt increased and declined in the last 3 decades, and the conditions affecting these movements, are discussed in the accompanying article.—ED.

certain constitutional issues had been clarified early in 1921.

AFTER reaching an estimated total of nearly 11 billion dollars at the beginning of 1923, the farm-mortgage debt declined during each subsequent year except 1927. The decline during 1923 was moderate, but during 1924 it was greatly accelerated. The factors causing extensive borrowing on mortgage security immediately following the 1920 collapse had become of much less importance by 1923 and 1924, and foreclosures and related forms of mortgage debt liquidation had increased greatly. Foreclosures continued in large volume during 1925 and 1926 and mortgage debt declined still further, although at a moderate rate.

Following a slight rise in mortgage debt during 1927 the gradual decline continued down to 1932 when again foreclosures reached high levels and mortgage debt declined sharply. During 1932 and 1933 the total fell by about one-seventh. The decline since 1933 has been gradual with the greatest decline for any year being in 1936. About one-half of the decline of mortgage debt from January 1, 1929

to 1939 occurred during 1932 and 1933, and about one-third in the 5 years from January 1, 1934 to January 1, 1939

The total farm-mortgage debt of approximately 7 billion dollars outstanding on January 1, 1939 was 27.6 percent below the total for January 1, 1929 and about 34 percent below the peak reached in 1922-23. The farm-mortgage debt now stands at a level approximately equal to that in 1918 and is about 2.2 times the total on January 1, 1910.

THE accompanying chart shows that in certain periods during the last 30 years the fluctuations of farm-mortgage debt for the country as a whole represented general movements characteristic of most of the geographic divisions, but in others represented largely the net effects of widely divergent regional changes. Mortgage debt increased in all the major geographic divisions of the country from 1910 to 1920, there was a further rise for some time during the early 1920's, liquidation or a retarded rate of growth followed the increases of the early 1920's, and varying amounts of debt liquidation resulted from the post-1929 depression.

Even with these major movements, however, there were marked regional differences in the timing and amplitude of the changes. Very marked regional differences in debt trends occurred in the late 1920's and early 1930's. The continued downward trend for the West North Central States, for example, stood in sharp contrast with the continued upward trend for the Pacific States during this period. In the West South Central States debt continued to increase from 1925 to 1930, whereas in the South Atlantic and East South Central States the upward movement after 1925 continued only to the middle of this 5-year period.

Such wide regional variations in the movements of farm-mortgage debt indicate that broad generalizations with regard to national trends of farm-

mortgage debt may have only limited application to particular areas.

OF especial current interest are the variations in the timing and amplitude of mortgage debt changes among the several regions during the last decade. In four geographic divisions—New England, Middle Atlantic, Mountain, and Pacific—farm-mortgage debt rose for a time after 1930. In all of these regions mortgage debt had either risen or changed little during the latter part of the 1920's. The areas of sharp reduction of mortgage debt immediately following 1929 were in general those in which mortgage debt had begun to decline well before 1929.

During 1932 and 1933 the decline was general for all areas, but in the following 2 years there were again widely divergent regional movements. These divergent movements in 1934 and 1935 reflect the operation of a number of

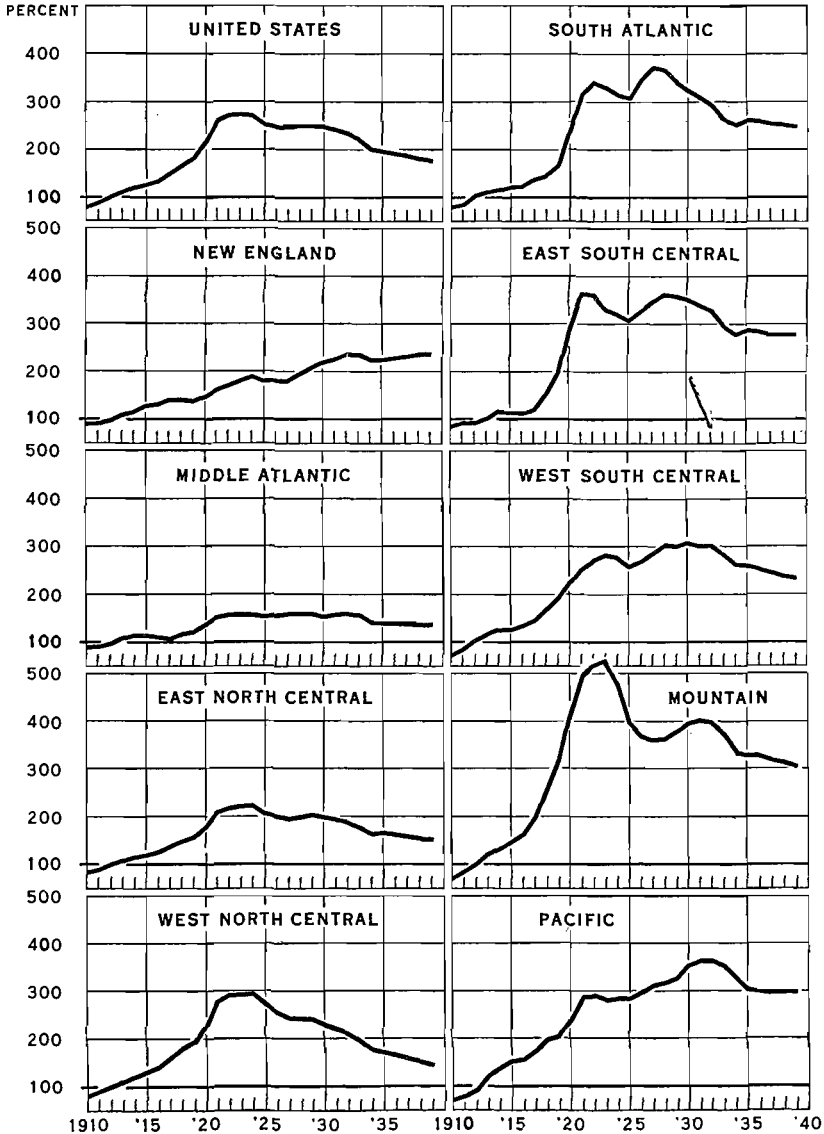
Estimated Farm-Mortgage Debt, Jan. 1, 1910-39

Year	Farm-mortgage debt	
	Amount	Index (1910-14=100)
	<i>Million dollars</i>	<i>Percent</i>
1910.....	3,208	81.3
1911.....	3,522	89.3
1912.....	3,929	99.6
1913.....	4,352	110.3
1914.....	4,712	119.4
1915.....	4,994	126.6
1916.....	5,299	133.3
1917.....	5,828	147.7
1918.....	6,541	165.8
1919.....	7,142	181.1
1920.....	8,449	214.2
1921.....	10,198	258.5
1922.....	10,690	270.2
1923.....	10,761	272.5
1924.....	10,647	269.9
1925.....	9,913	251.3
1926.....	9,726	246.6
1927.....	9,671	245.2
1928.....	9,765	247.6
1929.....	9,761	247.4
1930.....	9,631	244.2
1931.....	9,462	239.9
1932.....	9,213	233.6
1933.....	8,638	219.0
1934.....	7,887	199.9
1935.....	7,786	197.4
1936.....	7,639	193.7
1937.....	7,390	187.3
1938.....	7,214	182.9
1939.....	7,071	179.3

forces, among which may be mentioned the extent to which liquidation had already gone in the preceding years, the operation of special State laws designed to give relief to farm debtors,

the extent and timing of the agricultural recovery, and the volume of farmers' obligations not secured by real estate which were funded into mortgage loans through the refinancing

OUTSTANDING FARM MORTGAGE DEBT, BY GEOGRAPHIC DIVISIONS, JAN. 1, 1910-JAN. 1, 1939
 (INDEX NUMBERS (1910-14=100))



operations of the Federal land banks and the Land Bank Commissioner.

ALTHOUGH some regional variations in the movements of mortgage debt are shown during the years 1936, 1937, and 1938, the variations are not so marked as in 1930 and 1931 or as in 1934 and 1935. A continued rise occurred in New England and

changes were small in the Middle Atlantic, East South Central and Pacific States. The percentage decrease was greatest in the West North Central States. The largest decrease for any State in 1938 was 9.4 percent for North Dakota, the largest increase was 3 percent for Massachusetts.

DONALD C. HORTON.

Wage Laborers Versus Sharecroppers

VARIOUS sections of the Cotton Belt have shown an increasing tendency in recent years to employ wage laborers instead of sharecroppers. This shift is most noticeable in the Mississippi Delta area, most complete in the Texas Plains area where sharecropping is practically nonexistent, and least noticeable in the Piedmont section of the Southeast, where there is little indication of a change to wage labor. Reasons for this change are varied and different for the several districts.

Historically the sharecropping system dates back to the end of the Civil War when the plantation owners generally were without funds to pay wages, but had ample land, plenty of management experience and large labor requirements. There were hundreds of thousands of former slaves (in addition to many impoverished whites), unaccustomed to wages as free workers, illiterate, poor, jobless, and habituated only to the growing of cotton under rigid supervision.

The sharecropper system was devised, whereby the plantation owner employed either the former slave or an impoverished white on a specific holding, furnishing, in exchange for labor, land, teams, implements, and a share of the crop, and advancing to the cropper subsistence for himself and family which, later, was deducted from the cropper's share. This system spread throughout the South until, in 1935,

there were 368,408 Negro croppers and 347,848 white croppers.

ANALYSIS of a typical county in the Mississippi Delta, the Texas Plains area, and the Piedmont section of the Southeast reveals some economic factors affecting the relative advantage of one labor system over the other—wage labor and sharecropping—as between areas. These include differences in labor requirements at preharvest and at harvest, in topography or the ability to use large-scale farming machinery, in yields, in costs of fertilizer and costs of ginning, bagging and ties, in wage rates, and in prices of cotton lint and seed. The agricultural adjustment program also is an important factor, but this has not as yet been adequately evaluated.

Labor: In the Texas Plains cotton area, where little or no use is made of sharecropper labor, the preharvest labor requirements are one-fifth of the man-days of labor required per acre in the Delta and Piedmont areas; and the harvest labor requirements are about one-third the man-days of labor per acre required in the other two regions. Moreover, there are two peak labor seasons in the cotton production of the Delta and Piedmont areas—hoeing and chopping, and picking—whereas there is only one peak labor season—picking—in the Plains area.

Machinery: The topography of the areas, the nature of the soil, and the size of the fields are some of the factors affecting the ability to use large-scale farming machinery. These factors of difference between areas are largely qualitative; but general knowledge of these three areas gives the advantage first to the Texas Plains, second to the Mississippi Delta, and third to the Piedmont area. The effect of these factors is reflected, in part, in the proportions of farms using tractor power. In 1936 nearly 47 percent of the farms in the Texas Plains used tractor power, almost 45 percent of the Delta farms did the same, while only about 3 percent used tractor power in the Piedmont. Since 1936, moreover, there has been an increasing use of tractor power in the Plains and Delta areas.

Yields: Normal yields of cotton lint per acre vary widely for different parts within the areas as well as between the areas, but on the average the Delta farms produce greater normal yields than the Piedmont farms, which, in turn, yield more than the farms of the Texas Plains. However, the coefficients of variation, as measured from BAE publications on estimated acreage, yield, and production, 1928-37, show marked differences between the regions, with the Texas Plains in the least advantageous position. The Texas Plains' farmers are more subjected to extreme variations in yields of cotton than are the farmers of the Delta and Piedmont areas. Thus the chances of producing an average yield of cotton are better in the Piedmont than in the Delta, and better in the Delta than in the Plains.

Costs: The cost of fertilizing is zero in the Texas Plains, for no fertilizers are used; it is highest in the Piedmont, where both mixed and nitrogenous fertilizers are required; and second highest in the Delta, where the use of smaller amounts of nitrate, and no mixed fertilizer, is the rule. Costs per bale of cotton for ginning, bagging, and ties are highest in the Plains

(about \$6.25), next highest in the Delta (about \$5.70), and lowest in the Piedmont (about \$3.85).

Wage Rates: The Plains also have the highest wage rates (1935 day rate, without board, about \$1.25), with the Delta next highest (1935 day rate, without board, about \$1.00), and the Piedmont lowest (1935 day rate, without board, about \$0.55).

Cotton Prices: The prices obtained for cotton by the farmers in the three areas vary widely. As a rule, however, Delta farmers receive higher prices for lint and seed than do the Piedmont farmers, who, in turn, obtain slightly higher prices than the farmers of the Texas Plains.

The composite effect of these factors upon the choice of wage or cropper labor is striking. If a wage rate of \$0.75 per day and \$0.75 per hundred-weight of seed cotton picked is assumed to be the case in the three areas, it becomes slightly advantageous to the farm operators to use wage labor if the price of cotton is 10 cents per pound in the Piedmont, 7 cents per pound in the Delta, and about 5 cents per pound in the Texas Plains. At prices below these in the respective areas it would be more advantageous to the farm operator to use sharecropper labor.

IN pointing out the direction of advantage (or disadvantage) each area has relative to the other areas with respect to the factors affecting the economic desirability of wage labor versus sharecropper labor, we note that the Texas Plains is first with four advantages: Smaller preharvest labor requirements, smaller harvest labor requirements, the ability to use large-scale farm machinery, and no fertilizer costs. Its disadvantages are smaller yields per acre, greater risks of obtaining a normal crop, higher ginning, bagging, and tie costs, higher wage rates, and a lower price for cotton lint and seed. * * * The Delta area is second in all advantages, except in harvest labor requirements, and in yield and prices for cotton lint and

seed. In these respects the Delta is third in harvest labor requirements, and first in yield and prices of cotton lint and seed. * * * The Piedmont area is third in rank of advantage in preharvest labor requirements, ability to use large-scale machinery, and in fertilizer costs; second in harvest labor requirements, and yield and prices obtained for cotton lint and seed; and first in matters of degree of expectation of normal yield, ginning, bagging and tie costs, and wage rates.

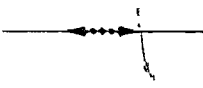
Under the usual sharecropper arrangement the cropper shares with the operator the expense of fertilizing, ginning, bagging, and tying to the extent of one-half of their costs, whereas under the wage system the operator pays for the entire amounts. Therefore, from the farm operator point of view, it is important that he consider the relative advantage of preharvest costs per acre of cotton for the two systems of labor. The chance elements of yield and price of cotton are not accurately determinable until harvest time. Hence, at a given price for labor, and without knowing what yields or prices will follow, the Piedmont and Delta farmers must expect to have more than five times the labor costs invested in each acre of cotton plus fertilizer costs than do the farmers in the Texas Plains. If the annual investment in labor and fertilizer is low,

the operator can advantageously assume the risk of these preharvest costs by employing a wage system. If, on the other hand, these preharvest costs should be high, it may be more advantageous to the operator to shift this chance of higher net returns.

Under a wage system, however, annual preharvest investments in the cotton crop for labor, may make much less difference between areas than the labor requirements data indicate, since the higher requirements may be partially offset by the payment of lower wage rates. In 1935, for example, preharvest wage labor rates in the Texas Plains area were about $2\frac{1}{2}$ times those paid in the Piedmont and about $1\frac{1}{2}$ times those paid in the Delta.

TO generalize from the above data, there is an increasing advantage to the farm operator to use wage labor rather than sharecropper labor as one moves from the Piedmont, to the Delta, to the Plains areas, assuming given prices of cotton and labor and the respective normal yields. Or, given a price for labor, it becomes increasingly more advantageous to farm operators to shift the risk of the uncertainty of yield and price for cotton to the sharecropper as one moves from the Plains, to the Delta, to the Piedmont.

E. J. HOLCOMB.



Exports, Imports

UNITED STATES exports of pork, lard, and cotton were larger this August than last. Exports of wheat, apples, pears, and tobacco were smaller. Principal increases in imports were in hides and skins, wool, and tobacco. Less sugar came into the United States this August than last.

Increases in exports during the first 7 months, January–August, this year compared with last included pork, lard, apples, and smaller exports included wheat, pears, tobacco, and cotton. Imports of leading commodities, except sugar and tobacco, increased.

Turkeys In Season And Out

THE 1939 production of turkeys has been officially estimated at approximately 32 million birds. This compares with 26 million in 1938. It compares with the previous high record production of nearly 28 million turkeys in 1936. Estimates indicate there will be more turkeys available for consumption this Thanksgiving and Christmas than ever before, nevertheless the increase will not be so great as may be assumed from production figures alone.

The fact is that turkeys are no longer entirely a holiday season food. Production and marketing of turkeys is being extended the year round. Carloads of turkeys of this year's production have been going to market since last July. Producers are reported as marketing an unusually large proportion of their turkeys early this year—approximately 12 per cent through October as compared with 10 per cent last year.

A smaller proportion of this year's crop is to be marketed in November as compared with marketings in the same month last year—approximately 38 per cent as compared with 41 per cent in 1938. This means a somewhat larger proportion for Christmas and later markets. Large quantities will go into storage. This will reduce the Christmas supply, and make turkeys available for the post-holiday trade which has developed in recent years.

PRODUCTION of turkeys has become an important and widespread industry in the last 10 years.¹ It has changed from a sideline farm enterprise to a commercial industry. The number of small farm flocks has decreased, but this has been more than

offset by the increase in large or commercial flocks. New methods of disease control and commercial incubation of poults are important recent developments. Large-scale turkey production requires turkey poults in large quantities at the seasons desired. When improved breeding methods and the use of electric lights made available sufficient quantities of turkey eggs for hatching, the development of the commercial hatching of poults followed

Turkeys for years have been served out of season in restaurants and hotels but the usual source of supply has been frozen birds of the previous year's production. Now fresh birds are available most of the year. In recent years, there has also been an increasing tendency toward the year-round consumption of turkeys in the home. Young turkeys from the current year's crop are now common in stores from early summer on, at reasonable prices

DUE to the commercial growth, there are now several sources of supply. Although squab or broiler turkeys long have been known as a special dish in certain sections of the South, particularly New Orleans, there has been evidence during the present year of an increasing use of this type of bird. Squab turkeys are young birds of good flesh which have little fat and are cooked either by broiling or frying. A substantial premium in prices must be obtained for this type, however, for profitable production.

New types of turkeys, developed through breeding experiments, should go even farther toward commercializing the industry. Government geneticists have developed a "streamlined" turkey, less rangy in conformation and, fully developed, weighing considerably less than the ordinary-sized bird. It is expected that this turkey will be favored by housewives requiring a small,

¹ Turkeys—Seventy Million Dollar Industry, April 1939 issue The Agricultural Situation.

well-meated turkey. Another innovation is the broad-breasted or double-breasted turkey which contains a much higher percentage of white meat on the breast than does the conventional turkey.

All factors point toward a continuance of the trend toward commercialization.

J. H. RADABAUGH,
*Agricultural Adjustment
Administration.*

Farm Tenancy To Ownership

THE tenant purchase program of the Farm Security Administration is entering its third year. Between now and next June more than \$38,000,000 will be loaned to tenant families for the purchase of approximately 7,068 farms in approximately 1,300 counties.

Congress, in the Bankhead-Jones Act, 2 years ago set up this program in an effort to check the growth of farm tenancy. At that time 2 out of every 5 farmers in the United States were tenants and the number of tenants was increasing at the rate of about 40,000 a year. To enable some of these tenants to climb back to ownership of land, Congress appropriated \$10,000,000 for the fiscal year 1937-38; \$25,000,000 for 1938-39; and \$40,000,000 for the current year.¹

During the first year 1,840 loans were made in 332 counties. The average loan was \$4,999, the average size of the farm purchased was 130 acres. In the second year 4,340 loans were made in 732 counties, averaging \$5,562 per loan. This year more loans will be made than in the first 2 years combined. Altogether, about 13,250 former tenant families should be living on farms of their own by June 1940, as a result of the Bankhead-Jones program.

THE program during the current year will be carried out along the same general lines followed in the last 2 years. There will, however, be a few slight changes. In setting the price of the farms, for instance, more

¹ Administrative expenses are limited to 5 percent of these funds.

emphasis will be given to the income the farm will produce under a sound farm and home plan. That is, the appraisal of the farm will depend mainly on whether or not it can provide a good living for the family, pay back the loan, and at the same time maintain the fertility of its soil. Other factors, which so often influence farm values, will receive less consideration.

The only other major changes in the program this year are the large increases in the number of loans to be made¹ and the number of counties in which¹ the funds will be distributed; both¹ due, of course, to the increase in the amount of funds available.

THE tenant purchase program operates in the following way: Counties in which the loans are to be made are chosen by the Secretary of Agriculture upon the recommendation of the State Farm Security Advisory Committees. Factors considered in selecting the counties include the number of farmers and the proportion of tenants in the county, and the amount of good land available at reasonable prices.

After the counties are selected, applications are received at the county offices of the Farm Security Administration in the designated counties. A county committee of three farmers then certifies which applicants shall receive loans.

To be eligible, a borrower must be a tenant farmer, a sharecropper, or a farm laborer, and must be a citizen of the United States. He must prove that he is unable to obtain a loan large enough to purchase a farm from any other source on reasonable terms.

IN MAKING loans the committees give preference to married farmers, or farmers with dependents; to those who own the livestock and tools needed to carry on farm work, and to those able to make a down payment. Valued most, however, is the character and experience of the borrower, and his willingness to follow sound farming practices in operating his farm.

After the borrower is accepted the next step is the selection of the farm he is to own. The choice is entirely his, provided the farm he chooses meets certain specifications. It must be family-size, that is, a farm that can be run successfully by labor available within the family. It must contain enough fertile land to provide a good living for the family and pay back the loan. Its price must be in line with its real value, as found by the county committee and Farm Security Administration appraisers.

When the farm is approved the borrower is loaned the amount needed to meet the purchase price, and title to the land is in his name. The Government holds a first mortgage or deed of trust as security. If necessary, funds are included in the loan for the construction or repair of farm buildings and other improvements such as fences and terracing.

DURING the first year, borrowers spent 18 percent of their loans for improvements, last year they spent 24 percent. It is believed that adequate improvements in the way of sound houses and barns, good fences and terraces, will soon pay for themselves in lower maintenance costs. Last year, improvements made with the loans averaged \$1,330. They included 1,600 new farm houses at an average cost of about \$1,300 each; repairs to more than 2,550 houses that averaged \$405 per house; and 4,146 new or repaired out-buildings which averaged \$487 per farm. In addition, land improvements made on 3,147 of the farms averaged \$186.

The farmer agrees to pay taxes and insurance and to keep the buildings and fences in good repair. With the help of the Farm Security supervisor, he works out a sound plan for running his farm. He follows soil conserving measures and provides for the raising of enough farm products to support his family and pay back the loan. The farmer's wife draws up household budgets. Farmer and wife keep business-like records of all expenses and income.

The loans are made for a period of 40 years and carry 3 percent interest. Payment in full, however, may be made at any time after 5 years. There are two ways in which the loan may be repaid: Under the fixed-payment plan, 4.3 percent of the principal amount is paid each year; Under the variable-payment plan, the amount due each year is adjusted to the farmer's ability to pay. Larger amounts are paid in good years, smaller payments are made in years of crop failure or low prices.

ALTHOUGH it is still too soon to gauge the whole value of the tenant purchase program, the results of the first 2 years are on the credit side of the ledger. Already more than 6,000 tenant farmers are proving themselves capable of owning and operating their own farms and of holding their own place in their communities. Under the guidance of this program, a good deal of pioneering has been done in the rural housing field. Farm house plans drawn by the Farm Security Administration engineers provide neat and sturdy homes at a minimum of cost.

These plans are the result of years of experimenting with building materials and construction methods in all parts of the country. Out of several thousand houses that were built, these plans have proved most practical. They represent one of the first real attacks on the rural housing problem. Last year more than 1,600

farm houses were planned to be built at an average cost of about \$1,300. Most of the construction work is

being done by private contractors.

PAUL V. MARIS,
Farm Security Administration.

The Migratory Farm Laborer

APPROXIMATELY 3 million hired laborers will be employed on the harvest this fall—of corn and cotton, apples and potatoes, and many other crops. More than two-thirds of this number will be regularly hired farm hands, the remainder the itinerant or so-called casual workers following the crops in season and hiring out for short periods.

Federal and State agencies are working on a number of surveys of the economic and social conditions of hired farm laborers. Special surveys are being made of the farm labor supply, of the number of days of employment the hired man ordinarily receives, of farm wages and perquisites, and of housing and living conditions in many areas. Results are being published, as fast as they become known, as a part of the whole pattern of the farm labor situation. One project of especial importance in which BAE is cooperating is a study of the migration of farm labor on the Pacific Coast.

LAST summer a field study was made in North Dakota of the demand for harvest labor, and of the working and living conditions of the men so employed, cooperatively by the North Dakota Agricultural Experiment Station, the Bureau of Agricultural Economics, and the Farm Security Administration. This study covered laborers on 1,500 farms in 8 counties, and a sample of transients at a number of points of congregation.

One question dealt with the laborer's work history during the 18 months from January 1937 to July 1938. The study revealed that two out of every three paid laborers making the

North Dakota harvest in 1938 had held farm jobs during the preceding 18 months. These laborers had worked on farms in more than three-fourths of the States.

The most common wage for those hired by the month in the West North Central States—where the majority had worked—was \$30 with board in summer, and \$15 in winter. Few farm laborers had held jobs for more than 12 months—probably not more than 1 individual in 15. Some had worked for board and room only.

ENUMERATORS interviewed 140 "regular hired men," 628 "local hired harvest laborers," and 1,475 "transients"—a total of 2,243. Of these, 118 "regular hired men" had held 288 farm jobs; 366 "local hired harvest laborers" 967, and 1,001 "transients" 2,115, a total of 1,485 individuals who, during the 18-month period covered, had worked at 3,367 farm jobs in 40 counties of North Dakota and 34 other States. North Dakota had provided 1,794 of these jobs, 1,181 were held in Wisconsin, Minnesota, Iowa, Missouri, South Dakota, Nebraska, and Kansas. The remainder were scattered from coast to coast.

The group hired by the year or season at monthly wages—the "regular hired men"—received wages higher than those of any other group, except during the winter. Few individuals in this group worked for board without pay. The number of men hired by the day was comparatively small, except for summer jobs which generally lasted but a short time. Of groups containing a sufficient number

of cases to justify conclusion as to usual wage rates, 160 men reported an average wage of \$1.68 for "farm labor" during the summer in North Dakota, 90 reported \$1.55 per day for the same work in the West North Central States.

In North Dakota, 310 unclassified harvest labor jobs paid an average daily wage of \$2.59; shockers, numbering 85, averaged \$2.58; 58 threshing jobs paid \$2.90. Haying, with 40 reports, averaged \$1.59, and 19 men who reported the job of seeding were paid an average of \$1.33 per day.

BOARD was provided in addition to money wages on these day jobs. Whether or not lodging was provided was not asked. The assumption is that both room and board were furnished on nearly all jobs paid by the month, and on other jobs where we have information only that board was received. Of the 1,823 jobs coming

under the general classification of "farm labor," only 138, or 7.6 percent did not include board.

Persons working by the day in fruit, as a rule, had received no board especially those on the Pacific coast and in Texas, Louisiana, Colorado, and Arizona. Cotton pickers usually did not receive board. Corn and potato pickers received board in most cases. There was little apparent correlation of differences in wage rates with receipt or nonreceipt of board.

THE survey revealed an uncertain and generally insufficient earning power of casual farm laborers. Insofar as this condition drives the more capable workers to seek jobs elsewhere it undoubtedly is a factor in producing the often heard complaint that "good hired men are hard to find."

R. M. CULLUM,
Farm Security Administration.

United States: Exports and Imports of Specified Agricultural Commodities, January-August, Average 1924-29, Annual 1938 and 1939 and August 1938 and 1939

Commodity	Unit	January-August			August	
		Average 1924-29	1938	1939 Preliminary	1938	1939 Preliminary
Exports:		<i>Thousands</i>	<i>Thousands</i>	<i>Thousands</i>	<i>Thousands</i>	<i>Thousands</i>
Pork ¹	Lb.....	306, 738	62, 544	89, 086	6, 466	10, 181
Lard, including neutral.....	Lb.....	538, 984	129, 535	188, 864	10, 842	22, 848
Wheat, including flour.....	Bu.....	94, 856	86, 515	82, 813	11, 670	8, 931
Apples, fresh ²	Bu.....	6, 017	6, 052	6, 325	308	281
Pears, fresh.....	Lb.....	21, 096	55, 418	38, 331	31, 487	19, 571
Tobacco, leaf.....	Lb.....	298, 278	227, 789	202, 220	35, 140	32, 201
Cotton, excluding linters (500 pounds).....	Bale.....	4, 060	2, 773	1, 728	212	231
Imports:³						
Cattle.....	No.....	198	284	591	19	44
Beef, canned, including corned.....	Lb.....	⁴ 26, 261	52, 065	56, 593	5, 398	7, 511
Hides and skins, agricultural.....	Lb.....	⁵ 291, 563	93, 598	211, 264	16, 123	24, 811
Barley malt.....	Lb.....	⁶ 671	68, 408	76, 348	7, 050	10, 927
Sugar, excluding beet (2,000 pounds).....	Ton.....	3, 250	2, 209	1, 855	389	321
Flaxseed.....	Bu.....	14, 390	9, 597	13, 398	1, 288	1, 511
Tobacco, leaf.....	Lb.....	47, 630	42, 094	41, 927	5, 563	6, 191
Wool, excluding free in bond.....	Lb.....	⁶ 113, 025	17, 144	52, 361	3, 782	5, 041

¹ Includes fresh, canned, and pickled pork; bacon, hams, shoulders, and sides.

² Includes barrels, baskets, and boxes in terms of bushels.

³ General imports prior to 1938. Subsequently, imports for consumption.

⁴ Includes a small amount of "meats canned, other than beef."

⁵ Includes reptile and fish skins.

⁶ Imports for consumption.

Farm Labor Statistics: An Appraisal

THE outbreak of war in Europe again increases the need for timely and accurate statistics of agriculture. All factors relating to agricultural production again are being scrutinized closely both at home and abroad—by neutrals and belligerents alike. Farm labor, one of the basic elements of agricultural production, demands increased attention. It seems particularly appropriate at this time to examine the farm-labor statistics now being published with a view of determining their present and prospective value.

One of the three kinds of farm-labor statistics published by the Agricultural Marketing Service (supply of and demand for farm labor) was started as a war measure in 1918, and has been continued since that time. The only continuing source of labor statistics at the present time for the 6,800,000 farms in the United States is found in estimates prepared by this Service. In many respects these data are not adequate to fill the great need for statistics on farm labor. Current information is made available. The basic figures are obtained from sources closest to the conditions measured, namely, the farmers themselves.

THREE kinds of farm labor series are published at the present time: (1) Wage rates, extending back to 1867; (2) farm-labor supply and demand conditions, beginning in 1918; and (3) employment on farms, since 1923 (1920 in Wisconsin). The labor situation as reported on 21,000 farms is the basis for the preparation of these estimates.

WAGE rates currently are estimated both with and without board as well as by the day and by the month. In addition, piece-work rates are estimated for cotton picking at the height of the picking season. Other piece rates have been collected, but

not in a regular and systematic way. Wage rates are published by States for each quarterly inquiry. Cotton-picking rates are published once each year and apply to the season average in such cases. The series on rates per day and rates per month are believed to be generally adequate for the measurement of changes in the general level of wage rates, with the possible exception of cases where it is desirable to have information for areas smaller than a State.

The latter series are basic to the computation of the annual farm wage bill in connection with the Department's income parity determinations. The infrequency of inquiries and the inadequate coverage of piece-work wage rates paid by farmers does not permit the most precise approximation to the actual amount of cash paid by farmers each year for labor hire. Furthermore, the best appraisal of the real wages of hired workers cannot be made in the absence of the annual collection of objective data regarding the amount and value of perquisites received by workers in addition to cash wages.

These deficiencies could be corrected for the most part by the regular addition of timely questions regarding piece-work rates paid by farmers to the general inquiry sent to crop correspondents. Addition of similar questions to mailed inquiries sent to special fruit and truck crop lists would supply supplementary data for areas producing these commodities commercially. Special questionnaires designed to obtain information on the amount and value of perquisites given hired workers should be circularized annually.

THE supply of and demand for farm labor are calculated from replies to subjective "judgment" ques-

tions, unlike wages for which the farmer is asked to report rates actually being paid. The standard of comparison for his reply is also a subjective one. Each farmer gives his judgment of the supply of farm labor relative to his idea of the "normal" supply. In like manner he reports his judgment of the demand for labor in comparison with his idea of the "normal" demand. Despite the subjective nature of these data, however, they have proved of considerable value as indications of the existence of surpluses or shortages in labor supplies. During the past 20 years, there has been a remarkably close inverse correlation between the ratio of the supply to the demand for farm laborers and the volume of employment in manufacturing industries. It is possible that improvement in the accuracy of these series can be effected, but the additional cost probably would greatly outweigh the improvement.

ESTIMATES of actual employment on farms were inaugurated later than the other farm labor series and have not attained the precision of those series. In large part, the nature of the farm business is responsible for the different degrees of accuracy in the several labor series. Wage rates are likely to be nearly identical for adjoining farms or for a considerable area; consequently, one report is representative of a considerable area. Farm labor supply and demand conditions also are likely to differ little for a given area, particularly in regions equidistant from industrial areas competing for the labor supply where the same type of farming prevails.

The number of persons actually employed, however, shows wide variation among farms in the same locality. Differences in size of farm, type of farm, degree of mechanization, and other factors result in wide farm-to-farm differences in employment. Data from one farm are not necessarily

representative of other farms in the area. Likewise, the month-to-month changes in employment on a single farm may not be entirely representative of a given locality.

The selectivity of voluntary reports from crop correspondents, therefore, is responsible for a greater lack of reliability of reports on farm employment than of other labor data obtained from these lists. Thus, employment on the farms of the large number of farmers—nonresident or "suitcase" farmers, tenants that move frequently, farmers with a poor education, and those of a suspicious nature—who seldom become crop reporters, are not represented in the returns.

THE selective nature of the returns makes it necessary to adjust the data reported on employment to an average farm basis during the estimating process. Total employment is obtained by multiplying per-farm employment by the estimated number of farms. Several difficulties are encountered in the use of this method. Only on Census dates, is it possible to adjust properly for selectivity of the sample. Furthermore, few current indications of the changes in the numbers of farms are available. Both components of the final product are subject to errors that do not necessarily compensate.

In order to increase the representativeness of averages of crop-reporter returns on farm employment, an improved method of summarization has been developed. This method requires the classification of farms as to the number of workers employed on January 1 of each year, the direct comparison of employment on identical farms in each group on successive monthly dates with those for January, and the computation of a weighted average of the average number of persons employed per farm in each group. Efforts are now being made to

secure ways and means to put this method into current operation on a limited scale but facilities are not now in prospect to make possible its general introduction.

ALTHOUGH the use of this method will result in more accurate per-farm employment figures it does not improve the estimates of numbers of farms. Inadequate data on changes in numbers of farms present a further handicap in the estimation of total employment. Some indication of changes in the number of farms can be obtained from changes in the numbers included in the annual Tax Assessor's reports for some States. Unfortunately, the validity of these indications is often disturbed by changes in the completeness of coverage.

Plans have been developed to obtain a more precise indication of changes in the number of farms through an actual annual count by field agents appointed in several thousand agricultural townships throughout the country. The organization of such a project could also be designed to permit the monthly enumeration of persons employed on farms in these areas. This same organization would be able to obtain information on labor requirements, non-farm rural employment, farm population and other statistical subjects requiring a sample census technique to obtain reasonably accurate State estimates.

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Measures of Domestic Demand

(1924-29=100)

Item	August				Percentage change		
	1929	1933	1938	1939	1938-39	1933-39	1929-39
National income.....	109.3	63.5	88.0	91.4	+4	+44	-16
Nonagricultural income:							
Total.....	110.4	64.4	89.0	94.0	+6	+46	-15
Per capita.....	104.8	59.5	78.8	82.7	+5	+39	-21
Factory pay rolls:							
Total.....	110.8	57.1	74.9	87.1	+16	+53	-21
Per employed wage earner.....	102.8	70.8	88.6	94.7	+7	+34	-8
Industrial production:							
Total.....	113.3	85.2	82.4	95.5	+16	+12	-16
Factories processing farm products.....	107.9	105.4	103.3	108.6	+5	+3	
Other factory production.....	116.9	74.9	70.5	90.1	+28	+20	-23
Construction activity:							
Contracts awarded, total.....	100.8	19.8	54.5	57.9	+6	+192	-43
Contracts awarded, residential.....	77.0	11.6	47.5	57.3	+21	+394	-26
Employment in production of building materials.....	95.0	43.9	56.4	63.0	+12	+44	-34
Cost of living:							
Food.....	104.1	69.3	75.5	72.3	-4	+4	-31
All other items.....	98.0	82.2	85.6	86.3	+1	+5	-12
Purchasing power of nonagricultural income per capita:							
For food.....	100.7	85.9	104.4	114.4	+10	+33	+14
For all other items.....	106.9	72.4	92.1	95.8	+4	+32	-10

NOTE.—All indexes adjusted for seasonal variation except "Cost of living."

General Trend of Prices and Wages

[1910-14=100]

Year and month	Whole-sale prices of all commodities ¹	Industrial wages ²	Prices paid by farmers for commodities used in ³			Farm wages	Taxes ⁴
			Living	Production	Living and production		
1920	225	222	222	174	201	242	244
1921	142	203	161	141	152	155	259
1922	141	197	156	139	149	151	261
1923	147	214	160	141	152	169	266
1924	143	218	159	143	152	173	265
1925	151	223	164	147	157	176	270
1926	146	229	162	146	155	179	271
1927	139	231	159	145	153	179	277
1928	141	232	160	148	155	179	279
1929	139	236	158	147	153	180	281
1930	126	227	148	140	145	167	277
1931	107	208	126	122	124	130	253
1932	95	179	108	107	107	96	219
1933	96	172	109	108	109	85	187
1934	109	183	122	125	123	95	178
1935	117	192	124	126	125	103	180
1936	118	200	122	126	124	111	182
1937	126	215	128	135	130	126	187
1938	115	207	122	124	122	124	
July	115	205			123	129	
August	114	209			122		
September	114	214	121	122	121		
October	113	212			121	126	
November	113	207			121		
December	112	211	120	122	120		
1939	112	212			120		
January	112	213			120	117	
February	112	213			120		
March	112	218	119	122	120		
April	111	211			120	121	
May	111	210			120		
June	110	213	119	121	120		
July	110	213			120	126	
August	109	217			119		
September	116				122		

Year and month	Index of prices received by farmers [August 1909-July 1914=100]								Ratio of prices received to prices paid
	Grains	Cotton and cottonseed	Fruits	Truck crops	Meat animals	Dairy products	Chickens and eggs	All groups	
1920	232	248	191		174	198	223	211	105
1921	112	101	157		109	156	162	125	82
1922	106	156	174		114	143	141	132	89
1923	113	216	137		107	159	146	142	93
1924	129	212	125	150	110	149	149	143	94
1925	157	177	172	153	140	153	163	156	99
1926	131	122	138	143	147	152	159	145	94
1927	128	128	144	121	140	155	144	139	91
1928	130	152	176	159	151	158	153	149	96
1929	120	144	141	149	156	157	162	146	95
1930	100	102	162	140	133	137	129	126	87
1931	63	63	98	117	92	108	100	87	70
1932	44	47	82	102	63	83	82	65	61
1933	62	64	74	105	60	82	75	70	64
1934	93	99	100	103	68	95	89	90	73
1935	103	101	91	125	118	108	117	108	86
1936	108	100	100	111	121	119	115	114	92
1937	126	95	122	123	132	124	111	121	93
1938	74	70	73	101	114	109	108	95	78
July	72	71	79	99	123	101	103	95	77
August	62	69	78	92	115	102	105	92	75
September	63	69	75	107	117	104	118	95	79
October	60	72	70	107	111	107	124	95	79
November	60	73	71	102	111	109	131	94	78
December	63	70	73	108	109	112	127	96	80
1939	66	71	76	96	112	109	97	94	78
January	66	70	78	108	116	107	91	92	77
February	66	71	81	114	116	100	88	91	76
March	67	70	82	102	114	95	87	89	74
April	72	72	85	110	112	92	85	90	75
May	73	73	93	105	107	94	83	89	74
June	66	73	80	101	107	96	89	89	74
July	64	71	70	101	101	100	90	88	74
August	83	76	78	114	117	107	102	98	80

¹ Bureau of Labor Statistics Index with 1926=100, divided by its 1910-14 average of 68.5.

² Average weekly earnings, New York State factories. June 1914=100.

³ These indexes are based on retail prices paid by farmers for commodities used in living and production reported quarterly for March, June, September, and December. The indexes for other months are interpolations between the successive quarterly indexes.

⁴ Index of farm real estate taxes per acre. Base period represents taxes levied in the calendar year 1909-13, payable mostly within the period Aug. 1, 1909-July 31, 1914.

⁵ Preliminary.