

The feed consumed, per head of work stock, on the 161 Delta plantations averaged 2,927 pounds of concentrates, 5,840 pounds of roughage, and pasture for an average period of 34½ days.

As compared with similar data already given for the Corn Belt, feed consumption in the South is observed to be, in general, somewhat less. This is due in part to smaller size of work animals, which on the plantations studied weighed on an average several hundred pounds less than those used on the Corn Belt farms.

Data on representative field work for Delta plantations, together with costs for animal drawbar power for 1929, are given in table 4.

TABLE 4.—*Field work accomplished by teams of various sizes, together with costs for animal power, on representative Mississippi Delta plantations*

Operation	Mules	Implement	Area per 10-hour day	Cost per 10-hour day	Approximate cost per acre
	<i>Number</i>		<i>Acres</i>		
Flat breaking .....	2	9- to 10-inch plow .....	1.7	\$2.50	\$1.47
Flat diskling .....	4	7- to 8-foot single disk .....	12.3	5.00	.41
Bedding 1 furrow, 36- to 42-inch rows.	2	10- to 12-inch middle buster .....	6.4	2.50	.39
Bedding 2 furrows, 36- to 42-inch rows.	2	7- to 10-inch plow .....	3.5	2.50	.71
Harrowing beds, 36- to 42-inch rows.	2	5- to 6-foot drag harrow .....	10.4	2.50	.24
Disking beds, 36- to 42-inch rows.	2	3- to 4-foot single disk .....	7.3	2.50	.34
Cultivating 1 furrow, 36- to 42-inch rows.	1	1-mule cultivator .....	5.9	1.25	.21
Cultivating 2 furrows, 36- to 42-inch rows.	1	.....do.....	3.1	1.25	.40

In brief, the surveys showed the flexibility and adaptability of various horse and mule hitches, irrespective of the size, shape, or topography of fields, or soil type, and regardless of whether tillage practices called for the speedy or slow completion of a job.

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**I**NDEX Data on Prices Paid by Farmers Are Now Collected Weekly

Local market prices of articles farmers buy changed rapidly during the third quarter of 1933. During the period from June 15 to September 15, the Department's index of prices paid by farmers for articles purchased advanced from 103 to 116 percent of its pre-war (1910-14) average. This was the most rapid change registered in any 3-month period since the quarterly inquiry on prices farmers pay was first made in 1923.

Evidences of this marked upward adjustment in the cost of products the farmer purchases became apparent long before the next regular quarterly inquiry was due. It became very apparent early in August, that information on prices paid by farmers for articles purchased would have to be collected more frequently if the Department and the newly created Agricultural Adjustment Administration were to keep currently informed as to local market-price movements during that period of swiftly changing economic conditions.

To meet the demand for information, a call was sent to the Crop Reporting Board's regular corps of quarterly price correspondents for volunteers to serve as weekly reporters on the prices farmers pay for a

selected list of articles. Country merchants in every section were asked to report every week on prices of clothing, food, and household articles. Lumber dealers were requested to send in reports of prices farmers pay for lumber, building materials, and fuel. Hardware and implement dealers were asked to supply the Board every week with prices farmers pay for equipment, supplies, and machinery. Feed, seed, and fertilizer dealers were requested to report weekly prices paid by farmers for the commodities they handled. No monetary compensation was offered local merchants for the performance of this service, and the reporters were not urged to cooperate unless it was convenient for them to do so.

The regular price reporters responded willingly to this call. Whereas a maximum of 300 reporters from each group were expected to offer their services voluntarily on a weekly basis, 1,354 usable questionnaires giving data as of August 9 were tabulated on clothing, food, and household articles, and approximately 1,000 returns on an average were received from each of the other groups. The response was a tribute to the public-spirited attitude of this group of American citizens. In fact, it was so generous that it proved impracticable to handle such a large volume of data every 7 days. Since timeliness is one of the most important requisites of a short-time series of data, it was necessary to select from these volunteers a permanent staff of about 200 regular reporters from each group and to solicit these alone for the prices desired. A comparatively small number of reports received each week from correspondents scattered throughout representative sections of the country then proved adequate for the construction of an index of the weekly movements of prices paid by farmers for articles purchased.

The initial spurt in the upward movement of prices farmers pay started early in July. The sharp advance in the wholesale prices of cotton and other commodities handled on the speculative markets caused buyers to anticipate a higher price level, and they rushed to place orders for raw materials for manufacture in the expectation of selling the finished product later at a handsome profit. This enhanced the demand for raw materials and raised their prices.

The nature of the price system is such, however, that these price increases are not confined to any one group of commodities. The effect is like that of a stone thrown into a pool of water. The splash occurs only at the point the stone hits, but the ripples that result spread, with lessening intensity, to the farthest corners of the pool. Thus the increased cost of wheat and rising wage rates soon afterward were reflected in an advance in the wholesale price of flour. Then, the country merchant had to replenish his stocks at higher prices and he was forced to charge farmers a higher retail price for flour.

The same sequence of events was repeated in the reflection of higher prices of cotton and rising wage rates in advancing prices of cotton cloth, house dresses, and cotton gloves; and in the reflection of higher prices of other raw materials in the advancing prices charged farmers for other finished goods. Many dealers, however, first disposed of stocks on hand and raised prices paid by farmers only when new orders had to be placed at higher wholesale prices to replenish the supplies on their shelves. Where the farmer purchased feeds and other raw materials direct, the roundabout effect on retail prices was short-circuited, and almost immediately he had to pay higher retail prices for such products. The cumulation of these advances and the after effects of

the speculative rise of all commodity prices in July, resulted in a moderate increase in the general level of prices paid by farmers from August 9 to September 20.

### Index of Prices Paid Has New Importance

The construction of index numbers of prices paid by farmers has assumed a new importance to the agricultural industry during the past year. Early in the spring of 1933, interest was centered on the Department's regular quarterly index of prices paid by farmers due to its inclusion in H.R. 3835 (the so-called "Farm Act") as a standard for the determination of fair prices for farm products. Among other things, the avowed purpose of this act was "to relieve the existing national economic emergency by increasing agricultural purchasing power." In section 2 of this act, the policy of Congress was declared to be—

to establish and maintain such balance between the production and consumption of agricultural commodities, and such marketing conditions, therefore, as will re-establish prices to farmers at a level that will give agricultural commodities a purchasing power with respect to articles farmers buy, equivalent to the purchasing power of agricultural commodities in the base period.

This act proclaimed further that—

the base period in the case of all agricultural commodities except tobacco shall be the pre-war period, August 1909–July 1914. In the case of tobacco, the base period shall be the post-war period, August 1919–July 1928.

The index of prices paid by farmers was thus made the measuring stick of fair-exchange values for farm products. If farmers paid prices averaging 116 percent of the pre-war price for the articles they purchased on November 1, 1933, the price received by farmers for wheat on that date should equal the fair-exchange value for wheat, which is equivalent by law to 116 percent of the pre-war local market price of wheat. Since prices received by farmers for wheat and other farm commodities did not approach their fair-exchange value when this act was being drawn up, the Secretary of Agriculture was given power, among other things, in section 8, paragraph 1—

to provide for reduction in the acreage or reduction in the production for market, or both, of any basic agricultural commodity, through agreements with producers or by other voluntary methods, and to provide for rental or benefit payments therewith or upon that part of the production of any basic agricultural commodity required for domestic consumption. \* \* \*

Section 9 of the act provided the levying of processing taxes "to obtain revenue for extraordinary expenses incurred" in this program. Paragraph (D) of this section stated that "the processing tax shall be at such a rate as equals the difference between the current average farm price for the commodity and the fair exchange value of the commodity"; or some fraction thereof, if the full tax would tend to reduce consumption of a particular commodity.

This section makes the fair-exchange value of an agricultural commodity, as figured on the basis of the index of prices farmers pay, a basis for taxation. Although paragraph (C) of this section says that "the current average farm price and the fair exchange value shall be ascertained \* \* \* from available statistics of the Department of Agriculture", it was apparent that current indexes of prices paid by farmers should be available more often than at quarterly intervals for the administration of so important a piece of tax-making legislation. These indexes did not become available until after the processing taxes

on wheat and cotton were announced in 1933, but they doubtless will be employed often for such determination in the future.

Weekly price indexes have enabled the farmer and everyone directly interested in the welfare of agriculture to keep their fingers on the pulse of advancing prices paid by farmers for articles purchased and to combat the practice of exaggerating the extent of necessary price advances. It has enabled the Secretary of Agriculture to follow the adjustments in prices paid by farmers carefully and at frequent intervals. It has been an ever-present indication of changes in the local market price structure. It has provided an implement for comparison with available indexes of prices received by farmers in the measurement of the progress of agricultural recovery.

### Limitations of the Index

The national index of prices paid by farmers, with all of its advantages has, however, certain rather definite limitations. Its usefulness is limited by the fact that subindexes are not available for the several geographic divisions of the country. Prices of articles farmers buy do not always advance or decline in all sections of the United States at the same time. Even when an advance or a decline is general the change does not necessarily occur by the same amount or in the same proportion in New England as in the Pacific Coast States. Sectional or even State indexes of prices paid by farmers are desirable and will become necessary if all the facts in the situation are to be uncovered.

Another limitation to the indexes of prices farmers pay is the lack of weekly data during the rapidly shifting panorama of local-market price changes during the period from June 15 to August 9, 1933. The failure to collect data during this period made it necessary to fall back on the June 15 data in computing the processing taxes on wheat and cotton and do not aid in studying the response of retail prices paid by farmers to the advance in prices of the raw materials and in the wages and production costs employed in the manufacture of these products. The continuation of the collection of weekly, biweekly, or monthly series of prices farmers pay will provide many valuable data for such studies in the future, however, and will enable all students of agriculture to keep currently informed of the further progress of agricultural recovery in lieu of only the historical information that was available prior to the inauguration of the weekly price-collecting project on August 23, 1933.

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**I**RRIGATION of Weeds and Other Noncrop Plants Costly and Unprofitable

That irrigating weeds is costly and unprofitable is obvious. It is doubtful, however, whether most people realize just how unprofitable it is, especially in the irrigated parts of the country where the value of water is high and conservation of the supply is a prime essential to profitable agriculture. Little attention is paid to weed control or eradication in order to save water, and relatively little investigation has been done to determine a measure of the capacity of weeds as water robbers. The question is: What is the measure of the encroachment of weeds and noncrop plants on the water rights of irrigated crops?