Federal Reserve Bank of Chicago - -

Agricultural Letter

December 11, 1959

Number 538

In the past two decades, increased mechanization and improved technology have created large increases in both the number of acres a farmer can operate and the output obtained per acre. Mechanization and new technology in livestock production have not advanced as rapidly as for crops. However, the livestock production picture is changing and the "old farmstead" may show the results.

In the past, most mechanization in livestock production has taken place where there is a high labor requirement such as in dairying. The extent to which dairy farmers incorporate new developments and techniques into their operations depends on many factors, but may reflect largely the relative availability and cost of labor and capital. Each can be substituted for the other.

One important feature is the type of milking system employed. The USDA has unveiled some figures which provide a comparison of the capital investment and labor efficiency of four milking systems.

Comparison of cost and efficiency,
for a 56-86 cow, one-man milking system

System design and features	Stanchion barn system	Double-4 herringbone	Double-2 side opening	Double-3 tandem walk through
Cow capacity	60	86	56	64
Building cost	$ 4,100	$ 9,898	$ 7,434	$ 7,926
Equipment cost	$ 9,800	$ 5,900	$ 5,150	$ 5,350
Total building and equipment costs	$13,900	$15,798	$12,584	$13,276
Cost per cow milked	$ 232	$ 184	$ 225	$ 207
Milking efficiency: cows per man-hour	30	43	28	32

The outstanding conclusion is that efficiency is achieved through larger-size operating units. The double-4 herringbone system permits one man to handle 43 cows per hour compared with 30 in the stanchion barn system. And the investment in building and equipment per cow milked is reduced from $232 to $184. However, the capacity is 86 cows compared with 60 for the stanchion barn system.

Farmers will have difficulty justifying large capital expenditures for new equipment and buildings without an increase in income through enlargement in herd size or some other gains (e.g., elimination of a hired man or increase in acreage farmed).

FARM SURPLUSES owned by or under loan to the Government rose to a record high of $9.2 billion on October 31, 1959. The USDA reported that the inventory of farm commodities owned by or under loan to the Commodity Credit Corporation at the end of October was up more than $200 million from the month before and far above the $7.9 billion on hand a year earlier. Because of the usual upward trend of farm surpluses in late fall and early winter, and the large harvest of crops this fall, officials believe the total Federal surplus will top $10 billion by February or March. Crop inventories usually begin a seasonal decline in the spring and summer as stocks are reduced through CCC sales or gifts, both domestic and foreign.

CCC Inventories

	October 31, 1958		October 31, 1959	
	Value (mil. dol.)	Quantity (millions)	Value (mil. dol.)	Quantity (millions)
Wheat	$2,200.0	834.0 bu.	$2,900.0	1,100.0 bu.
Corn	2,000.0	1,100.0 bu.	2,200.0	1,200.0 bu.
Cotton	342.9	2.4 bales	1,500.0	8.5 bales
Grain sorghums	397.7	164.1 cwt.	696.0	272.5 cwt.
Soybeans	31.1	13.9 bu.	90.9	40.5 bu.
Barley	84.2	73.4 bu.	89.7	77.1 bu.

The large increase in cotton inventory is due largely to the new Government program. Under Plan A of the program adopted this year, farmers who plant within the acreage allotment are eligible to sell their cotton directly to the Government at 80 per cent of parity. The Government then resells the cotton at a lower price. Farmers who chose Plan B are eligible for sales to the Government at 65 per cent of parity but were permitted to increase the acreage planted by 40 per cent.

Eighty per cent of the cotton farmers chose Plan A last spring. Because of this, the Government is expected to buy between 70 and 80 per cent of the 1959 cotton crop of 14.7 million bales at a total cost of nearly 1 billion dollars. However, exports are expected to rise sharply and this, together with anticipated increases in domestic consumption, will absorb most of the 1959 crop.

INTEREST RATES on farm real estate loans made by the Federal Land Banks are now 6 per cent in all areas. On November 1, 1958, the rates were 5 per cent in nine districts and 5-1/2 per cent in three districts.

Research Department