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# Agricultural Letter



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THE NUMBER OF FARMS has continued to decline and the average size of farms has increased at a rapid pace in the past several years in the Corn Belt. Preliminary data from the 1959 Census of Agriculture shows the number of farms in Iowa declined 8 per cent from 1954 to 1959, while the reduction was nearly 10 per cent in Illinois and 13 per cent in Indiana. If the new, more restrictive definition of a farm adopted for the 1959 Census is used, the declines are somewhat greater.

The average size of farms has increased nearly proportionately to the decline in numbers. In Indiana the average farm in 1959 was 145 acres; in Iowa and Illinois, the average sizes were close to 195 acres. (Part of this increase, of course, was due to the change in definition of a farm. For 1959, a farm was a unit 10 or more acres selling \$50 or more of agricultural products, or under 10 acres with \$250 of sales. In 1954, a farm was a unit 3 or more acres producing \$150 of farm products, or under 3 acres with \$150 of sales.)

Consolidation of small farms has reduced the number of small farms but has been accompanied by an increase in the number of large farms. Thus, in the three Corn Belt states the number of farms between 10 and 69 acres declined by 13 thousand and farms between 70 and 179 acres declined by 41 thousand, while farms between 180 and 499 acres increased by 2 thousand and farms over 500 acres increased by 4 thousand. In Illinois and Iowa, there are now more farms 180 to 499 acres than 70 to 179 acres.

These larger farms apparently have been obtained in part through purchases by farm operators of land formerly operated by tenants. The proportion of farms operated by tenants in these three Corn Belt states declined from nearly 32 per cent in 1954 to 30 per cent in 1959.

Lower operating costs of larger units have provided the economic incentive for consolidating small units into larger farms. Some evidence of the economies possible with modern mechanical technology is given by a recent study at Iowa State University.

Investment in machinery and power, cost of machinery and power, and cost of labor and machinery were

compiled for four different farm size groups in the Iowa cash grain area. Total investment in crop machinery at current market values was \$4,153 for 160 acre farms and \$6,372 for 320 acre farms, an increase of about 50 per cent, while farm acreage doubled. Investment in machinery and cost per \$100 of farm products produced for machinery, power and labor declined about one-fourth between the 160 acre and 320 acre cash grain farms.

Average Machinery Investment and Costs per \$100 of Farm Production for Selected Iowa Cash Grain Farms

Farm size group (acres)	Machinery and power investment	Machinery and power cost	Labor and machinery cost
160	\$42.28	\$20.60	\$27.65
320	33.13	15.40	21.36
500	35.00	16.95	22.50
1,000	31.27	15.07	21.49

For the 500 acre and 1,000 acre farms there were only small changes in costs. The important point for farm operators trying to increase total income, however, is that machinery costs per unit of output do not rise as the size of the farm increases beyond 320 acres. This assumes, of course, that there is financial and managerial capacity to handle the larger business. Since most farmers are interested in obtaining as high an income as possible, there is incentive to expand beyond the 300 to 400 acre size even though advantages in these machinery costs arising from larger size alone are negligible.

Strong economic pressures for farm consolidation and enlargement will likely continue since there are still large numbers of relatively small farms which cannot fully realize the lower costs.

Research Department

	Number of Farms (thousands)				Average Size of Farms (acres)			Number of Farms by Size (thousands)								
	old definition 1954	1959	per cent change	new definition 1959	per cent change	1954	1959	per cent change	10-69 acres		70-179 acres		180-499 acres		500 acres and over	
Illinois	176	159	-11	155	-13	173	196	+13	29	25	66	53	64	64	5	7
Indiana	154	134	-13	128	-17	125	145	+16	44	36	59	48	34	34	2	3
Iowa	193	178	- 8	175	- 9	177	194	+10	19	18	89	72	73	75	4	5
3 Corn Belt States	522	470	-10	458	-12	160	181	+13	91	78	214	173	171	173	11	15