Change in U.S. Livestock Production, 1969-92. By William D. McBride. Rural Economy Division, Economic Research Service, U.S. Department of Agriculture. Agricultural Economic Report No. 754.

Abstract

This report examines geographic change in U.S. livestock production during 1969-92 from the standpoint of industry concentration and structure. Fed cattle and broiler production were the most highly concentrated livestock sectors throughout the study period, but the location of these industries remained relatively stable. In contrast, regional shifts in hog and milk production were substantial as hog production expanded in the Southeast and milk production extended West. Hog and milk production developed in these nontraditional areas through larger operations using newer production methods that improve efficiency and productivity. Economic forces are for continued structural change in these industries, but incentives for change differ by area.

Keywords: Livestock production, industry concentration, industry structure, structural change, Census of Agriculture, Farm Costs and Returns Survey

Acknowledgments

In preparing this report, I have benefited from numerous individuals from a variety of Federal, State, and local agencies nationwide. I am particularly indebted to those who contributed to making the Census of Agriculture and Farm Costs and Returns Survey important sources of information for social research in the agricultural sciences. For their comments on earlier drafts, I wish to thank Dave Harrington, Leland Southard, Neal Peterson, Tom Carlin, Jim Johnson, and Bob McElroy. Finally, I am grateful to Brenda Powell for her assistance with editing and production of the final draft. Responsibility for the final draft is solely that of the author.

Washington, DC 20005-4788 July 1997

Contents

Summary

The trend toward fewer and larger U.S. farms during the past three decades was most dramatic in the livestock sector, particularly among hog, dairy, and poultry operations. This report examines geographic change in U.S. livestock production during 1969-92 from the standpoint of industry concentration and structure.

Farm numbers declined 30 percent from 1969 to 1992, but hog and dairy operations were down 70 percent, farms producing eggs dropped 85 percent, and broiler operations declined 35 percent. Operations feeding cattle declined 40 percent from 1978 to 1992. Despite fewer farms, production was generally stable for most commodities with changes that reflected shifts in consumer demand for livestock products.

With fewer farms producing more product, structural change in the production of most major livestock commodities was substantial. However, the magnitude and geography of change varied by commodity. Fed cattle and broiler production were the most highly concentrated livestock sectors throughout the study period, but the location of these industries remained relatively stable. Some fed cattle production moved from the Corn Belt into substantial feedlots of the Plains, but these areas were already highly concentrated in cattle feeding. Broiler production expanded to meet the growing demand for poultry meat products, but much of the expansion was absorbed in major production areas of the Southeast and Mid-Atlantic regions.

Change in hog and milk production was similar during 1969-92, but regional shifts in production were substantial. Hog production expanded in the Southeast, while milk production extended West. Growth in both hog and dairy industries was substantial in nontraditional areas despite the disadvantage of lower feed supplies, and consequently higher feed prices, than in traditional areas.

Geographic concentration in egg production increased sharply from 1969 to 1978, then leveled off through 1992, but remained at a level similar to that of broilers. Egg production in traditional areas of California and the Southeast declined during the 1969-92 period, while production in Pennsylvania and Ohio expanded. In contrast, the concentration of feeder cattle production remained well below that of other livestock sectors, as production remained spread throughout much of the country. Greater land use for beef cow maintenance, with few incentives for intensive confined production, has kept the beef cow inventory much less concentrated than production in other sectors.

Economic incentives for continued structural change in livestock production appear to be significant. Incentives exist to improve efficiency and productivity and for expansion, but differ by area. Improving feed efficiency is more important in nontraditional production areas where local feed supplies are less. Growth in nontraditional areas is likely tied to technological advances and production arrangements that offset the disadvantages associated with deficit feed production. Feed efficiency is relatively less important in traditional production areas where more feed is grown. The growth of livestock production in these areas is more likely to result from upgrading and replacing the existing capital stock to reflect modern industry standards. While the economic incentives within agriculture will encourage continued structural change, forces outside of agriculture are likely to have an increasingly important role in determining the direction of this change.