

THE NORTH DAKOTA LIVESTOCK SECTOR

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The production and sale of livestock and livestock products is an important source of income for North Dakota agricultural producers. Cash receipts from livestock and products in 1983 at \$629 million (preliminary) amounted to 21.3 percent of total North Dakota farm income including government payments. Cash receipts from livestock and products have been increasing over time (Table 1). However, the percentage of total farm income including government payments derived from the sale of livestock and products has been declining slightly.

Table 1. North Dakota Cash Receipts From Livestock and Livestock Products and Percent of Total Farm Cash Receipts (Including Government Payments) Generated By Livestock and Products, Ten-Year Averages and Most Recent Four-Year Average.

	Year				
	1940-49	1950-59	1960-69	1970-79	1980-83
Amount (\$000)	146,522	179,001	234,176	449,297	628,895
Percent of Total (%)	33	32	31	26	23

SOURCE: Statistical Reporting Service, USDA, Fargo, North Dakota.

Probably the most significant reasons for the decreasing ratio of livestock receipts to total cash receipts result from the declining number of livestock produced on North Dakota farms and the fact that crop revenues have increased more rapidly, due to increased yields and increased production of higher-value specialty crops.

The total number of farms in North Dakota has been declining. Likewise, as farming has become more specialized, a smaller percentage of farms raise livestock (Table 2).

Slightly more than one-half of all farms have cattle; however, less than 10 percent currently raise milk cows, hogs, sheep, or chickens. Although the decline in farms raising livestock has been significant, it should be pointed out that many farms in 1945 were raising livestock mainly for home consumption. Specialization

Table 2. Number and Percentage of Farms with Livestock, North Dakota, 1945 and 1982.

Year	Total Number of Farms	Farms With Cattle	Farms With Milk Cows	Farms With Hogs	Farms With Sheep	Farms With Chickens
1945	69,520	60,741 (87%)	58,853 (85%)	45,676 (66%)	11,951 (17%)	58,234 (84%)
1982	36,436	18,550 (51%)	3,690 (10%)	2,504 (7%)	1,711 (5%)	2,543 (7%)

SOURCE: U.S. Department of Commerce, U.S. Census of Agriculture, 1945 and 1982, Washington, D.C.

in livestock production has resulted in larger, more efficient production units. Furthermore, the peak labor demand for intensive crop production conflicts with the time necessary to care for a few head of livestock.

Changes in the Production of All Cattle

The number of all cattle on North Dakota farms has followed a pronounced cycle, with a distinct upward trend in numbers (Figure 1). The number of cattle has varied between 1.1 million in 1928 to about 2.1 million in 1983.

The cyclic high in cattle numbers occurred in 1975 with 2.6 million head. Cash receipts from sales of cattle has increased from a low of less than \$8 million in 1932 to a high of \$592 million in 1980. This increase reflects both the larger numbers sold and the higher value per head (Figure 2). The cattle sector is the second largest generator of cash receipts in North Dakota agriculture, led only by wheat. Cattle producers realized about \$454 million in 1983, which was 72 percent of cash receipts from the sale of livestock and products and 15 percent of all agricultural cash receipts, including government payments.

Beef cattle are raised on many relatively small operations, although there are a few large ranches. The average beef cow herd size in North Dakota is about 70 head.

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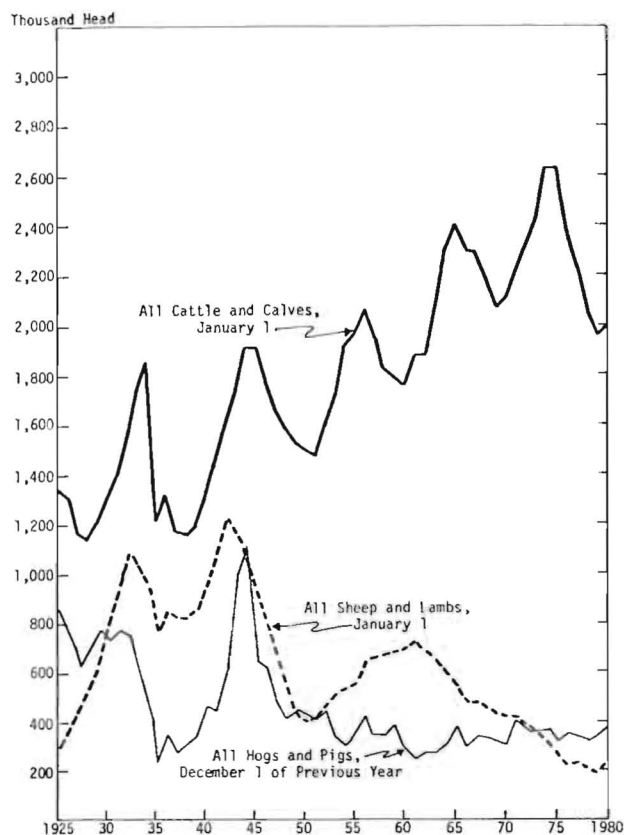


Figure 1. Number of Head of Livestock on Farms, North Dakota, January 1.

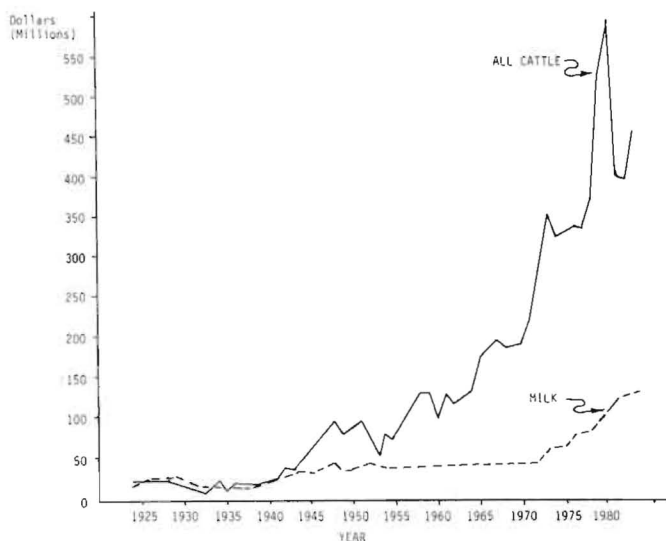


Figure 2. Cash Receipts from Sales of All Cattle and Milk, North Dakota, 1924-1982. Source: North Dakota Crop and Livestock Reporting Service, USDA, Fargo, N.D.

Changes in Milk Cow Numbers

Over 700,000 cows and heifers were kept for milk in 1934, compared to 305,000 in 1983. Fewer than 4,000 of

the state's 38,000 farms kept cows for milk in 1983, compared with 50,000 out of 66,000 farms as recently as 1950. The number of milk cows per farm has increased from less than nine in 1950 to over 24 in 1983, which indicates the degree of specialization that is occurring. The higher production per cow (10,691 pounds compared to 3,175 pounds in 1934) offsets the reduction in cow numbers to show why total milk production has continued to increase (Figures 2 and 3). The milk cow was important to farmers during the dry years of the 1930s, not only as a source of income when crop harvests were scanty or nonexistent, but also as a source of food for family living, including home-churned butter.

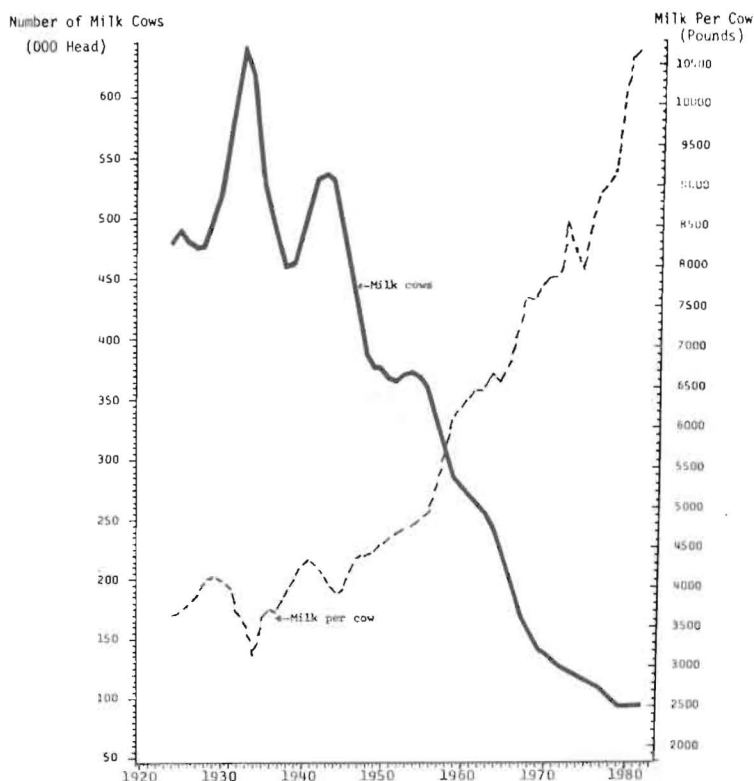


Figure 3. Number of Milk Cows On Farms and Milk Production Per Cow, North Dakota, 1924-1983. Source: North Dakota Crop and Livestock Reporting Service, USDA, Fargo, N.D.

Changes in Hog Production

The overall trend in cash receipts from hogs has pursued an irregular upward trend, and accounts for about 7 percent of the income received from all livestock and product marketings (Figure 4). Two periods have shown important deviations; hog numbers were down during the depression, possibly due to the lack of grain for feed. During World War II, prices for hogs were relatively high, and good crops assured adequate feed for the all-time record number of hogs produced (Figure

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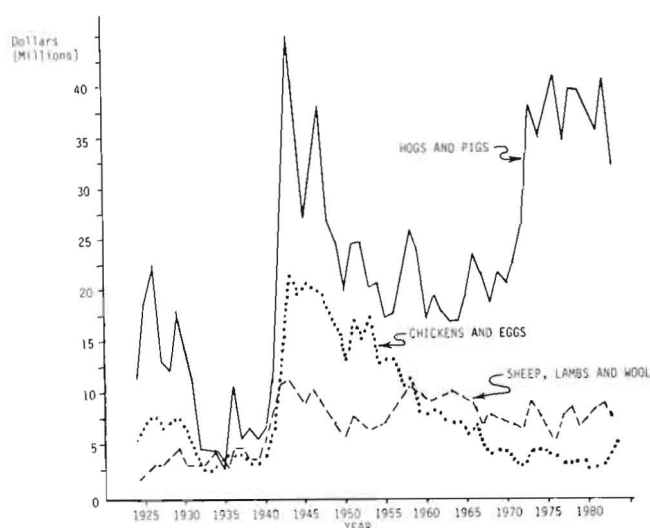


Figure 4. Cash Receipts From Sales of Hogs and Pigs; Sheep, Lambs and Wool; and Chickens and Eggs, North Dakota, 1924-1982. Source: North Dakota Crop and Livestock Reporting Service, USDA, Fargo, N.D.

1). Since World War II, hog numbers have averaged about 300,000 head. Cash receipts increased markedly in the 1970s with inflationary prices.

Changes in Sheep Production

Sheep production was at its highest level during World War II and the period immediately preceding the war. Cash receipts from sheep and wool have been steadily declining and now account for about 1.5 percent of the total farm income derived from livestock and product sales (Figure 4). Sheep were kept on 11,951 farms in 1945. This has dropped to 1,711 in 1982. The average size of the ewe flock was about 50 in 1945 and had increased to about 100 in 1982. The percentage decline in sheep numbers in North Dakota has paralleled the decline in numbers nationwide.

Changes in Production of Chickens and Eggs

Most chickens currently raised on North Dakota farms are for egg production. There were about 625,000 chickens on farms in 1983 with only 5,000 kept for other than egg production. This compares to 4,162,000 kept for egg production in 1950 and 242,000 raised for meat production. Cash receipts from the sale of chickens and eggs in North Dakota for 1983 amounted to \$5.1 million which was about 1 percent of cash receipts from all livestock (Figure 4).

Summary

Until 25 years ago, most North Dakota farms had more than one species of livestock. Cattle and sheep utilized land that was more suitable for hay and pasture and provided meat and milk for home consumption. Hogs and chickens utilized screenings and lower-valued grain and also provided meat and eggs. A few head of livestock, cream, and eggs were sold and made a contribution to farm income. Diversification in both livestock and crops helped to dampen wide variations in yields and prices.

Since that time both livestock and crop production have become more specialized and larger scale. Farms that produce livestock generally specialize in one kind. Cattle enterprises usually produce either beef or milk instead of having dual purpose breeds. Sheep, hogs, and chickens are generally produced on large scale commercial farms.

The fact that livestock contributes about one-fourth of agricultural income does not adequately document the importance of livestock production in North Dakota. In some counties, cash receipts from livestock and products (including milk and eggs) are the most important and amount to about three-fourths of the total. Communities in these areas are highly dependent on livestock production and the public sector is financed significantly through livestock production.