Sheep Ranching Roadblock in 1949

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The 1940's generally have been considered a period of favorable years by range operators. Not only have prices of agricultural products been high, but in most of the semiarid western range area precipitation has been above the long-time average, making for abundant growth of range forages. In the Northern Great Plains, 1949 was an outstanding exception to this series of favorable years.

How did sheep ranchers on the Northern Great Plains fare during the hard winter of 1948-49 and the drought that followed it? First reports indicated a big winter kill such as would rival losses of cattle in 1886-87. The Wyoming Crop and Livestock Reporting Service in its February 1949 report stated, "Approximately 81,000 cattle and calves and 97,000 sheep and lambs had perished up to February 1 as a result of severe snowstorms and blizzards in affected areas of four states—South Dakota, Nebraska, Wyoming, and Colorado." As if this were not enough, lower lamb prices, poor range growth, and very high prices for hay and concentrates in 1949 combined to make the outlook black for the sheep industry of the Northern Great Plains. However, 1950 was a good production year: wool prices skyrocketed and lamb prices recovered to the 1948 level.

On the third anniversary of the first big storm in 1949 it was possible to examine the record before, during, and after this unfavorable year. For the last 4 years a study has been in progress which examines the organization, costs, and returns of family-operated sheep ranches in the Northern Great Plains over a 22-year period. Results of the sheep phase of the study have been published by the Montana Agricultural Experiment Station in Bulletin 478 entitled, "Commercial Family-Operated Sheep Ranches, Range Livestock Area, Northern Great Plains, 1930–50, Organization, Production Practices, Costs, and Returns". As a part of the over-all study, which also included cattle ranches, a survey was made in the spring of 1950 partly to assess the damage caused by the climatic extremes of 1949.

The family-operated ranch with which this report deals is an average of all family-operated ranches in the area which have been determined as being bona fide range sheep operations. In general, ranches ranged from 300 to 3,100 head of sheep in the breeding band, with the average falling at about 1,000 head.

The average ranch started the year 1949 with 1,100 head of sheep, of which about 950 head were breeding ewes, 33 were bucks, and the remainder replacement lambs. After the productive year of 1948, feed supplies were considered ample. Although the hay inventory indicated about 129 tons of hay on the ranch, which was 8 tons less than in 1948, grain supplies were at an all-time peak of about 25 tons. These amounts were well above the maximums of 100 tons of hay and 23 tons of grain on ranches during the period 1933–44. Sheep entered the year 1949 with a rating which, in the opinions of growers, was 99 percent of the January 1 conditions reported from 1939–49. All the prospects were for another good year such as had been experienced during the previous 10.
Perhaps the greatest problem following the heavy snowfall and high winds on January 2–5, 1949 was mobility. Sheep had not been fed extensively and were grazing on winter range. After the snow fell it was possible neither to move sheep to the stacks nor stacks to the sheep. The first priority on road equipment was the opening of main highways and the rescue of snow-bound residents. The "hay lift", which received wide publicity, reached only some of the more critical cases.

The 1949 drought in the Northern Great Plains which followed the hard winter of 1948–49 was not as widespread or severe as those occurring in 1893, 1903, 1931, 1934, or 1936. The center of the drought area was in eastern Montana. Miles City, Montana, which in the 1940's averaged more than 14 inches of precipitation per crop year (October–September), experienced a fall of less than 7 inches. Even more striking is a comparison of growing season precipitation totals, April to September. Again at Miles City, during the 1940's the average April to September fall was 11 inches. In 1949 only 4 inches occurred during these months.

In September 1949, range feed conditions in Montana were rated by growers as being 77 percent of the average of the previous 10 years. Western South Dakota ranges were rated 92 percent of this average and Wyoming ranges were rated at 96 percent of this average. Eastward and southward the drought was not severe. It must be pointed out, however, that these percentages are state-wide averages. In southeastern Montana the range in September 1949 was rated at only 79 percent of the state-wide average reported for this month. Both South Dakota and Wyoming reported severe conditions in their respective areas which were adjacent to Montana.

In addition to blizzards and drought, 1949 was also a bad grasshopper year. The Montana Crop and Livestock Reporting Service summed up its September report with the following: "Winter range in the drier areas [plains portion] is largely composed of old grass, as no appreciable forage was produced under this year's drought. Grasshoppers devoured much of this year's growth in the extreme drought areas."

How did the severe winter and the drought that followed it affect the average ranch? On the surface very little change was noted. The average band ended up the year with only about 20 fewer sheep. Ranchers were able to pay their taxes and interest on mortgages, make a moderate number of additions to their machinery, and buy enough feed in the fall of 1949 to make up for the poor crop year. However, feed supplies, particularly hay that had been accumulating over the last 4 years, were very low. A greatly extended feeding period in the spring of 1949 caused this reduction.

Several of the losses sustained by range operators cannot be measured, particularly the deterioration of certain physical assets. Probably first in the minds of most of us would be losses in range vigor, or the ability of ranges to withstand abuse. In 1949, range plants, particularly in the drier portions of eastern Montana, failed to make appreciable growth. The lack of new growth and further reduction of the portions left after the grazing season in 1948 undoubtedly reduced plant vigor. The grazing load in 1949 was more concentrated as many watering places with their surrounding range areas were unusable because of drought. These changes are difficult to measure and almost impossible to express in dollar terms.

Equally important as range forage conditions, especially to producers, are the long-term effects of these severe con-
ditions on their bands. Indications are that pregnant ewes going through a period of two weeks to a month with little or no feed, followed by several months of limited rations, if they survive, may well be permanently affected by this lack of even a maintenance ration. This is particularly true of very young and very old ewes, which have higher requirements for either growth or maintenance than animals in the prime of life. Plans to improve bands through selection of ewes are disrupted because of (1) high losses during the severe winter, particularly of young ewes carrying their first lambs, (2) a poorer quality lamb crop in the following spring, and (3) in some cases forced liquidation of a portion of the breeding band during the summer drought.

When production rates were examined the effects of this severe period were apparent. Death losses on the average ranch in 1949 jumped to 10 percent, the highest experienced by sheep ranchers since the droughts of 1934 and 1936. In 1948 and 1950 these losses were only 7 percent. Lamb crop percentages dropped sharply, from 84 percent in 1948 to 75 percent in 1949. Poor range and sheep conditions during the breeding season of this year further reduced the lamb crops to 73 percent in 1950, the lowest point reached since 1937. These percentages can be interpreted in terms of pounds of meat turned off per breeding sheep on the ranch. Since 1938 ranchers had consistently turned off more than 45 pounds of meat per head of sheep in the breeding herd. Since 1941 they had exceeded 50 pounds per head. But in 1949 the turnoff was only 41 pounds per head.

How are these figures interpreted in terms of the pocketbook? Adding to the troubles of sheepmen in 1949 was the squeeze between lower prices received for mutton and lamb and higher prices paid for many of the items used in production. Although total cash expenses in 1949 were the same as in 1948, feed and seed costs more than doubled. Sheepmen cut expenditures by trimming livestock expenses (mostly replacement purchases) and deferring much needed land and building improvements. During the 1930's income was so low that few improvements were made. Higher income in the early 1940's put ranchers in a good financial position but war scarcities once more forced curtailment of much needed improvements. Starting in 1947 sheep ranchers increased the values of their investments in ranch improvements, equipment, and supplies by $2,500-$3,000 per ranch per year. A large part of this inventory addition was new and more machinery, fences, and buildings, and larger feed reserves. The forced economies in 1949 caused average ranch inventory values to drop by about $2,500.

Despite the lower production in 1949 cash receipts were only slightly below those of 1948. Higher receipts from wool offset lower receipts from meat and crop sales. Superficially, sheepmen had a fair year financially in 1949. Net cash ranch income in 1949 was substantially the
same as in 1948. It was, however, only two-thirds as great as that received in 1950!

Net ranch income—net cash income plus inventory change and the value of products used in home consumption—rather than ranging in the $6,000 to $9,000 class as in most years of the prosperous 1940’s, in 1949, because of the large inventory loss, dropped to $3,800 (Fig. 1). This amount was not sufficient to meet the capital charge—the return to the investment in the ranch. The operator and his family received nothing for their labor and management; in fact, they sustained a loss. This amount, in comparison with the $5,750 return in 1948 and the $6,441 return in 1950, indicated that sheepmen of the Northern Great Plains experienced a considerable loss in 1949.

Ranchers of the Northern Great Plains have modified their operations in several ways as a result of the lessons learned in 1949. Chief of these changes has been the relocating of feed reserves. Rather than stacking the entire hay crop where it was most convenient to hay fields or feed yards, at least emergency reserves are now stacked near access roads or strategically located on winter ranges. Many sheepmen now keep a closer check on weather reports, and move their sheep into protected or accessible areas before storms make movements of bands difficult.

Sheepmen who weathered the severe winter and drought of 1949, despite the favorable year that followed, have become more conservative, particularly in respect to large cash outlays for machinery, herd replacements, and extensive building and fence constructions. Also, ranch organization has become less complex. Sheepmen for many years have tended toward larger minor enterprises of beef cattle and cash wheat. Apparently there has been a change toward less wheat and more feed grains, and fewer cattle and pigs. This shift adds up to a more concentrated effort to produce sheep. The effect has been to put the sheep industry of the Northern Great Plains on a more solid foundation.