

Summary of Results

The results of the winter feeding experiment reported here bring out the following points:

First, increasing the alfalfa hay to five pounds per day in lot 1, while withholding soybean oilmeal of about equal protein content, did not pay. Lots 1 and 3 were fed alike except for the alfalfa hay and soybean oilmeal; lot 1 received a double allowance of alfalfa hay but received about .7 pound less soybean oilmeal than lot 3. For lot 1, \$4.83 worth of soybean oilmeal was replaced by \$3.94 worth of alfalfa hay, which is a good trade from the standpoint of out-of-pocket cost, but the net return was \$1.72 per head less for lot 1 steers than for lot 3.

Second, the addition of 10 milligrams per day of stilbestrol in the ration of lot 2 steers yielded about one-fifth pound more gain per steer per day than the control lot. This additional gain and consequent higher condition of lot 2 steers netted \$10 per head more for the feeding period.

Third, there was a slight advantage in gain and grade for the barley fed steers (lot 4), over the barley and oats fed control lot 3. The difference in gain was only eight pounds per head but this weight plus the 15 cents per hundredweight higher selling price of the barley fed steers netted \$2.86 per head more than the control lot.

None of the lots returned a profit over feed costs for the winter, yet the feed costs per 100 pounds gain were not excessive. Lowest cost lot was the stilbestrol supplemented lot at \$16.80 per hundredweight. Highest cost lot was the higher alfalfa hay lot at \$19.61 per hundredweight. The negative margin of about \$2.25 per hundredweight between buying and selling price was the biggest factor causing loss.

HAY HARVESTING METHODS UNDERGO IMPORTANT CHANGES

The trend in hay harvesting during the past 15 years has been toward time, labor and space saving methods, reports USDA. Baling of hay has had its ups and downs as a harvesting practice. At the end of World War I, nearly one-fourth of the hay crop was baled, but by 1939 the percentage had declined to one-seventh. The figure had risen to about one-half in 1948, and by 1954 almost three-fourths of the hay crop was baled. Handling and storing hay in long, loose form has declined rapidly in recent years—from 86 percent of the crop in 1939 to only 20 percent in 1954. The practice of chopping hay rose from 2 percent in 1944 to 7 percent in 1954.

Popularity of the baling method is largely the result of development of the automatic baler and the use of twine for tying. It is estimated that in 1942 some 25,000 pickup balers were in use, but by 1955 the number had climbed to 448,000, with Iowa alone accounting for 38,000, or an average of 1 for every 5 farms in the state. The Corn Belt, the Lake states and the Northeast, together, had almost two-thirds of the nation's pickup balers at latest count. In 1944 most pickup balers used wire ties and bales were hand tied. By 1951 about 38 percent of all hay was twine tied, and by 1954 more than 50 percent was tied with twine. The practice of putting up hay in long, loose form is still important in West Virginia, North and South Dakota, Montana and Wyoming, where 40 percent or more was harvested by this method in 1954.