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TECHNICAL NOTES

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POOR MANAGEMENT, NOT GRAZING, ROBS SOIL NUTRIENTS

The following information, published in the Western Livestock Journal, may have real value in range areas.

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These comments and calculations are the work of E. J. Dyksterhuis, Soil Conservation Service, Lincoln, Nebraska, one of the nation's leading authorities on range management.

The body of a 1,000 lb. steer sold from the range removes about:

26 lb. Nitrogen
15 lb. Calcium
8 lb. Phosphorus
2 lb. Potash

The N and P are roughly equivalent to the amount in 3/4 ton of grass hay.

If the steer had gained this weight by grazing three full years on 20 acres of range, the removal per acre per year is about:

1/2 lb. Nitrogen
1/4 lb. Calcium
Trace of Phosphorus
Trace of Potash

Researchers indicate that the amounts of these elements deposited on the land through precipitation and dusting might be expected to compensate for losses as small as these. Therefore, I believe we may say that native pastures are lost through poor management of grazing, but not through depletion of soil fertility. Soils of our natural grasslands were developed under their natural cover and with grazing of wild animals. With good range management they should continue to produce indefinitely.

In contrast, if hay had been cut and removed from the land through the same three years, the removal per acre would have been about:

75 lb. Nitrogen
45 lb. Calcium
24 lb. Phosphorus
6 lb. Potash

This is one reason for doing no more hay feeding in dry lots than is made necessary by climatic conditions.

While the steer was grazing through the three years, assuming consumption averaged 3/4 ton air-dry each 2 1/2 months, the animal in three years would have taken and redeposited on the range:

374 lb. Nitrogen
216 lb. Calcium
115 lb. Phosphorus
28 lb. Potash

If salt, shade, and water were all in one corner of the 20 acres, a large amount of fertility in these elements would in a few years be gathered from over the range and deposited in that corner. Therefore, where possible, keep the shade on the thin hills where fertility is needed -- not on the floodplains where it will be carried away. Keep the salt on the lightly grazed areas, not near the water where there inevitably is loitering and concentrated grazing.

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