

Salt-Feed Mix Regulates Intake Of Supplements

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Salt is being mixed with cottonseed meal and other feed concentrates by Arizona ranchers and self-fed to range cattle. It is used in this ingenious manner to restrict to a desired level, consumption of the feed with which it is mixed. In much of the range area it is impractical to provide feed regularly each day to needy stock. This self-regulating salt-feed mixture can be made readily and continuously available to stock when the range forage declines below adequate levels.

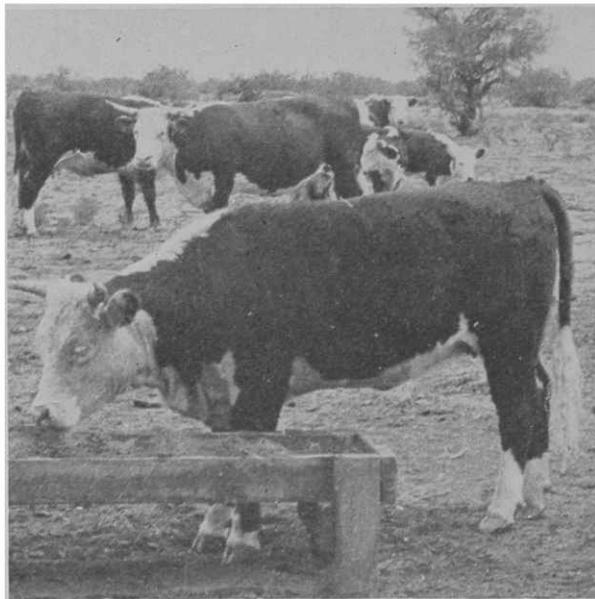
Outright misgivings greeted the first reports of this unorthodox practice. Considerable speculation among stockmen and scientific personnel alike concerning the subsequent effect on animal health of continued excess salt ingestion led to a study of this problem by the University of Arizona.

Water Must Be Available

Tests gave reliable evidence that a high salt diet during pregnancy and subsequent lactation has no harmful effect upon the cows or their calves. It was found that high salt intake must be accompanied with a corresponding increase in water consumption.

Death losses due to "salt poisoning" have been reported. Most of these cases occur on ranges with little water or where the ranchers utilize native forage at some

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BOTH the closed self feeder, top, and the open trough, below, are used in Arizona for feeding the salt-feed supplement on the range.

distance from available water by feeding the supplement. If, at the time the salt is given, the water is also restricted, a relatively small amount of salt will be fatal. The kidneys cannot eliminate salt at a rate higher than 2.4 per cent NaCl. This means that water must be consumed so that the salt absorbed can be eliminated.

The advent of self-feeding salt-feed concentrate mixtures to grazing cattle marks an eventful development in livestock production, particularly in the western range country. Grass and other native vegetation in this area are the sole feed resources of a very material segment of our beef cattle and sheep population. Despite its invaluable use for this purpose, reliance upon herbage vegetation constitutes a major problem of the cattle ranching industry. The greatest difficulty to cope with in this regard is the unpredictable nature and irregularity of the feed supply. A constantly changing nutrient content adds to the complexity of this prevailing condition.

Supplemental Safeguard

Adoption of the self-feeding method to range and pasture practices has served to provide a supplemental feed in the necessary amount and quality to adequately satisfy the normal animal requirements. Most salt-feed mixtures used on southwestern ranges contain approximately 30 per cent or less salt. By reducing or elevating the salt content, the daily con-

sumption of the mixture can be varied.

Cottonseed meal or cake has served an important role as a range supplement feed. It was the logical choice to use with salt. In addition to needed protein, it provides both phosphorus and readily available energy-producing nutrients.

Factors other than protein and phosphorus may be lacking under poor range conditions. Some of these may be vitamin A, trace minerals and the necessary nutrients for proper rumen fermentation. These deficiencies can be supplied by incorporating alfalfa meal, trace minerals and grain or molasses in the salt-cottonseed meal mixture.

Use Portable Self-Feeders

Covered self-feeder containers with trough attachments, portable, and of 1000 to 1500-pound capacity are in rather common use. Open troughs are less expensive, though feed is subjected to spoilage and loss from blowing.

Arizona cattlemen, by demonstrating the effective use of salt for making nutritionally balanced feeds readily available to range stock, have made it possible to promote the continuous growth of young stock and achieve a more efficient use of range feed.



OCTOBER

- 1- 2—Cochise County Fair. Douglas
- 1- 2—Greenlee County Fair. Duncan
- 5—Annual Cotton Field Day
Cotton Research Center.
- 6—Mohave County Fair. Kingman
- 12—Dairy Field Day. Tucson
- 14—Cotton Field Day. Yuma
Branch Station
- 19-20—Annual Meeting of Western
Veg. Growers Assoc., Las Vegas
- 21—Annual Fall Field Day. Mesa
Branch Station
- 31—Arizona State Fair. Phoenix

NOVEMBER

- 1-12—Arizona State Fair. Phoenix
- 2—Citrus Field Day. U of A Citrus
Station, Phoenix
- 17-18—Arizona Turf Conference. Stu-
dents Union Bldg., U of A
Campus, Tucson
- 18—Citrus Field Day. Yuma
- 18-24—Farm-City Week
- 26-30—National 4-H Club Congress.
Chicago

DECEMBER

- 10—Junior 4-H & FFA Judging
Field Day. Sponsored by the
Arizona Angus Assn., UA
Campbell Ave. Farm, Tucson