

Range Management: The Past and the Opportunities for the Future

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Until the 1930's range management was really incidental to range cattle management. Since then it has gone through several developmental phases.

Range management during the 1940's and 1950's followed two general agronomic thrusts. One was to increase the population of "desirable" plants. This was approached by eliminating "undesirables," brush, mesquite, juniper, etc., through burning, mechanical destruction, or chemical treatment. These "cleared" areas were then reseeded with indigenous grass species or new varieties such as lovegrasses. Airplane seeding, land scarification, and water spreading were all used to establish stands.

The second thrust was to better understand the range plant environment in which the grazing animals live. Plant species were chemically and biologically analyzed. Their nutrient and energy content was then compared and balanced against that of the grazing animal. Such evaluations led to the development of range supplements, and it was quickly recognized that a properly formulated range supplement was not just another source of feed but should contain those nutrients essential to the grazing animal and missing from the grazing environment. It was during this period that the range livestock needs for Vitamin A, phosphorus, sodium, potassium, and trace minerals were further identified and refined.

During the 1960's and 1970's greater interest and stress was placed on grazing management. Populations in a given area, types and characteristics of breeds, and crossbreeding were intensively studied. New terms and concepts, such as "Rotation Grazing" and "Range Recovery Time" came into more common usage and understanding. It was gradually recognized that "overgrazing" was due to more than just the gross population of animals.

Now in the 1980's we are facing another almost quantum advance in our management understanding. It is now clear that intensive and total management, exemplified by the Savory Method, can result in the recovery of "overused" areas without reducing grazing numbers. In fact, in some areas there has been a substantial increase in grazing numbers coincidental with a dramatic improvement in general range condition.

What does the future hold? Our past experience clearly indicates that we must continue to research and better understand the individual technologies involved in the concept "Range Management." Since this technology covers a very wide front, both plant and animal, it is certain that we will go further faster if, at the operational level, an interdisciplinary approach is enforced.

In support of past research, let it be recognized that scientific advancement flourishes under an individual discipline structure. As the science of agriculture developed, individual disciplines developed. Certainly much of the progress made in the past can be related to the identification and isolation of these disciplines. By isolating and protecting from outside influences, the details of the total system can be better understood. But this is not a "real life" condition and when science is applied, that must be always recognized. Perhaps range management illustrates this better than most disciplines.

There has been, in my judgment, too much separation and isolation between the scientists representing the individual disciplines that comprise the broad concept of range management. All too often, we from the educational institutions, have encouraged this separation. Often the range plant scientists and students have been separated physically, administratively, and intellectually from the range animal scientists and students in the administration and operation of our schools. This can have a profound impact and all too often leads to "single discipline" thinking. We involved in education administration must make the necessary corrections if real future progress is to be realized. ★

The author is dean, College of Agriculture, University of Arizona, Tucson. (This article is condensed from the talk Dr. Cardon made in the Plenary Session, 1983 SRM Annual Meeting. It is being reproduced here for the benefit of the 4,000 members who did not hear him in Albuquerque.)