

# The Art of Range Management and Its Advancement

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Range management is commonly defined as a science and art, and without doubt correctly so. It does consist in part of a considerable body of organized knowledge, facts, phenomena and relating principles, which comprise the science aspect of the field. This is reduced to written form in the literature of the field and is available to and understood by those who devote most of their time to the field. At the same time, range management consists of a large mass of unorganized facts and relationships and operative skills, which comprise the art aspect of the field. This is largely in unwritten form, and the details of fact less widely known and perhaps less well explained or understood.

## Art and Science Complementary

These two aspects of range management are not at all contradictory to each other; rather they are complementary. The science contributes the broad fundamentals, the explanation of phenomena and relationships and the recognition, evaluation and integration of factors operating to make the range. The art adapts these contributions, together with those coming from the art aspect itself, to the unique complex of conditions represented by each individual ranch or range. This is not to say that the science is an abstract phase of range management, without direct practical application in the field and that the art is the concrete, practical and directly applicable phase. Much of the science can be applied directly and with practical benefit.

There is an indefinite, overlapping borderline between the art and science aspects of range management. Some practices of the same

kind may fall into either the science or the art. For example, a forage utilization survey, done on an intensive basis, sampling utilization on carefully located and laid out plots, involving careful measurements, making use of conversion curves, and weighted for forage variation within a pasture is correctly regarded as part of the science. On the other hand, a utilization survey done on a more extensive, more subjective basis is correctly regarded as falling within the art aspect of range management.

It does not follow that because the art may not be objective and quantitative, that it is of necessity less accurate than the science. Such is not the case. An example on this point is afforded by the determination or rating of vigor in a range grass. This may be done by a process of careful counts and measurements of culms and leaves and comparison with prepared standards to arrive at vigor rating. However, a person with sufficient experience with a particular species of range grass ordinarily has little difficulty in arriving at essentially the same vigor rating, adjectivally expressed, from offhand observations.

## Shifting Borderline Between Art and Science

In a sense the borderline between art and science may be regarded as shifting or unstable, for as unorganized and unexplained facts and relationships of the art are brought under study, explained, integrated into the whole of the science and reported in the literature, they become a part of the science. They do not disappear from the art in the process, however, for many who knew and used them in the

art form continue to know and use them as before.

This situation is incompletely illustrated by a recent observation of a differential effect of snake-weed in poisoning cattle on two adjacent ranches. One rancher, on whose ranch the incident took place, pointed out the plant and remarked emphatically that it was the cause of considerable losses on the ranch. A visiting rancher, whose ranch is located some thirty or forty miles distant, on a somewhat different type of range, maintained that the plant, although present on his ranch, caused no trouble. Neither could offer any explanation for the differences. It may be speculated that other plant species, present on one ranch and absent from the other, influence the use of snakeweed by livestock. It may be pointed out that the range on which the losses occur is in good condition. At any rate, the art of range management has something of definite value to offer the range manager in this locality. On one ranch and probably under similar conditions elsewhere, snakeweed must be reckoned with in the management of range and livestock; on the other it may be ignored so far as poisoning is concerned, at least under the present management. The science is silent in the matter. If through study and experiment, the cause or causes of the observed differences were discovered, quantitative relationships determined and the results all integrated into the larger picture of related phenomena and results recorded in the literature, the science would be enlarged or advanced in that area. Although the science would be the richer and more comprehensive, the art would be none the less extensive, effective or important in the management of the range.

## How Can the Art of Range Management Be Advanced?

Many more examples could be cited to illustrate the nature and importance of the art aspect of range management. More to the point here is: How is advancement

in the art of range management to be fostered? It will be recalled, of course, that this is one of the primary objectives of the Range Management Society.

It is clear how the science is to be advanced and that it is being advanced. Hundreds of workers are engaged in the development and dissemination of scientific knowledge in the field. Such is not the case with the art. And yet it can not be assumed that the art has reached a state of consummation. Much remains to be learned and made generally available; much of which is already known locally needs to be made more generally available.

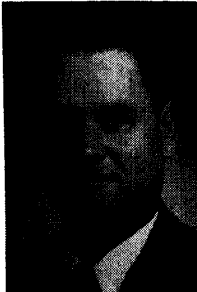
What possibilities exist for advancement of the art? To begin with, it would probably be well for all those engaged in or preparing to engage in range management to be on the alert for unusual practices and skills and little known facts that have been used to increase the efficiency and production on rangeland. These would of course be incorporated into the observing individual's fund of working knowledge in the art. Wider circulation among range managers and users should almost always be warranted. Where the management plan or practice on a ranch is especially good or producing especially good results, the operator

should be encouraged and helped to publish an account of them so that others may have the advantage of his experience. Some good papers of this kind have appeared in the *JOURNAL* and others are desirable.

Perhaps it might be well to establish a section in the *JOURNAL* in which questions and answers or other contributions relating to the art might appear. There are certainly other means by which the art might be advanced. The point here is that it should be actively advanced. Getting the best results in the way of conservation and production on the range depends upon it.

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### A Word From Your President



An attempt is being made this year to bring the Sections and National organization closer together. By the time this is in print I will have prepared short messages for designated representatives to read at other Section meetings. Thus, by the end of the year, we will have reached every Section in one way or another. They have been most responsive in asking for this service. It should make for better understanding and strengthen the Society.

It is gratifying to see the stepped-up activities in the Sections and they are to be commended for it.

On the National level the committees are active and working hard on their respective assignments, further helping us to go ahead into a good year and a bright future. There's something about our organization that encourages us to work together for the common good of all. This is a healthy trend and, as a result, the Society is bound to gain in stature and prestige.

Look at the growth and accomplishments we have made in our short ten years of existence. Think of the greater accomplishments we can make in the next ten.—JOHN D. FREEMAN.

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### Notice to All Members

The tenth annual meeting of the American Society of Range Management will be held January 29 to February 1, 1957. Headquarters will be the Rainbow Hotel, Great Falls, Montana.—*E. W. Stein*, Chairman, Arrangements Committee.