

Range Education from the Rancher's Viewpoint

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FIELDS of knowledge that the modern range operator may draw on are many and varied. Economic conditions change with great rapidity and require new decisions based upon economic pressures alone. Drouth, forage damaging insects, livestock diseases, and other disasters all have a way of striking unexpectedly and at inopportune times.

Rangelands, over the long pull, have multiple uses and values but for the current operator their value is largely limited to what they will produce in livestock products. Accordingly, the well being and efficiency of dependent livestock is uppermost in the operator's thinking and in his immediate planning. However, most range operators realize that in the long run to be permanently successful the operation must be carried on within the sustained-yield capabilities of the range resource.

Education should provide the background upon which the future range manager may draw in order that his decisions will lead to both economic success and the perpetuation of the forage potential and basic soil resource.

This is an age of specialization. The study of livestock diseases, their diagnosis and treatment, make up a full five-year college course of study. Animal husbandry, the biologic sciences, agricultural economics, forestry and other lines of study contribute to the science of range management but are specialized fields apart from it.

Prospective students, and our educational institutions, must decide whether specialized training in a limited field or

a more general type of training will produce the better equipped range manager. Without some appreciation of economic values the most brilliant systematic botanist cannot possibly qualify as a range manager any more than can the physicist or the economist who knows nothing of the behavior of grazing animals.

For the exceptional student highly specialized training has and will produce the kind of men qualified to carry on badly needed research. It may also fill a limited need for technical specialists to serve governmental land management agencies and a few large landowners. However, the crying need is for better trained range managers for the more usual and typical range operation.

Such a manager must be qualified to evaluate the soil and forage resource; must be able to determine its potential, and to recognize trends either in improvement or retrogression. He should know the rudiments of animal husbandry including nutritional requirements, breed characteristics, and animal care. Above all he must know values. Many practices in the handling and treatment of lands and of livestock have proved beneficial under certain conditions. The manager should be able, for each situation and set of conditions, to work out the combination of practices that will produce the most desirable results ecologically and economically.

Education has the responsibility for developing the needed background and for inculcating the basis for sound judgment and evaluation on the part of the

graduate. Undergraduate students majoring in animal husbandry need more training in soils, botany, and economics. Range management majors need more training in animal responses and applied economics.

In addition to the needs for formal education of our future range managers there is a growing fund of new knowledge and understanding which operators and

land managers should be applying in their current operation.

The lag between the time of discovery by research and the time when the findings are put to general use can and should be materially shortened. A reexamination of extension methods and an intensification of adult education beamed at range managers and operators would be a fruitful field of endeavor.



HALOGETON AND RANGE MANAGEMENT

(Abstract of thesis submitted in partial fulfillment for an M.S. degree, Range Management Department, Utah State Agricultural College, Logan, 1953.)

A study dealing with the management of halogeton-infested ranges and the effects of prolonged halogeton consumption on range animals was conducted on typical winter sheep range during the winter grazing season of 1951-1952, in northwestern Utah.

This study indicated that halogeton was not normally palatable to sheep and that sheep did not eat it for the water or salt content. Hungry animals were more susceptible to halogeton poisoning than animals receiving adequate forage because (1) they were more apt to eat the plant

and (2) it required less of the plant to cause death.

It was determined by force-feeding experiments that 18 ounces of halogeton (8.2 percent soluble oxalates) would be fatal to a mature ewe with a normal fill of forage, but that 12 ounces would be fatal after a 36-hour fast. Sheep grazing under proper management would not eat these amounts.

When calcium was fed with the halogeton the sheep could tolerate almost twice as much halogeton as they could otherwise. Feeding of high-calcium supplements before trailing could be expected to give some protection against losses on the trail.

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