subjects not mentioned in the 1952 recommendations.

Points for Discussion

The objective of this study was to summarize the range curriculum so that the Range Management Education Council would have the factual material from which they could arrive at recommendations for (1) a standard range management curriculum (‘‘standard’’ is used because the Council has not yet established specifications for a ‘‘minimum’’ or an ‘‘ideal’’ curriculum) and (2) Civil Service requirements in range management. Numerous questions and points will, no doubt, be discussed before these recommendations are written and the Council has made a start in that direction. Opinions from others are welcome and one reason for presenting this paper to the Society members is to solicit comments. A few detailed points of discussion have been suggested, and the following are some larger areas of educational philosophy that are directed to your attention.

Ranges and Range Management are not the same. A range is an ecosystem in which the interaction of vegetation and grazing animals is of primary but not the only concern. Ranges normally include vegetation which is not grazed such as trees and many so-called undesirable plants and other items like streams, lakes, barren land, and engineering developments.

Range Management is the administration and business of managing ranges and other included lands on a scientific basis. It includes the management of all resources of the range including forage, timber, wildlife, water, and recreation. Knowledge of managerial practices for continuous production of all these goods and services is a requirement of professional range managers. So is a knowledge of interrelationships among these resources. It is granted that these are related fields educationally, but they become a part of range management in the management of ranges. Therefore, do the students in range management learn enough about these related fields in the present curricula?

The practice of range management gives due regard to economic and business considerations. Many range problems may best be solved through the applications of economic analysis and techniques used in business administration with respect to operations and decision making. Sorting of alternative practices to obtain the most favorable returns is done on a basis of inputs and outputs within a business structure. Do the curricula adequately train in the area that combines the biological, economic, and business aspects of managing range lands?

A range manager is a person competent to practice the profession. He deals with the application of knowledge. Some are scientists who deal with the acquisition of knowledge. A few range students want to become competent ranch operators. Other are called upon to do many vocational tasks like locating water developments, building dams, seeding ranges, and many more. Where do graduates of these fifteen curricula fit into this scale? Are they semi-professional, with a solid foundation on which they can grow to meet increased administrative and business responsibilities? Are they well grounded in the mechanics of doing a range job? Are they oriented toward a research career? Or a ranch business? Are the curricula trying to do all these things and should they? Are all the curricula trying to do the same thing and should they?

Every man is a citizen and functions as an individual in his community. He must be able to grow with and preferably ahead of his community. The University has the responsibility perhaps more than any other institution, except the home, to develop a feeling of social responsibility in the nation’s youth. Do the range curricula give the student adequate acquaintance with the “cross-campus” subjects that will whet his appetite for taking part and sharpen his ability to take part in the world around him?

Useful knowledge has no limit but there is a practical limit as to how much can be attained in four years. What are those limits in terms of essential future needs?

Cattle and Timber in South Florida

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In the range cattle-producing area of South Florida, it is typical to use both timbered and non-timbered lands for grazing. In recent years, cattlemen have come to realize the income-producing value of timberlands and are now following better practices for timber production on lands capable of producing timber. This realization—plus a changing taxation picture—has brought about the general practice of establishing a land-use study in which lands are classified according to primary capabilities, and each acre is utilized as fully as possible for the purpose best suited.

The Alico Land Development

1Alico Land Development Company is a newly formed Florida corporation, whose properties were formerly the non-railroad properties of The Atlantic Land and Improvement Company, a wholly-owned subsidiary of Atlantic Coast Line Railroad Company.
Company owns 236,512 acres in Polk, Lee, Hendry and Collier Counties, Florida. The forests are largely of South Florida slash pine interspersed with stands of cypress and mixed hardwoods. Lands classified as timberlands are managed primarily for that purpose, and grazing on these lands is of secondary importance. However, the timberlands are an important source of range when used in combination with non-timbered native range and improved pasture. Further, by following a system of rotational grazing between native range and improved pastures, the grazing pressure or stocking rate on timberlands does not interfere with forest management practices, but rather is of actual benefit by reducing fire hazard and competition.

The company’s cattle program is being developed primarily on the Devil’s Garden tract in Hendry County. This area includes 36,000 acres of native range and 7,788 acres of improved Pangola and Bahia grass pastures. Native ranges are primarily abandoned old fields which have reverted to native grasses, wet prairies, and flatwoods rangeland with strands of pine interspersed with ponds and oak-cabbage palm hammocks.

The company’s cattle herd totals 7,400 head of all classes, and future plans call for a gradual expansion to a total of 10,000, which we believe to be the most economical unit for Alico properties. In developing its cattle program, Alico has followed the latest developments and recommendations of Agricultural Experiment Stations to provide proper breeding, feeding and management practices. The breeding program crosses Brahman with English breeds (Angus and Hereford) to produce animals of desirable beef type and adaptability to range conditions of the area.

Cattle are grazed on a combination of native range and improved pastures. One acre of improved pasture and eight to ten acres of unimproved range—which includes both timbered and non-timbered areas—are allowed per cow and calf. By rotating grazing between unimproved range and improved pastures, this acreage supplies year-round grazing.

The management of cattle and land under this system is predicted on the seasonal requirements of the cow. For example, in the late summer or fall when the calf is weaned, the roughage requirement of the cow is at the lowest point of the year because she has only her own maintenance and that of a small embryo for which to provide. During this period the cow is placed on native or unimproved range, which is sufficient to meet the low requirements. Also, during the winter and early spring, a protein supplement is usually provided, and a portion of the native range is control burned to improve quality of roughage. It is during this period that the calf is born.

Following the birth of the calf in the spring, the cow’s requirements increase so that additional roughage is needed. This is the period when improved pastures are fertilized and the cow and calf moved onto them. Both quantity and quality of roughage are sufficient to meet her increasing requirements.

During the spring and summer as the calf continues to grow, bulls are placed with the breeding herd and the cows are rebred. There is a steady and continual increase in roughage requirements, which reach the highest point of the year in late summer and early fall just prior to weaning. This coincides with the period when grass pastures make their greatest growth. It has been determined that some 70 percent of the annual production occurs during the period of April through July.

As the calves reach weaning age in late summer and early fall, they are weaned, and the cows are returned to the native range, which has had a period of rest and considerable growth has accumulated to furnish the cow sufficient roughage since her requirements are at a low ebb following weaning.

In following the management system outlined above, the cow spends approximately half of the year on native, unimproved range, and half of the year on improved, fertilized pasture as determined by her requirements. The goal of providing an adequate plane of nutrition on a year-around basis is accomplished.

The economic advantage of this system is obvious in that it permits a fairly high stocking rate and satisfactory production in pounds of beef per acre, and at the same time, timber production is maintained on the native and unimproved areas. This is the ultimate goal of a well-planned and executed land-use program.