

Opposing Viewpoints: Most people are aware of the controversy surrounding the method(s) of assessing range condition. It must be recognized that there are valid points for all techniques. Two SRM Texas Section range professionals presented their views on range condition assessment philosophy in a past issue of the SRM Texas Section newsletter. Following are updated versions of these 2 papers by Walter Schacht and Dan Caudle. The thoughts presented in the papers are the authors' and do not necessarily reflect the official position of their respective institutions.

Traditional Range Condition Concepts Defended

Dan Caudle

THE ISSUE OF WHETHER range professionals should continue to use the climax plant community concept or adopt another method to evaluate range condition has become increasingly controversial and divisive within our organization and our profession. Our numbers are so few and our influence is so limited that we can't afford to let this issue polarize us. We need to find common ground and continue working toward more uniformity and credibility in the range profession.

The Soil Conservation Service (SCS) and others continue to use the climax concept as the accepted method of determining ecological status of rangeland vegetation. It is based on the ecological principles described by E.J. Dyksterhuis in his technical papers published in 1949 and 1958. His concepts modified and updated the climax and succession theory of F.E. Clements published in 1916. The SCS has successfully used this method on privately owned rangelands for more than 40 years.

The climax approach to range condition provides a valid ecological assessment of the present state of rangeland vegetation as compared to the historic climax plant community. It serves as a starting point for establishing resource management objectives and developing enterprise goals that will result in a plant community which achieves the objectives of the land manager and meets the needs of the soil, water, air, plant, and animal resources.

Climax plant community is the most reliable measurement of range condition because it provides a baseline from which to judge the effects of external forces on

natural vegetation. Climax represents the natural plant community that was historically best adapted to the unique combination of environmental features of a particular site. It is relatively stable, but not static. It is dynamic and fluctuates as influenced by long-term climatic trends and other natural phenomena.

It has been proposed that the climax plant community concept be replaced by a rating system based on the "Desired Plant Community." That would mean the classification of range vegetation would be a moving target that could change every time management objectives changed. There would be no standards for comparison. It would be sort of an "anything goes" philosophy as long as soil erosion was not a problem. If we evaluate rangelands based solely on the attainment of management objectives and production goals, don't we run the risk of ignoring natural resource concerns?

KNOWLEDGE OF RANGE SITES, climax vegetation, and the processes of secondary succession make it possible to interpret the effects of past influences and predict changes in vegetation that will occur as a result of future management decisions. Range condition evaluations are the basis for decisions that affect the rates and direction of secondary succession to reach a desired objective.

Contrary to what many people believe, climax plant community is not the ultimate goal of range management. It is the type of vegetation from which ecological range condition is measured.

It has been suggested that the climax concept assumes rigid stages of succession that progress steadily toward a precise climax where certain plant species are always present in exact proportions and amounts. Those who

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(Caudle continued) use the climax range condition concept understand that vegetation can follow numerous pathways and occur in an infinite variety of proportions and amounts during secondary succession... even on the same type of range site. However, experience has shown that these successional pathways can be characterized by predictable patterns of species association and community structure.

Some of the disenchantment with the climax concept of determining range condition comes from those who have attempted to use it in situations where it does not apply. Climax range condition was never intended for use on Mediterranean-type annual grasslands where historic climax plant communities have been permanently replaced by annual plant communities. Short-term, seasonal events can cause dramatic shifts in species composition and production many times in a single growing season on these areas.

CLIMAX CONDITION should never be used on areas where introduced species have become established through seeding or invasion to the point of dominating the site. They were not a part of the natural plant community and should not be compared to climax vegetation. Annual grasslands and sites dominated by introduced species should be evaluated using forage quality and forage production value ratings.

Many people confuse the meaning of range condition and attempt to tie it to vegetative production or forage quality. These are forage condition factors which can change in a matter of days depending on rainfall, temper-

ature, or other short-term conditions. Range condition does not relate directly to herbage yield, ground cover, or forage quality.

Some critics of the climax range condition concept recommend using soil erosion rate as the primary factor for evaluating range condition. This is not practical or acceptable because of the extremely fragile nature of most rangeland soils. By the time erosion becomes apparent, the soil, water, animal, and plant resources will have been irreversibly damaged or destroyed on most range sites.

Even though the climax plant community concept has many critics, there is no consensus among scientists, resource managers, or others in the range discipline concerning an acceptable alternative method for evaluating rangeland vegetation.

Are we being asked to abandon a technically sound method of determining range condition in order to pacify the critics of livestock grazing and resource management policies on public lands? Has this become a political and social issue rather than a resource management problem?

Rather than abandoning the concept of climax range condition that has served us so well and is still a valid concept, why don't we do a better job of educating the general public about climax vegetation, succession, and ecological range condition? Changing a few words and phrases will not satisfy our critics. I seriously doubt that adopting a more "politically correct" concept will appease them, and it certainly won't improve the management of our resources.