

Range Management Terms

Accessibility. The ease with which an area can be reached and grazed by animals. The ease with which herbivores can reach plants or plant parts.

Aftermath. Forage available after harvest, e.g., crop residue or regrowth after hay harvest.

Air-dry weight. The weight of a substance (usually forage) after it has been allowed to dry to equilibrium with the atmosphere.

Animal-unit (AU). Defines forage consumption on the basis of one standard mature 1,000-pound cow, either dry or with calf up to 6 months old; all other classes and kinds of animals can be related to this standard, e.g. a bull equals 1.25 AU, a yearling steer equals 0.6 AU.

Animal-unit-day (AUD). The amount (26 pounds) of air-dry forage calculated to meet one animal unit's requirement for one day.

Animal-unit-month (AUM). The amount (780 pounds) of air-dry forage calculated to meet one animal unit's requirement for one animal unit for one month.

Basal area. The proportional cross-sectional area of the stem or stems of a plant or of all plants on a stated area, usually measured near soil surface.

Browse. That part of leaf and twig growth of shrubs, woody vines and trees available for animal consumption.

Bunch grass. A grass having a growth habit of a bunch, lacking stolons or rhizomes.

Carrying capacity. The average number of livestock and wildlife that may be sustained on a management unit compatibly with management objectives. It is a function of site characteristics, and management goals and intensity.

Class of animal. Description of age and sex group for a particular kind of animal, e.g., cow, calf, yearling heifer, ewe, fawn.

Climax. The final or stable biotic community in a successional series that is self-perpetuating and in dynamic equilibrium with the prevailing ecological factors.

Complementary forage. Short-term forage planted to enhance the management and productivity of a ranch.

Continuous grazing. The grazing of a specific unit throughout a year, growing season, or that part of a year when grazing is feasible.

Cool-season plant. A plant that generally makes the major portion of its growth during the late fall, winter, and spring.

Coordinated resource management. A process in which various user groups discuss alternate resource uses, diagnose management problems, establish goals and objectives, and evaluate multiple-use management options.

Cover. (1) The plant or plant parts, living or dead, on the ground surface. (2) The proportional area of ground covered by plants on a stated area.

Critical area. An area that must be treated with special care because of site factors, size, location, condition, values or potential use conflicts.

Decreaser. For a given plant community, species that decrease in amount as a result of environmental factors or management practices.

Deferment. Delay of livestock grazing on an area for an adequate period of time to provide for plant reproduction, establishment of new plants, or restoration of vigor.

Deferred grazing. The use of deferment in grazing management, but not

in a systematic rotation.

Deferred-rotation. A grazing system that provides for a systematic rotation of the deferment among pastures.

Degree of use. The proportion of current year forage production consumed or destroyed by grazers. It can refer to a single species or all vegetation.

Desired plant community (DPC). A plant community that produces the kind, proportion, and amount of vegetation necessary for meeting or exceeding the management objectives for an ecological site.

Ecological site. Land with a specific potential natural community and specific physical site characteristics, differing from other kinds of land in its ability to produce vegetation and to respond to management. Synonymous with range site.

Ecosystem. Organisms that together with their physical environment form an interacting system and inhabit an identifiable space.

Forage. Browse and herbage that are available for food for grazing animals or be harvested for feeding.

Forage production. The weight of forage that is produced within a designated period of time on a given area (e.g. pounds per acre).

Forb. A non-woody, broad-leafed plant.

Frequency. In reference to the Grazing Response Index, the number of times plants are defoliated during the growing season.

Geographic information system (GIS). A computer system that allows information about land to be as maps. Different characteristics, such as vegetation or soil type, are stored as separate “layers.” The layers can be combined to display interactions of characteristics.

Grass. A plant with long, narrow leaves having parallel veins and nondescript flowers. Stems are hollow or pithy in cross-section.

Grass-like plant. A plant that resembles a grass but has stems that are solid in cross-section, including rushes and sedges.

Grazing cell. A grazing arrangement comprised of numerous subdivisions (paddocks) with a central component for livestock management and movement (cell center).

Grazing cycle. The total time of one grazing and one rest period in a unit where forage is regularly grazed and rested.

Grazing distribution. Dispersion of livestock grazing within a management unit.

Grazing management. The control of grazing and browsing animals to accomplish a desired result.

Grazing preference. (1) Selection of plants, or plant parts, over others by grazing animals. (2) In the administration of public lands, a basis upon which grazing-use permits and licenses are issued.

Grazing pressure. An animal-to-forage relationship measured in terms of animal units per unit weight of forage at any instant.

Grazing Response Index (GRI). A technique used to assess effects of the current years grazing and plan for the next year. It considers grazing frequency and intensity, and the plants’ opportunity to grow or regrow before, between or after grazing periods.

Grazing system. Grazing management that defines the periods of grazing and non-grazing.

Habitat type. The collective area that one plant community occupies or

will come to occupy as succession advances to climax.

Half-shrub. A perennial plant with a woody base whose annual stems die each year.

Herbage. Total aboveground biomass of herbaceous plants regardless of grazing preference or availability.

Herbage allowance. Weight of forage available per animal unit on the land at any instant.

Holistic Management (HM). A practical, goal-oriented approach to the management of the ecosystem including the human, financial and biological resources on farms, ranches, public and tribal lands, as well as national parks, vital water catchments and other areas. HM is a management model emphasizing connections among land, people and dollars. Formerly called "Holistic Resource Management."

Increaser. A plant species of the original or climax plant community that increases in relative amount, at least for a time, under current grazing management.

Indicator species. Species that indicate the presence of certain environmental conditions, seral stages, or previous treatment.

Intensity. In reference to the Grazing Response Index, the proportion of leaves removed during a grazing period.

Introduced species. A species not a part of the original fauna or flora of a given area.

Invader. Plant species that were absent in undisturbed portions of the original vegetation of a specific range site and will invade or increase following disturbance or continued heavy grazing.

Key area. A relatively small portion of a management unit selected because of its location, use, or grazing value as a monitoring point for grazing use. It is assumed key areas will reflect the overall acceptability of current grazing management over the whole unit.

Key species. Forage species of sufficient abundance, palatability, and sensitivity to management to use as indicators of use of associated species.

Kind of animal. An animal species or species group such as sheep, cattle, goats, deer, horses, elk, antelope.

Life-form. Characteristic form or appearance of a species at maturity, e.g., tree, shrub, herb.

Monitoring. The orderly collection, analysis, and interpretation of resource data over time to evaluate progress toward meeting management objectives.

Multiple use. Use of range for more than one purpose, i.e., livestock grazing, recreation, wildlife production, watershed and timber production.

Native species. A species that is a part of the original fauna or flora of a given area.

Opportunity. In reference to the Grazing Response Index, the time and actual growth plants make before, between or after grazing periods.

Overgrazing. Continued heavy grazing that exceeds the recovery capacity of individual plants in the community and creates a deteriorated range.

Overstocking. Placing a number of animals on a given area that exceeds the forage supply during the time they are present.

Overuse. Using an excessive amount of the current years growth.

Paddock. One of the physically separated subdivisions or subunits of a larger management unit.

Palatability. The relish with which a particular species or plant part is consumed by an animal.

Pasture. A grazing area enclosed and separated from other areas by fencing or other barriers.

Phenology. The study of periodic biological phenomena that are recurrent such as flowering or seeding, especially as related to climate.

Photopoint. A point from which photos are periodically taken to monitor long-term management responses.

Plant community. An assemblage of plants occurring together at any point in time, denoting no particular ecological status.

Plant succession. The process of vegetational development whereby an area over time is occupied by different plant communities of later ecological stage.

Plant vigor. Plant health; relates to the relative robustness of a plant in comparison to other individuals of the same species.

Potential natural vegetation (PNV). The plant community that would develop on an ecological site if all successional sequences were completed without interference by humans under the present environmental conditions; may include naturalized non-native species.

Pure live seed (PLS). Purity and germination of seed expressed in percent; calculated as $PLS = \% \text{ germination} \times \% \text{ purity} / 100$.

Range (Rangeland). Any land supporting grazable or browsable vegetation and managed as a natural ecosystem; can include grasslands, forestlands, shrublands, and pasture. "Range" is not a land use.

Range condition. The "health" of range as compared to some standard at a point in time. The standard can be defined in ecological terms or in terms of a particular use. In the ecological determination, the degree of departure from climax determines condition.

Range improvement. Any practice designed to improve range condition or allow more efficient use.

Range management. A distinct discipline founded on ecological principles with the objective of sustainable use of rangelands and related resources for various purposes.

Range readiness. The defined stage of plant growth at which grazing may begin under a specific management plan.

Range site. Subdivisions of rangeland for management purposes having similar soils, climate and climax plant communities. Two or more identical range sites that are spatially separated should respond in a similar manner to the same kind of management.

Range trend. The change in range condition over time.

Rest. Leaving an area ungrazed for a specified time.

Rest period. The length of time that a management unit is not grazed.

Rest-rotation. A grazing-management scheme in which rest periods, usually for a full growing season, for individual grazing units are incorporated into a grazing rotation.

Riparian zone. The banks and adjacent areas of water bodies, water courses, seeps and springs whose waters provide soil moisture sufficiently in excess of that otherwise available locally so as to provide a more moist habitat than that of contiguous flood plains and uplands.

Rotation grazing. A grazing scheme where animals are moved from one grazing unit in the same group of grazing units to another without regard to

specific graze: rest periods or levels of plant defoliation.

Rotational stocking. Unlike rotational grazing, rotational stocking uses grazing cycles with defined grazing and rest periods.

Selective grazing. The grazing of plant species, individual plants, or plant parts in preference to others.

Short-duration grazing. Grazing management whereby short periods (days) of grazing and associated non-grazing are applied to range or pasture units. The lengths of grazing and non-grazing periods are based on the rate of plant growth.

Shrub. Any species of woody plant of less than tree height (16 feet) and usually having multiple basal stems.

Sod grasses. Grasses with stolons or rhizomes that form a turf.

Species composition. The proportions of various plant species in relation to the total on a given area.

Stocking density. The relationship between number of animals and area of land at any given time.

Stocking rate. The number of specific kinds and classes of animals grazing a unit of land for a specified time period.

Substitution ratio. Number of animals or animal-units of one kind or class that can be substituted for another kind or class to meet a specified management objective.

Suitability. The adaptability of an area to grazing by livestock or wildlife.

Transitory range. Forested lands that are suitable for grazing for a limited time following complete or partial forest removal.

Use. The proportion of current years forage production that is consumed or destroyed by grazing animals.

Warm-season plant. A plant that makes most or all its growth during late spring, summer or early fall and is usually dormant in winter.

Weed. (1) A plant growing where unwanted. (2) A plant having a negative value within a given management system.