USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

Resource Concerns

ANIMALS

Feed and Forage

Livestock Production Limitation - Feed and Forage

Feed and forage quality or quantity is inadequate for nutritional needs and production goals of the kinds and classes of livestock.

What is it?

Livestock require five major classes of nutrients: energy, protein, minerals, vitamins, and water. All five are essential for normal health and production. Next to water, the greatest requirement is for energy, followed by protein, with minerals and vitamins needed in very small amounts. Without adequate energy from feed or forage, utilization of all other nutrients is impaired.

Why is it important?

Providing sufficient feed and forage helps to ensure animal health and performance. To sustain the resource base, it is critical to balance the required feed and kind of forage with the number and type of animals in the operation. Stocking rates and timing must be adjusted and supplements provided, as needed, for livestock grazing pasture or rangeland. Improving animal feed and forage can improve livestock productivity and farm income.

What can be done about it?

Applying the principles of forage production for livestock requires an understanding of how plants interact with soil and climate, as well as understanding the nutritional needs of the animals. Prescribed Grazing is the management of grazing land to adjust intensity, frequency, timing, and duration of grazing and/or browsing to meet the desired objectives for the plant communities and the grazing and/or browsing animal. A proper system manages animal number, grazing distribution, and length and time of grazing periods to provide grazed plants sufficient recovery time for regrowth and plant health. Feed and forage balance sheets and forage growth curves are used to make decisions about stocking rates and timing of grazing rotations based on plant growth and animal demands. Fencing and placement of livestock water can facilitate proper grazing management. Conservation practices, such as Forage and Biomass Planting and Forage Harvest Management, provide guidance to improve the forage base to support the prescribed grazing system.

Feed and Forage at a Glance

Problems / Indicators - Feed and forage not adequate to support the livestock operation	
Causes	**Solutions**
• Insufficient livestock feed • Overstocking of livestock • Inadequate distribution of livestock grazing • Poor feed quality • Weed, insect, or disease problems	• Prescribed grazing systems • Adequate water distribution • Production of high quality feed and forage • Forage analysis for nutrient quantity and quality

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