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Systems of Pasture Grazing

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Abstract

Fodder is the essential component of sustainable and profitable livestock farming. Different improved varieties of fodders can be cultivated or different pasture plots could be developed for the fulfilment of the nutrient requirements of animals and get maximum production. In European countries, special pastures are developed for grazing management of livestock. Still, in our country, most of the farmers allow to grazing the animals to roadside, hilly areas, that do not fulfils the nutrient requirement of animals due to the low quality of the pasture. Pasture management and rotational grazing are required to provide good quality pasture to livestock from the pasture land. There are different pasture grazing types like continuous, rotational, creep, zero, and Strip grazing. There are some advantages and disadvantages of these pasture grazing systems.

Keywords: Grazing, Management, Pasture, Systems

Introduction

Proper implementation of a grazing system can help rangeland and livestock managers achieve management objectives related to rangeland and livestock production and ecosystem structure and function. The site's topography, soils, vegetation types, and climate decide the selection of effective grazing systems for animals. No one grazing system is superior to the other, but each system has its own merits and demerits as per specific conditions.

Maximum forage production and efficient pasture management are possible with the help of a suitable grazing system. There are different pastures grazing systems like 1. Continuous grazing, 2. Rotational grazing, 3. Creep grazing, 4. Zero grazing and 5. Strip grazing.

1. **Continuous grazing**: It is range grazing management where the animals are kept close within the compound throughout the day. The stocking rate is low; it allows

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sufficient growth of vegetation and animal graze growth. At a high stocking rate, there is no growth, animals eat intensively along with stubble and likely destroy population and pasture deteriorate. The stocking rate depends upon the season. No feed supplement or shelter is provided to continuously grazing animals. The animal gets water from available source.It is suitable for small animals, maintained for meat, wool, manure, and draught purposes, but not for dairy purposes. It is most common in tropical countries, where grazing land is available in remote, low-population areas, suitable for maintenance and not for productive purposes in intensive livestock farming.All such pastures are natural; their productivity declines with the season. Hence, they are unable to supply forage throughout the year.

2. **Rotational grazing**: The total pasture area is divided into 4-5 compartments equally. The herd is allowed to graze in one compartment for 1-2 weeks untill the forage is available and shifted to next compartment. Thus each compartment has a sufficient period of 40-60 days for the growth of forage. A uniform growth is obtained. Therefore, each compartment is grazed in rotation. Every year one compartment is reversed for seed production and harvesting in rotation. The pastures/ compartments are fed for a shorter period if the stocking rate is high.Thus, it is an intensive system adopted for developed pastures; if the stocking rate is high, the flock is divided on the basis of the level of production and high producer are allowed to graze first in each compartment, followed by the low producer or growing non-producing animals.
3. **Creep grazing**: Creep grazing permits young and smaller animals to graze areas that cannot be accessible or less to mature livestock. This is the system of grazing where small animals, or young ones are allowed to graze on high-quality pasture with restricting entry of large animals in that pasture area. As the nutritional requirement of young ones is more than the adult animals they have to graze on high quality pasture for the better growth of the young ones. Sheep /lambs also can be creep grazed along with the cattle. Different species of animals in a flock are grazed together at a time on the same land to take benefit of different feeding behavior of other species. It will reduce competition for feed between the species.
4. **Zero grazing**: The animals are not allowed to graze, but pasture is reserved for harvesting and feeding in a stall as a supplement.

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Advantages of zero-grazing

1. Zero-grazing helps in extending the grazing season.
2. Provides quality pasture for a long period and consistently.
3. Due to fresh grass availability, dry matter intake increased.
4. It reduces feeding costs due to higher protein levels in freshly harvested grass.
5. Relatively quick return on investment.
6. Increased ability to grow home grown feed.
7. Very efficient use of manure slurry and animal dung.

Strip grazing means allowing animals to graze in a particular strip or section of pasture to graze animal rapidly in less time. This method is usually used to teach animal to graze. This system does not allow animals for selective grazing.

Conclusion

For getting high yield and quality pasture, utilizing one of the grazing systems depending upon the site topography, soil, climate, and irrigation facilities is essential.

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