

RANGELAND MANAGEMENT

Rangeland can be defined as an extensive area of land covered by grasses, legumes with some tree, shrubs and herbs where animals (ruminants) can graze or browse freely.

IMPORTANCE OF RANGE LAND

- a. Range land is a source of food for livestock especially ruminants
- b. They provide cheap quality feed for animals, since most of the pasture grow naturally
- c. Free range allows exercises for animal body aiding good muscles development
- d. Animals have access to varieties and high quality forage, ensuring balanced feed for animals
- e. Range land reduces run-off and soil erosion by increasing infiltration and percolation of water
- f. Grasses and legumes in the range land can be cut and preserved as hay or silage for future use

CHARACTERISTICS OF RANGE LAND

- a. They have high quality of grasses, legumes and herbage are contained in a good range land.
- b. The grasses, legumes and herbage have high regenerative ability after being fed by animals.
- c. It withstands trampling by animals.
- d. It contains no planted or sown species of plant but naturally grown species.
- e. They contain wide varieties of grasses, legumes, herbs, browse plant.
- f. New growth stimulated by burning.
- g. It is unstable and naturally changing grass land.

Factors Affecting the Level of Production of Herbage

1. Rainfall fall: Rain is needed for the continuous growth of grasses and legumes . Rainfall helps to dissolve nutrients and make it available to pasture plants
2. Grass and Legumes mixture in pasture or range land : The mixture of grasses and legumes in the pasture must blend such that the legumes helps to increase the soil fertility for rapid growth of the grasses
3. Grazing: The range or pasture must be carefully planned to ensure adequate grazing by animals.
Rotational grazing should be adopted to provide opportunity for the grazed plants to regenerate
Overgrazing is a condition whereby there are too many animals on a piece of grass land feeding on the herbage, this should be avoided
4. Soil fertility: It is important that the range land has a fertile soil to enhance production of herbage plants
5. Shade Trees: As much as possible , reduce the number of shady trees as it prevent grass and legumes to receive adequate sunlight
6. Control of Weeds: For herbage plants to improve their productivity weeds must be removed from pasture regularly since they compete with herbage plants for nutrients.

METHODS OF RANGELAND AND PASTURE IMPROVEMENT

To ensure the continuous availability of grasses and legumes, it is necessary to adopt some management principles that would lead to the improvement of rangeland and pasture. Such principles includes

(1) Controlled Stocking: This refers to the situation whereby the correct numbers of animals are allowed to graze a particular area of land. An adequate stocking rate should be maintained as overstocking could lead to deterioration of the range land.

(2) Reseeding: This involves replanting of seeds of forage crops on a depleting rangeland when animals have grazed a lot on a rangeland, the crops may start to show signs of dying off then reseeding become necessary. The farmer should improve on the range by broadcasting new seeds and allowing the range land to rest. Reseeding is most beneficial where rotational grazing is practiced.

(3) Legume and Grass Mixture: Legume and grasses should be introduced if absent on the range land e.g star grass, carpet grass, guinea grass and legumes like Centrosema, Stylosanthes and Pueraria species. Once established the grass legume mixture must be well maintained.

(4) Weed Control: Effective weed control helps to reduce spread of diseases and pest on the range land. More nutrients are available to the forages when weeds are effectively controlled.

(5) Bush Burning: Controlled burning of pastures every third year just before the end of the season especially in the northern guinea savanna should be carried out. This will encourage accelerated re-growth of the pasture and also enrich the top soil. Burning check pest e.g tick. Ash which supply potassium to the soil is provided.

Inedible weeds are eliminated over mature grasses and legumes are removed to allow for fresh edible plant

(6) Paddock: This is the act of dividing the pasture with fence into sections. It allows rotational grazing, thereby allowing some section of the pasture to rest and regenerate.

(7). Fertilizer Application:

Fertilizer can be broadcasted to allow enough foliage formation for grazing and silage preparation. This can be done once every year.

(8). IRRIGATION: Range land or improved pasture can be irrigated especially during the dry season to ensure all year round production availability.