Grazing Systems

- Grazing systems are controlled grazing management practices that manipulate livestock to systematically control periods of grazing, deferment, or rest. An extremely important concept in creating grazing systems is to select the appropriate season of grazing or rest:

  - **Grazing during dormant season** is least damaging (except for shrubs). At this time, the plant is not actively photosynthesizing and the plant does not try to regrow after being grazed. However, grazing during this time may be detrimental to shrubs that are maintaining and forming buds which are accessible to herbivores.

  - **Grazing when plants initiate growth** has intermediate effect. The plant is actively growing and has significant demand for photosynthetic products. However, the conditions for growth are optimal (i.e., plenty of soil moisture and nutrients). This active photosynthesis can provide the carbohydrates (CHOs) necessary for growth. During drought years this period of effective soil moisture may be limited and grazing may be detrimental until the plant becomes senescent.

  - **Grazing during flower initiation through seed developments** is most damaging. During this time, the plant’s demand for soluble CHO’s is considerable as the plant is near peak biomass (i.e., has a lot of biomass to support) and is using CHO’s for seed development. Defoliation can also be detrimental during this time because the conditions for active photosynthesis are less favorable (i.e., less soil moisture, higher temperatures) and there is less time in the growing season to recover from defoliation.

- **Deferment** = a period of non-grazing from the initiation of growth in the spring through seed set of the major forage plants

- **Rest** = a period of non-grazing that lasts for a whole grazing season and a whole year.

- **What management goals can be reached with grazing systems?**

  From National Range and Pasture Handbook

  - Maintain or accelerate improvement in vegetation and facilitate proper use of the forage on all grazing units.
  - Improve efficiency of grazing through uniform use of all grazing units.
  - Stabilize the supply of forage throughout the grazing season.
  - Enhance forage quality to meet livestock and wildlife needs.
  - Improve the functioning of the ecological processes.
  - Improve watershed protection.
  - Enhance wildlife habitat.

- **Grazing systems cannot:**

  - Rectify mismanagement because of:
    - Wrong species or class of animal
    - Incorrect stocking rate
    - Major distribution problems because of water avail or topography
  - Achieve range improvement in plant communities that are dominated by long-lived woody plants.
Major Types of Grazing Systems:

- **Continuous and Season-long Grazing**
  - Describe in words:

- **Deferred Rotation**
  - Describe in words:

- **Rest Rotation Grazing (a.k.a., Hormay System)**
  - Describe in words:

- **Seasonal Suitability**
  - Describe in words:

- **Best Pasture**
  - Describe in words:

- **Intense Rotation Systems (Short Duration or High Intensity/Low Frequency)**
  - Describe in words:

- Which system would give the best animal performance and why?

- Which system would be best to improve riparian areas and why?

- Which system would be easiest to adjust if a wildfire went through the range, and why?