Management of Forages For Grazing

Lynn Sollenberger
Agronomy Department
University of Florida/IFAS
Grazing Management

Why?

– Stored feed can account for 25% or more of production costs.

– Grazed pasture is often the cheapest feed.

– By increasing the role of forage and specifically the efficiency of use of grazed pasture, feed costs can be reduced significantly.
Outline

Grazing Management Concepts

- Plant and Animal Requirements in Grazing Systems
- Grazing Management Defined
Plant Requirements

- Energy source
  - Leaf area
  - Reserves
Plant Requirements

Growing points

- Stolons
- Rhizomes

Stem bases
Animal Requirements

- Forage quantity

Stocking rate – 2 head/acre

Stocking rate – 3 head/acre
Animal Requirements

- Forage quality

Crimson clover

Perennial peanut
Grazing Management Defined

- The art and science of compromising between plant and animal requirements to attain desired pasture and animal production objectives.
Importance of Grazing Management

- Grazing management determines whether a potentially good forage will actually be a good forage.
Outline

Grazing Management Concepts

Choices in Grazing Management
  – Grazing Intensity
  – Grazing Method

Examples Using Live Plants
Grazing Intensity

- Measured in terms of stocking rate or some pasture characteristic (e.g., forage height or mass)

- Importance - management decision that has greatest effect on pasture characteristics and animal performance
Choice of Stocking Rate

What SR is best?

ADG (lb)

Gain/day

Gain/acre

Gain/acre (lb)

0 200 400 600 800

0 0.2 0.4 0.6 0.8 1 1.2 1.4 1.6 1.8

1 2 3

Stocking rate (animals/acre)
Choice of Stocking Rate

What SR is best?

What are your goals?

- Maximize gain/animal?
Choice of Stocking Rate

What SR is best?

What are your goals?
- Maximize gain/animal?
- Maximize gain/acre?
Stocking Method

**Defined** - a defined procedure or technique to manipulate animals in space and time to achieve a specific objective.

**Most common methods** are various forms of continuous and rotational grazing.
Rotational Grazing and Reserves

After a heavy grazing:

- Plants use reserves to provide energy for regrowth
Rotational Grazing and Reserves

After a heavy grazing:

- Plants use reserves to provide energy for regrowth
- A rest period between grazings allows the plant to restore the reserves that it used to regrow.
Outline

Grazing Management Concepts

Choices in Grazing Management
  – Grazing Intensity
  – Grazing Method

Examples Using Live Plants
Plant Types

General categories of plant growth habit

– Bunch

– Sod formers
Forage Growth Curve After Grazing

Forage yield

Cattle leave pasture

Time of Regrowth
Forage Growth Curve After Grazing

- Forage yield
- Time of Regrowth
Forage Growth Curve After Grazing

What determines the rate of early regrowth?
What Determines _________________?

- Grazing intensity (how close)
- Grazing frequency (how long since last grazing)
- Plant growth habit (where leaves are located on the plant)
Forage Growth Curve After Grazing

When should we graze again?

- Cattle leave pasture
- Time of Regrowth
- Forage yield
Forage Growth Curve After Grazing

When should we graze this forage?

Forage yield

Time of Regrowth
What Determines Length of Regrowth Period?

- Grazing intensity (how close at the previous grazing)

- Plant growth habit (where leaves are located on the plant; more leaves, faster early regrowth, shorter regrowth period)

- Importance of quantity and quality (longer regrowth favors yield, reduces quality)
Thank you!