The Ohio State University / College of Food, Agriculture, and Environmental Sciences / Department of Animal Sciences

Comparison of Continuous vs. Management Intensive Grazing

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Introduction

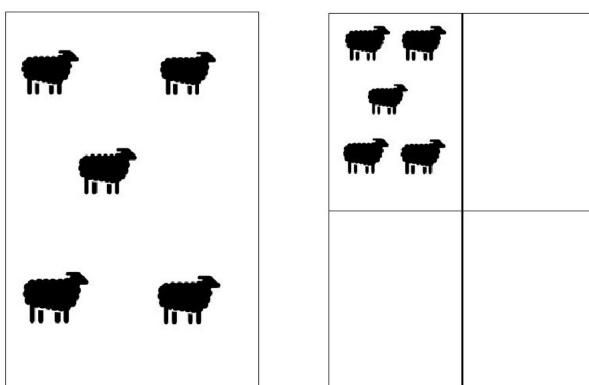
 There are different cost and labor variables to each grazing system, but the most important outcome for every farm is increased production. Each producer has to make a decision on how to graze their sheep in order to increase their production and efficiency.

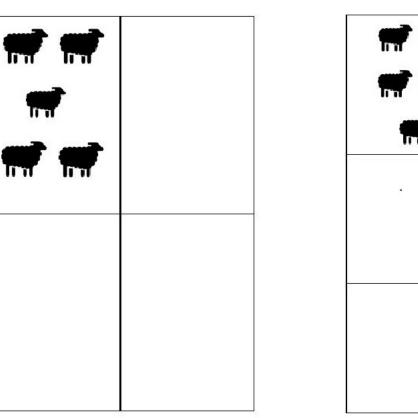
Grazing Systems

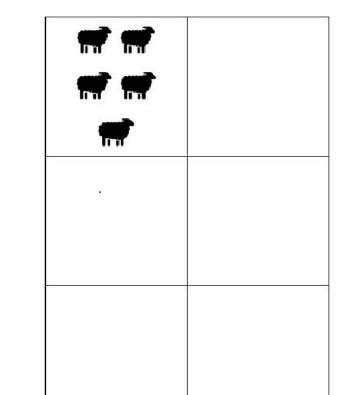
- Continuous grazing is when sheep graze in a pasture with no rotations and only a perimeter fence.
- Simple rotational grazing involves more than one area of pasture that the sheep are rotated after a set period of time.
- Management Intensive Grazing (MIG) involves smaller areas of pasture called paddocks where sheep are rotated more frequently.

Continuous

Simple Rotational Management Intensive







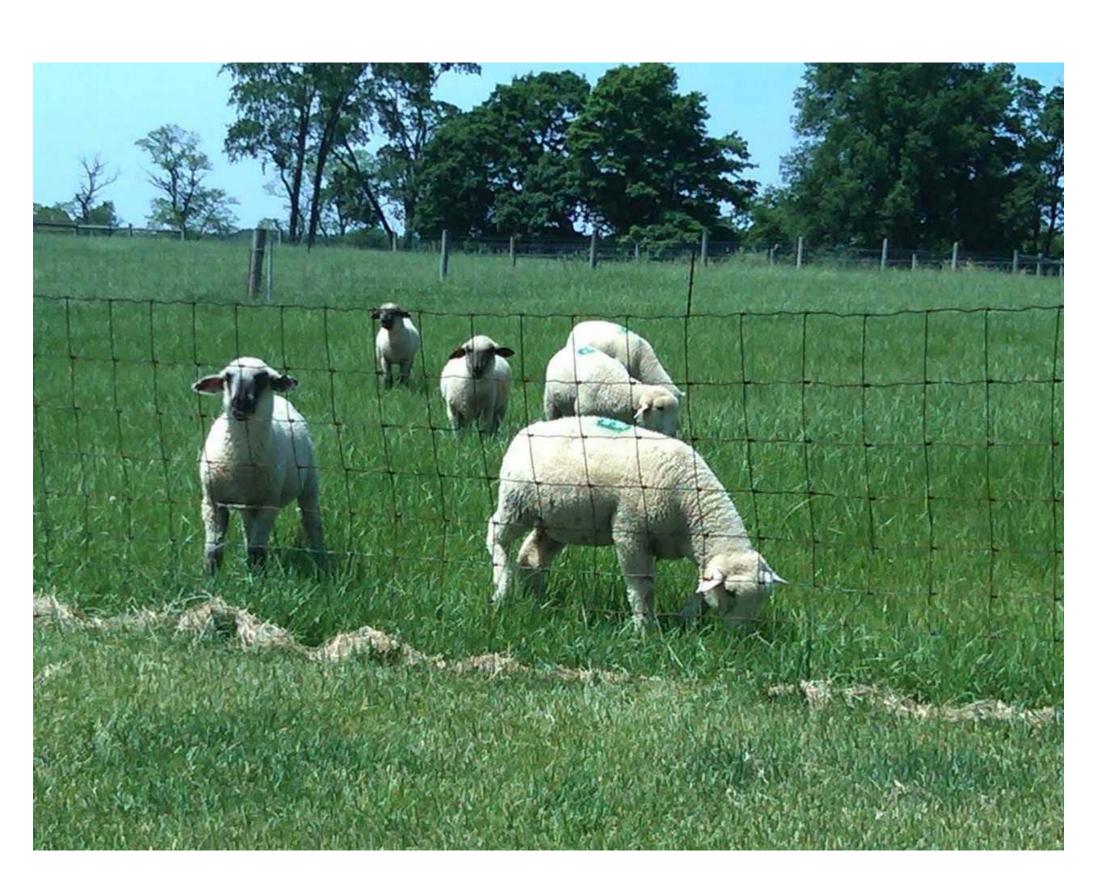
- Sheep are rotated based on length of forage, stocking density, and pasture quality.
- Begin grazing a pasture when plants are 6-10 inches in height because at this stage forages have higher Total Digestible Nutrients (TDN) and lower Neutral Detergent Fiber (NDF).4
- Before forages reach a height of 3 inches, sheep are removed to allow for maximum plant growth of 1200-1600 lbs./ac of dry matter leaf area² and to prevent the invasion of weeds.
- Ohio pastures typically require 10-60 days to recover depending on the amount of rainfall, soil fertility, temperature.²

Continuous Grazing

Benefits:

- Low financial input
- Low capital costs
- Minimal labor

- Reduction in yield per acre
- Susceptibility to overgrazing
- Uneven pasture usage / manure distribution
- Sporadic overgrowth or forages and weeds
 Low stocking rate



Management Intensive Grazing

Benefits:

- Increased pasture yields
- Higher quality feed
- Increased stocking rate
- Improved distribution of manure nutrients
- Improved parasite management
- Improved income

Costs:

- Increased labor / management
- Initial costs for waters / fencing

Utilization % Useable Strategy Annual Yield Yield (tDM/ac) (tDM/ac) 3.6 60 Continuous | 6 65 Rotational 5.85 Paddock 80

*tDM - Total Dry Matter

Analysis:

Analysis based on⁶:

30 early lactating ewes @154 lbs. requires a DMI of 4% BW Stocking Rate 0.75 AU/ac 5.2 t needed for an 8 week period Orchard grass/ mix hay valued @ \$150 / t

Continuous:

3.6 t @ \$150 t = \$540 value on continuous grazing 3.6 - 5.2 t = -1.6 t (-\$240/ac for 8 weeks)

Enough forage for 39 days (5.5 wks.)

7.2 t @ \$150 t = \$1080 value on MIG grazing 7.2 t - 5.2 t = + 2 t (+\$300/ac for 8 weeks)

Can graze for 21 more days / ac for 30 lactating ewes



Conclusion

 MIG is one solution for maximizing annual yield and utilization of pastures. MIG is a key strategy for improved returns due to increased stocking rate, acreage yield, nutrient management, and higher quality forages.



Keys to Success

- Begin grazing pasture when forages are 6-10 inches in height
- Do not graze forages below 3 inches in height
- Let paddocks recover for 10-60 d
- Adapt to environmental conditions

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