

## SPRING GRAZING COVER CROPS

For many livestock producers, cover crops and winter grazing go hand-in-hand; however, perhaps the most valuable time for grazing cover crops is in the spring. Winter annual cereal grains such as rye, wheat, and triticale grow fastest and provide the most tonnage in the early spring, before cool-season grasses start to grow.

### BENEFITS OF SPRING GRAZING COVER CROPS

- + Pathogen reduction for newborn calves
- + Generally high quality feed with few nutritional concerns
- + Reduced feed cost
- + Rest for permanent pastures

### BEST MANAGEMENT PRACTICES FOR SPRING GRAZING COVER CROPS

#### Estimating grass growth and stocking rate

- \* Beef cows will consume approximately 2.5 - 3% of their body weight per day as forage dry matter, depending on stage of production and forage quality. Assuming a typical grazing utilization rate of 50% you can estimate the grazing days per acre (figure 1).
- \* Producers need to vary the stocking rate to accommodate for the increased growth rate of the cover crops as the grazing season progresses.
- \* Rotational or strip grazing of cover crop fields will increase utilization while reducing the impact of compaction. Most producers will not want to move on a daily basis, but even a field divided into quarters will improve utilization.



Figure 1. Grazing days relative to animal bodyweight and aboveground forage yield



Cover crop height on April 28, 2015.

#### Determining whether to graze or mechanically harvest

- \* General recommendations are to start grazing spring cover crops when the forage is 6-8" tall and actively growing, and to pull livestock off at about 4" of plant height.
- \* Growth rate in spring varies depending on the weather, but vegetative growth of cereal rye will begin around 38°F. Wheat is slower growing in the spring than rye, but can produce more biomass if allowed to grow two to three weeks longer.

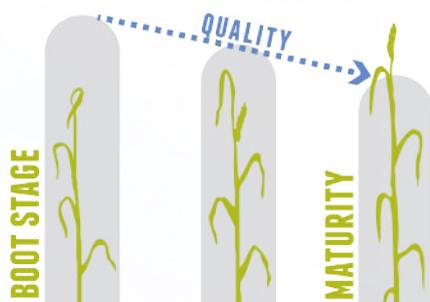


Figure 2. Relative forage quality over approximately 14 days

- \* The ideal time to mechanically harvest winter cereals is at the boot stage, just before the seed head emerges. This stage only lasts a couple days before quality starts to drop significantly (figure 2).
- \* Consider baleage to reduce drying time. For more information on quality baleage see ISU Extension publication IBCR202 Baleage.
- \* Harvesting (haying, ensiling, or grazing) cover crop forage in the spring will not affect crop insurance, so long as certain conditions are met:
  - ✓ Cover crop is still fully terminated at or near crop planting (zone-dependent).
  - ✓ Sufficient biomass remains to fulfill the conservation purpose of the cover crop.
  - ✓ Cover crop is not harvested for grain.

Consult NRCS Cover Crop Termination Guidelines, September 2014 version 3 to maintain crop insurance compliance.

## ADDITIONAL RESOURCES

Brummer, F. E. (2015). Annual Cover Crops. Retrieved from <https://www.ag.ndsu.edu/pubs/ansci/range/r1759.pdf>

Fisher, B. (2014, March). NRCS Indiana. Retrieved from Agronomy Crib Notes: [http://www.nrcs.usda.gov/wps/PA\\_NRCSConsumption/download?cid=stelpdb1248921&ext=pdf](http://www.nrcs.usda.gov/wps/PA_NRCSConsumption/download?cid=stelpdb1248921&ext=pdf)

Managing Cover Crops Profitably, 3rd Edition. (2007). <http://www.sare.org/Learning-Center/Books/Managing-Cover-Crops-Profitably-3rd-Edition/Text-Version/Nonlegume-Cover-Crops/Cereal-Rye>.

Richer, E. (2013). The Ohio State University Crop Observation and Recommendation Network newsletter. Retrieved from <http://corn.osu.edu/newsletters/2013/2013-34/cereal-rye-2013-a-cover-crop-with-feed-value>

Sexten, A. E. (2014). UK Ag Master Grazer. Retrieved from Grazing Cover Crops: [http://www2.ca.uky.edu/grazer/2014\\_Newsletters/December/grazing-cover-crops.php](http://www2.ca.uky.edu/grazer/2014_Newsletters/December/grazing-cover-crops.php)

Singer, J. K. (2005). Small Grain Cover Crops for Corn and Soybean. Iowa State University, PM 1999.

Stoskopf, F. (1985). Vegetative growth for cereal rye. Retrieved from [http://ucanr.org/sites/asi/db/covercrops.cfm?crop\\_id=12](http://ucanr.org/sites/asi/db/covercrops.cfm?crop_id=12)

Stute, J., K. Shelley, D. Mueller, T. Wood (2007). Planting Winter Rye After Corn Silage: Managing for Forage. Retrieved from [http://ipcm.wisc.edu/download/pubsNM/Rye\\_090507\\_final.pdf](http://ipcm.wisc.edu/download/pubsNM/Rye_090507_final.pdf)

## Termination by herbicide

Following either grazing or mechanical harvest, adequate regrowth is needed for contact herbicides to be absorbed to kill the plant. Be sure to obey all grazing and forage restrictions listed. Refer to ISU Extension publication CROP3082 for herbicides that allow the establishment of cover crops for grazing or forage harvest during the same cropping season as application.

## Prevent compaction

Avoid grazing wet soil types or when wet conditions exist to minimize compaction concerns. Have a back-up sacrifice area available and remove animals if necessary. Move waterers and mineral feeders to discourage loafing areas, and rotate or strip-graze fields to reduce the amount of time animals are grazing a certain area.

## CONCLUSION

Incorporating cover crops into a grazing operation provides benefits to the livestock enterprise, crop enterprise and soil and water quality. Utilizing cover crops provides opportunities to produce more beef on limited forage acres. Success using cover crops does require additional planning and management to realize these benefits.

## FOR MORE INFORMATION

Contact Iowa State University Extension and Outreach livestock specialists, Iowa Beef Center, Practical Farmers of Iowa, or Iowa Learning Farms.

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