

# Considerations for Fall Grazing: Strategies to Maximize Productivity and Rangeland Health

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## Introduction

Fall is a critical window for grazing decisions on Northern Great Plains native rangelands. As growing season slows and forage quality declines, producers face choices about timing, duration, and intensity of grazing that will ripple through winter dormancy and shape spring recovery. Getting fall grazing right on native grassland by balancing livestock production with the needs of dormant perennial grasses and forbs allows you to set yourself up for better range condition, improved spring productivity, and rangeland that builds resilience year after year. Get it wrong, and you can undo years of management work and compromise the soil health and plant communities you've worked to establish.

This article focuses specifically on native rangeland in the northern Great Plains and walks through the key decisions you'll face in fall grazing, laying out the tradeoffs of different approaches so you can make the call that fits your operation, your animals, and your land's condition.

## Why Fall Grazing on Native Rangeland Is Different

Fall grazing on native grassland operates under constraints that don't apply to spring and summer. By mid-September, the native plant community in the Northern Great Plains is fundamentally different from what it looks like in June. Cool-season grasses like green needlegrass and western wheatgrass peaked in productivity toward the end of June and are hardening off, shifting carbohydrates from shoots into roots and rhizomes for winter survival. Warm-season grasses such as big bluestem, sideoats grama, and buffalograss are entering senescence, moving reserves belowground. Forbs are finishing seed-set and beginning dormancy. Forage quality drops sharply as the season progresses; crude protein typically falls below 8%, and fiber and lignin increase as plants mature.

More importantly, the plant's capacity to regrow after grazing injury is nearly zero. Figure 38-3 demonstrates the effects of grazing extent on root mass. When you graze a cool-season grass in mid-October, that shoot typically doesn't have enough time to regrow before dormancy. The plant enters winter shorter, with reduced root reserves from having part of its canopy removed. Come spring, that stress translates to slower green-up and reduced tillering. On warm-season species that are grazed after they've shifted reserves down to their roots, the hit is smaller because the plant has already secured its winter survival strategy, but you're still harvesting from a system with minimal recovery capacity.

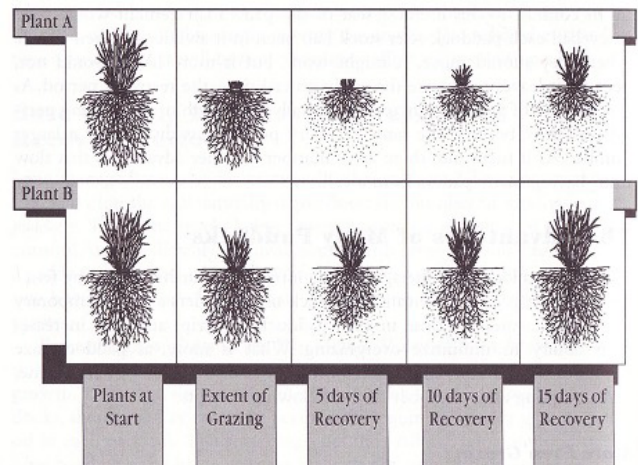


**Figure 38-3** The amount of leaf removed in a grazing affects the rate at which the plant regrows. Plant B loses far less leaf than plant A and thus draws less energy from roots, stem bases, and crowns. Less root is killed and it begins to regrow almost immediately.

Figure 38-3 Courtesy: Publication: [Holistic Management: A Commonsense Revolution to Restore Our Environment](#) (3rd Edition) by Allan Savory and Jody Butterfield. Illustration: Figure 38-3, titled "The amount of leaf removed in a grazing affects the rate at which the plant regrows."

The soil also behaves differently. Dormant, shortened vegetation offers less protection from rain, wind, and frost action. If your animals concentrate in one area or if the ground is wet or soft, compaction can occur. This doesn't mean fall grazing on native rangeland is inherently bad.

It means the risk-benefit calculation changes. You're not harvesting actively growing vegetation; you're harvesting stored plant reserves and residue, and the range's ability to recover before dormancy is minimal. Fall is an important time for plants to be able to have significant root stores going into the winter. Understanding these constraints is the foundation for any sound fall grazing decision.

## Different Management Options

### Conservative Grazing with Light Use and Early Removal

- **What it is:** Keep livestock use light in fall. Depending on length of time and stock density, aim for 25-30% of standing forage utilization or less, particularly on key species like native grasses. Move animals off before the frost really hits.
- **Advantages:** Advantages to this management option are that you protect the growing points and rhizomes of key grass species, helping to set them up for a strong trajectory with spring growth. This also leaves enough soil armor behind for soil protection, water infiltration, and wildlife cover throughout the winter. At the same time, the carbohydrate reserves in the roots are protected, again helping to provide fuel for spring regrowth.
- **Practical considerations:** To implement this method, you will need to remove the animals off before they graze it too far down. Relatedly, cattle might also need supplementation such as hay, cake, or minerals earlier if you're pulling them off forage. This method works best if you have alternative forage lined up for after you pull the cattle off.

### Moderate Grazing – Balanced Utility and Recovery

- **What it is:** Graze moderately to aim for 30-50% utilization of annual growth (dependent on length of time and stock density). Use adaptive stocking by moving animals based on forage availability and range condition. Try to allow for 60 days of dormancy recovery time before winter sets in to allow some plant regrowth.
- **Advantages:** This method takes off more forage than that noted above. However, it still leaves behind enough soil armor and plant reserves for

winter and spring recovery to occur. This method can also help foster heterogeneity (e.g., patchy grazing) that can help wildlife.

- **Practical considerations:** You must continue monitoring – know the vegetation and plants in your pasture well enough to gauge utilization. There might be a bit more to manage with this method, as it is not a 'hands-off' approach and works best with rotational or adaptive grazing instead of a continuous grazing approach. Again, leave enough time for recovery prior to dormancy fully setting in.

## Conclusion

There are several benefits to fall grazing, when implemented as outlined above. First, it can extend your grazing season beyond when you would maybe pull cattle off your pastures, helping to fill feed gaps. Even an extra 2-3 weeks of grazing without entirely relying on harvested forage supplies can have an impact on reducing operational input costs. It is important to keep long-term recovery of your pastures in mind, and this is especially important when considering drought conditions – often, extending the grazing season isn't feasible and instead, early weaning should be considered. It is critical that there is a minimum of 4-6 inches of standing forage, or adequate soil cover left behind after a grazing event. This ensures that there is adequate soil protection to capture winter moisture, initiate spring growth, and to ensure that the root biomass remains intact to redistribute the stored carbohydrates, which are also needed to initiate spring growth. Regardless of the method you choose for fall grazing, be sure to continue to monitor your cattle as they graze the land, as you can't manage what you don't measure.

## Resources

<https://beef.unl.edu/fall-grazing-management-balancing-forage-use-and-recovery/>

<https://www.ag.ndsu.edu/news/newsreleases/2025/september/extending-the-grazing-season-provides-numerous-benefits>



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