



LAND
STEWARDSHIP
PROJECT

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MANAGED GRAZING OF COVER CROPS FOR CROP FARMERS WITHOUT LIVESTOCK

Capturing water, capturing carbon—I know if I get those two things, I will get a pretty good crop.”

— farmer Tom Cotter, who uses covers and grazing

Are you considering trying cover crops or expanding your current use of them, but concerned about the initial costs? Farmers report that cover crops result in greater resilience and lower costs of production over time. This living cover can help farmers adapt to rapidly changing, uncertain, and variable climate situations and markets. Before you see such benefits, there are additional costs to deal with during the first two-to-three years of adoption. Grazing cattle is a way to cover those initial costs.

If you use cover crops, but don't raise cattle or intend to, this fact sheet is for you. Grazing is one way you can cover the immediate costs of adding cover crops while ramping up soil health. Even though you don't raise cattle, you might be able to contract with a farmer or rancher who does graze cattle to bring animals onto your fields in late fall or early spring to graze green cover crops.

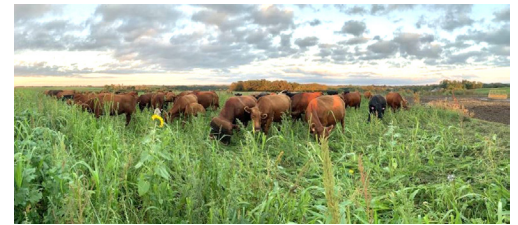
The practice of managed grazing — also referred to as management intensive rotational grazing, prescribed grazing or adaptive grazing management — keeps livestock on the move and never in one place too long. Managed grazing differs from continuous grazing when cattle have access to an entire area for an extended time, not allowing for plants to properly rest.

MANAGED GRAZING

Managing the intensity, frequency, duration, and timing of grazing events helps make the best use of cover crops as forage and improves soil health. Management is more feasible with new technology such as easily erected mobile fence and watering systems.

Soil Health Benefits from Grazing Cover Crops

- Stimulates plants to release root exudates, which increases soil biological activity, contributing to soil health.
- Provides resilience to drought from increased water holding capacity and better regulated soil temperatures.
- Reduces erosion from heavy rains.
- Increases fungal diversity with plant diversity, which helps increase soil carbon and transfers carbon to more stable forms in the pores between soil aggregates.
- Improves the value and aesthetic of your land.



Grazing Cover Crops
(LSP Photo)

Economic Benefits of Grazing Cover Crops

Practical Farmers of Iowa (PFI) tracked the costs and returns from [grazing cover crops](#) on three Iowa farms — Wesley Degner of Lytton, Bill Frederick of Jefferson, and Mark Schleisman of Lake City — over three years from 2015 to 2017.

- The study found grazing cover crops can provide economic returns to farming operations within the same year cover crops are planted. Cost share contributed to the profitability.
- Mark Schleisman, an experienced cover cropper, found that cover crops provided 3.81 tons of dry matter per acre.

The Pasture Project, Practical Farmers of Iowa, the Sustainable Farming Association of Minnesota, and the Land Stewardship Project worked with eight cooperating farmers in Iowa and Minnesota to demonstrate the value of [grazing cover crops](#). Costs and returns, along with soil characteristics, were tracked from 2015 to 2017.

- Seven of the eight farms experienced higher total soil microbial biomass when grazing cover crops compared to no grazing or no cover crops, as measured by the Phospholipid Fatty Acid (PLFA) test. Other soil health indicators such as soil carbon and organic matter also showed some improvement over that time period.

- Costs were offset by grazing the cover crops. Farmers spent on average \$83 per acre, per year to grow and manage cover crops, including management of grazing. The forage value averaged \$123 per acre, per year for a net gain of \$40 per acre.

Grazing Corn Stalks with Cover Crops

Planting cover crops in fields where corn stalks are already grazed is a no-brainer. Fencing and water are already in place, and cover crop protein complements corn stalk roughage. Research by [Iowa State University](#) and a study led by PFI found that compaction can be avoided with good grazing management and, in fact, can be lower when compared to fields that aren't grazed.

GRAZING LEASES

Grazing leases can vary considerably. The best practice is to use a written lease, but some farmers and landowners operate under an oral agreement. Written or oral, key points to consider when planning a grazing lease include:

- Stocking limitations and timing.
- Liability and insurance.
- Responsibility for livestock, fence, and water.
- Use of vehicles/ATVs.
- Landowner rights and reservations.
- Fair rental rates and payments.

Sample leases can be found at the [Green Lands Blue Waters Midwest Perennial Forage Working Group website](#) and by doing an Internet search for “grazing lease agreements.” Land grant universities also have lease resources. Both landowners and tenants should seek legal advice if there are questions about what or what not to include in a lease.

Leases can be incredibly flexible. Despite this, many landowners and tenants end up agreeing to boilerplate stipulations that don't work well for either side or don't meet specific needs just because they're hesitant to start the conversation. Opening a line of dialogue can be difficult, especially when it can seem like the landowner and tenant speak different languages, but the result is often a better agreement that can lead to a healthier, long-term relationship.

RESOURCES

With appropriate management of grazing, soil function in row cropland can be regenerated to improve essential ecosystem services and farm profitability. Natural Resources Conservation Service grazing specialists and Soil and Water Conservation District staffers can help plan grazing layouts and grazing approaches. The organizations below have resources and can connect you to farmers or ranchers practicing managed grazing.

- Land Stewardship Project: <https://landstewardshipproject.org/lspsoilbuilders/grazing>
- Practical Farmers of Iowa: <https://practicalfarmers.org/programs/livestock/>
- Green Lands Blue Waters: https://www.greenlandsbluwaters.net/Perennial_Forage/default.htm
- Pasture Project: <https://pastureproject.org/>
- Sustainable Farming Association: <https://www.sfa-mn.org/soil/>
- University of Minnesota Extension Beef: <https://extension.umn.edu/pasture-based-dairy/grazing-and-pasture-management-cattle>
- Iowa Beef Center: <http://www.iowabeefcenter.org/forage.html>



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