



# Grazing Cover Crops: Boosting Soil Health and Economic Returns

## Information for Producers and Landowners

Rob Myers, Ph.D., & Olivia Caillouet, Ph.D.  
University of Missouri Center for Regenerative Agriculture

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### Introduction

An increasingly popular option for cover crop management is to integrate livestock grazing. Depending on the cover crops being grown, grazing can be done in summer, fall, or spring, providing a strong economic return on the use of cover crops. Grazing cover crops is also an effective strategy for building soil health more quickly. Providing fencing and water is needed when grazing cover crops, but more options are available than ever before to help with livestock management.

Some producers graze their own livestock while others rent cover crop ground to a neighbor to graze. By rotationally grazing livestock, concerns about hoof compaction on the soil are minimized; in fact, the grazing animals will improve soil organic matter and aggregate stability over time. A wide range of cover crops can be used, with winter cereals being the most common options. Cover crop mixes with legumes and sometimes Brassicas (mustard family plants like turnips or canola) are also common in grazed systems.

Cover crops are particularly valuable forage in late winter and early spring when perennial pastures may be producing little forage. They can also provide extra forage in mid-to-late summer compared to cool-season pastures if a cover crop mix with warm-season annuals is planted in the summer.

### Soil health and animal health benefits

Most soils evolved with grazing herbivores, which is likely why the soil microbial community benefits from the manure, urine, and saliva provided by grazing animals. One of the fastest ways to build soil health is to plant a diverse mix of cover crops, particularly after harvesting a cereal like wheat, then grazing that cover crop mix one or more times in the fall and possibly again in the spring.

While grazing livestock can create isolated soil compaction areas in both perennial pastures and cover crop grazing, particularly around water sources, these issues can be minimized by regularly moving watering sites and rotating paddocks. Even though hoof action may make a field look a little rough by spring, farmers using cover crop grazing find the ground is generally more mellow for spring planting due to improved soil health over time. Attention should be paid to moving animals when unusually wet conditions occur to avoid excessive hoof damage.

### Economic benefits

Grazing cover crops is one of the most certain ways to make cover crops quickly contribute to the profitability of a cropping system. If portable electric fencing and water supply are already on hand, cover crop grazing can generally return a positive net profit in the first year of use. The [SARE Cover Crop Economics bulletin from 2019](#) reported that cover crops would return a net profit of \$49 per acre. A key reason for the good profitability with cover crop grazing is the high quality of the cover crop forage at a time when other forage is typically in short supply. Similar or higher net profit figures have been found in other evaluations of cover crop grazing profitability.

### Options with grazing cover crops

When planning for cover crop grazing, it's worth evaluating when extra forage is needed. In the [2023 SARE/CTIC National Cover Crop Survey](#), 54% of surveyed farmers who were grazing cover crops grazed in both fall and spring, 27% grazed in fall only, and 19% in spring only. Depending on when the cover crop is seeded, there may be considerably more growth available to graze in spring, but even 6 to 8 inches of fall growth can provide a reasonable amount of fall forage. Cover crops can bounce back from fall grazing if not overgrazed.

Some farmers who are cover crop grazing in corn and soybean systems will add a cereal crop such as wheat or oats to their crop rotation so that they can plant a diverse cover crop “cocktail” of 4 to 12 cover crop species in mid-summer, then get excellent grazing off that mix. Some will do both an early fall graze and then graze again in late fall, particularly if some cool season plants like rye and clovers are added. Typical warm season cover crops include sorghum sudan, sudangrass, millets, sunn hemp, cowpeas, buckwheat, and sunflowers. Following a summer cover crop cocktail, the most typical rotational sequence is to plant corn the following spring, as a corn crop really seems to benefit from a long period of cover crop growth with legumes the previous season.



**Figure 1.** Cattle grazing cover crops.  
*Photo Credit:* Michigan State University Extension

### **Fencing and water**

The lack of fencing around most row crop fields has been a major stumbling block for many farmers who might otherwise consider cover crop grazing. Fortunately, there are more options than ever before to get funding for fencing through the USDA Natural Resources Conservation Service (NRCS) and also to buy affordable and portable electric fencing. Using rotational grazing strategies

will increase the efficiency and profitability of cover crop grazing.

Another fencing option is virtual fencing, where adult animals wear a collar that provides auditory cues and eventually a shock if approaching too closely to the prescribed grazing boundary. These virtual fencing options provide promise for great labor savings in grazing management, though the savings in labor costs will be offset by the cost of the virtual fencing system. Some traditional perimeter or roadway fencing may still be needed with virtual fencing.

Availability of water for livestock grazing cover crops is an important consideration. Some farmers grazing cover crops find success with a 1,000-gallon water wagon that feeds into a portable tank. NRCS funds can help with the installation of more permanent water systems that send water to various paddock areas.

### **Summary**

Cover crop grazing is of benefit to soil health and can provide good economic returns, whether using a farm’s own livestock or custom grazing for a neighbor’s livestock. Developing a good plan including which cover crop species to graze and when to graze will optimize forage quality and quantity. Planning for fencing and water to keep labor demands and costs within reason is needed. Using regular rotational moves with the grazing animals will boost net profit and provide better soil benefits when grazing cover crops.

### **Additional resources**

1. [Farmers for Soil Health website](#)
2. [USDA-SARE Cover Crop Economics report](#)
3. [Grazing cover crops: a how-to guide](#)
4. [University of Missouri cover crop grazing guide](#)
5. [Center for Regenerative Agriculture cover crops](#)
6. [Midwest Grazing Exchange resources](#)



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Farmers for Soil Health is a collaborative initiative led by the Soy Checkoff, Pork Checkoff, and National Corn Growers Association in partnership with state commodity groups and conservation organizations.

