



Converting to Pasture or Hay— Repairing, Replanting CRP Land

SUMMARY

- Decide if you should spend money and time to improve CRP land.
- Consider your options for establishing and renovating pastures.

How good is your CRP land after 10 or more years of non-use? Some CRP fields were established hurriedly with minimal cost and effort. Some were sown with second- or third-choice seed mixtures due to seed shortages in the early years of the CRP period. For these reasons and others, many CRP fields have thin grass sods, undesired grass species, or have weed and brush present. Fortunately, some have developed into dense, weed-free stands of the species that were planted.

The most likely management of CRP land going into a grazing program will be a sudden increase in grazing area with a resulting excess of forage. Continuous grazing of the larger area or at least long-term grazing on the site likely will be practiced. Long-term access to this forage area will allow grazing livestock to be highly selective in their grazing, causing close and frequent patchy grazing of palatable grasses, avoidance of undesirable weeds, and relatively large areas of less accessible forage—usually areas distant from the water source.

A practical question is, should money and time be invested in improving a CRP field if forage is in excess already and will likely degrade back to a less productive condition if poorly managed following improvement? Do you really need to change what you have?

Thicken Existing Stands With Fertilization

Most of the grasses included in CRP seeding mixtures are considered palatable and are generally productive under Iowa growing conditions. In many situations, existing stands are not as dense as producers desire. Applying nitrogen modestly for the first few years and using proper grazing management are good ways to thicken uniformly thin grass-dominant stands. Do you need stimulated production for the grazing livestock? Some of

the excess may be better used for one or two hay harvests providing both needed hay and improved grazing efficiency.

Thicken Existing Stands With Grazing Management

Experience with rotational grazing has shown that carefully managing rotational grazing through four to eight or more pastures or paddocks within a pasture can be sufficient to improve the pasture. A well-managed grazing rotation allows sufficient “rest and recovery” time for the plants and provides a more uniform distribution of manure and urine to improve plant vigor, increase stand density, and in some cases allow legumes to “volunteer” in the pasture without additional seeding. Iowa experience has shown a 20 to 40 percent productivity increase by changing from continuous grazing to a well managed rotational grazing practice.

Plan to Add More Grasses or Legumes Through Seeding

If you like what you now have but want to improve it with more grass or add a legume, consider surface seeding or drilling additional species. Seeding legumes into thin or degraded pastures is the most common form of renovation. Legumes reduce the dependence on nitrogen fertilizers and complement grasses by balancing forage production throughout the season and providing more balanced nutrition.

The method of renovation you choose depends on a number of factors:

- How much money and effort are you willing to spend?
- How long are you willing to take the field out of production?
- How long are you willing to wait to get good establishment?

This bulletin is part of a series to help CRP contract holders assess the land-use options available to them when the contracts expire. The series is funded in part by the Leopold Center for Sustainable Agriculture. Other bulletins in the series and additional information are available at county ISU Extension offices.



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- Do you want to use tillage and/or chemicals?

There are a number of different approaches for establishing and renovating pastures. The following sections describe these methods.

Reduced Tillage, No Till Renovation or Interseeding

With this method, you drill seed into existing sod. Modified grain drills can be used, but no till drills are recommended because they give better seed placement and are designed to penetrate sod. If you choose interseeding, it often is necessary to reduce competition from existing sod before seeding. Sod suppression can be done by grazing the area heavily the summer/fall before seeding and applying a non-selective, suppression herbicide before seeding. The interseeding method is discussed more completely in the Iowa State University Extension publication *Interseeding and No Till Pasture Renovation*, Pm-1097

Frost Seeding

Frost seeding allows nature to do the planting for you. In this method seed is broadcast onto pasture in late winter or early spring (late February through mid-March). Freezing and thawing of the soil and early spring rainfall will help cover the seed. This is a relatively cheap method but is sometimes unsuccessful because of non-uniform seed coverage, occasional late frost which damages new seedlings, or an unusually dry spring season. Reducing competition from the existing sod in the previous autumn also is highly recommended with this method.

Livestock Seeding

Using livestock to do the seeding for you is an easy and cheap way of renovation but it is not recommended. It will produce less uniform stands than the previously mentioned methods. In this method, seed is mixed with the livestock's mineral or feed. Grazing livestock also will eat seed during grazing and spread it to other parts of the pasture. It may take three to five years or longer to produce a significant legume stand with this method.

Conventional Seeding or Complete Renovation

Complete renovation is destroying the existing CRP vegetation and starting over. Complete renovation seeding is an effective way to make large changes in CRP vegetation, but it is costly. In most cases complete renovation is not needed. Other less costly and less destructive seeding methods can provide a more desirable composition of grasses and legumes for hay or pasture with less erosion risk.

In Iowa the two most appropriate times for pasture seedings are in the spring when soil moisture is adequate for germination and when plants have the entire summer to establish, and in late summer if there is adequate moisture.

For complete renovation, existing vegetation often is destroyed by several tillage operations. An advantage of tillage is that it provides an opportunity to level fields that have gullies or excessive numbers of pocket gopher mounds, and it allows for incorporating any needed lime and fertilizer before planting (lime and phosphorous are more effective when incorporated). For more information on this practice, see the ISU Extension publications *Steps to Establish and Maintain Legume-Grass Pastures*, Pm-1008, and *Warm-Season Grasses for Hay and Pasture*, Pm-569.

Many CRP fields are on highly erosive sites so there may be an advantage to using a non-selective herbicide in the autumn of the year before seeding, then no-till seeding or using the least amount of tillage necessary for operating the seeding equipment.