



# Converting CRP Land to Pasture— Managing Weeds and Fertility

## SUMMARY

- Take care of weed and brush problems on CRP land before you begin a grazing system.
- Good grazing management will help maintain fertility and reduce further weed problems.

How good is your CRP land after 10 or more years of non-use? Some CRP fields were established hurriedly with a minimal cost and effort and now have thin grass sods, weeds, and brush present. Renewal of some contracts required legume or warm-season species establishment on some sites. As a result, there is a wide range of stand condition. Some CRP fields have thin grass sods, undesired grass species, or weeds and brush present, while some have developed into dense, weed-free stands of the species that were planted.

### Managing Weeds in Pasture

Take care of serious weed and brush problems before you begin your grazing system. Once weeds are under control and optimal fertility levels are reached, good grazing management will help maintain fertility while decreasing or even preventing further weed problems. If you fail to manage your pastures well, they will soon revert back to a weedy, infertile condition, limiting the value of your improvement dollars.

Good grazing management will control some weeds in pastures. Grazing management alone, however, normally will not correct serious preexisting weed problems. Plants such as thistles, brush, and perennial broadleaf weeds may continue to be a problem even after you begin to graze CRP fields, since they are seldom eaten even at high stocking rates.

Before taking action, identify the brush and weeds that are a problem in your pasture. Thistles and brush often are the most troublesome weedy plants in pastures. But different kinds of thistles require different control measures. Your ISU Extension crop specialist can give you specific control recommendations.

Remember that not all plants that are considered weeds in row crops are a problem in pasture. Many so-called “weeds” such as quackgrass and lambsquarter are very nutritious at certain growth stages and need not be removed. Be concerned mainly about those plants your livestock avoid eating, or that have low nutritive value such as thistles, goldenrod, or vervain.

### Mechanical Control

Repeated mowing, clippings, and hand cutting or digging can reduce weed infestations. When weeds are in the bud to early bloom stage, cut weeds 3 to 4 inches above the ground. Some producers clip each pasture at least once each year; others clip only weedy areas. Multiple clippings during the year weakens existing weeds by depleting root reserves and prevents further spread by preventing seed production. Bull thistles often are controlled by cutting. Musk, plumeless, and Canada thistles, however, commonly produce new shoots after mowing. If these shoots are not clipped off a second (sometimes third) time, they will still flower and set seed. Tillage can be used to suppress weeds as part of a pasture renovation program but is seldom used to manage weeds in a good pasture.

### Chemical Control

If mechanical methods of control are not satisfactory in initial control of serious weed problems, herbicides may be needed to aid in their control. If the weed problem occurs over the entire pasture, herbicides can be broadcast sprayed. Keep in mind, however, that most pasture herbicides will remove desirable legumes as well as weeds. More frequently, weeds are patchy, making spot spraying the preferred method of control. Spot spraying costs less than broadcasting.

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.



LEOPOLD CENTER

Prepared by Stephen K. Barnhart, ISU Extension forage agronomist, and Laura Sternweis, ISU Extension communication specialist.

Before deciding to use herbicides, be sure problem weeds have been accurately identified. Each herbicide has label instructions that dictate the rate, timing, handling, applicator risk, off-site risks, and livestock reentry period. *Follow label instructions.*

#### **Cultural Control and Maintenance**

Several cultural practices help maintain a weed-free pasture. Weeds are generally more of a problem in overgrazed, infertile pastures than in fertile, well-managed pastures. Good grazing management (with pasture rotation and rest periods) and good fertility will go a long way in keeping the forage healthy and able to compete with pasture weeds. To prevent spread of weeds, avoid feeding hay or spreading manure contaminated with weed seeds, clean equipment after working in weed-infested pastures, and keep fence rows free of problem weeds. Continued mechanical and chemical management also may be necessary.

#### **Managing Pasture Fertilization**

Many pastures grow under a fertilizer nutrient deficiency. Productive pastures require adequate fertility. A well-fertilized pasture produces more forage, recovers more quickly following grazing, and is more competitive against weed invasion.

Fertilizer, particularly nitrogen, can stimulate large increases in grass growth. A practical factor to consider is that most of the grasses planted in CRP fields and generally used for pasture in Iowa are *cool-season* plants, meaning their production is concentrated in the cool, moist periods of spring and autumn. Nitrogen can stimulate significant increases in growth during these rapid growth periods, but a practical consideration is whether you will be able to use this extra growth efficiently in a period when pasture growth is often already in excess. An unfortunate feature of cool-season grass-based pastures is that attempting

to use fertilization to make grass grow in the summer months is not generally successful. Establishing and maintaining legumes in the cool-season grass sod, or maintaining a warm-season grass pasture are better alternatives for improving the seasonal distribution of growth in a pasture system.

Fertilizer recommendations are based on a number of factors including soil type, climate, yield goals, future crop rotations, nitrogen credits from manure and legumes, pH, percent organic matter, and so on. For this reason, the best management strategy is to obtain a soil test. The more information that you can provide on the soil test submission form, the more applicable the test results will be. If you are not certain what types of soil are on your farm, you can obtain a soil survey report for your county from the Natural Resources Conservation Service (NRCS). Since local testing labs are more attuned to local soil types and climate, send your sample to the nearest certified soil testing laboratory in your area.

Iowa State University Extension publications are available to aid in your consideration of pasture fertilization: *Take a Good Soil Sample*, PM 287; and *Fertilizing Pasture*, PM 869.

... and justice for all

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Many materials can be made available in alternative formats for ADA clients. To file a complaint of discrimination, write USDA, Office of Civil Rights, Room 326-W,

Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Jack M. Payne, director, Cooperative Extension Service, Iowa State University of Science and Technology, Ames, Iowa.