LIGHT DISKING
EXISTING CRP STANDS
TO ENHANCE WILDLIFE HABITAT

Habitat Extension Bulletin No. 54

INTRODUCTION

Lightly disking existing CRP (Conservation Reserve Program) enrolled grass stands, can produce beneficial results for Wyoming's wildlife. Ring-necked pheasants, sharp-tailed grouse, mourning doves, cottontail rabbits, mule deer, white-tailed deer, and pronghorn antelope, are just a few of the species that may benefit from habitat treatments.

Sharp-tailed grouse

Some agricultural producers may question the idea of disturbing a "perfectly good grass stand" through disking. However, the practice of disking, when applied correctly, can improve plant vigor and overall stand health, and potentially improve plant diversity. When legume or forb interseeding is added on top of light disking, benefits to area wildlife may improve further.

CRP MAINTENANCE

Many landowners are currently enrolled in contracts that require some level of "maintenance" to sustain plant diversity and vigorous growth, while improving wildlife habitat. Light disking, prescribed burning, and mowing are three available management tools. Legumes may also be interseeded following disking, with permission from their local USDA field office.

TIMING OF TREATMENT

Light disking should not occur from May 1 - August 15 due to the presence of nesting upland game birds. The period of late March through the month of April is typically the best time to conduct light disking and legume interseeding. In better than average moisture years, fall disking can achieve desired results as well.

Hen pheasant flushes from dense nesting cover

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INTENSITY OF TREATMENT

Light disking is not intended to destroy the existing grass stand, therefore, the disking should be shallow (2" - 3" depth) and

Heavy disking of smooth brome stand in early Spring

approximately 50% of the soil surface should receive disturbance. Disking intensities may need to be adjusted / reduced in areas prone

Rapid response of grasses and legumes two months post-treatment

to erosion. Disturbance may need to be increased in areas dominated by sod-bound species such as smooth brome.

One year post-treatment, disked and legume seed broadcast

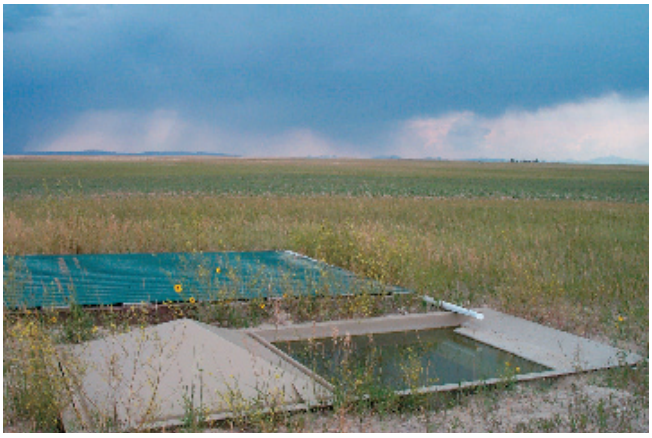
SIZE AND FREQUENCY

USDA states that only 1/3 of a CRP tract may receive treatment in any one year unless specified otherwise in the USDA CRP conservation plan. Landowners should rotate the light disking practice over the entire field over a period of several years to provide the greatest variety and diversity of vegetative stages within the field. By following this method, each year's treatment will be of a different age and different species of vegetation will appear from one year to the next. A particular area may only require one treatment per five (5) year period in arid locations of Wyoming.

LOCATION

Several factors dictate the location within a field that should receive treatment. Areas with excessively erosive soils and those with historic noxious weed problems should be avoided. Treated strips should be completed on field contours or perpendicular to prevailing winds.

"Edge", the area where treated and untreated areas join, is created when strips are created across a field as well, creating more benefit to area wildlife such as ring-necked pheasants. Consideration should also be given to proximity to other habitat types. Disking near shelterbelts, water developments (i.e. guzzlers), food plots, and grain fields will provide additional benefits for wildlife.



Guzzler located adjacent to disked CRP field (disked area in background)

WEEDS

Some annual weeds and broadleaf plants should be expected during the growing season following treatment. Annual sunflowers, kochia, ragweeds, and others are short-lived and will only persist until grasses dominate the site again. These weeds are extremely beneficial to upland game birds, because they often serve as "host" to a variety of insects, playing a critical role in chick development. They also provide an additional overstory layer, reducing the effectiveness of aerial predators and provide an additional food (seed) and cover source in winter.

Noxious weeds must be controlled. Spot treatment of noxious weeds (i.e. thistle) will allow beneficial weeds to remain undisturbed while controlling targeted weeds.

LEGUME / FORB INTERSEEDING

The interseeding of legumes and forbs immediately following light disking treatments can further enhance the nutritional and nesting quality of CRP stands. Introduced legumes such as alfalfa and sweetclover are inexpensive and fairly easy to establish. Dryland varieties of alfalfa (i.e. ladak) and /or sweetclovers should be planted. A minimum of two (2) pounds of legume should be interseeded / drilled, four (4) pounds if broadcast.

Seed being added to the broadcast seeder hopper

Native forbs, while more costly and difficult to establish than introduced legumes, can further diversify a CRP tract. Native forbs contain a large number of seeds per pound, so a very light seeding rate can be used. Maximilian Sunflower, Prairie Coneflower, and Purple Prairieclover are a few forbs that may establish if planted. Contact your local USDA field office or Game and Fish Department representative for seeding rates.

Legumes may be either drilled or broadcast following disking. A covering, (i.e. harrowing) is not normally required, since much of the seed will fall within the crevices created by the disking operation, and will be sufficiently covered by a series of follow-up moisture events.

A strong legume component, as show here, diversifies grass stands and improves overall cover and forage values for wildlife

Grasses such as wheatgrasses (Tall, Intermediate, Pubescent), Switchgrass, or other may also be broadcast or drilled in to existing disked CRP stands. When planted in smooth brome-dominated tracts, benefits may be short-lived, as sod-forming grasses will likely outcompete other vegetation within a few years. When considering grass interseeding, ground disturbance will likely need to be more drastic, to reduce the competitive nature of the smooth brome.

IMPROVED GRASS STANDS

Light disking combined with legume interseeding provides benefits to CRP grass stands. Light disking will incorporate dead material into the soil, promote new tiller growth in bare areas, split the crowns of bunchgrasses stimulating growth and reducing competition with sod-bound grass species. Legume establishment will increase nitrogen content of soils and improve the forage quality and quantity of the CRP stand.

FOR MORE INFORMATION

Further technical and potential cost share assistance to complete disking and legume interseeding to enhance CRP stands may be available. In addition, assistance is available to help establish trees and shrubs, food plots, water developments, and other practices to improve private land wildlife habitat.

To learn more, contact your nearest Wyoming Game and Fish Department district office, local Pheasants Forever chapter, or USDA field office.

This informational brochure was written by Ryan Amundson, Habitat Extension Biologist with the Wyoming Game and Fish Department, with assistance from the Nebraska Game and Parks Commission and Pheasants Forever.

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