



Number 178
February 20, 2009

<i>1. Western and Central Kansas CRP conversion to cropland</i>	<i>1</i>
<i>2. Eastern Kansas CRP conversion to cropland</i>	<i>4</i>
<i>3. Carbon credits on CRP ground</i>	<i>6</i>
<i>4. Crop insurance coverage for land emerging from CRP</i>	<i>7</i>

1. Western and Central Kansas CRP conversion to cropland

There are many difficult decisions to make when converting Conservation Reserve Program (CRP) land to cropland. CRP in this region consists primarily of native warm-season grasses and forbs. The transition is not easy, but there are some important items to consider for western and central Kansas.

Conventional-till or No-till

Producers will need to decide whether tillage or no-till is appropriate for their operation in this situation. Both systems have their benefits, but neither system is without flaw. By using conventional-till to bring the land back into production, the producer will be able to aggressively work the ground where needed to fracture clods and root masses. However, any soil structure built-up over the CRP period will be destroyed and the land will have the potential for more erosion. For no-till, soil structure and decreased erosion potential will be preserved, but weed control, along with the terrain of the land, maybe more problematic. Producers will need to determine which is more important to their farming operation then, having made that decision, choose from the following suggestions.

Existing Vegetation

Conventional-till

Producers should plan on making several trips across the field the first year to control the existing perennial vegetation and smooth out the soil. Root masses will need to be fractured. A combination of a plow, disc, and field cultivator should provide a good seedbed.

No-till

Most perennial CRP grasses and forbs are very difficult to completely kill even after multiple

applications of herbicides. These perennials usually regrow at some point, and will require an additional treatment. Realistically, producers should not plan on planting a crop into the CRP ground the same year that the vegetation is first sprayed with a herbicide. Producers should intensively manage the area the first year by making multiple applications of a glyphosate with 2,4-D/dicamba tank-mix to control both the broadleaf and grass plants. Mid- to late-summer (July, August, and early September) applications will be most effective in controlling the warm-season perennial grasses. It is during this time period that the grasses are storing root reserves and will translocate glyphosate to the root systems most readily.

The perennial grasses are probably going to be a problem for at least two years after the initial treatment. The producer will have to be persistent in applying herbicides over the next few years. Multiple chemical applications should be planned during the crop season and also the fallow period. If a Roundup Ready crop such as corn or soybeans is planted into the CRP ground, glyphosate can be applied multiple times in-crop. Producers should plan on putting a full labeled rate of a preemergence herbicide down before planting the crop. Producers cannot cut corners on herbicidal control with these perennials or successful weed control will not be achieved.

Fertility

The producer should have a soil test done on the CRP ground several months before the first crop is planted in order to establish a baseline nutrient level. There will be a lot of dead plant material in the field that will bind up available nitrogen as it decomposes. If wheat, corn, or grain sorghum is the first crop planted into the CRP ground, the producer should apply plenty of nitrogen. Corn is the recommended crop because of better weed control options. In K-State tests at Tribune 12 years ago on CRP conversion to cropland, wheat was still showing responses to 150 pounds per acre of nitrogen, the highest rate used in that test, although that rate is not economical. Corn and grain sorghum will also require high rates of nitrogen.

There may be good levels of residual nitrogen remaining in the soil after the first crop has been harvested on the former CRP ground. Before planting the second crop, it will be important to check for soil nitrogen levels by sampling at the 0-24 inch depth.

If the producer does not want to use higher rates of nitrogen, using a nitrogen-fixing crop like soybeans (if suitable for the area) may be a good idea. In addition to inoculating the soybeans, the farmer should still plan on putting around 20-30 lbs/acre of nitrogen off to the side of the soybean row in a band, along with 30 lbs of phosphorus. This will allow the soybeans to get off to a good start.

Planting

Conventional-till

Depending on how aggressive the ground is tilled, planting may or may not be difficult. Soil clods may still be prevalent. The producer needs to ensure good seed-to-soil contact along with seed slot closure.

No-till

With no-till, seed slot closure will be difficult on CRP ground. Producers need to pay special attention to how the planter is traveling through the soil and to make sure the seed slot is closing.

Special attachments that enhance seed slot sidewall fracturing may be needed to ensure slot closure.

Mowing or Burning

Mowing and burning may or may not be necessary depending on the amount of residue on the ground. In far western Kansas, these operations will likely not be necessary. But in central Kansas they may be necessary, because of the additional grass residue.

Conventional-till

If excessive amount of residue is on the surface, mowing or burning may be needed.

No-till

Mowing will likely result in a thick mat of residue initially laying flat on the soil surface. If the producer will delay planting a crop for one year, then the residue will have time to decompose. In this case, the field should be mowed to lay down the old residue, which will help in getting better spray coverage on the regrowth. If the producer wants to plant the same year the vegetation is destroyed, mowing may or may not be a good idea depending upon the size of the residue and the planting equipment the producer has.

If the producer does not have planting equipment that will cut through very heavy residue, mowing is not a good idea for no-till situations. However, if the vegetation is not mowed, the emerging seedling could have considerable difficulty getting enough light, depending upon the height of the residue around it. If the farmer does have planting equipment that can provide good seed to soil contact in thick residue, then the field should be mowed to improve light interception by the seedling crop. Baling the residue would eliminate problems with excess residue. However, an additional cost may be incurred, depending on the market value of the residue.

Burning CRP will decrease the amount of residue the farmer has to deal with at planting. However, burning can lead to other problems such as an increase in soil erosion from wind and water.

Land Preparation

Conventional-till

Soil may need to be moved by heavy equipment to fill in gullies that have formed.

No-till

Some tillage maybe needed on some parts of the land if the ground is extremely rough from excessive gullies, holes made by animals, ant hills, or other rough features.

-- Brian Olson, Northwest Area Crops and Soils Specialist
bolson@ksu.edu

-- Alan Schlegel, Agronomist-in-Charge, Southwest Area Research-Extension Center, Tribune
schlegel@ksu.edu

-- Curtis Thompson, Weed Management Specialist
cthompso@ksu.edu

-- Dorivar Ruiz-Diaz, Nutrient Management Specialist
ruizdiaz@ksu.edu

2. *Eastern Kansas* CRP conversion to cropland

Converting Conservation Reserve Program (CRP) land to cropland in eastern Kansas also involves many challenges. CRP in this region often consists of cool-season grasses and forbs. Some of the considerations for making this transition in eastern Kansas include:

Treatment of the Land

It is best not to cultivate the ground unless it is necessary to smooth out excessive gullies, holes made by animals, ant hills, or other rough features. Sometimes, however, a field does need to be cultivated to smooth it out and make it farmable. In those cases it's best to go ahead and cultivate on a one-time basis to make it suitable for cropping.

Destroying the Existing Vegetation

The annual precipitation of 28 to 40 inches from central Kansas to the Kansas-Missouri border results in a different set of complicating factors compared to the western areas of the state. When converting CRP land to cropland, eastern Kansas farmers are dealing with native stands of vegetation that produce from two to four tons of dry matter per year.

Smooth brome grass and tall fescue CRP stands are more easily killed with herbicides and/or tillage than native warm-season grasses and forbs. Stands of smooth brome grass and tall fescue CRP can often be successfully cropped the same year they are terminated.

Most other perennial CRP grasses and forbs are very difficult to completely kill the first time with either herbicides or tillage. These perennial grasses and forbs usually regrow at some point, requiring additional treatments.

If using chemical control, researchers in adjoining states recommend that the old topgrowth be removed and the chemical be applied to regrowth. Timely burning or haying are probably the two best methods of removing old topgrowth. Producers should intensively manage the area the first year by making multiple applications of a tankmix of glyphosate and 2,4-D/dicamba. With cool-season grasses, the best time for applying these herbicides would be late fall (October-November) or early summer (June), when the plants are moving food reserves down into the roots. That helps ensure that glyphosate would be moved down into the root systems, as well.

If a Roundup Ready crop such as corn or soybeans is planted into the CRP ground, glyphosate can be applied in-crop. When planting the first crop, producers should plan on putting a full labeled rate of a preemergence herbicide down in addition to any glyphosate applications that are made.

Tillage will likely eliminate the existing perennial vegetation faster than herbicides, but care should be taken, especially on fields designated as Highly Erodible Land. If the field is to be tilled conventionally, the soil benefits accumulated during the time it was in CRP (organic matter increase, improvements in soil physical characteristics, etc.) will be lost over time.

Fertility

The producer should have a soil test done on the CRP ground several months before the first crop is planted in order to establish a baseline nutrient level. Many of these CRP fields were low in their ability to supply phosphorus prior to CRP establishment and are likely worse now, especially if biomass was removed by haying. There will be a lot of dead plant material in the field, including a massive root system that will bind up available nitrogen as it decomposes, so using a nitrogen-fixing crop like soybeans is a good idea.

Though the decomposing plant matter will provide a release of nitrogen into the system, a University of Illinois researcher had estimated a lag of at least 4-8 weeks. This time lag is variable. In addition to inoculating the soybeans, the producer should plan on putting around 20-30 lbs nitrogen per acre off to the side of the soybean row in a band, along with phosphorus rates based on a soil test. This will allow the soybeans to get off to a good start.

If wheat, corn, or grain sorghum is the first crop planted into the CRP ground, the producer should apply a band of starter fertilizer either in a 2 x 2 placement or directly in the seed furrow. If applying directly in the seed furrow, be careful not to exceed rates of more than 20 lb/a of nitrogen plus potassium or seedling damage or death may occur.

Do not short the crop of nitrogen. In addition, make sure to run a profile nitrogen test prior to year two of cropping to check for excess nitrogen following the delayed release from the CRP root system mentioned in the previous paragraph. Keep in mind that researchers in higher precipitation areas such as the Corn Belt found that nitrogen rates near “normal” or slightly above were adequate for a summer grass crop following brome or fescue CRP. As mentioned in the article above on CRP conversion in western Kansas, in K-State tests at Tribune 12 years ago, the wheat was still showing responses to 150 pounds of nitrogen per acre, the highest rate used in that test. Corn and grain sorghum will require even more in similar low rainfall environments if a grain crop is desired.

Mowing

In a no-till situation, mowing could pose a problem at planting time unless: (1) the residue is baled, (2) the residue is left on the surface for a year to decompose before planting, or (3) the producer has a planter that can go through a thick mat of residue laying flat on the soil surface. If the producer believes that the residue from mowing will not cause a problem at planting, the field should be mowed so that old growth is removed and new growth is present when the stand is sprayed. Mowing will also make it easier for the seedlings from the first crop to have enough light for good growth.

If the producer does not plan to bale and remove the residue, and does not have planting equipment that can cut through heavy residue, mowing is not a good idea. However, if the

vegetation is not mowed, the standing residue could shade out the emerging seedlings of the first crop, depending upon the height of the residue around it.

If the ground will be tilled, mowing (or burning) may be needed where residue levels are especially heavy.

Burning

Timely burning of the CRP vegetation may improve control of these grasses and forbs, whichever method of termination is to be used. A good burn on the native grasses would allow for better coverage with herbicide(s) on the regrowth and easier planting of corn. If planting soybeans or grain sorghum, this would allow for the recommended 6-10 inches of regrowth, a full rate of burndown herbicide(s) with or without a residual, and then planting into the field. On cool-season grass CRP, burning just as the grass is greening up will allow for rapid spring growth and potentially easier chemical control.

-- Stu Duncan, Northeast Area Crops and Soils Specialist
sduncan@ksu.edu

-- Doug Shoup, Southeast Area Crops and Soils Specialist
dshoup@ksu.edu

-- Curtis Thompson, Weed Management Specialist
cthompso@ksu.edu

-- Dorivar Ruiz-Diaz, Nutrient Management Specialist
ruizdiaz@ksu.edu

-- Walt Fick, Range and Pasture Management Specialist
whfick@ksu.edu

3. Carbon credits on CRP ground

Producers or landowners with land in the Conservation Reserve Program may be able to get some extra income by enrolling in the Chicago Climate Exchange (CCX) voluntary carbon credits program. This program is currently accepting new 5-year contracts for land that was newly seeded to grass since Jan. 1, 1999.

CRP land would fall into the CCX category of “new grass seedings.” New grass seedings are eligible for carbon credits at the rate of 1.0 ton of CO₂ per acre per year.

Producers or landowners can enroll their CRP ground in the CCX carbon credit program through an “aggregator,” such as the Kansas Farm Bureau or Kansas Farmers Union. Local contact information:

* Kansas Farm Bureau (through AgraGate Climate Credits Corp., a subsidiary of the Iowa Farm Bureau) -- Steve Swaffar, Kansas Farm Bureau Director of Natural Resources, at 785-234-4535,

swaffars@kfb.org. The web site address is:
<http://www.kfb.org/naturalresources/carbonresource.htm> or www.agragate.com

* Kansas Farmers Union (through National Farmers Union) – Donn Teske, Kansas Farmers Union President, 620-241-6630, dteske@bluevalley.net or see the National Farmers Union web site at: <http://nfu.org/issues/environment/carbon-credits>

Both of these aggregators have identical programs, and operate through the CCX program. Aggregators are organizations that offer contracts for carbon credits to producers and landowners, then bundle the credits into units large enough to sell on the CCX exchange. The aggregator watches the daily prices of carbon credits on the exchange, and decides when to sell. Contract holders get paid at some point after the credits are sold, but there is no set schedule for when the aggregator will sell the credits.

The current contract sign-up deadline with AgraGate (Kansas and Iowa Farm Bureaus) for new grass seedings is April 15, 2009. That covers 2009-2013. Carbon credits for new grass seedings may also be earned back to 2003 with proper documentation. The current contract sign-up deadline with National Farmers Union program for new grass seedings is March 5, 2009. Contracts in this pool are also for 2009-2013, with 2003-2008 as possible bonus years.

Current CCX market prices are about \$2 per ton of CO₂. At that rate, CRP land would bring in about \$2 per acre per year, since new grass seedings are allowed a carbon credit of 1.0 ton CO₂ per acre per year. To get the latest carbon credit prices, go to: <http://www.chicagoclimatex.com>

Producers or landowners who are interested in this program can learn more about specific provisions of the contracts on the web sites of the aggregators listed above. There are many details about these contracts that must be understood before enrolling. The land enrolled in these programs is subject to third-party verification.

-- Steve Watson, Agronomy e-Update Editor
swatson@ksu.edu

4. Crop insurance coverage for land emerging from CRP

Federal crop insurance policies require that acreage must have been planted and harvested in at least one of the three previous crop years unless such acreage was left unplanted in order to comply with any other USDA program. Therefore, acreage coming out of a Conservation Reserve Program (CRP) contract would be insurable.

To establish a production guarantee for the acreage emerging from CRP, the policyholder may provide acceptable production history for the year(s) the crop was grown prior to the acreage's enrollment in CRP.

If the crop was grown prior to enrollment in CRP; but, acceptable production history is not provided, yields are established differently based on whether the CRP acres are a separate unit.

- For acreage emerging from CRP that will be a separate unit:

- Coverage will be based on a percentage of the Transitional-Yield (T-Yield). The T-Yield percentage will be based on the number of years of production records the producer has on other land for the same crop and county.
 - **For example:** If a producer has 4 years of actual production history for the crop in the county on other acreage, the acres emerging from CRP would receive 100% of the county T-Yield.
- If the entire farm operation (all cropland acres) were enrolled in CRP, the percentage of the T-Yield will be 100 percent.
- If the CRP acreage is part of an existing unit, it will take the approved yield of the existing unit.

All carryover policyholders must provide production reports.

One thing that producers need to be aware of is that in certain counties (counties west of U.S. Highway 183), insurance for nonirrigated wheat acreage is rated separately for summerfallow and continuous cropping practices. There are also some counties in Kansas and Colorado that do not have a continuous crop practice established for wheat. To qualify as summerfallow for fall 2009 planting, the land must have been broken out of CRP by fall 2008 and lie fallow for a full crop year.

Based on this definition, anything broken in the spring to be planted in the fall would be considered a continuous cropping practice.

Land broken in the fall of 2009 prior to fall planting would be eligible for coverage as summer fallow for the 2011 crop year.

-- Rebecca Davis, RMA-USDA, Topeka Regional Office Director
rebecca.davis@rma.usda.gov

These e-Updates are a regular weekly item from K-State Extension Agronomy and Steve Watson, Agronomy e-Update Editor. All of the Research and Extension faculty in Agronomy will be involved as sources from time to time. If you have any questions or suggestions for topics you'd like to have us address in this weekly update, contact Steve Watson, 785-532-7105 swatson@ksu.edu, or Jim Shroyer, Research and Extension Crop Production Specialist and State Extension Agronomy Leader 785-532-0397 jshroyer@ksu.edu