

Converting to Cropland



Your CRP contract is expiring. What do you need to consider when converting this land back to cropland?

Converting expired CRP acres to cropland is an undertaking that should be planned carefully, especially when land is considered Highly Erodible Land (HEL).

Under CRP, a healthier soil has developed beneath the established grass vegetation. For years, soil erosion has been controlled; soil and water quality has been enhanced; organic matter, soil structure and water infiltration have improved, and the movement of sediment, fertilizer and pesticides has been reduced. The protective vegetative cover (grass) has also provided quality wildlife habitat.

Does converting CRP land back into crop production mean losing all of these stewardship benefits? No, it just means using proper planning and good management. There have been several studies that have looked at potential management alternatives to bring expired CRP acres back into crop production. Consider a cropping system that will minimize the impacts to the soil quality while sustaining the benefits. Here are some items to consider:

- Crops and rotations you want to plant
- The planting system you'll use on each crop
- The soil fertility concerns (nutrient management planning)
- Which areas of the fields will be planted and which should remain in grass/legume cover as buffers
- Impacts on soil and water quality
- If the field is Highly Erodible land, management and conservation practices needed for compliance

Soil Erosion Control on Highly Erodible Land

Depending on the planting system, soil erosion rates can increase when fields with steep, sandy or silty soils that may be Highly Erodible Land (HEL) are cropped, compared to when the land was maintained in sod under the CRP. Exposing the soil to the erosive forces of wind and water when fields are returned to cropland seriously deteriorates the soil's ability to function properly. Soil loss rates depend on the crop rotation, planting system, tillage, and crop residue left on the soil surface. Soil loss and deterioration can be greatly reduced by the use of conservation measures such as diverse crop rotations that include different crop types, cover crops and/or forages, and reduced tillage systems.

The Conservation compliance provisions of the farm bill require USDA program participants who produce annual agricultural commodities on highly erodible fields to apply an approved conservation system on those fields. Required residue levels must be achieved by the beginning (at the time of planting the crop) of the second year after being converted from grass to crop, and for long-term rotations, the most conserving crop must be planted by the beginning of the third year.

Planting System: No-till vs. Tillage

No-till is the preferred method when converting grassland to cropland. Research indicates soil managed under a grass-legume sod results in significant soil quality improvements, namely in organic matter levels, aggregate stability, total pore space, and soil infiltration rates. These improvements result in soil that is in better condition to grow plants. Soils in CRP fields are ideally suited

for a no-till system because they have the needed physical, chemical and biological qualities that will support successful no-till systems. If tillage is used, it should be restricted to the first year, and only involve implements (harrows, blade/roller, aerator, etc.) that lightly disturb the top few inches of soil, leveling rough areas in the field. Conventional tillage requiring several operations can destroy many of the soil quality improvements gained under CRP in one year.

Crops and Rotation Options

Plant residue protects the soil surface and feeds your soil. Some of the best crops are those that produce large amounts of crop residue like corn or small grains. Crops with genetic traits like herbicide tolerance or pest resistance, or crops that form a dense canopy like drilled soybeans, small grains or alfalfa/clover hay provide the farmer options for pest management. Corn, wheat and winter cereals are good choices to plant into CRP cover where residue, nutrient and pest management is adequate. Soybeans may also be a good crop for the first year after the conversion. If they have not been previously grown in the field, the seeds must be inoculated with the proper strain of Rhizobia to maximize nodulation.

Cover Crops

In some farm systems, cover crops are planted as a transition crop from the grass sod to cropland. Cover crops can be used for a cash crop, forage or hay, green manure or as a pest, nutrient or residue management strategy. Consult with your local NRCS staff to find a crop rotation that controls soil erosion and maintains the soil quality benefits.

Fertility

It is crucial to know the current soil fertility levels before planting. Soils under long-term perennial vegetation are much different than soils that have been cropped regularly over the last decade. Soil tests to determine fertility should be completed before fields are returned to production, allowing ample time to schedule and apply fertilizer required for planned crops. In areas where soil test nitrogen levels are low, consider applying starter fertilizer at planting. Consider use of annual legumes as a cover crop prior to the cash crop year. These plants have a low C:N ratio and fix atmospheric nitrogen that is readily available to following crops.

Organic Crop Production

Another consideration for some producers is organic farming. Land that has been in CRP may meet some of the requirements of the USDA's National Organic Program. Producers interested in this option should contact a certifying agency for specific requirements of organic production.

Considerations

It is important to consider impacts to the soil and water resources as you decide whether and how to transition CRP acres back into agricultural production. Other programs, such as the Environmental Quality Incentives Program (EQIP) may be available to help implement some of the conservation practices needed on these acres.

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