

Cover crops are a good thing for productivity

By Janet Lagler

Natural Resources Conservation Service

Instead of leaving fields bare, producers can enroll acres in the Soil Health (Cover Crop) Initiative to plant cover crops to reduce the probability of erosion, increase soil health, and provide cover and food for many wildlife species.

Cover crops are planted in the late summer or fall around harvest and before spring planting of the following year's crops.

Common cover crops used include winter hardy plants like rye and wheat.

Other less common, but also effective cover crops include oats, spring wheat, hairy vetch, red clover, sweet clover, turnips, rapeseed, radishes, and triticale.

Cover crops are not intended as a harvestable crop, but are grown to enhance productivity. These crops reduce soil erosion, limit nitrogen leaching, suppress weeds, increase soil organic matter and improve overall soil quality.

Small grain cover crops increase surface cover, anchor corn and soybean residues, increase water infiltration and reduce erosion.

In addition to the environmental and soil quality benefits, several cover crops may be used for grazing forage for livestock and wildlife.

Cover Crop Benefits

Here are some of the benefits of using cover crops: Reduce erosion from wind and water, increase soil organic matter content, capture and recycle or redistribute nutrients in the soil profile, promote biological nitrogen fixation, increase biodiversity, weed suppression, provide supplemental forage, soil moisture management, reduce particulate emissions into the atmosphere, minimize and reduce soil compaction.

Cover crops may be used on all lands needing vegetative cover for natural resource protection and improvement. They are an excellent tool for helping to improve soil quality.

Producers interested in the initiative should be aware that they will have to plant a multi species mixture of cover crops for five years on the same acres.

Establish cover crops according to the recommended seeding rates, dates, and methods provided by NRCS. For prepared seedbeds, crops should be seeded at the proper depth for fast emergence—.25 to .5 inches deep for legumes and grasses and up to 1.5 inches deep for cereal grains.

If seeding the cover crop prior to harvest, broadcast the seed by a method that allows for good coverage and prevents damaging the standing crop.

No seedbed preparation is necessary, and seeding dates are prior to soybean leaf drop.

If seeding the cover crop after harvest, seed may be no-till or broadcast seeded into existing residue cover.

To ensure good seed-to-soil contact, be sure to roll or cultipack the area immediately after

broadcast seeding on a prepared seedbed.

Inoculate legume seed with species-specific Rhizobia bacteria before seeding. Control weeds by mowing or herbicide application and control pests as needed to ensure cover crop development.

Cover crops can be terminated by harvest, crimpers, frost, mowing, tillage and herbicides. Make sure any herbicides are compatible with the following crop.

Follow all federal, state and local laws and regulations as well as manufacturer's label with all herbicides.

Cover crops should be terminated as late as feasible to maximize plant growth and residual nutrient accumulation, while allowing sufficient time for the cover crop to decompose, release nutrients, and recharge soil moisture.

When used to redistribute nutrients from deeper in the profile up to the surface layer, the cover crop will be killed in relation to the planting date of the following crop.

If the objective is to best synchronize the use of nutrients, factors such as the carbon/nitrogen ratios may be considered to kill early and have a faster mineralization of nutrients to match release of nutrient with uptake by following cash crop.

A late kill may be used if the objectives are to use as a biocontrol and maximize the addition of organic matter. The right moment to kill the crop will depend on the specific rotation, weather and objectives. Do not burn cover crop residue.

Conservation programs such as EQIP and CSP are important to soil health. For more information please contact the NRCS office at 352-4776 Ext. 3.