USDA United States Department of Agriculture

Environmental Quality Incentives Program (EQIP)

Key Iowa Practices for General Funding

Through the Environmental Quality Incentives Program (EQIP), USDA's Natural Resources Conservation Service provides financial and technical assistance to implement conservation practices that address natural resource concerns on private lands. EQIP supports the needs of all agricultural operations, offering ideas, science-based solutions, and guidance for successful and sustainable conservation farms. Below are some of the more popular conservation practices that Iowa farmers install to treat resource concerns as outlined in their conservation plans.

Grassed Waterway (Conservation Practice Standard 412)

A Grassed Waterway is a natural or constructed channel shaped or graded to required dimensions and established with suitable vegetation. This practice may be applied as part of a conservation system to support one or more of the following onsite needs:

- Move water runoff from terraces, diversions, or other concentrated water flows, without causing erosion or flooding
- Reduce or prevent ephemeral gully erosion
- Protect and improve water quality

Grade Stabilization Structure (Conservation Practice Standard 410)

Grade Stabilization Structures stabilize the grade and control erosion in natural streambanks or artificial channels. These structures help prevent formation of gullies, enhance environmental quality, and reduce pollution hazards. Conditions where this practice can be applied include areas where the concentration and flow velocity of water require structures to stabilize the grade in channels or to control gully erosion. Specific size and site conditions may require various design options, such as use of a pipe structure, concrete drop structure, rock or block chute, or metal toe wall.

Terrace (Conservation Practice Standard 600)

A Terrace is an earth embankment, or a combination ridge and channel constructed across the field slope. This practices may be applied as part of a resource management system to reduce soil erosion. The practice applies where:

- Soil erosion by water is a problem
- Excess water runoff is a concern
- Soils and topography permit reasonable terrace construction and farming operations and efforts
- A suitable water outlet can be provided

Nutrient Management (Conservation Practice Standard 590)

Nutrient Management addresses the rate, form, timing, and placement of organic and inorganic nutrients. The purpose is to adequately supply soils and plants the nutrients they need to produce food, forage, and fiber and at the same time, minimize nutrient losses from fields and protect surface and groundwater supplies. Properly applied, these practices combined with others can:

- Budget, supply, and conserve nutrients for plant production
- Minimize agricultural nonpoint source pollution of surface and groundwater resources
- Use manure or organic by-products as a plant nutrient source
- Protect air quality by reducing odors, nitrogen emissions (ammonia, oxides or nitrogen), and formation of atmospheric particulates
- Maintain and improve physical, chemical, and biological condition of the soil

Conservation Crop Rotations (Conservation Practice Standard 328)

A conservation crop rotation is more than just alternating corn and soybeans. It means incorporating a small grain, like oats, or a grass-legume such as clover or alfalfa into the system. Legumes help improve soil tilth and fertility. When managed properly, conservation crop rotations:

- Reduce sheet and rill erosion
- Improve soil health
- Improve yields
- Reduce wind erosion
- Provide seasonal wildlife habitat
- Add organic matter to the soil

Cover Crop (Conservation Practice Standard 340)

Cover Crops, established, grown, and terminated in between primary commodity crops, typically include grasses, legumes, and forbs. They offer year-round vegetative cover and live root growth, which provide conservation benefits to improve soil health. Select species, seeding rates, and depth using the Midwest Cover Crop Selection Tool. Use either single or a mix of species to achieve site goals. Terminate cover crops by harvest, frost, mowing, tillage, crimping or herbicides. Properly managed, they can:

- Reduce soil erosion
- Capture, recycle, redistribute nutrients
- Promote biological nitrogen fixation
- Suppress weed growth
- Minimize and reduce soil compaction
- Increase soil organic matter content
- Increase biodiversity
- Reduce energy use
- Increase soil water-holding capacity

Residue and Tillage Management; No-till/Strip-till, Mulch-till, and Ridge-till (Conservation Practice Standards 329, 345)

Residue Management is a practice that manages the amount, orientation, and distribution of crop and other plant residue on the soil surface year round while reducing soil-disturbing activities. There are four residue management options that include No-Till, Mulch-Till, Ridge-Till, and Strip-Till. These practices may be applied as a part of a conservation system to accomplish one or more of the following objectives:

- Reduce sheet and rill erosion
- Reduce wind erosion
- Improve soil organic matter content
- Increase soil moisture
- Provide food and cover for wildlife

Water and Sediment Control Basin (Conservation Practice Standard 638)

This practice uses an earth embankment or ridge and channel placed across the slope of minor watercourses. This structure will trap sediment and create a water detention basin with a stable outlet, usually a riser and tile. Basins work well on irregularly sloped ground where gully erosion is a problem and where sheet and rill erosion is already controlled. Basins can function alone or multiple basins can be installed as part of a conservation system. Consult local soil survey for valuable planning information. This practice can:

- Reduce gully erosion
- Trap sediment
- Reduce and manage onsite and downstream runoff

Contact your local NRCS office to learn more about EQIP technical and financial assistance.