

# Cropland Conservation Practices




for a Sustainable System



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As a landowner or farm operator you face many decisions when managing your natural resources. When you evaluate options for your operation, consider installing conservation practices listed in this hand-out to help improve your resource management and cropping system. Your conservation compliance plan

for highly erodible land (HEL) only addresses soil resources. A conservation plan can be developed to improve management for additional resource concerns. NRCS staff and your local soil and water conservation district (SWCD) are available to help you make the right choices to protect your operation and resources.





Conservation Practice	Description	Maintenance	Recommended
<b>Conservation Crop Rotation</b>			
	Growing crops in a planned sequence breaks weed and insect cycles, and reduces the need for pesticides. Including a perennial legume crop in the rotation can reduce erosion, increase soil tilth and provide nitrogen for future grain crops.	<ul style="list-style-type: none"> <li>• Weather conditions, unexpected herbicide carryover, and marketing considerations may affect year to year cropping decisions, which may require a change in scheduled rotation.</li> </ul>	<b>Field #</b>
<b>Contour Buffer Strips</b>			
	Narrow strips of grass or legumes in a contoured field that help trap sediment and nutrients. They can also provide needed forage for livestock and cover for wildlife.	<ul style="list-style-type: none"> <li>• Weeds and brush need to be controlled.</li> <li>• Delay mowing until after Aug. 1.</li> <li>• Buffer strips may be harvested for hay.</li> </ul>	<b>Field #</b>
<b>Contour Farming</b>			
	Farming with row patterns nearly level around the hill - not up and down hill. Farming on the contour can reduce erosion and reduce fuel usage.	<ul style="list-style-type: none"> <li>• Establish a permanent strip of grass along the key contour line to avoid laying out a key contour line every year.</li> </ul>	<b>Field #</b>






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<b>Cover Crop</b>			
	<p>Crops, including grasses, legumes and forbs, for seasonal cover and other conservation purposes. Planted prior to grain crop harvest or immediately after harvest, cover crops can reduce erosion, provide winter grazing for livestock, and reduce nutrient loss.</p>	<ul style="list-style-type: none"> <li>• Control growth to reduce competition from volunteer plants and shading.</li> <li>• Control weeds by mowing or by using other pest management techniques.</li> <li>• Control soil moisture depletion by selecting water efficient plant species.</li> </ul>	<b>Field #</b>
<b>Critical Area Planting</b>			
	<p>Planting grass or other vegetation to protect a badly eroding area from soil erosion.</p>	<ul style="list-style-type: none"> <li>• During establishment, inspect, reseed or replant, fertilize, and control pests as needed.</li> <li>• Mow, burn, clip or use approved chemicals to reduce competition from the existing stand.</li> </ul>	<b>Field #</b>
<b>Field Border</b>			
	<p>A strip of grass or legumes at the edge of a field used in place of end rows. They help reduce ephemeral gully erosion at the ends of fields, provide areas for field travel and wildlife habitat.</p>	<ul style="list-style-type: none"> <li>• Keep livestock off during nesting season.</li> <li>• Mow to control weeds and shrub development. Delay mowing until after Aug. 1.</li> <li>• Lime, fertilize, mow, burn and control noxious weeds.</li> </ul>	<b>Field #</b>
<b>Filter Strip</b>			
	<p>A strip or area of vegetation next to a stream, lake, or other water body that helps remove sediment, organic matter, and other pollutants from runoff and wastewater. Filter strips also provide cover for wildlife.</p>	<ul style="list-style-type: none"> <li>• Minimize the development of rills and small channels within filter areas to allow re-establishment of sheet flow.</li> <li>• Maintain vigorous vegetation.</li> <li>• Fence off livestock from filter strips.</li> </ul>	<b>Field #</b>





Conservation Practice	Description	Maintenance	Recommended
<b>Grassed Waterway</b>			
	<p>Areas planted to grass or other perennial vegetative cover where water usually concentrates as it runs off a field, reducing ephemeral gully erosion.</p>	<ul style="list-style-type: none"> <li>• Lift implements out of the ground before crossing the waterway.</li> <li>• Bring row crop patterns into the waterway, or use it as a turn area.</li> <li>• Inspect for eroding areas that need regrading and/or reseeding.</li> </ul>	<p><b>Field #</b></p>
<b>Irrigation Water Management</b>			
	<p>Determining and controlling the volume, frequency, and application rate of irrigation water in a planned, efficient manner. It reduces the amount of water applied to a crop, energy costs, and air born dust.</p>	<ul style="list-style-type: none"> <li>• Evaluate available field soil moisture.</li> <li>• Evaluate changes in crop evapotranspiration rates and changes in soil intake rates and adjust the volume, application rate, or frequency of water application to achieve the intended purpose.</li> </ul>	<p><b>Field #</b></p>
<b>Nutrient Management</b>			
	<p>Managing the amount, source, placement, form and timing of the application of plant nutrients and soil amendments. It reduces nutrient losses and fertilizer costs, and provides crops with the proper amount of nutrients.</p>	<ul style="list-style-type: none"> <li>• Periodically review your plan.</li> <li>• Significant changes in animal numbers or feed management could necessitate additional manure sampling and analysis.</li> <li>• Calibrate equipment.</li> <li>• Documentation of the actual rate at which nutrients are applied.</li> </ul>	<p><b>Field #</b></p>
<b>Pest Management</b>			
	<p>Implementing various management practices to limit agricultural pests and to reduce potential adverse effects on plant growth, crop production, and the environment.</p>	<ul style="list-style-type: none"> <li>• Respond to cropping system and pest complex changes, and avoid the development of pest resistance.</li> <li>• Periodically review your plan when the rotation changes or when new pesticides need to be used.</li> </ul>	<p><b>Field #</b></p>
<b>Residue and Tillage Management, No-till/Strip-till/Direct Seed</b>			
	<p>Managing the amount, orientation and distribution of crop and other plant residue on the soil surface throughout the year, including tillage, nutrient applications and harvesting of residue.</p>	<ul style="list-style-type: none"> <li>• Ensure adequate residue levels are maintained to protect the soil resource when post-harvest activities remove residue (baling, biomass removal, grazing, etc.).</li> </ul>	<p><b>Field #</b></p>



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<b>Riparian Forest Buffer</b>			
	<p>An area established to predominantly trees and/or shrubs adjacent to a stream, lake or other water body to improve water quality, reduce sediment delivery, create shade for aquatic habitat and wildlife habitat.</p>	<ul style="list-style-type: none"> <li>• Trees in the buffer area need to be periodically maintained and harvested.</li> <li>• As the buffer matures, tree harvesting is important for plant health and buffer function.</li> </ul>	<b>Field #</b>
<b>Terrace</b>			
	<p>Earthen structures that intercept runoff on moderate to steep slopes. They shorten the slope length, reducing the effects of sheet and rill erosion, help control ephemeral gully erosion.</p>	<ul style="list-style-type: none"> <li>• Remove sediment buildup in the terrace channel.</li> <li>• Repair sections which have eroded or have excessive sediment.</li> <li>• Fill settled or eroded areas in the tile trench.</li> <li>• Repair or replace damaged tile intakes.</li> </ul>	<b>Field #</b>
<b>Wildlife Habitat Management (Uplands or Wetlands)</b>			
	<p>The rehabilitation of a degraded uplands and wetlands, or creating or enhancing areas to provide food and cover for wildlife.</p>	<p>A plan will be provided, which will address:</p> <ul style="list-style-type: none"> <li>• wildlife needs</li> <li>• establishing food sources</li> <li>• vegetation management</li> <li>• acceptable uses</li> <li>• timing and operation of water control structures</li> </ul>	<b>Field #</b>
<b>SCI (Soil Conditioning Index) for a Combination of Conservation Practices</b>			
	<p>The SCI is an indicator of the consequences cropping systems and tillage practices have on soil organic matter, a primary indicator of soil quality and an important factor in carbon sequestration and global climate change. NRCS and SWCD staff can determine your SCI and make recommendations for improving your score.</p> <p>SCI scores may be improved by:</p> <ul style="list-style-type: none"> <li>• Raising crops that produce high amounts of residue.</li> <li>• Planting cover crops.</li> <li>• Utilizing manure or crop mulch.</li> <li>• Limiting tillage operations.</li> <li>• Reducing erosion on the field.</li> <li>• Using perennials in the rotation.</li> </ul>		<b>Field # &amp; Practices</b>

\*Map where practice is recommended.