Title of the Practice Conservation Crop Rotation (NRCS Conservation Practice 328)

Definition: Growing crops in a planned sequence on the same field. For purposes of this practice, a rotation must include a two-year cropping period with a legume/grass “mixed hay” component.

Purposes: Rotations provide many benefits and some of the purposes for creating and implementing them are: managing plant pests, reducing erosion and improving soil quality, supplying biologically-fixed nitrogen (including legumes), creating agroecosystem diversity, providing feed for livestock and providing food and cover for wildlife including beneficial and pollinator species.

General Expectations: Cropping sequence will be planned to address the resource concerns discussed below. The practice applies to all cropland where annually-planted crops make up at least one-third of the cropping sequence (time basis). A cover crop is considered a crop in the rotation.

A comprehensive rotational strategy will consider the following management principles:

* Selected crops and sequencing should produce sufficient biomass or crop residue that in conjunction with other management practices will reduce soil erosion, as well as reduce excess nutrients in the soil profile (desirable rooting characteristics and biomass potential).
* Soil organic matter content (as measured by the Soil Conditioning Index, SCI) should be reflected as increasing positive.
* Placement of nitrogen-fixing crops in the rotation should be associated with nitrogen (N) requirements of subsequent crops.
* Sequencing should aim to break specific pest lifecycles through appropriate “host-free” periods in the rotation.
* Where livestock forage production is a component of the rotation, use an approved forage-livestock balance procedure to match livestock numbers with expected forage production.
* If compaction, hardpans or tight soils concerns are present, include crops in the rotation that are deep-rooted or have awesome tap roots.
* Alternating shallow- and deep-rooted crops and heavy-and light-feeding crops improves nutrient and water use efficiency.

Additional management considerations for specific resource concerns:

* Cropping diversity is desirable. Include warm and cool season grasses and broadleaves when appropriate. Desirable crop rotation (four years) should not include any one crop type for more than 50% of the rotation. Longer rotations may have more than two consecutive years of the same crop type, as long as that crop type does not occupy more and 2/3 of the rotation.
* Where wind erosion and damage is a concern, select crops that are tolerant to abrasion and velocity, or manage crop residues, windbreaks and barriers or intercrops to reduce damage to sensitive species.
* Reducing (or eliminating) tillage from a management system will increase soil organic matter (and soil quality) more quickly than rotations with several years of perennial vegetation. Use of manures (animal or green) enhance this effect.
* Devise a strategy to match N-release from residues of N-fixing crops with N-uptake by subsequent crops, taking into account climate, soil properties, C:N ratio of residues and timing of N-demand by subsequent crops.
* Where soil-born pests are a concern, include species in the rotation that suppress pest organisms (such as brassica species).
* Beneficial insects (pollinators, predators and parasites) benefit from 1) field borders and intercrops planted with desirable species, 2) field edge rows left unharvested and 3) rotations that include attractive species such as buckwheat, *Phacelia* or other forbs
* When insect-pollinated crops are part of the rotation, planting them no more than 800 feet from their previous location may help maintain local populations of native bees that have become established because of the presence of that crop..
* To maintain stable pollinator and beneficial insect populations, it is desirable to maintain the same overall density of floral resources on and adjacent to cropland from year to year.

Operation and Maintenance: Rotation plans shall provide for acceptable, substitute crop in case of crop failure or changes in plans due to weather or other uncontrollable events. Evaluate results from rotational practices and adjust management as needed.

North Carolina Practice financing (2014):

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| Practice | Component | Unit | Practice Rate |
| Conservation Crop Rotation | Transition to organic | Acre | $354.39 |
| Conservation Crop Rotation | Transition to organic HU\* | Acre | $398.20 |

\*HU = Historically Underserved and Beginning Farmer Rates

South Carolina Practice financing (2014):

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| Practice | Component | Unit | Practice Rate |
| Conservation Crop Rotation | Standard | Acre | $16.70 |
| Conservation Crop Rotation | Standard HU\* | Acre | $20.04 |
| Conservation Crop Rotation | Sod-based | Acre | $275 |
| Conservation Crop Rotation | Sod-based HU | Acre | $275 |

\*HU = Historically Underserved and Beginning Farmer Rates