

Prepared for: _____

Prepared by: _____

Farm: _____ Tract: _____ Date: _____



Crop rotations have been used for centuries to help in erosion control as well as to gain many other benefits, such as crop pest reductions.



A low-residue producing crop, such as soybeans, needs to be rotated with crops that produce higher amounts of residue for erosion control as well as disease reductions.

DEFINITION

Growing crops in a planned sequence on the same field.

PURPOSE

This practice may be applied as part of a conservation management system to support one or more of the following:

- Reduce sheet and rill erosion.
- Reduce soil erosion from wind.
- Improve soil quality.
- Manage the balance of plant nutrients.
- Conserve water.
- Manage plant pests (weeds, insects, diseases).
- Provide feed for domestic livestock.
- Provide food and cover for wildlife.
- Supply nitrogen through biological nitrogen fixation to reduce energy use.
- Provide annual crops for bioenergy feedstocks.

CRITERIA

Crops shall be grown in a planned sequence as outlined in the Operation and Maintenance section of this job sheet.

The selected crops and the cropping sequence shall produce sufficient and timely quantities of

biomass or crop residue, in conjunction with other practices in the management system, to reduce sheet and rill and/or wind erosion to the planned soil loss objective.

Select crops that produce the amount of vegetative material needed to maintain or improve soil quality. The crops grown shall produce a positive OM (Organic Matter) subfactor value over the life of the rotation, as determined by the Soil Conditioning Index, with appropriate adjustments for additions to or subtractions from biomass.

If partial removal of residue by means such as baling or grazing occurs, enough residue will be maintained to achieve the desired soil organic matter content goal.

Crop selection and sequence will be determined using an approved nutrient balance procedure.

When crop rotations are designed to add nitrogen to the system, nitrogen-fixing crops will be grown immediately prior to or interplanted with crops having a medium to high nitrogen demand.

To reduce excess nutrients, select crops or cover crops having rooting depths and nutrient requirements that utilize the excess nutrients.



Crop rotations are important in giving soil a well-aggregated condition with a reasonable degree of biological activity.

Consider soil droughtiness, seasonal rainfall, and crop selection to optimize water use efficiency.

Crops should be alternated to break the pest cycle and/or allow for the use of a variety of other control methods. Affected crops and alternate host crops will be removed from the rotation for the period of time needed to break the life cycle of the targeted pest.

Resistant or tolerant varieties, listed in appropriate university publications or other approved sources, should be selected where there is a history or reasonable potential of a pest problem.

When appropriate, crops will be selected to balance the feed supply with livestock needs. The needed amount of selected crops will be determined using an approved forage-livestock balance procedure.

Crop selection and management will impact wildlife habitat. Impacts should be evaluated as a part of rotation planning and implementation.

When low-residue quantities are produced by the row crop, or when residues are removed, a suitable cover crop will be used to provide a source of biomass to support physical, chemical, and biological soil improvements.

The use of different types of plants (grasses, legumes etc.) will be considered to provide diversity.

The selection of pesticides will consider the impacts on the soil biology. Soil disturbance will be held to a minimum.

OPERATION AND MAINTENANCE

Rotations shall provide for acceptable substitute crops in case of crop failure or shift in planting intentions for weather related or economic reasons. Acceptable substitutes are crops having similar properties that will accomplish the purpose of the original crop.

Additional Operation and Maintenance requirements specific to this Plan:



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SPECIFICATIONS

Conservation Crop Rotation specifications will be prepared for each planning unit according to criteria. Specifications will be recorded using North Carolina specification sheets, job sheets, narrative statements in conservation plans, or other acceptable documents.

Client Name:		Farm #:	
County:		Tract #:	
Program::		Field(s):	
Date:			

Tract (s)	Field(s) & acres	Cropping System/ Rotation ID	Year:									
			Season:									

I agree to install this practice as designed and planned.

Client: _____ Date: _____

This practice is designed and planned according to NRCS NC Standards and Specifications.

Conservationist: _____ Date: _____

This practice was installed and maintained in accordance with this job sheet.

Completed by: _____ Date: _____