United States Department of Agriculture

CONSERVATION ENHANCEMENT ACTIVITY

E328B

CONSERVATION STEWARDSHIP PROGRAM

Improved resource conserving crop rotation

Conservation Practice 328: Conservation Crop Rotation

APPLICABLE LAND USE: Crop (Annual & Mixed)

RESOURCE CONCERNS: Plants

ENHANCEMENT LIFE SPAN: 1 year

Enhancement Description

Improve an existing Resource Conserving Crop Rotation. Must enrich an existing rotation which already includes AT LEAST one resource conserving crop as determined by the State Conservationist in a minimum three-year crop rotation. The crop rotation will reduce soil erosion (water and wind), improve soil health, improve soil moisture efficiency, and reduce plant pest pressures.

Criteria

- Crops shall be grown in a planned sequence. The crop rotation shall include a minimum of two different crops in a minimum three-year crop rotation. Rotation must include AT LEAST one resource conserving crop (refer to State Specific List of Resource Conserving Crops). For purposes of these criteria a cover crop is considered a different crop.

- Crop rotation must produce a positive trend in the Organic Matter (OM) subfactor value, as determined by the Soil Conditioning Index (SCI) calculated using current NRCS wind and water erosion prediction technologies. (management SCI value)

- Design the crop sequence to provide sufficient diversity in plant family and species as well as timing and type of field operations to suppress the pest(s) of concern, which

may include weeds, insects, and pathogens. Use land grant university or industry standards to determine a suitable crop sequence.

- Select crops, varieties of crops, and the sequences of crops based on local climate patterns, soil conditions, irrigation water availability, and an approved water balance procedure.
- Where applicable, plan suitable crop substitutions when the planned crop cannot be planted due to weather, soil conditions, or other local situations.
- The improved resource conserving crop rotation shall include at least one of the following (refer to State Specific List of Resource Conserving Crops):
    - Additional growing year for perennial resource conserving crop
    - Perennial resource conserving crop (grass or grass/legume) substituted for a row crop
    - If current perennial resource conserving crop is a legume, change to a perennial grass or grass/legume crop

CONSERVATION STEWARDSHIP PROGRAM

Documentation and Implementation Requirements

Participant will:

☐ Prior to implementation, provide NRCS with the planned crop rotation and tillage operation(s) used for each crop. Note all improvements to the existing Resource Conserving Crop Rotation.

Field	Acres	Planned Crops (in sequence)	Length of Crop Rotation (years)

Field	Crop	Field Operation	Timing of Field Operation (month/year)

☐ During implementation, notify NRCS of any planned changes in crops, crop rotation, or field operations to verify the planned system meets the enhancement criteria.

☐ After implementation, if changes to the rotation were made, complete the tables above to document the applied Conservation Crop Rotation for the contract period and provide to NRCS.

NRCS will:

☐ As needed, provide technical assistance in selecting crop rotations or substitute crops that would meet the criteria of the enhancement.

☐ Prior to implementation, verify that the crop rotation includes at least two different crops in a minimum three-year crop rotation.

CONSERVATION STEWARDSHIP PROGRAM

- ☐ Prior to implementation, verify the crop rotation includes at least one resource conserving crop (refer to State Specific List of Resource Conserving Crops).
- ☐ Prior to implementation, verify the planned crop rotation improves the current Resource Conserving Crop Rotation.
- ☐ Prior to implementation, use information provided from the participant to calculate the management Soil Conditioning Index (SCI) value using current NRCS wind and water erosion prediction technologies. Crop rotation must produce a positive trend in the Organic Matter (OM) subfactor value. **Management SCI Value = _____ OM subfactor value = _____**
- ☐ During implementation, evaluate planned changes in crops, crop rotation, or field operations to verify the planned system meets the enhancement criteria.
- ☐ After implementation, if the applied crop rotation is different than the planned crop rotation, use information provided from the participant to calculate SCI value to document that the applied rotation met the enhancement criteria. **Management SCI Value = _____ OM subfactor value = _____**

NRCS Documentation Review:

I have reviewed all required participant documentation and have determined the participant has implemented the enhancement and met all criteria and requirements.

Participant Name _____ Contract Number _____

Total Amount Applied _____ Fiscal Year Completed _____

_____ _____

NRCS Technical Adequacy Signature Date

SOUTH DAKOTA (SD) SUPPLEMENT TO CONSERVATION ENHANCEMENT ACTIVITY E328B

CONSERVATION STEWARDSHIP PROGRAM

Additional Criteria for SD:

In addition to the criteria specified in the National job sheet E328B the following additional criteria apply in SD:

- Utilize Range Technical Note No. 4 to determine site suitability for perennial vegetation Range_Tech_Note_4.pdf (usda.gov)

South Dakota Resource Conserving Crops List				
Introduced Cool-season Grasses	**Native Cool-season Grasses**	**Native Warm-season Grasses**	**Introduced Legumes**	**Native Legumes**
Alkali grass	American manna grass	Alkali sacaton	Alfalfa	American licorice
Altai wildrye	American slough grass	Big bluestem	Alsike clover	American vetch
Creeping foxtail	Basin wildrye	Blue grama	Bird's-foot trefoil	Canada milkvetch
Crested wheatgrass	Beardless wildrye	Buffalo grass	Cicer milkvetch	Canada tick trefoil
Crested wheatgrass hybrid	Blue wildrye	Green muhly	Hairy vetch	Cream / long bract wild indigo
Dahurian wildrye	Blue bunch wheatgrass	Indiangrass	Red clover	Groundplum milkvetch
Desert wheatgrass	Bluejoint reed grass	Inland Saltgrass	Sainfoin (pod less)	Illinois bundleflower
Green wheatgrass	Canada wildrye	Little bluestem	Strawberry clover	Illinois tick trefoil
Hard fescue	Fowl bluegrass	Prairie cordgrass	Sweet clover	Indian breadroot scurf pea
Intermediate wheatgrass	Fowl manna grass	Prairie dropseed	White clover	Purple prairie clover
Mammoth wildrye	Green needlegrass	Prairie sandreed		Round-headed bush clover
Meadow brome	Indian rice grass	Sand bluestem		Showy partridge pea
Orchard grass	Montana wheatgrass	Sand dropseed		White prairie clover
Pubescent wheatgrass	Mountain brome	Sand lovegrass		
Russian wildrye	Needleandthread	Side oats grama		
Siberian wheatgrass	Nuttall's alkali grass	Switchgrass		
Smooth brome	Porcupine grass			
Tall fescue	Prairie June grass			
Tall wheatgrass	Prairie wedge grass			
Timothy	Reed canary grass			
	Sandberg bluegrass			
	Slender wheatgrass			
	Snake River wheatgrass			
	Squirrel tail			
	Thick spike wheatgrass			
	Tufted hairgrass			
	Virginia wildrye			
	Western wheatgrass			
	White top			