

# Effects of NRCS Conservation Practices - National

## Cover Crop

Crops including grasses, legumes, and forbs for seasonal cover and other conservation purposes.

Code: 340

Units: ac.

Typical Landuse:

AL-Aso Land	
O-Other	
W-Water	
D-Developed	
FS-Farmstead	
PI-Protected	
P-Pasture	
R-Range	
F-Forest	
C-Crop	

<u>Soil Erosion</u>	<u>Effect</u>	<u>Rationale</u>
Soil Erosion - Sheet and Rill Erosion	4	Increased cover during erosive periods will reduce soil detachment by water.
Soil Erosion - Wind Erosion	4	Increased cover during erosive periods will reduce soil detachment by wind.
Soil Erosion - Ephemeral Gully Erosion	3	Increased cover during erosive periods will reduce concentrated flow and associated soil detachment.
Soil Erosion - Classic Gully Erosion	0	Not Applicable
Soil Erosion - Streambank, Shoreline, Water Conveyance C	0	Not Applicable
<u>Soil Quality Degradation</u>		
Organic Matter Depletion	2	More biomass produced will increase organic matter.
Compaction	2	Increased biomass and roots improve aggregation, which gives better resistance to compaction.
Subsidence	0	If it affects drainage the practice can have an impact on subsidence.
Concentration of Salts or Other Chemicals	1	Increased organic matter will buffer salts.
<u>Excess Water</u>		
Excess Water - Seeps	1	Growing plants will take up excess water. However, infiltration will increase, which may offset some of the benefits.
Excess Water - Runoff, Flooding, or Ponding	2	Growing plants will reduce runoff and increase infiltration.
Excess Water - Seasonal High Water Table	1	Growing plants will take up excess water. However, infiltration will increase, which may offset some of the benefits.
Excess Water - Drifted Snow	0	Not Applicable
<u>Insufficient Water</u>		
Insufficient Water - Inefficient Use of Irrigation Water	1	Improves infiltration
Insufficient Water - Inefficient Moisture Management	2	Improves infiltration, soil structure, and winter water use that may otherwise be lost. For dry climates (<20 inches/year); cover crops will compete for main crop's moisture.
<u>Water Quality Degradation</u>		
Pesticides in Surface Water	2	The action reduces runoff and erosion.
Pesticides in Groundwater	2	The action increases soil organic matter, biological activity, and pesticide uptake.
Nutrients in Surface water	2	The action reduces erosion and runoff and transport of nutrients. Cover crops can uptake excess nutrients.
Nutrients in Groundwater	2	The action utilizes excess nutrients and increases organic matter. The additional organic matter will increase cation exchange capacity which will hold nutrients.
Salts in Surface Water	0	Less runoff reduces transport of soluble salts. Growing vegetation can use excess water which reduces seepage.
Salts in Groundwater	1	Cover crops can take up salts and water reducing the leaching potential of salts.
Excess Pathogens and Chemicals from Manure, Bio-solic	1	Less erosion and runoff reduces delivery of pathogens.
Excess Pathogens and Chemicals from Manure, Bio-solic	2	The action increases organic matter promoting microbial activity which competes with pathogens.

Excessive Sediment in Surface Water	2	Vegetation will reduce erosion and transport of sediment.
Elevated Water Temperature	0	Not Applicable
Petroleum, Heavy Metals and Other Pollutants Transport	0	Not Applicable
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<u>Air Quality Impacts</u>		
Emissions of Particulate Matter (PM) and PM Precursors	3	Ground cover helps reduce wind erosion and generation of fugitive dust.
Emissions of Ozone Precursors	0	Not Applicable
Emissions of Greenhouse Gases (GHGs)	2	Vegetation removes CO2 from the air and stores it in the form of carbon in the plants and soil.
Objectionable Odors	0	Not Applicable
<u>Degraded Plant Condition</u>		
Undesirable Plant Productivity and Health	2	Plants are selected and managed to maintain optimal productivity and health and can contribute to subsequent crop health and productivity.
Inadequate Structure and Composition	5	Plants selected are adapted and suited.
Excessive Plant Pest Pressure	4	Vegetation is installed and managed to control undesired species.
Wildfire Hazard, Excessive Biomass Accumulation	0	Not Applicable
<u>Fish and Wildlife - Inadequate Habitat</u>		
Inadequate Habitat - Food	2	Increased quality and quantity of vegetation provides more food for wildlife.
Inadequate Habitat - Cover/Shelter	2	Increased quality and quantity of vegetation provides more cover for wildlife.
Inadequate Habitat - Water	4	Not Applicable
Inadequate Habitat - Habitat Continuity (Space)	2	Increased cover will increase space for wildlife. May be used to connect other cover areas.
<u>Livestock Production Limitation</u>		
Inadequate Feed and Forage	2	Cover crops will add supplemental forage.
Inadequate Shelter	0	Not Applicable
Inadequate Water	0	Not Applicable
<u>Inefficient Energy Use</u>		
Equipment and Facilities	0	Not Applicable
Farming/Ranching Practices and Field Operations	2	Cover crops can reduce nitrogen inputs.

<b><u>CPPE Practice Effects:</u></b>	<i>0 No Effect</i>
<i>5 Substantial Improvement</i>	<i>-1 Slight Worsening</i>
<i>4 Moderate to Substantial Improvement</i>	<i>-2 Slight to Moderate Worsening</i>
<i>3 Moderate Improvement</i>	<i>-3 Moderate Worsening</i>
<i>2 Slight to Moderate Improvement</i>	<i>-4 Moderate to Substantial Worsening</i>
<i>1 Slight Improvement</i>	<i>-5 Substantial Worsening</i>