

Missouri Ecological Science Job Approval Authority Fact Sheet



Cover Crop (Code 340)

DEFINITION:

Grasses, legumes, and forbs planted for seasonal vegetative cover.

PURPOSE:

This practice is applied to support one or more of the following purposes:

- Reduce erosion from wind and water
- Maintain or increase soil health and organic matter content
- Reduce water quality degradation by utilizing excessive soil nutrients
- Suppress excessive weed pressures and break pest cycles
- Improve soil moisture use efficiency
- Minimize soil compaction



ESJAA INFORMATION:

Job Classes	Control Factors	
	Number of Species Planted	Practice Purpose
Job Class I	1	Soil Erosion Wind and Water
Job Class II	2 to 3	Water Quality-Excess Soil Nutrients
Job Class III	4 to 5	Soil Health-Maintain or Increase
Job Class IV	> 5	Pest Cycles and Pressure
Job Class V	All	

CONTROL FACTORS:

The Cover Crop (Code 340) practice has two controlling factors and units. They are Number of Species Planted as a controlling factor with “Number” as the units, and Practice Purpose as a controlling factor with “Purpose” as the units.

KNOWLEDGE, SKILLS, AND ABILITIES (KSA):

1. Knowledge of State's Crops and Cropping Systems
2. Knowledge of Soil Health and Management
3. Ability to Use Current Wind and Water Erosion Prediction Tools
4. Knowledge of Tillage Systems Used in the State
5. Knowledge of Adaptive Species of Cover Crops for Planned Purposes in the State
6. Knowledge to Select Proper Inoculum for Legume Species
7. Knowledge of Approved Planting Dates and Methods of Termination for Cover Crops

COMMON ASSOCIATED PRACTICES:

Cover Crops (Code 340) is commonly applied with practices such as Conservation Crop Rotation (Code 328), Residue and Tillage Management, No Till (Code 329), Residue and Tillage Management, Reduced Till (Code 345), Nutrient Management (Code 590), and Pest Management Conservation System (Code 595).

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ADDITIONAL MATERIALS:

- Terminology and Definitions for Agricultural Tillage Implements, ASAE S414.1. 2004.
- Legume Inoculation, Missouri Agronomy Technical Note MO-36. 2008.
- Clark (ed.). 2007 [Managing Cover Crops Profitably, 3rd Ed.](#) Sustainable Agriculture Network Handbook Series; bk 9
- [Midwest Cover Crops Field Guide.](#) Midwest Cover Crop Council and Purdue Crop Diagnostic Training and Research Center. 2012.
- Magdoff, F. and H. van Es. Cover Crops. 2000. p. 87-96 *In* [Building Soils for Better Crops.](#) 2nd ed. Sustainable Agriculture Network Handbook Series; bk 4. National Agriculture Library. Beltsville, MD
- NRCS Cover Crop Termination Guidelines:
<http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/climatechange/?cid=stelprdb1077238>
- Revised Universal Soil Loss Equation Version 2 (RUSLE2) website:
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/tools/rusle2/>
- Wind Erosion Prediction System (WEPS) website:
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/tools/weps/>
- USDA, Natural Resources Conservation Service, National Agronomy Manual, 4th Edition, Feb. 2011. Website:
<http://directives.sc.egov.usda.gov/> Under Manuals and Title 190
- DeJong-Hughes, J. and A Daigh. [Upper Midwest Tillage Guide.](#) University of Minnesota Extension.
<https://extension.umn.edu/soil-and-water/soil-management-and-health#upper-midwest-tillage-guide-1233360>

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