



CT Conservation Cover - 327

Conservation Practice Job Sheet Lifespan – 5 years

Producer:		Location:	
Farm, Tract and Field(s):		Planner:	
Program:		Date:	

**Definition**

Establishing and maintaining permanent vegetative cover.

Purpose

This practice may be applied to accomplish one or more of the following:

- Reduce soil erosion and sedimentation.
- Improve water quality.
- Improve air quality.
- Enhance wildlife habitat and pollinator habitat.
- Improve soil quality.
- Manage plant pests.

Where Used

This practice applies on all lands needing permanent vegetative cover. This practice does not apply to plantings for forage production (use Connecticut NRCS Standard 512, Forage and Biomass Planting) or to critical area plantings (use Connecticut NRCS Standard 342, Critical Area Planting).

Resource Management System

A Resource Management System is a combination of conservation practices and resource management, for the treatment of all identified resource concerns for soil, water, air, plants and animals, within a conservation management or planning unit that meets or exceeds the quality criteria in the Field Office Technical Guide for resource sustainability. Conservation Cover is applied as part of Conservation Management Systems for a wide range of land uses. Conservation Cover is often planned with Field Border (386), Forest Trail and Landings (655), Integrated Pest Management (595), Restoration and Management of Declining Habitat (643), Riparian Herbaceous Buffer (390) Upland Wildlife Habitat Management (645), Wetland Enhancement (659), and Wetland Wildlife Habitat Management(644).

Criteria, Considerations, and Specifications

The Criteria, Considerations, and Specifications for this practice shall be in

concurrence with CT Field Office Technical Guide and the CT Conservation Practice Standard for this practice.

Planting Procedures

The following elements will be addressed in the plan to meet the intended purpose:

1. Site Preparation & Soil Test
2. Fertilizer Application (if applicable)
3. Seedbed/Planting Bed Preparation
4. Methods of Seeding/Planting
5. Time of Seeding/Planting
6. Selection of Species
7. Type of legume inoculant used (if applicable)
8. Seed/Plant Source
9. Seed Analysis
10. Rates of Seeding/Planting
11. Supplemental Water for Plant Establishment (if applicable)
12. Protection of Plantings (if applicable)

Seeding Dates

Seeding Dates should be scheduled based on plant type and USDA Plant Hardiness Zone (www.planthardiness.ars.usda.gov). Schedule plantings during periods when soil moisture is adequate for germination and establishment.

For cool season grasses spring seeding dates from April 15 to June 15, and fall seeding dates from August 15 to September 15 are adequate for most of Connecticut. In coastal areas the fall seeding dates may be extended to October 1, and spring seedings may be established after April 1, if conditions are suitable.

For warm season grasses seeding dates occurs between mid-spring and early summer (May 1 through June 30). Early summer (May 15 through June 15) is preferred, where soil moisture is adequate. The required Soil temperature for seed germination is 55°F.

Dormant seedings (or frost seeding) may be done as a last resource measure. For most of Connecticut plant between December 1 and April 1. Seeding rates need to be increased and mulching may be needed in areas with not cover. Consider soil moisture and accessibility to the site.

Soil Fertility

Soil tests samples should be sent to an appropriate soil test lab, such as the University of Connecticut Soil Nutrient Analysis Laboratory. Soil samples should be pulled from the top 4 to 6 inches of topsoil in the fall prior to planting.

Follow soil test result recommendations. Apply lime during first tillage operation or at the time of planting. Apply lime and fertilizer according to a recent (less than three years) soil test. Where soil pH levels are below 5.5, apply lime to raise pH to 6.2 at a minimum. NOTE: For warm season native grasses, nitrogen application is not recommended in the seeding year. Nitrogen may be needed after the establishment year if the plants exhibit nitrogen deficiency symptoms (pale green leaves and poor growth) . Otherwise, do not apply nitrogen fertilizers to establish warm season native grasses. Apply all soil amendments prior to seedbed preparation or before planting if a no-till drill is used.

Killing existing sod

Killing the existing cover with herbicides is suggested only when the vegetation is primarily composed of undesirable plants. To kill or subdue the existing vegetative cover, tillage or a combination of tillage and herbicide applications can be used.

Herbicide use is often recommended where weed pressure is a concern and where planting will be done with no-till equipment. Surface and ground waters should not be exposed to herbicides. It may be advisable to hire professional assistance if chemical controls are being considered.

To kill the established cover with an herbicide, first mow the field as soon as the field is dry enough to drive on. One to two weeks later, spray the grass with a contact systemic herbicide according to label instructions. Two weeks later, inspect the treated area and spot treat any remaining growth where needed. The last non-selective herbicide application should take place at least one week prior to planting.

No-Till Plantings

A no- till planting can drill seed into an existing plant cover. No-till plantings may

have advantages over tilled plantings by reducing soil erosion and compaction, and by maintaining soil structure and moisture levels. Killing the existing cover with herbicides is suggested only when the vegetation is primarily composed of undesirable plants. Otherwise, mow the stand down to 3 to 4 inches prior to planting.

Seedbed Preparation for Conventional Planting

Disk and/ or harrow the field to break up existing vegetation, bury plant residues, and incorporate fertilizer. If tillage is done early, emerging weeds can be controlled with a contact herbicide or a light harrowing or disking before seeding. During tillage, remove all woody plants and vines to prepare a clean seed bed.

For conventional planting, the seedbed should be firm and free of rocks, weeds, and soil clods. The seedbed is considered firm enough when a footprint penetrates $\frac{1}{4}$ to $\frac{1}{2}$ inch deep. Recently tilled ground should be packed with a coil or roller packer prior to seeding.

Conventional Planting

An advantage of a tilled bed is that it allows for use of a variety of planting equipment such as band, billion-cultipacker, and drill seeders. When using mechanical seeders, ensure seed placement at a depth of $\frac{1}{4}$ to $\frac{1}{2}$ inch.

Broadcasted seed has a very low survival rate. If broadcasting is used, seeding rates must be increased to compensate for expected mortality. Seed should be packed after broadcasting to improve soil-seed contact.

Seeding Mixture

For cool season grasses pure live seed (PLS) seeding rate should be a minimum of 10 pounds per acre for mechanical plantings. For warm season grasses, depending on the species, seeding rates range from 5 to 12 lbs. of PLS per acre. Wildflowers and legumes can be added to the seed mix at about 1 lb. PLS per acre.

Suitable seeding mixtures may be found in published Field Crops Guides or Agronomy Guides for Northeastern states, such as the ones published by Penn State, University of Vermont, and Cornell University. Ensure the mix is free of invasive species.

Warm season grasses can take up to two years to establish. In sites where erosion is a concern, seed a companion crop of oats in the spring or of wheat or cereal rye for late summer seeding. Do not use rye or wheat with spring seedings of warm season native grasses. All cover crop must be mowed in the early boot stage of growth. When no-tilling into good residue, omit the companion crop.

Note that specialized equipment may be needed for planting some species, such as some warm season grasses, which may plug conventional planters.

Pollinator Planting

For guidance on establishing pollinator habitat, utilize existing resources from NRCS and the Plant Materials Center. Follow recommendations for the Northeast region of the country and from Connecticut NRCS. The website for Insects & Pollinators Publications is: <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/plantmaterials/technical/publications/?cid=stelpdb1044847> which includes a link to "Pollinator-Friendly Plants for the Northeast United States". Ensure pollinator plantings have a diverse mixture of species established which will provide habitat from early spring, into summer and through late fall to promote bio-diversity and to meet the needs of the targeted species of wildlife.

Certification

Producer should communicate with NRCS prior to and during implementation activities. Documentation by NRCS staff of proper management or costumer's records shall be used for certification of this practice. Acceptable documentation includes:

- Soil Test Results.
- Lime and Fertilizer Application and/or Manure Application Records.
- Seed Label from the purchased mix.
- Seeding Dates

Conservation Cover Planting Plan

Refer to attached Conservation Plan Map(s) for location of area(s) to be treated.

Designed By:	Title:	Date:
Objectives:		
<input type="checkbox"/> Reduce soil erosion and sedimentation	<input type="checkbox"/> Improve water quality	<input type="checkbox"/> Improve air quality
<input type="checkbox"/> Improve soil quality	<input type="checkbox"/> Manage plant pests	<input type="checkbox"/> Enhance wildlife habitat and pollinator habitat <input type="checkbox"/> Other

Field(s)	Dominant Soil Type (Include texture and drainage)	Planting Method (See Page 3 of Job Sheet)	Species Seeding Rate-Seed Mix (Pounds of Pure Live Seed)	Total Planting Rate (PLS/ac)	Acres	Total Seed Needed (PLS)

Additional Specifications and Notes (Fact Sheets and other guidance documents provided should be listed here):

1.
2.
3.
4.

FERTILITY: Apply lime and fertilizer as needed, according to Soils Test recommendations.

SEEDING DATES: Perform seeding of grasses and legumes only during the following time periods:

Spring - seed from	to	
Fall - seed from	to	

