

Conservation Cover - 327

Massachusetts Introduced Grass Planting Job Sheet

Client:	Farm #:	Tract #:
Planned By:	Date:	

DEFINITION

Establish and maintain permanent vegetative cover.

WHERE USED

This practice applies on land needing permanent vegetative cover. This practice does not apply to plantings for forage production or to critical area plantings.



INTRODUCTION

Introduced grasses are those species that were not indigenous to the northeast at the time of European settlement. The introduced grasses that are typically used for conservation purposes (e.g., redtop, hard fescue, red fescue, ryegrass, orchardgrass and timothy) are cool season grasses, meaning they produce most of their growth during the spring and late fall when the soil and air temperatures are cooler. The introduced grasses can be planted to reduce soil erosion and sedimentation, improve water quality, and provide wildlife habitat. Legumes such as clover are often seeded in combination with the introduced grasses to maintain stand vigor and provide additional wildlife benefits.

ESTABLISHMENT SPECIFICATIONS

The introduced, cool season grasses usually take 1 to 2 years to become fully established. During that time, weeds can be a major problem and need to be controlled, typically through periodic mowing during the growing season. Sites with existing vegetation will also require up to a year of site preparation, usually consisting of herbicide treatment and/or cultivation.

Competition Control Before Planting

Competition control is critical to ensuring a good stand of introduced grasses. In most situations, this control should begin prior to the seeding and seedbed operations. Conventional seedbed preparation (i.e., cultivation), herbicide application, or both may be used to control competition prior to planting introduced grasses. Competition control should focus on the abatement of weeds and will be done according to the Establishment Plan.

Seed Mixture

The species and seeding rates will be according to the Establishment Plan. If erosion is a concern, or if seeding towards the end of the effective planting dates in the fall, a nurse crop should be included. Seed tags and other information may be requested by the NRCS representative to verify contract compliance.

Common nurse crops and seeding rates for introduced cool season grasses include:

Oats – 32 - 48 lbs/acre

Annual rye – 4 lbs/acre

Soil Amendments

Soil amendments, if needed, will be based on a recent soil test. If amendments are needed, comply with the following general recommendations as applicable:

- If lime will not be incorporated, apply lime at least 1 year prior to seeding.
- Surface applications of lime shall not exceed 1.5 tons/acre; the number of surface applications of lime shall not exceed 2 per year, and applications shall be a minimum of 3 months apart.
- Avoid applying nitrogen late in the season. If performing a late seeding, apply any needed nitrogen the following spring.

Seedbed Preparation and Seeding

A firm seedbed is important when seeding grasses because it helps conserve moisture and ensures good seed to soil contact. As a general rule, a seedbed is firm when an adult's footprint is no more than ½ inch deep. Refer to the Establishment Plan for seedbed preparation and seeding method.

Planting Dates

Grasses shall be seeded when soil moisture and temperature conditions are optimal for germination. Moisture conditions are considered ideal when the soil can be readily formed into a ball in the palm of the hand and the ball breaks easily when dropped. For cool season grasses, the optimal seeding time is spring or late summer/early fall (up to 6 weeks prior to a killing frost). Recommended planting dates are shown on the Establishment Plan but the date ranges can vary depending on the local climate and from year to year.

Weed Control During Establishment

The introduced, cool season grasses usually take 1 to 2 years to become fully established. During that time, weeds can be a major problem and need to be controlled. Follow the recommended weed control in the Establishment Plan.

OPERATION AND MAINTENANCE

Cool-season grass stands require periodic maintenance to maintain stand vigor, control invasive weeds, and prevent succession of woody vegetation. The type and frequency of maintenance will vary depending on the purpose of the planting; however, basic maintenance activities include the following:

Control of Woody Growth

Methods to control woody growth include mowing, targeted herbicide treatment, and prescribed burning. Mowing is the most common method because of access to equipment.

Wildlife Habitat

Management practices should be conducted outside of the primary nesting season for birds and ground-nesting wildlife (April 15 – August 1). If mowing will be used to control woody growth, do not mow grasses shorter than 5 inches. Early fall mowing is preferable because it allows for some re-growth prior to the first killing frost, which can provide some winter cover and early spring nesting sites. For optimum wildlife benefits, practice rotational mowing so that only 1/3 to 1/2 of the stand is cut in any given year. This retains some food and cover for wildlife and enhances the structural diversity of the stand.

Weed Control

Control weeds and non-native invasive species by spot treatment, using mechanical methods or approved herbicides.

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ESTABLISHMENT PLAN

Purpose (check all that apply)

- | | | |
|--|--|--|
| <input type="checkbox"/> Reduce soil erosion and sedimentation | <input type="checkbox"/> Improve water quality | <input type="checkbox"/> Improve air quality |
| <input type="checkbox"/> Enhance wildlife habitat | <input type="checkbox"/> Improve soil quality | <input type="checkbox"/> Manage plant pests |

Competition Control Before Planting (check current condition and prep method)

Current Condition	Method
<input type="checkbox"/> No Existing Vegetation	<input type="checkbox"/> Site prep not required
<input type="checkbox"/> Existing vegetation	<input type="checkbox"/> Herbicide Treatment – Use an herbicide with low persistence to kill existing vegetation. If the existing vegetation is well established dense turf, a fall and spring, or 2 spring treatments will likely be required.
	<input type="checkbox"/> Cultivation – Cultivate the site to remove all existing vegetation.

Seed Mixture

Seed Mix 1	Field(s)	Acres
Species		
#1		Lbs/Ac
#2		Lbs/Ac
#3		Lbs/Ac
#4		Lbs/Ac

- Nurse Crop** – Use a nurse crop of _____ at a rate of _____ lb/ac at the time of planting for erosion control or weed suppression.

Seed Mix 2	Field(s)	Acres
Species		
#1		Lbs/Ac
#2		Lbs/Ac
#3		Lbs/Ac
#4		Lbs/Ac

- Nurse Crop** – Use a nurse crop of _____ at a rate of _____ lb/ac at the time of planting for erosion control or weed suppression.

Soil Amendments (if needed, will be based on a recent soil test)

Field	Acres	Limestone Tons/Ac	Phosphorus Lbs/Ac	Potassium Lbs/Ac	Nitrogen Lbs/Ac

Planting Equipment (check equipment needed)

- Grass drill
- Broadcast seeder **NOTE: if broadcast seeding, increase seed rates by 30%.**
- Other _____

Planting Method (check planting method)

- Conventional seeding into firm, prepared seed bed.
- No-till planting into residue or clean seed bed. Existing vegetation must be “burned down” with an herbicide prior to planting.
- Broadcast seeding. Broadcast onto a firm seedbed and incorporate seed using a rake, or drag.

Planting Dates (check appropriate plant hardiness zone for spring or fall planting)

Plant Hardiness Zone	Spring Planting	Fall Planting ¹
4	<input type="checkbox"/> April 15 - June 10	<input type="checkbox"/> August 5 - September 1
5	<input type="checkbox"/> April 1 - June 1	<input type="checkbox"/> August 10 - September 5
6	<input type="checkbox"/> March 20 - May 20	<input type="checkbox"/> August 20 - October 1
7	<input type="checkbox"/> March 10 - May 10	<input type="checkbox"/> September 1 - October 15

¹When legumes are included in seed mix, plant around 1 week prior to earliest date listed if there is adequate soil moisture. Pure grass mixes can be seeded earlier if there is adequate soil moisture.

Weed Control During Establishment

Planting Year

- ✓ Mow the planting areas as needed to ensure that weeds are kept below 16 inches and to keep them from producing seeds. The mower should be set at a height of 4 to 6 inches (or just above seedling height). Any wildlife nesting season restrictions do not apply during the establishment period.
- ✓ Selective herbicides can be used for controlling specific weeds and are most effective when weeds are young and actively growing. Check the herbicide label to ensure it is labeled for use on the seeded native species.

Second Year After Planting

- ✓ In early spring, if weeds comprise more than 25% of the stand, either treat with an appropriate herbicide or plan on periodically mowing the stand to a height of 6 to 8 inches.

Additional Specifications

