

Cereal Rye for Weed Control or Green Manure
 Cover Crop Mixture

Producer Name: _____
 Contract# _____
 Date: _____

**INFORMATION ON THIS JOB SHEET IS
 CONSIDERED TO BE PART OF THE
 CONTRACT AND/OR CONSERVATION
 PLAN.**

Purpose

This job sheet will be used **to assist organic producers** to establish green manure cover crops for the explicit purposes of weed suppression and boosting the soil ecosystem. These organic cover crops provide a flush of degradable plant material that will have an allelopathic and smothering effect on weeds while also serving to restore the soil ecosystem to a more sustainable and productive level as soil organic matter levels increase.

Conditions Where Practice Applies

Practice applies on all lands where soil ecosystem improvements are desired and where it is not feasible to implement a complete no-till cropping system. This practice is intended to assist organic producers with increasing soil organic matter levels.

Establishment Specifications

1. Species and seeding rates will be according to **Table 1.**



Seed will conform to minimum state standards for purity, germination and other features. Commercially marketed seed in Kentucky meets these requirements. **Organic producers should ensure the use of organic seed when available. Contact the State Organic Certifier for more information.**

Seeding and Seedbed Preparation

No-till establishment is the preferred method since soil disturbance is minimal, thus reducing weed competition and the risk of soil erosion.

Conventional seeding may be used for establishment on areas that have been recently cropped, where weedy competition will be lessened by tillage and where the risk of soil erosion is minimal.

Important: If soil is wet, avoid no-till planting or culti-packing planted seedbeds. This may result in placing the seed too deep in the ground, compacting the soil from wheel traffic, and causing sidewall compaction by the planter.

Seeding Dates

The preferred seeding dates for **summer annual green manure cover crop mixtures are March 1st through April 15th**.

The preferred seeding dates for **winter annual weed control or green manure cover crop mixtures are September 1st through October 1st. Earlier September seeding dates are optimal.**

No-Till Seeding

Care should be exercised to insure appropriate cover crop mixture seeding rates and seeding depths are obtained when using no-till drills or planters.

Aerial Seeding

Depending on the organic crop grown, there may be opportunity to over-seed cover crop by hand or by mechanical means before fall leaf drop. Increase seeding rates by 25%.

Conventional Seeding

The importance of a dry firm seedbed cannot be over emphasized to ensure proper planting depth.

Seedbeds may be prepared by disking.

Once the seedbed is prepared; broadcast seed, roll, culti-pack, or harrow the seeded area only once to ensure good seed to soil contact and the proper seeding depth.

Operation and Maintenance

Recommended termination period for winter annual cereal rye cover crop mixtures is between early boot stage (Stage 10 of the attached Purdue University Extension Service “Small Grain Growth Chart-Insert 1) and before 50% of cereal rye is headed out.

The winter and summer cover crop growth should be terminated by mowing prior to incorporation.

To maximize weed control, roll down winter cereal rye cover after growth stage 10 instead of mowing and incorporating.

For NRCS Program Purposes

- **The cover crop CANNOT be harvested for seed, silage or hay. All crop residues must be left in the field.**
- **Winter annual green manure cereal rye cover crop mixtures will not be terminated before growth stage 4 of the Purdue University Extension Service “Small Grain Growth Chart (Insert 1).**
- **Spring termination will occur before cereal rye becomes 50% headed out if crop insurance is a concern. Participant should contact their crop insurance representative if they have crop insurance because USDA-Risk Management Agency(RMA) crop insurance guidance may change.**
- **Summer organic cover crop termination will be 2-3 weeks prior to planting of the fall crop.**

Insert 1: Purdue University Extension Service

Small Grains Growth Stages

Stage 1

3-Leaf Stage: The first two leaves are completely developed, and the middle, or third, leaf is partially developed.

Stage 2

The tillers (sometimes called side shoots) are beginning to form.

Stage 3

Tillers have formed and are in their primary growth stage.

Stage 4

Tillers have ended their growth and the leaf sheaths (the lower part of the leaf which surrounds the stem) begin to form.

Stage 5

Leaf sheaths are strongly erected and the stems formed start to grow in length.

Stage 6

One-Joint Stage: The first joint develops near the soil surface and can be felt inside the stem. The joints, or nodes, produce a swelled appearance in the lower portion of the stem.

Stage 7

Two-Joint Stage: The second joint has formed, marking the beginning of the reproductive phase.

Stage 8

Appearance of the last leaf.

Stage 9

Ligule Stage: The ligule (a membrane at the junction of the leaf sheath and leaf base) of the last leaf is fully developed, and the leaf sheath is swollen at the level of the capsuled head of grain.

Stage 10

"Boot" Stage: At this stage, the immature head of grain presses the rolled leaf sheath apart and becomes visible.

Stage 10.1

Head Emergence Stage

Stage 10.5

Flowering Stage

Stage 11

Ripening State (includes "dough" stage)



