

Cereal Rye Cover Crop and Roll Down

Participant Name _____

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 establish high biomass cereal rye cover crops that will be late summer/early fall planted and spring killed by roll down. Cash crop will then be no-till planted into heavy rolled down cereal rye residue. This system is designed to obtain maximum soil cover that will improve the soil's physical, biological, and chemical properties, control weeds, limit soil erosion, limit runoff of fertilizers/chemicals, conserve moisture, cycle nutrients, etc. This system also assists in achieving the goal of keeping something growing in the field at times when the field would otherwise be bare or fallow for more than 30 days.

Conditions Where Practice Applies

On all lands requiring vegetative cover crops for natural resource protection and/or soil quality improvements. Especially applies where landowner's goals are to improve field soil quality within a complete no-till cropping system.

Establishment Specifications

1. Plant species (cereal rye) and seeding rates will be according to **Table 1**.



2. 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 State Organic Certifier for more information.**
3. It is critical for pH to be brought into the appropriate range for the type of plants being grown before large amounts of biomass are added to the soil surface. Large amounts of surface biomass buffers soil pH making it more difficult to adjust pH up or down.

Seeding and Seedbed Preparation

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

A complete no-till system for all plantings will be used throughout the entire crop rotation.

(Example: All cover crops, cash crops, etc. will be no-till planted.) Organic producers should incorporate no-till planting throughout entire rotation when possible.

Important: Avoid no-till planting when soil is wet since it may result in placing the seed too deep.

Seeding Dates

Cover crops must be sown by **September 30th West of Interstate 65**. Optimum dates for seeding cover crops for soil quality purposes West of Interstate 65 is **September 15th through 20th**. **Early September planting dates are considered optimal.**

Cover crops must be sown by **September 15th East of Interstate 65**. Optimum dates for seeding cover crops for soil quality purposes East of Interstate 65 is **September 5th through 10th**.

No-Till Seeding

Care should be exercised when setting drills to ensure that planting depths and rates are correct for the species planted.

Conventional Seeding (Only allowed on organic operations where no-till planting is not feasible.)

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

Seedbeds may be prepared by disking.

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

Aerial Seeding

Seeding rates must be increased by at least 25% for all cover crop seed species to insure adequate cover crop stand when using the aerial seeding method. Optimum seeding dates for aerial seeding are from **September 1st through 10th** at all locations within Kentucky. (In extremely wet years where corn is being grown it is better to wait until corn dries up to the ear and opens canopy before aerial seeding.)

When possible, aerial seeding should be performed over top of an existing crop before leaves of the

existing crop fall to the ground. (Example: Aerial seeding of cover crop over soybeans prior to fall of soybean foliage.)

Operation and Maintenance

The cover crop CANNOT be terminated prior to April 15th West of Interstate 65 and April 30th East of Interstate 65. (Cover crops less than 30 inches tall after set prescribed roll down dates should be rolled down and sprayed with herbicide to ensure kill.) **Organic farmers may use approved organic herbicide to terminate cover crop if necessary. Contact State Organic Certifier for more information.**

It is best to roller crimp cereal rye cover crops when cereal rye seed heads are visible in at least 75% of the field. In most cases at this plant stage, cereal rye can be killed by roller crimping or stalk chopping with no use of chemicals to achieve burn down. Strict adherents to early cover crop seeding dates help ensure cereal rye reaches maximum height and 75% seed head stage listed above.

Cover crop residue CANNOT be disked or plowed into the soil or disturbed with any kind of full width tillage implement (e.g. Turbo-Till[®], Phoenix[®]/Phillips[®] Harrows, etc.).

Cover crops CANNOT be harvested for grain, silage, or hay. All crop residues must be left on the soil surface.

