

Overseeding Oats as Cover Crop in a Vegetable Garden

Overseeding Procedure

Oats are a cool-season annual that captures and stores excess nutrients, loosens topsoil, and adds carbon and biomass to your garden while providing weed suppression and cover in the spring. It is easy to grow and winterkills with heavy frosts. To ensure cover crops fully mature before a heavy frost, they often need to be seeded prior to the end of the vegetable harvesting season. Because of this overlap, a procedure called overseeding is necessary. Overseeding is planting a direct-seeded crop or cover crop into an already established crop.

Fall Directions

1. Plant oat seed oats mid-August.
2. Remove weeds and trim vegetable plants that are diseased or finished for the year. Note, you can keep vegetable plants that don't pose a disease or pest risk. Keeping dead plants can provide necessary nesting habitat for beneficial insects. If you are a member of a community garden, consult with your garden manager or guidelines first.
3. Birds will eat oat seed and therefore should be covered or buried. With a hoe, tool handle, or other tool, create small troughs about 1" deep throughout the garden and place the oat seed within. Cover the troughs.
4. Cover crops germinate easily and quickly but watering may be necessary during dry spells to establish a good stand.

Mid-August Seeding Rates

Cover Rate Formula*

[Square Feet of Seeding Area] x [.0025 lbs. or .04 oz.] = Amount of Oat Seed by weight

Cover + Weed Suppression Rate*

[Square Feet of Seeding Area] x [.0032 lbs. or .05142 oz.] = Amount of Oat Seed to Broadcast by weight

**A seed packet from the HCSWCD contains approximately 4 oz. (1/4 lb.) of oat seed which is the minimum seeding rate for 100 sq. ft. plot. A typical raised bed at 4' x 8', or, 32 square feet, will require between 1.28 oz. of oats. This is obviously a very small amount. To keep it simple, on a 4' x 8' raised bed, broadcast 1/2 a bag of Oats. This will provide a denser coverage but may slow down maturity. Refer to point number 3 in the "Troubleshooting and Thoughts" section below for guidance.*

Troubleshooting and Thoughts

1. If the oats go to flower prior to the first killing frost, you will need to terminate the oats by cutting the flower head off (keep the rest of the plant) before the oats go to seed.
2. It is possible to seed cover crops after mid-August. In fact, they can be planted as late as mid-October (or later depending on seasonal variability) in Indiana. However, the longer you wait, the fewer benefits the garden will receive. If you do plant later, increase the seeding rate by 10% between 9/15 and 10/1 and 20% thereafter. These numbers have not been verified scientifically and are anecdotal only.
3. While there has been a vast amount of research on cover crops, it is not an exact science. Learning through experience is the best teacher. Sowing dates and seeding can vary based on many variables like weather, climate, soil quality, soil temperature, etc.



Figure 1: Oats during its flower stage.