

5.6 Temporary Seeding



Description

Temporary seeding quickly establishes short-term (often seasonal) vegetation on exposed soil that will be idle before or between construction operations or over winter. Temporary seeding is an essential control on all construction sites that minimizes the extent of soil susceptible to erosion and the duration it is exposed.

Use Criteria

Apply temporary seeding to

1. exposed soil where grading is not scheduled to occur for more than 14 days and less than one year;
2. disturbed areas that will be idle over winter; and
3. provide interim cover while waiting for optimal permanent seeding conditions.

Apply permanent seeding (Chapter 5.8) on any area that will be idle for more than one year.

The soil being seeded must be of sufficient tilth with adequate nutrients and water-holding capacity to support vegetation. To avoid additional seedbed preparation costs, temporary seeding should occur within 24 hours after grading operations cease when soil remains loose and moist. Disk or harrow a crusted seedbed to loosen it.

Temporary seeding from November 1 to March 1 is unlikely to develop sufficient vegetative cover. Mulch temporary stabilization (Chapter 5.7), which may be less effective and more costly, is recommended during this timeframe. Therefore, it is critical that temporary seeding is completed within the recommended seeding dates to the extent feasible.

Design Criteria

Fertilizer and lime are not typically applied to temporary seedings.

See the practice specification that follows.

Stormwater Pollution Prevention Plan

Include plans and specifications in a Stormwater Pollution Prevention Plan (SWP3) that describe the requirements for applying the practice to achieve its intended purpose. As a minimum, include the following in the SWP3:

- ☐ seedbed preparation,
- ☐ timing of seeding,
- ☐ methods of seeding,
- ☐ temporary seeding rates,
- ☐ temporary seed species,
- ☐ mulching requirements, and
- ☐ irrigation requirements.

Inspection and Maintenance

Check temporary seedings within seven to ten days after planting for vigorous green seedlings with dense, uniform surface coverage. Reseed areas that fail to achieve a vegetative cover adequate to prevent erosion as soon as they are identified.

Inspect temporary seeding after runoff events and high wind events. Replace any displaced mulch. Re-mulch any exposed soil observed during routine maintenance inspections.

References

USDA-NRCS, Ohio. 2019. Electronic Field Office Technical Guide Appendix A

Practice Specification

Temporary Seeding

Seed and Seeding

1. Select the plant species appropriate for the length of time the area will be idle and the season in which temporary cover is needed. Table 5.6.1 provides guidance on recommended annual species. Equivalent mixes recommended by the Natural Resource Conservation Service – Ohio, Ohio Department of Natural Resources, or Ohio State University's Cooperative Extension may also be used.

Table 5.6.1 Recommended temporary seeding species, seeding rates, and seeding dates. (adapted from USDA-NRCS, Ohio)

Annual Plant Species	Pure Live Seeding Rate (lb/ac)	Seeding Dates	Seed Depth
Annual Rye Grass (<i>Lolium multiflorum</i>)	100	March 1 to May 1 August 1 to October 1	½ inch
Spring Oats (<i>Avena sativa</i>)	128	March 1 to August 1	1 inch
Winter (Cereal) Rye (<i>Secale cereale</i>)	100	March 1 to November 1	1 inch
Oats (<i>Avena sativa</i>)	64	June 1 to August 1	1 inch
Sorghum Sudangrass (<i>Sorghum × drummondii</i>)	40		¾ inch
Pearl Millet (<i>Pennisetum glaucum</i>)	20	June 1 to August 1	¾ inch
Winter Wheat (<i>Triticum aestivum</i>)	100	October 1 to November 1	1 inch

2. Seed must be labeled according to Ohio Department of Agriculture regulations and Ohio Revised Code section 907.03.
3. Complete temporary seeding prior to November 1. Between November 1 and March 1 use mulch temporary stabilization. Mulch temporary stabilization over winter has limited effectiveness at an increased cost.
4. Thoroughly mix all seed and sow evenly over 100 percent of the prepared areas at the required rates. Apply the seed mix with a mechanical seeder, hydroseed, or broadcast onto loose soil and in a manner that will result in good seed-to-soil contact. Broadcast seed shall be covered by raking or dragging the soil or using a cultipacker. Note that broadcast seeding may not sufficiently bury annual grains such as oats, wheat, and rye. Annual grains are likely best planted with a seed drill.

Mulching

1. Mulch material shall be applied immediately following the temporary seeding. Apply the mulch material by hand or mechanically so 75 to 90 percent of the soil surface is uniformly covered. Additional protective measures may be necessary to keep soil and seed from washing away on temporarily seeded slopes.
2. Mulch shall be unrotten cereal grain straw applied at the rate of two tons per acre, woodchips with a minimum particle size of ¾ inches applied to a minimum depth of two inches, wood-fiber hydraulic mulch applied to the manufacturer's specifications at a rate of 1,500 to 2,000 pounds/acre with a tackifier, or rolled erosion control matting applied according to manufacturer's specifications.

Wood fiber hydraulic mulches are typically short-lived (less than 3 months) and only relied upon to establish vegetation. Do not apply hydraulic mulches to shallow vegetated channels unless used with an erosion control blanket or to saturated soils.

Woodchips must be manufactured expressly from clean raw wood and be free of contaminants. Do not use woodchips where flowing water could wash them away.

Do not use grass clippings or other materials with carbon to nitrogen (C:N) ratios less than 20:1. These materials may release nitrate-nitrogen that could cause water quality impairments.

3. Mulch shall be anchored immediately after placement to hold it in place. The following are acceptable methods for anchoring mulch.
 - a. A straw crimper or similar coulter-like implement may be used to punch straw mulch into the soil. Soil penetration should be about three to four inches. Crimped straw shall generally be longer than six inches (finely chopped straw cannot be crimped). On sloping land where equipment can operate safely, the crimp along the contour.
 - b. Cotton, jute, or synthetic nettings may be used according to the manufacturer's specifications. Pin or staple netting per the manufacturer's recommendations. Biodegradable netting is recommended.
 - c. Polymeric emulsion blend or organic tackifiers (guar, psyllium, starch, and pitch and rosin emulsions) may be applied at the manufacturer's recommended application rates if weather conditions are compatible with the manufacturer's recommendations. Apply synthetic or organic binders in such a manner that will not result in direct contact with waters of the state. Follow weather forecasts and the product's required drying time to ensure the binders will not be washed into waters of the state. Binders must be physiologically harmless and not result in a phytotoxic effect or impede the growth of turfgrass. Petroleum-based binders are prohibited.

Remove and properly dispose of all non-organic or non-biodegradable mulch and anchoring materials when the practice is terminated.

Irrigation

1. Water temporary seedings performed during summer months or periods of drought at a rate of one-half inch per week until 70% cover is established.
2. Irrigate at a rate and method that will not erode soil or dislodge mulch cover.