

6 Key Components of Successful Seeding for Erosion

1. Seedbed preparation - Soil Compaction is the #1 Reason for lack of grass establishment

-Seedbed preparation should be the #1 PRIORITY

- Provide an un-compacted soil base. It goes hand and hand with fertilizer and lime applications to create a soil system that produces a great stand of grass. Planting grass on top of compacted clay soil is like planting grass on a brick
- Use your **TOPSOIL**. Topsoil is nature's way of providing plants with the best chance of survival. It provides and holds nutrients; it holds oxygen and water for the plant and provides a natural soil base that is resistant to compaction. Topsoil sitting in a pile does not help you establish the best stand of grass with the least trouble
- If you don't have enough topsoil to spread on the whole site consider using it on areas that need the best stand of grass, like slopes and ditch lines
- Good seed to soil contact is also an essential, and critical, part of this equation. To produce a good seedbed you need to break up compacted soil. You can:
 - Till
 - Subsoil
 - Scarify the Ground
 - Use the teeth on a loader
 - Disk
- Great seed to soil contact is the start of a **Great Stand of Grass!!!!**

2. Soil pH is also critical for successful grass establishment

- Hanover soils are typically acidic! It not unusual to see pH levels from around 4.5 to 5.9, with most soils falling in the lower level of this range. Most grasses perform best with a pH between 5.5 and 6.5.
- Have your soil tested and apply lime as directed by the test. Talk to the testing laboratory personnel with any question or concerns, they are great resource for information about the soil you are working with.
- In the absence of a soil test you should apply lime @ 2 tons/acre (90 tons/1,000 sq. ft.)
- pH adjustment is critical for successful grass establishment!

3. Basic Fertility

- Fertilizer needs should be based on the recommendations of the soil test and the type of grass you plan to grow.
- In the absence of a soil test you should apply the following for:
 - **Temporary seeding**
 - 10-10-10 fertilizer at a rate of 450 lbs./acre (10 lbs./1,000 sq. ft.)
 - **Permanent seeding**
 - 10-20-10 fertilizer at a rate of 500 lbs./acre (12 lbs./1,000 sq. ft.)
- The Nitrogen component of fertilizers comes in two forms. It is either **water soluble nitrogen**, **slowly available nitrogen**, or a combination of both. The amount of nitrogen in a bag of fertilizer is represented by the first number of the fertilizer: example – a **10**-10-10 fertilizer has five pounds of nitrogen in a 50 lbs. bag. The 10 is a percentage of what is in the bag. If available, a fertilizer with some amount of slowly available nitrogen is preferred. This allows the nitrogen to be released slowly, which is preferred by grass plants
- Never apply more than 1 lb. of water soluble nitrogen/1,000 sq. ft. within a 30 day period.

4. Use the proper seed for the job at hand

- Based on when you plant, you may need a warm season or cool season grass. If your planting time falls between two periods (spring and summer or fall and winter) you may need a blend of cool and warm season grasses to achieve success. Your seed supplier or a County Extension Agent will be able to help you make the proper selection for the time of year your planting will occur.
- Keep in mind that if the seeding mix has anything in it that is an annual plant (like annual ryegrass) it will die within a season! Annual plants should be used sparingly so read the seed tag closely before you buy. You may be buying a plant that will not survive

5. Pay close attention to seed tags and seeding instructions

- Read the tags closely for seed content and type of seed. Keep in mind that any annuals present will die within a season
- The most expensive bag of grass seed may not be the most expensive to use. Ask questions, your seed supplier or extension agent should be able to help you pick the right grass for the situation you are facing. Due to different application rates, the most expensive 50 lb. bag of grass may be cheaper to apply than a cheap 50 lb. bag of annual rye. It is important to ask questions and use the right seed.
- Pay close attention to seeding rates
 - Too much seed and you end up with overcrowded, under mature plants that are susceptible to disease, heat and moisture stress
 - Too little and you do not have enough to prevent erosion

6. Mulching

- Applying mulch is very important for a successful grass stand. Straw mulch (other types of mulch are available) provides a protective mat that insulates and protects the grass seed. Mulch protects the seed by:
 - Providing temperature regulation, protecting the seed from the temperature fluctuations of the day
 - It holds moisture where the seed can use it to germinate.
 - It helps protect the soil from erosion
 - Provides a natural layer of decayed matter that will benefit the grass plant through its life stages
- Mulch should be applied at a rate of 1^{1/2} to 2 tons/acre (70 to 90 lbs./1,000 sq. ft.). During the winter months much should be applied at 2 tons/acre. Once installed the mulch should be anchored by crimping it into the soil or using a mulch binder like fiber mulch.

Think of the soil as a system to grow grass. Don't fertilize or lime the grass; prepare, fertilize and lime the soil system. The soil is the life support system for a grass plant. If you provide a good soil system the grass will grow by itself!