

Forage Seedings: Avoiding the Perennial Headache

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Tired of that rundown hayfield? That weedy pasture got you down? Thinking of ripping them up and starting anew? What are your chances of success?

In many situations, trying to establish a perennial (multi-year) forage crop turns into a perennial headache. The key to getting it right the first time is paying attention to The Basics. For forage seedings, The Basics include: seedbed preparation, seeding depth, weed control and time of seeding. There are many other aspects of seeding, but these four things most often make the difference between success and failure. In this article, we are going to assume that fertility is adequate for the new seeding, that the seeded species match your intended harvest schedule and that you buy quality seed. From here on out, it's The Basics.

A Firm Seedbed

The key word here is FIRM, FIRM, FIRM. Not firm like a sidewalk, but firm enough that you don't sink to your ankles either. This firm seedbed is important for a couple of reasons. First, it gives you better control over seeding depth, which we'll touch on later. Second, firm soil holds moisture better than fluffy soil. And third, it has fewer ruts – which you have to live with after establishment. If you are doing a no-till seeding, it will no doubt be firm. If you are using a plow, disk, harrow, or all three, an additional pass with a cultipacker (or an empty Brillion seeder) will pay off in the long run.

The other seedbed characteristic to look at is the structure of the soil. Large clods (from tillage or old plants) make seed placement difficult. Pulverized soil, which can result from rototilling, seals over with rain and makes it difficult to prepare a firm seedbed.

Don't rush the seedbed preparation stage. A poor seedbed is one of the leading causes of seeding failure, and taking an extra afternoon or day is worth the effort.

Seeding Depth

Pour some alfalfa or timothy seed into your hand – those seeds are pretty small, aren't they? Once these seeds go into the soil, that is all the energy available to produce a seedling big enough to use the sun for energy. What does this mean for you? Forage seedings are shallow seedings. Most forages should be seeded only ¼ to ½ inch deep. They aren't like corn seeded two inches down, or potatoes seeded five inches down; there's not enough energy to get them out of the ground.

The firm seedbed discussed above helps you in controlling depth as you move across the field. The other big variable in controlling depth is equipment. A grain drill, preferably with packer wheels or followed by a cultipacker, gives you control over depth. When you start seeding, and periodically across the field, check the depth of the seeding! A Brillion seeder, which packs, then drops seed and packs again, can work very well. Problems are most likely on dry soils which can't be packed well. Broadcasting seed and then tilling lightly can also work, but is a

guessing game when it comes to depth. Dragging (with a piece of chain-link fence, for example) may also work if the seedbed was firm to start with. Again, a well-maintained and operated grain drill, with some type of packer, is the most reliable method.

Weed Control

Once established, a healthy forage stand is its own best weed control, providing vigorous competition against invading weeds. In the seedling stage, these same plants can be poor competitors (especially reed canarygrass and birdsfoot trefoil). It is critical to know what you are dealing with. Perennial weeds like quackgrass should be controlled in advance of the seeding – after the seeding, you will have very few options. For annual weeds like pigweed, lambsquarter and mustards, competition by the forage is your most reliable method. A limited choice of herbicides is available for some forage crops (like alfalfa and red clover), but mixed grass-legume seedings have very few, if any, chemical options. For moderate pressure after seeding, clipping is usually effective for broadleaf weeds if they are setting seed. Clipping may be less effective against annual grassy weeds, or against low-growing weeds like chickweed or shepardspruse.

Companion crop seedings (with oats or barley) are both effective and widely used for establishing forages. The benefits of this practice includes erosion control and providing additional forage. However (a big however), a tiny orchardgrass plant can't tell the difference between oats and pigweed. It's still competition; but it's predictable competition, and you know when it will end. Consider this practice carefully – it works best with early seedlings, good fertility and tighter soils less prone to drought. It should not be considered for late-summer seedings.

Time of Seeding

When forage seedings are done affects many things. Soil moisture is most reliable in the spring, and slightly less so in the late summer. The concept of “seeding before a nice rain” give us two choices; spring and late summer. In Maine, these mean May and late-July to early August, respectively. Seedings done in June or early July are more likely to encounter drought conditions during the establishment period.

Time of seeding also affects potential weed growth. Many weeds encountered in forage seedings germinate in the spring and mature in the summer, right when the forage is trying to establish. This is one reason late-summer seedings are used – weed pressure is less intense during early growth. If you are expecting weeds that germinate in the spring, a late-summer seeding may help you deal with this situation.

Late-summer seedings are exactly that – they are not “fall seedings”. Ideally, six to eight weeks should pass between seeding and killing frost. Seedings around August 1 will usually make it, while seedings September 15 will not.

Remember the Basics

Successful forage seedings should be planned well in advance, not when the tractor is running. As you plan this operation, develop concrete steps that will provide a firm seedbed, the right seeding depth and adequate weed control, all at the right time of year.