

## The Basics of Dryland Grass Establishment

One of the most valuable assets you can have on your acreage is a well-established stand of grass. Grasses serve several important functions for property owners.

A good, vigorous stand of grass helps reduce the need for one of the most resource-consuming tasks most landowners face: weed control. A nice thick crop of grass suppresses weeds, not giving them a place to invade. Will grasses totally eliminate the need to "patrol and control" unwanted plants on your place? No, but your weed infestations will be smaller and more infrequent.

Other important reasons to grow productive grasses on your land include:

- Preventing both wind and water erosion. Grasses hold your soil in place when heavy rains or high winds try to take it somewhere else. Grass buffer strips are particularly important bordering any water features like rivers, streams, ponds or lakes to filter soil particles and debris from runoff to help prevent excessive sediment in the water.
- Providing habitat for a variety of wildlife species, if native grasses are planted to develop your stands.
- Offering the opportunity to harvest grass hay, particularly if you are able to irrigate your grass.
- Increasing the aesthetics and eye appeal of your property. The "finished" appearance and grass cover will be tremendous marketing points should you decide to sell.

Some of you are thinking, "He missed the most important reason for growing grass, grazing my animals." I didn't forget this popular use of your grass, but grazing needs some special consideration. Grazing is certainly an appropriate use of your grasses, but you must keep the following saying in mind: "Love your grass as much as you love your animals." If you leave your horses or other livestock on your pastures too long, allowing them to overgraze and trample the ground, you essentially are throwing away all the resources you invested to establish the grasses as well as losing the benefits previously discussed. ***Grazing Management*** will be featured in the April 2007 newsletter.

When making plans to plant grass on your acreage, there are several very important factors that must be considered when selecting the grasses for your land such as soils, climate, available water and the uses of the grasses planted. Before considering these variables as you plan for your grasses, let's talk a little bit about a couple of general characteristics of these plants that will affect your decision.

I've already mentioned **native** grasses in this article and there are **introduced** grasses to be considered, too.

**Native grasses** are native to Colorado and/or the United States. These grasses have adapted to climate and soils of the area so they can survive better. The natives are usually slow to establish, taking from two to four years before they become fully established and developed. Once established, they persist a long time on the land and require little maintenance. One of the considerations with natives is the price of seed. You will generally have to spend more money for native seed.

**Introduced grass** species are those developed outside of North America and were typically introduced for their forage qualities. They usually establish quickly, given adequate soil moisture, and can be grazed in one to two years. Introduced grasses will respond better to fertilizer and irrigation than many of the natives, but they don't live as long as the natives.

Grasses can also be classified as **sod-formers** or **bunch grasses** as well as **cool season** or **warm season** species. Sod-forming grasses reproduce from their root systems as well as from seeds. Bunch grasses grow in clumps and reproduce primarily from seeds. Cool season grasses actively grow during the cool months of the year (spring and fall); warm season grasses actively grow during the summer months.

As I mentioned earlier, several environmental factors must be considered when selecting grasses to plant. Soil type or texture dictates what type of grass will perform best on your property. As a "rule of thumb", short, sod-forming grasses grow best on heavy soils such as clay and tall grasses perform best on the lighter, sandy soils.

In our semi-arid area, a loamy textured soil can grow both mid-grasses and short grasses, but not tall grasses without sufficient water. Our Front Range climate typically provides 12 to 14 inches of total precipitation every year. Grass establishment has been difficult for several years because of drought conditions. We also have an average growing season of 120-150 days annually. The average amount of natural precipitation is certainly enough to support many of the native species. However, if you should decide an introduced grass would better suit your needs, and you do not have irrigation water available, verify that the grass is adapted to your soils, climate and the projected soil moisture available after planting and establishment.

Rather than taking up space in this article making grass seeding recommendations without knowing your growing conditions, I'd suggest you call the Adams County Cooperative Extension Office at 303-637-8003 or the USDA-

Natural Resources Conservation Service offices in your area for grass species suggestions specific to your situation. NRCS offices in Adams County include:

Brighton – (303) 659-7004 ext. 3

Byers – (303) 822-5242 ext. 3

Here are some things to think about as you start planning to plant grass on your acreage:

1. Have you got weed infestations under control? Once grasses have been growing for a year or two, they can out-compete most weeds. BUT, when they're just getting started, grass stands will be destroyed by weeds, particularly noxious weeds like Canada thistle, field bindweed and others that will suck up available soil moisture and shade out or crowd out grass seedlings. **CONTROL YOUR WEEDS BEFORE PLANTING GRASSES.**
2. Prepare a good seedbed, free of debris like old weed matter, rocks and clods. A good seedbed should:
  - Be firm but pliable enough to push a tilling spade 18" into the soil.
  - When you walk across the perfect seedbed, you won't stumble over old weed materials or dirt clods and your footprints should sink about ¼" into the soil when the field is dry.
  - It may take several mechanical operations to get the seed bed you want including deep ripping 18" deep if soil compaction exists. Then disking to break up the larger clods and a harrow operation to break up the smaller clods and to smooth the soil.
3. Are you ready to plant your grasses? Probably not. You should strongly consider planting a cover crop to protect the seedbed and to discourage weed growth.
  - The best cover crop is a hybrid sterile sorghum.
  - Prepare the seedbed as previously described in the spring around late April – early May.
  - Drill the sorghum at the rate of 4-8 pounds to the acre on clay or loam soils and 6-10 pounds on sandy soils, with planting depth of 1" and row spacings of 14" to 21".
  - Planting dates are early June for sandy soils and late June for heavier soils.
  - The cover crop will germinate and within 7 to 12 days and will typically out-grow and out-compete invasive weeds over the summer.
  - Mowing may be necessary if there was significant growth of the cover crop, with the stubble 12" to 14" tall. Be sure to use mowing equipment that doesn't leave a windrow.
  - If the weeds have been terminated and you have standing sorghum stubble, you are now ready to plant grass.
4. Dryland grass seeding (which describes a high percentage of Adams County acreages with no supplemental irrigation) can be done between

November 15<sup>th</sup> and April 30<sup>th</sup> on unfrozen ground. Irrigated grass seeding can be done between November 15<sup>th</sup> and June 30<sup>th</sup> when the soil isn't frozen.

- Be sure to use a good quality no-till grass drill to do your seeding. No, grass drills and grain drills aren't the same.



No-till grass drills are a necessity in establishing grass stands.

*Photo courtesy of USDA-NRCS, Byers Field Office*

- Seeding depth for the grass seed should be  $\frac{1}{4}$ " to  $\frac{3}{4}$ ". One of the biggest reasons grass plantings fail is the seed was planted too deep.

If you need a list of contractors and businesses that can do the soil and planting work discussed in this article or you need information on grass seed dealers, please call the Cooperative Extension office and NRCS phone numbers listed earlier in this piece.

Developing a hearty grass stand on your land takes planning, preparation and resources. However, it's one of the best decisions you can make to improve your property.



*Photo courtesy of USDA-NRCS*