



Plant Materials Technical Note

United States Department of Agriculture, Natural Resources Conservation Service
Northeast, Mid-Atlantic, and Great Lakes Plant Materials Programs

NATIVE GRASS SEED AVAILABILITY, PURCHASING STRATEGIES AND HANDLING GUIDELINES



Background

The tremendous interest in using native grasses to meet 1996 Farm Bill objectives is keeping pace with the national trend towards planting native species. This combined demand on the seed supply will almost certainly result in shortages of these seeds over the next 1-3 years. The seed shortage had the expected impact on prices during 1998, and will cause a large number of ex-CRP acres to be cut for seed this fall. At first glance this expanded harvest appears to improve the seed supply and lower prices. However, there are technical reasons why this is not likely to occur, and may create problems in purchasing seed for the uninformed.

Risks of Poor Quality Non-Certified Seed

While the potential seed harvest from CRP or other fields will result in more seed availability, the quality and identity of this seed may be low and unreliable, respectively. In addition, fields will not be certified by state seed certification agencies. Though the resulting seed may be marketed with a variety name attached, it will be unregulated as to true identity. Also, because these fields have not been managed as seed production fields the weed content is likely to be high. Some weed seed is very difficult to remove from native grass seed, and the cost of cleaning is typically not worth the effort (but tempting under current prices).

Use Certified Seed

Using certified seed for plantings is the right course of action because this seed has known identity and meets certified seed quality standards (for purity and germination). It gives the user the best chance of success and the least chance of introducing unwanted weed problems to a given field. *Certified seed also provides the varietal link from the Plant Materials Program to the landowner.* Planners should specify varieties that have been developed and proven for specific geographic regions of the country.



Buying Seed on a Pure Live Seed Basis

Native grass seed, and often wildflower seed, is sold on a pure live seed (PLS) basis. Some enlightened seed dealers are now also selling cool season grass seed on a PLS basis. It is in the best interest of the customer to purchase seed this way because it ensures that the desired product is what is being paid for (living seed vs. leaf pieces, stems, unwanted seed, and dead seed). A pound of pure live seed contains 16 ounces of living seed of the desired species plus additional weight of the other material that has not been removed by the cleaning processes. Using the seed analysis tag which shows percent germination and percent purity, one can calculate the PLS percentage and compare the quality of different batches or "lots" of seed. For instance, a seed lot which has a tested germination of 80 percent and a purity of 90 percent also has a PLS percentage of 72 ($.80 \times .90 = .72$). If one wishes to plant 1.0 PLS pound of this seed lot the gross amount of weight to buy and plant would be 1.39 pounds (1.00 divided by .72).

Buy Individual Species and Mix Before Planting

Some native grass seed is sold pre-mixed. This is not a good way to buy seed because the mix may contain unwanted varieties, unwanted species, or poor quality seed. It also means that the seed cannot be unmixed if the planting is not made. Seed should be received in individual species lots and then mixed just prior to planting.

The planting method and/or the type of machine to be used can affect the way the seed is mixed. For instance, it is often easier to plant smooth seeds together as a mix separate from fluffy seed (which comprises a second mix). Some drills can handle these in separate seed boxes. When hand broadcasting is the method of choice or when only a fluffy seed box is available on the drill, then mix all the seed together. Frequent agitation of the seed will help to keep the smooth seed from settling out of the fluffy seed.

Mixing seed is most easily accomplished on a clean, smooth concrete floor, using grain scoops to turn the seed pile until the seed types are mixed evenly. For smaller amounts of seed, five gallon buckets can be utilized.

When To Buy and Pooling Orders

Native grass seed is harvested in late summer and fall. Over the winter months it is processed (cleaned) and then tested at seed labs. The testing process involves a germination test that typically takes 28 days. Therefore, it will be late winter or early spring before all lots are cleaned and tested. Normally that would be the time to call the seed suppliers, but under the anticipated demand that will be too late. Landowners should be encouraged to lock in a seed purchase in December or January. One way for landowners to gain leverage in obtaining commitments from the growers or dealers would be for Conservation Districts to pool orders. This would mean then that the seed would need to be sub-divided locally for distribution to individual landowners. However, the resulting buying power may be worth the effort.



Native Grass Seed Drills

Native grass drills are designed to handle the fluffy seeds of the bluestems and indiangrass, as well as the smaller, smooth seed such as switchgrass. The most prevalent system utilizes a picker wheel (looks like a coarse-toothed radial saw blade) which pulls the seed down into the drop tubes. Native grass drills also have large diameter drop tubes so the seed does not hang up in the tube, and double disk openers with depth bands. The depth bands help to limit seed depth to 1/2 inch maximum. Conventional drills do not have feed mechanisms which can handle the fluffy seeds, and do not have depth bands because they need to plant grain seed deeper than 1/2 inch. Cultipacker type seeders will not meter the fluffy seeds, and are not as effective in proper seed placement as are the native grass drills.

The following list of suitable drill manufacturers is not complete, but it does contain the most common drills that are available. Some Soil and Water Conservation Districts have a drill that is on this list. These makers may also produce models that are not meant for native grass use, so the name alone is not enough information, the specific machine needs to be equipped as described above.



Truax *Nesbitt* *Miller* *Crustbuster*
Great Plains *Buffalo* *Tye*