

The Real Seed Buyers Guide

By Frank Lopes, Senior Turf Representative
Prosource One

When buying seed the success is in the details. If you look at the total cost of your seed purchases in a year compared to your total budget, seeds probably account for less than 5% of your costs. But if you buy seed without fully understanding exactly what's in the bag, you may not get what you think you're paying for.

The seed business is as old as agriculture itself. When man started planting his food instead of hunting it, seed propagation was born. There are records of seed sales dating back to the Egyptians; in fact, agriculture was so important pharaohs were entombed with seeds. A business this old has had plenty of time to establish standards, protocols, requirements and terminology that aid both the buyer and seller.

Despite technological advances the seed business hasn't changed much in the last 200 years. The best cleaners are still based on designs over 50 years old, and while newer chemicals and breeding have increased the yields everything still begins with a seed (or sprig). With this in mind we will now discuss how to successfully purchase the very product that you hope to showcase on your greens, tees and fairways.

The first thing you should consider when purchasing seed is certification. A common misconception about certification is the implied purity standards (e.g., purity, germ and weed percentages). Just because your vendor says the seed meets certified or blue tag standards doesn't guarantee the highest mechanical purity. In reality, certification standards will never meet professional market expectations because the mechanical quality is "lower" than what many turf managers would think.

For discussion purposes let's examine ryegrass. Most ryegrasses are grown in Oregon, and Oregon's seed industry has some of the strictest certi-

fication standards in the world (visit www.oscs.orst.edu for more information). Even knowing this and seeing a blue tag on a bag of ryegrass seed does not guarantee noxious free weed seed, however. In fact, certified perennial ryegrass can contain 0.50% weed seed and up to 1,000 *Poa annua* seeds per pound. This doesn't mean certification is meaningless. Certification simply guarantees the buyer genetic purity. In other words, the variety or varieties listed on the tag have met the criteria set forth by the plant breeder for plant characteristics and uniformity.

Certification verifies (a) the field where the seed was produced had proper field history without the potential for genetic contamination, (b) proper isolation, and (c) proper planting with breeder or foundation-quality seed that assures genetic succession. Certified seed is tracked from initial planting through harvest and into the finished bag. It also undergoes numerous field inspections by certification officials. Thus, certification assures the buyer that the genetics for which he is paying are in the seed bag.

When purchasing seed you should carefully read the bag's analysis tag or mechanical purity statement that lists the seed's variety (or varieties) and other important data derived from the seed's purity exam. As mandated by federal law, seed tags must report the following:

- The name of the seed seller and their location (e.g., Oregon).
- Germination or the percentage of live seed that "grew" or showed signs of life under optimum conditions. Since this test is conducted somewhat differently in each laboratory, seed companies usually list the minimum germ percentage so if different results are found in the field nothing will inhibit the sale of the seed.

- The test date. This should be within six months of your seeding date, but standards allow up to 12 months.

- A hard seed count (optional). This figure should be added to the germ to get the total germ.

- Fluorescence (ryegrass only). This records the percentage of plants whose roots fluoresced under black lights, indicating the potential for annularity. In a perfect world 100% fluorescence indicates an annual and 0% a perennial. What is considered an acceptable fluorescence level differs by breeder.

- Noxious weeds. Unlike purity, this figure is expressed as the number of these types of seeds present per pound. Sampling for noxious weeds is not done on a large scale. For example, a sample taken on a 55,000 lb. lot may only be half a pound, and of that only 5 grams will actually be analyzed for purity. Some seed companies offer larger purity analysis (e.g., 100 gram tests), but more detailed analysis often add a premium to the seed price.

The noxious weeds listed on the tag will depend on the location of the seed company. Every state has its own list of noxious (restricted) weeds: Georgia does not recognize *Poa annua* as a restricted weed, for example, while Florida does. If the company responsible (name on the tag) is located in Florida, the company would have to list the number of *Poa* seeds per pound on the tag up to 1,000. If the total number exceeds 1,000 it cannot be shipped to or sold in Florida. However if the company is located in Georgia the same lot can be shipped without listing *Poa* as part of the lot. A list of restricted weeds by state can be found on the Web at www.ams.usda.gov/lsg/seed/seed_pub.htm.

- Weed seed can include the weight of the above mentioned noxious weeds but can also include other weeds not on a restricted list. Some of these weeds can be harmless (e.g. rat-tail fescue that is non-competitive) or non-germinating depending on the climate. ●●●

- Inert matter. This category is for anything that isn't seed—chaff, soil, stems, dust and empty seed hulls.

- Other crops. This category encompasses any other grass types found in the seed sample. This information can be critical, especially if you have two different grasses competing in the same environment. These grasses usually appear within 7-14 days after planting.

- Pure seed. This is what you're really paying for. The ability to achieve 100% seed is cost prohibitive, but obviously higher percentages mean higher value.

The following are guidelines to follow when purchasing ryegrass seed with respect to mechanical purity:

- Look for zero noxious weeds and avoid any weed totals exceeding

0.09%. If you do have weeds in your seed mixture, make sure you know what they are. Remember to check where the seed manufacturer is located so you can identify what are considered "noxious weeds" in that state.

- Inert matter should be less than 2.5%, although in some crops this amount can be considerably higher.


- Other crop should be less than 2.5%. If other seeds are present in your seed mixture, make sure you know what they are.

If you want to know more about a variety's turf color, blade thickness and other attributes, you can find that information at the National Turfgrass Evaluation Program's Web site (www.ntep.org/information.htm). Remember these trials are based on established turf plots spread across the country, and conditions may not

equate to your environmental, growing or maintenance conditions. Look at the Least Significant Difference (LSD) values when comparing varieties, and also try to examine data from sites as similar as possible to your location. Also note how often the data was collected and at what time of year.

When it comes to overseeding trials little data is available, but occasionally a university undertakes the task and data from establishment, cut and transition are recorded and examined. Even more interesting is the use of different species and the results they produce.

As the bar continues to rise in our industry, remember that success starts with the right seed. Reading and understanding seed tags can go a long way to preventing unexpected headaches or problems on the course. ●



Underground lies the ingredients for your perfect green.

BULK AGGREGATE GOLF, INC.

"Supplying the Golf Course Industry with only the highest quality U.S.G.A. spec sand and gravel for over 20 years."

www.bulkagg.com

877-BULK-AGG