

Turfgrass standards Are they adequate?

by Dale E. Kern

Dale E. Kern is president of Seed Technology, an independent laboratory performing special tests for the turfgrass industry.

Considering today's regulatory standards, the Turfgrass Seed Industry has good reason to be proud. Many industries today have difficulty meeting the minimum governmental standards. The turfgrass industry has disciplined itself not only to meet the minimum standards but in many cases exceed them. The demand within the industry for problem-free seed now has quality conscience companies requesting new tests and standards 50 to 250 times more rigid than required by law.

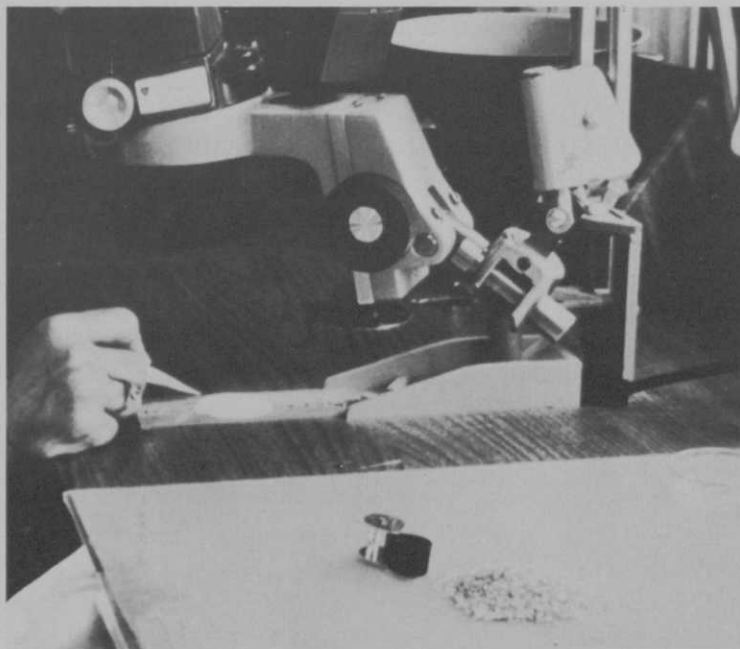
At the present time the minimum legal standards for bluegrass requires a laboratory to examine one gram, or

approximately one teaspoonful, of seed to determine the percentage by weight of pure seed, crop, inert, and weeds. This one-gram sample could represent a 50-pound bag or an 80,000-pound lot of seed. The law requires only an additional 10-gram examination for the noxious weeds. When bentgrass, tall fescue, timothy, orchardgrass or brome grass are present in the 10-gram noxious check, they are ignored. Legally, these are considered to be crop, not noxious weeds. However, they are highly undesirable to the professional. The one-gram purity and the 10-gram noxious weed examination are the standards presently used to sell Blue Tag Certified Seed, totally inadequate for quality turf.

Over a decade ago, leaders of the industry recognized that minimum government standards were insufficient. A Michigan seedman, frustrated by the presence of undesirable contaminants in fields seeded with so-called quality seed, contacted Seed Technology for an answer. He insisted upon a thorough examination of at least 25 grams of the seed reporting everything found. This was the birth of the TURF ANALYSIS TEST. The turf analysis test checks 25 times more seed for all contaminants such as *Poa annua*, bentgrass, tall fescue, timothy and ryegrass, listing all of them on the report for the buyer to see. Needless to say, this test had immediate acceptance by the professionals, thereby becoming the new quality standards for the turfgrass industry.

The certification agency of both Washington and Oregon soon recognized the inadequacy of the one-gram check, upgraded their standards, and introduced Certified Sod Quality Seed. Included in the new standards was a "O" tolerance on most of the undesirable weed and crop contaminants. However, due to the time involved in examining for *Poa annua*, they limited their *Poa annua* check to 10 grams. Currently out of 20,000 pounds, this is still the amount examined for *Poa annua*. No *Poa annua* found in the ten grams and the entire 20,000-pound lot of seed would be offered to the trade as Certified Sod Quality, *Poa annua* free seed at a premium price. Much better than Blue Tag Certified Seed but still inadequate for quality turf.

Since the beginning of the 25-gram Turf Analysis Test, some of the elite companies have increased the contaminants check from 25 to 50 or even 100 grams. Experience and research



Careful examination is carried out under a microscope.

Seed Technology is located in Marysville, Ohio.



indicate a 100 gram check to be the minimum amount even on a small lot of 5,000 pounds. On larger lots data would indicate that 25 grams should be examined for each 10,000 pounds of seed in the lot. For example, an 80,000 pound lot requires an examination of 8 x 25 grams or 200 grams of seed for the presence of undesirable contaminants. When subjected to these standards in the Seed Technology laboratory, over 50% of the lots offered to the trade as "POA ANNUA AND BENTGRASS FREE" are contaminated with serious problems.

Another important new development will be to make a seed count available for premium turfgrass seed. It is a relatively little known fact that there is a wide range of seed counts between varieties and a lesser range within a cultivar. For example, Merion and Common Kentucky bluegrass can run as high as 2,000,000 seeds per pound contrasted with approximately 1,000,000 seeds per pound for such elite varieties as Baron, Fylking, and Victa. Baron ranged from a high of 1,127,141 to a low of 948,987 equal to a 178,154 seed difference or 18.8%. An actual seed count on each lot could

eliminate over or under seeding.

I would like to offer a word of caution. The lot number which appears on the test certificate must appear on each tag accompanying every bag of seed in the lot. Again, make certain when the seed arrives that every tag contains the same lot number. One single bag of another less desirable lot could be disastrous.

Looking into the crystal ball, you will soon be able to buy turfgrass seed lots which have been rated as to their performance potential. This concept goes much further than just determining whether a seed is alive or dead. This is the information given to you by the present germination percentage. The PERFORMANCE level (vigor) of a lot of seed is analogous to a young athlete and an old man — both alive, but their performance levels are quite different. Their seed counterparts would both be included as live seed in the germination percentage, but their performance levels would be quite different.

Seed Technology research has shown that seed with a high performance level will produce tillers and rhizomes at a rate of two to three

times faster than the same variety seed with a low performance level. This could have great implication for sod growers because they could vastly increase their ability to produce and sell one sod crop per year by purchasing seed which has the high performance rating. Also, the performance of seed has an extremely important bearing on the seeding rate. When a lot has a high performance potential, you can seed at a lower rate and still get a good stand of vigorous seedlings, resulting in mature turf in less time.

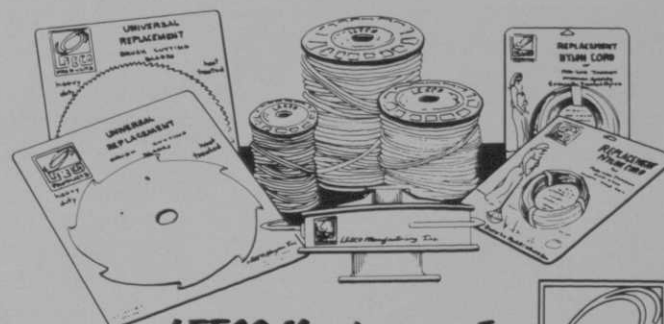
Professional turf people who pride themselves on buying quality turfgrass seed will soon benefit from Seed Technology's new test series which will be used by certain quality seed suppliers. The outgrowth resulting from *Poa annua* checks based on 100 to 200 grams, seed counts per pound, bag identification and performance level testing is not yet commercially available, but look for it — IT'S NOT FAR OFF. All these developments are intended to do one thing — make it possible for people who desire quality turfgrass seed to be sure they are getting only the best available for their premium dollar, with no unwanted surprises.

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