The Seed Label

SUMMARIZED BY MICHAEL BLADON

D o you understand how to interpret a seed label? International seed laws are a tangle of rules and regulations which present some real challenges for the seed grower and the seedsman. The seed trade in Canada is governed by the Seeds Act which provides consistent legislation across the country. In the U.S.A., each state sets its own seed laws and standards.

If we examine Canadian seed law, specifically as it relates to turf and revegetation species, we can obtain a good idea of how the legislation affects both the producer and the consumer. Canadian seed laws can be divided into two categories: one relating to the agronomic performance of varieties of species, the other relating to the mechanical and genetic purity of the seed. The Seeds Act requires that before offering for sale, the variety being offered must have been granted a license. Licensing is the responsibility of Agriculture Canada. The determination to give a license is based on several criteria. Most important is the way the grass performs in relation to those varieties already licensed. Another is how much seed is available. In this way, a well designed licensing system gives the purchaser ample protection and emphasizes continual improvement in the production of new varieties.

The other major area of seed law is in the regulation of the quality of seed offered for sale. In Canada, all seed put up for sale must be labelled and meet the grades set out in the tables of the Seeds Act. Seed which does not conform to these standards is ranked as "rejected." It is illegal to sell "rejected" seed in Canada. Thus our seed laws perform the role of "quality control" which ensures that the seed meets the grade stated on the label. The three grades outlined by the Seeds Act are Canada No. 1, 2, and 3. Canada No. 1 is asked for most commonly. Grades differ in the allowable percentages of weed seeds, other crop seeds, and germinations.

Labelling the genetic or pedigree class of the seed is also controlled. Only pedigreed seed, which, when speaking of seed of commerce, is "certified," assures the buyer that he gets the variety purchased. In Canada, practically all seed has to be pedigreed if it is identified by a varietal name. The certified label is universally coloured blue, so the terms "certified" or "bluetag" are the same. The label will read Canada No. 1 Certified only if all seed in the container is of one cultivar (e. g. Baron, Midnight, Touchdown).

Quality conscious seed buyers should recognize that the Seeds Act is based on minimum germination and maximum weed contents. If the germination meets a stated minimum and the weed and other crop content does not exceed certain maximums, then the seed is labelled within its grade. Therefore, great variations can exist within the grade No. 1 seed. There could easily exist a 15% difference in germination and an even more dramatic difference in weed seed and other crop seed content. For instance, a farmer who bought red clover would not object to that clover seed containing 0.5% alfalfa seed. But a sod grower buying Kentucky bluegrass would complain about 3% annual bluegrass or bentgrass in his seed as it would create a serious problem in his crop. If you wish to verify the quality of a particular seed purchase, the seller maintains records for each lot and both independent and government laboratories will perform this service.

Canadian seed laws, as in most countries, work well to protect the purchaser and the seller. They guarantee the adequacy of the seed to establish a crop under most conditions. They assure seed that is healthy, free of disease, and adaptable for the required climate, area, and purpose. Lastly, they provide for orderly marketing and distribution of the product.

The seed label does not provide information on the size of seed of the different kinds that are included in the mixture. Not all seed are the same size and so a mixture may contain a relatively small percentage by weight of a small sized seed but this would amount to a large percentage on the basis of numbers of seed.

| Seeds per Pound of Common Turfgrasses | |
|---------------------------------------|-----------------|
| Turfgrass | Seeds per Pound |
| Colonial bentgrass | 6,200,000 |
| Kentucky bluegrass | 1,300,000 |
| Turf-type perennial ryes | 350,000 |
| Turf-type tall fescues | 230,000 |

As well, seed size is related to seeding rate. Roughly 10 to 15 seed are needed per square inch. While this seems like quite a bit, it takes this much in the establishment process to protect the soil and create the most desirable microclimate for seedling establishment. On average, a fine sports field will have close to five mature plants per square inch.

References

• Pickscene, January/February 1984. Seed Legislation and How To Read a Seed Label.

• Roberts, Eliot. C. The Lawn Institute 1991-92. The Seed Label (Topic sheets). \blacklozenge

