

## SEED SELECTION & QUALITY FOR LAWNS

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Broadly stated, seed selection and quality for lawns concerns itself with genetic quality and mechanical quality. The past 10 or 15 years the turf grass breeders, both public and private, in this country and Europe as well, have furnished us with a remarkable array of cultivars designed and bred to produce better turf for more specific areas and specific uses. The user is more knowledgeable today about their new varieties due to conferences such as this one we are attending here at Michigan State University, and similar conferences held throughout the country. These new cultivars improve the quality of turf due to greater disease resistance: Kentucky Bluegrass varieties that have resistance to leaf spot, stripe smut, and rusts--the major diseases that have damaged this species.

At the same time the new cultivars withstand closer mowing, and have improved texture and color. More specifically, they have shown improved color throughout the entire growing season; vigorous and aggressive varieties that fill in rapidly, resist invasion from weeds, and heal rapidly from injury.

I should like to emphasize this point by quoting an article by Dr. Robert Sherry that appeared in Vol. 26, No. 7, of Park Maintenance. The following observation was reported: "On the institute grounds an experimental seeding of Bonnieblue and Majestic Kentucky Bluegrass was unduly delayed in the autumn of 1968 and nearly lost to winter heaving. Yet the estimated 10% which did survive had by 1973 squeezed out other grasses and came to dominate the turf almost completely. Even so, little as 10 or 15% of an outstanding variety in a mixture has a chance to make itself heard from in later years."

I would like to devote the major portion of time allotted to me to discuss the mechanical aspects of seed selection and quality for lawns.

Much of the seed coming to market these days is remarkably clean and free of serious weeds and other contaminants. Improved seed production techniques have created a seed industry capable of taking these new improved cultivars and producing them under strict control to protect the genetic purity, as well as produce weed-free seed.

We have always had as our target, growing seed free of weeds, and we have been able to raise our standards through precision techniques, such as chemical seed bed and charcoal seeding, both designed to establish seedling grasses that are completely weed free. The use of a dozen or more different herbicides in rather critical amounts have been used at specific times to assure the success of the program. Open field burning, which has been an intricate part of our production, will no longer be permitted, come January, 1975. This one practice alone has been responsible for much of the improvement in the quality of seed we have produced. By removal of crop residues and burning of shattered seeds we have maintained only

the original stands and allowed herbicides and fertilizer to do the job they were intended to perform, as well as being a sanitation program for the control of certain fungus diseases. Today we are faced with restrictions on the use of pesticides, along with the burning ban, and then added to this are new regulations which set higher standards. Annual bluegrass, for instance, has a tolerance of zero in many states.

I believe the buyer has the perfect right to ask for the quality seed he is willing to pay for. I do get upset at regulations aimed at consumer protection on one hand and regulations which prohibit procedures required to meet these standards.

One point I would like to have you consider--turf grass seed is an agricultural product and despite our best efforts it is impossible to produce all of this 250 million pounds grown in Oregon annually completely crop and weed free. Just as not all oats are #2 heavy white, all beef prime or choice, or all potatoes U.S. #1, not all grass seed can be crop and weed free, and despite its quality, this seed will come into the market place.

When you ask for Kentucky Bluegrass seed crop and weed free in 25 grams, you are saying there must be less than 18 crop or weed seeds in each 1 1/2 to 2 million seeds.

One further point; the test on any lot of seed is just a test of a 25 gram sample, representative of a 20 to 40,000 pound lot of seed drawn by a human being and also analyzed by humans--and I'm positive in my own mind that they both are subject to all the limitations of humans.

Despite the obstacles our industry faces, let me assure you that we will do everything possible to continue to produce the highest quality seed available in the world.