

Grass seed: bargain ingredient for golf course improvement

by Scott Lamb

Inflation continues to eat into the available budget for maintenance of golf courses across the country. The 10 percent or more inflation factor is applied to many of the products needed to keep the nation's golf courses in good playing condition. While this is a fact of life, there is one factor which has not been eaten up by inflation and which can produce astonishing results in course maintenance. That single factor is grass seed.

Grass seed prices have remained virtually stable for many years and are so remaining today. Shortages have, on a year by year basis, temporarily boosted grass seed prices, but statistics show grass seed prices have remained very stable for the past 10 years or more.

Turf seed producers in Oregon and Washington have improved their efficiency in the production of grass seeds through new, better producing varieties and by growing larger acreage. Grass seed suppliers have improved their efficiency by selling greater volume on a fairly constant margin. As a result of these factors, the golf course superintendent can still purchase grass seed at uninflated prices.

Had grass seed inflated with the devaluation of the dollar, a golf superintendent could expect to pay about 75 percent more than he paid 10 years ago. But in many cases, grass seed prices may be actually lower than they were a decade past. In most cases, prices have increased only about 10 to 20 percent in 10 years.

Grass is a living plant and, as such, is subject to the same hazards as all living things. Heat, humidity, disease,

drought, and traffic all take its toll on grass plants. As grass gets older, it loses its ability to stand up to the elements and, like people, its youthful vigor begins to slow down. There are many medicines available to prevent disease or to cure certain diseases, but weak grass plants of older generations are often susceptible to many of the grass diseases that plague golf courses. For that reason research in the development of new grass plants that resist such diseases is a constant effort.

How it is done

Grass seed research breeders select healthy plants from old stands of grass. These are moved to a greenhouse or to a plot where they are carefully identified and recorded. The plants are selected from visual observation throughout the plots where several thousand plants have been introduced for study. The seeds from the stronger plants are harvested and the weaker plants are destroyed before they can go to seed. Seed from the stronger plants are again planted in the greenhouse and again transferred to plots.

Often, rust spores and other diseases are introduced directly to the plant. Those susceptible to the disease again are discarded, and healthy plants are again saved through seed harvest. The strong plants are left in the plots for further tests, and the seed

is replanted following cross pollination with other strong plants. This process is continued for generations of plants, each building more resistance into the variety. When all tests are completed and seed yields and other positive attributes of the new plants are tested and found to be an improvement on past strains, the new grass is named and released for public use.

This is a very simplified chronology of grass breeding, but serves to explain the tedious work that goes into developing new grass varieties. Strangely, the new grass which may be resistant to a particular disease, gradually weakens or new types of the same disease eventually begin to infect the resistant plants. This may take 10 years or more before the immunity gradually declines from the new grass. But, there will be another new grass to take its place, and the process will be repeated.

How to choose your seed

Superintendents are often puzzled by the parade of magazine ads and literature proclaiming a certain variety name as the best of that species. While an abundance of advertising language is provided to make the grass variety look like a wonder grass, the claims are usually quite accurate.

There are two factors purchasers of grass seed should give top consideration. The first is required by law, and that is a purity analysis tag on each bag of seed sold. This tag will tell the consumer the purity of the seed, which means how much actual seed of the variety is being purchased. If it is 95 percent pure seed, 5 percent is made up of other crop seeds, seed hulls, straw, or any foreign material that may be in the seed bag. A test for germination, and the date of that test, must also appear on the tag. If the seed tests 85 percent germination and has been properly handled, the germination should not vary much for at least one year. Obviously, the

What is fluorescence?

The only true test to determine whether ryegrass seed is annual or perennial is to germinate the seeds and place the seedlings under black light. The roots of the annual plant will fluoresce (radiate light), while the roots of a perennial plant will not. This unique test makes it possible to establish quality control in the production of both perennial and annual ryegrasses. — Dr. William Meyer, Pure-Seed Testing, Inc., Hubbard, Ore.

higher the purity and the germination, the more the purchaser is getting for his money. The purity tag must also show the amount of weed seeds or other crop in the lot of seed tested.

The second factor of great importance to the purchaser is the certification tag. In Oregon, this is a blue tag issued by the Oregon State University seed certification department. When certification of a field is requested by a seed grower, the field is inspected by the certification official. The seed from the field is also tested, and each step in the process is calculated to make certain the purchaser is actually receiving the genus and variety he believes he is buying. This is the only way the purchaser can be sure of getting exactly what he ordered. Each blue tag is affixed to the bag with a metal seal available only from Oregon State University.

Many sales people will try to convince the unwary that uncertified seed is every bit as good as the certified variety and much cheaper. A good many superintendents, however, have found this is not the case. Once planted, grass seed is difficult and expensive to replace.

With the advent of the new fine-leaved perennial ryegrasses, a third factor should be important to golf superintendents. This is the matter of fluorescence in the seed tests. Annual and perennial ryegrasses can cross pollinate, and the annual characteristics are dominant in such crosses. Annual ryegrass is a coarse grass, unsuitable for fine turf. If the pollen from annual ryegrass should contaminate a field of fine-leaved perennial grass, the seed from that field could have many of the annual characteristics. Since the seed of annual and perennial are about the same size, it cannot be segregated in the cleaning process. All certified perennial ryegrass grown in Oregon must be submitted to a fluorescence test at Oregon State University. The seed laws, however, do not require the fluorescence percentage to be placed on the purity tag. Most breeders of the fine-leaved perennial have set certification standards for their variety and such standards call for a maximum percentage of fluorescence in a seed lot of that particular variety. Fluorescent percentages vary by breeders' declarations and may range

up to 8 percent, with most tolerances running from 2 to 4 percent. Ideally, the seed should have no tolerance for fluorescent seedlings. At 3 percent fluorescence, a 50-pound bag of seed could reward the seed user with 150,000 annual-type plants protruding like ugly ducklings throughout his plantings.

While fluorescent seedling percentages are not listed on the purity tag, a potential user can readily receive this information from his seed source. Each lot of seed shipped is accompanied by a purity analysis certificate which does list any fluorescence seedlings in the lot tested. The lot number is stenciled on each bag of seed as required by law.

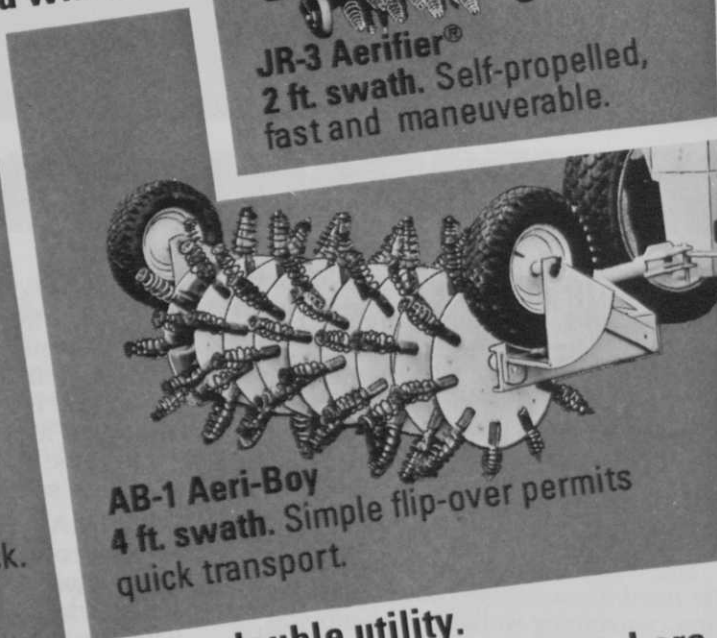
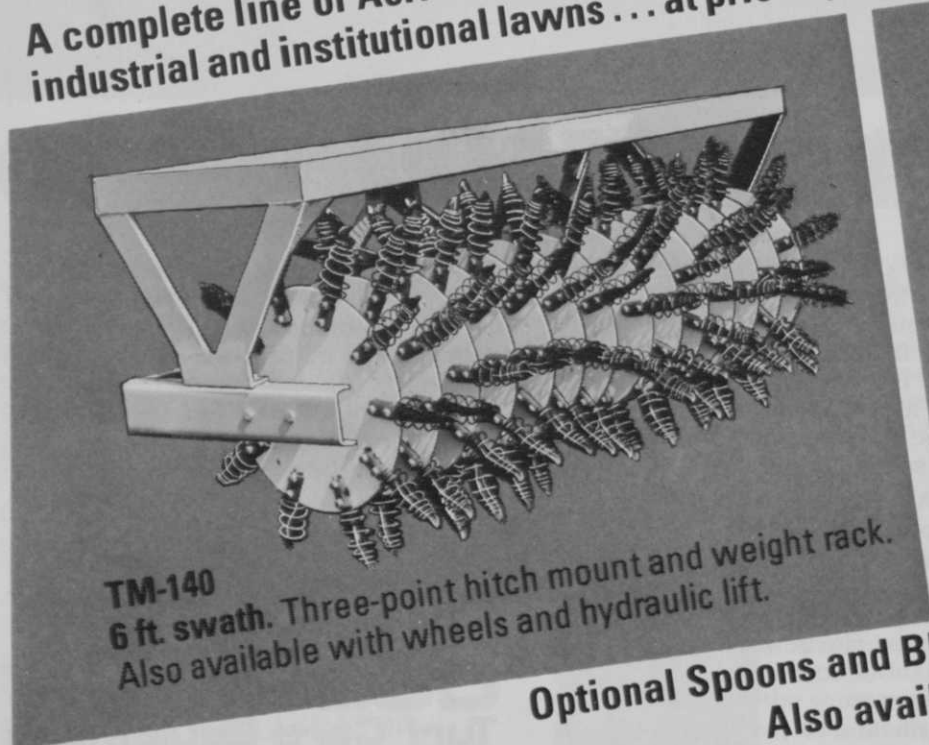
Selecting high-quality seed of the new varieties can be the best thing a golf superintendent can do for his course. Selecting high-quality seed is also good insurance against being duped by an unscrupulous salesman who insists his uncertified seed is just as good, but they didn't take time to certify it.

As the dollar buys less and less, quality grass seed can be the best buy you can make for your golf course. □

Hahn

THE TURF PROFESSIONALS

A complete line of Aerifiers for fairways, athletic fields, industrial and institutional lawns... at prices you will like!



Optional Spoons and Blades for double utility.
Also available — a complete line of Thatchers.

Hahn 1625 N. Garvin St., Evansville, In. 47711

DEALERS WANTED (812) 424-0931