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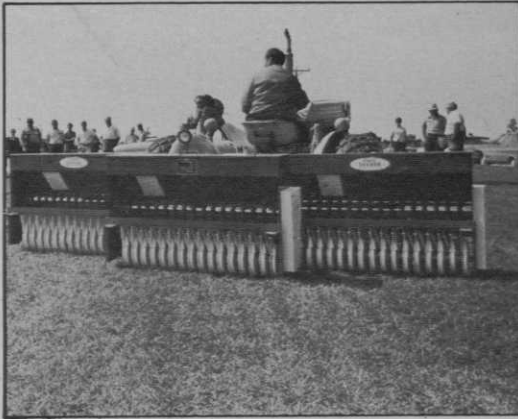


**International
Minerals & Chemical
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TURFACE





Seed testing/p. 10



Great Lakes/p. 12



Effluent water/p. 18

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FRONT COVER:

Dale Kern, president of Seed Technology, inspects seed in germinators specifically designed to simulate natural conditions.

golf business/august

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Clippings

Brief bits of news from in and around the golf business...

Dan Jones, superintendent at CC Adventura in **Miami, Florida**, was quoted by "Florida Golfweek" as being out of gas for four days recently. Other superintendents in Florida were also feeling the crunch, necessitating cutbacks in the amount of fuel they use, and in other parts of the budget to make up the increased costs, according to "Florida Golfweek".

If you're planning a golf trip to **South Africa**, better pick an even-tempered partner. Golfers there are being warned by police to arm themselves before a round because of an outbreak of robberies and insufficient number of guards. Golfers recently confronted by three natives with knives drew nine-irons and chased them off.

OSHA is considering reducing the time employers have to report **catastrophic accidents** (one or more fatalities or five or more workers hospitalized) to the agency in order to improve OSHA's response time. They are considering reducing the present 48 hour period to eight. The agency will soon have a national hot-line available for employers and employees to call to report accidents, according to officials.

The Hog Neck Golf Course in Easton, Maryland is **metric**. John Donnelly, who directs public information activities for the United States Metric Board, played the course to see if it had any effect on his game. Only once, near the 137-meter marker did he have doubts. He asked the pro what the distance was. "About a six-iron," was the dry answer.

The **Toro Company** is planning to expand its Irrigation Division in Riverside, California. They plan to invest more than \$3 million over the next three years, adding 118,000 square feet of office and warehouse space. Sales have increased 100 percent plus over the past two years. Toro's total sales for the past year were \$227 million.

Seemingly ignoring all scientific data supporting the safety record of **2,4,5-T** and **Silvex**, EPA is planning to suspend all the uses left. Justification is based on their original report, disputed heavily by the scientific community. It is estimated that positive action settling its value and safety will not be forthcoming for two or three years. Meanwhile, golf courses, rights-of-way, recreational land, aquatic areas, forests, pastures and home lawns will have to be treated with suitable alternatives until the review period is completed. Possibly forever.

The **Japanese** sent \$2.1 million worth of hoes, rakes, mowers and the like into the U.S. last year, making them the number one foreign supplier. It is an increase of **8000%** (that's right) over the \$25,000 imported in 1977.

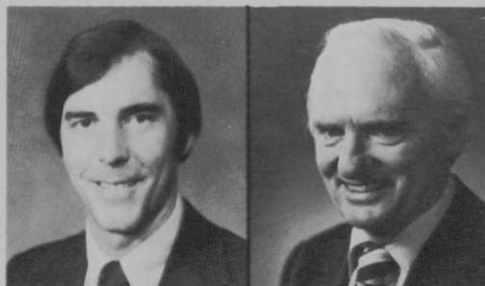
A Japanese golf course owner walked into a Fresno, California irrigation distributor recently and ordered 57 miles of drip irrigation tubing and 60,000 emitters. He wanted it to

irrigate expensive trees that separate the fairways on his four courses. Two of the courses operate as a country club which caters only to members who pay between \$25,000 and \$40,000 for memberships. The memberships trade on an open market, much like the stock market.

A typical Sunday on the other two courses, which are public, costs \$100, including lunch and a female caddy who hauls four bags on a motorized carrier as golfers walk.

Briggs & Stratton Corporation has reached an agreement in principle to acquire **Farymann Diesel FGmbH & Co. KG**. Farymann is a small, privately held German manufacturer of diesel engines. Its product line includes both air and water cooled models concentrated in engines under 20 hp. Briggs intends to retain the Farymann Diesel name and to continue operations in West Germany.

BASF Wyandotte's **Basagran**® herbicide has been cleared for use on turf in all states, according to Hans Loose, a product manager for BASF. Loose added that Basagran has been noted for its effectiveness in controlling yellow nutsedge during extensive testing over the past three years.



Brooks

Thorpe

Harvest Publishing Company is pleased to announce that **James R. Brooks** has joined the company as national sales manager for **GOLF BUSINESS**, the magazine for golf course management and golf turf maintenance. According to **Richard J.W. Foster**, Group Publisher of Harvest's Business Publications Division, Brooks will have over-all responsibility for the sales and promotion activities associated with **GOLF BUSINESS**. In addition, he will be personally responsible for the Southern sales region. Brooks will be based in the Business Publications Division's new Atlanta sales complex.

Brooks, 39, is well-known among golf course superintendents, turfgrass educators, and the turf maintenance industry. For the past five years he has been associated with the Golf Course Superintendents Association of America, serving most recently as director of marketing and sales.

Kenneth L. Thorpe is the vice president and general manager of the **AMF Golf Car Division**. Thorpe joined AMF in 1973, serving most recently as vice president of program management for the Motorcycle Division of Harley-Davidson Motor Co., Inc.

Michael Stapleton has joined **AMF Golf Car Division** as manager of district sales for the Pacific coast. Stapleton was general manager in the domestic and over seas operations of Foremost McKesson, Inc.

OMC Lincoln, a division of Outboard

Marine Corporation, has named **Kirk W. Reimers** as chief engineer. Reimers succeeds retiring **Robert Von Seggern** who has headed the division since 1966. OMC Lincoln manufactures small gasoline and electric-powered industrial vehicles plus Cushman-Ryan professional turf maintenance.



Bannigan

James

E-Z-Go has promoted **Edward V. Bannigan** to regional manager west and **Kenneth B. James** as West Branch Manager. Bannigan will be responsible for the company's operations in Los Angeles and northern California and will act as liaison between the golf car manufacturer and its distributors in Washington, Oregon, Idaho, Hawaii and southern California. James was previously general manager of Santa Ana's River View Golf Course, which his family founded in 1963.

David Ekvall has been named an area manager for the **Kohler Co.** Engine Division. He will work with central distributors and OEMS in Wisconsin, Illinois, Missouri and Kansas.

The Toro Company has appointed **Charles Perrottet** to the new position of director of corporate planning and development. His duties include responsibility for long-range planning and new venture and acquisition analysis. **John G. Szafranski** has been promoted to the new position of general manager of its Commercial Products Division. He was previously director of marketing for consumer products. The Commercial Products Division designs and markets maintenance equipment for large turf areas.

A. Martin Petrovic has joined the faculty of the **New York State College** of Agriculture and Life Sciences at Cornell University as Assistant Professor of Turfgrass Science. He will be responsible for the research, teaching and extension programs in turfgrass science, and will provide leadership for the college's total turfgrass science program. Other turfgrass scientists at Cornell include professor **Arthur Bing**, **Haruo Tashiro**, and **Richard Smiley**.

The **Michigan Association of Public Golf Courses** is holding a **two-day workshop** this fall for members at a very minimal cost, according to officials. Tentative dates are November 5th and 6th.

The **Ohio Association of Public Golf Courses** is holding a workshop November 12-14th in co-operation with the **Ohio Turf Conference** in Columbus, Ohio.

National Golf Foundation will hold a workshop November 12-14 at Chicago's O'Hare Airport.

More information on these workshops will be forthcoming.

News

Ryegrass testing procedures questioned, debated by members of seed trade industry

The value and validity of the fluorescence test, used to distinguish between annual and perennial ryegrass, is a great controversy among seed breeders, producers and distributors. A Ryegrass Symposium was held in April in Oregon to address the controversy.

Louisa Jenson, Emeritus, Oregon State University Seed Lab, was involved with the test from its inception and gave a history of its development. The test involves germinating suspected seeds and then examining the roots under ultra-violet light. Jenson remarked that the current ryegrass regulations regarding fluorescence testing were passed for efficiency at a time when few realized the significance. The Federal Seed Act is the only seed regulation in the world to include fluorescence testing requirements.

Clyde Edwards, administrator of The Federal Seed Act referred to a letter sent in 1973 requiring that the percentage of fluorescence be placed on the label. Clarifying the letter during the Oregon meeting, Edwards stated, "I was speaking about the new improved varieties of perennial ryegrass that are known to be totally non-fluorescent . . . We sent a memo out in 1973 from my office explaining this to seed analysts, seed control officials, and others. This has always been the implication that has been made of the fluorescent and the non-fluorescent ryegrass. To label the seed truthfully, if they are non-fluorescent we must deduct the fluorescent seedlings from the percentage of pure seed to calculate the correct percentage".

Comment was made at the meeting, from the floor, that because the test was considered nebulous and a committee had

been appointed by the American Seed Trade Association, that Edwards consider waiting until the committee report was finalized before rigidly enforcing fluorescence according to the 1973 letter.

Edward's comment was that the law was nothing new and that if it had not been fully implemented in the past, it did not change the law. "That law is there and it has always been the same."

Edwards went on to say that fluorescence is a negative identification procedure, where, taking Pennfine as an example, anything that fluoresces is determined not to be Pennfine. If it was suspected that two varieties of nonfluorescing perennials were growing in the same field, other steps would have to be taken to identify the mixture.

In a final panel discussion at the Oregon meeting, Dr. Joseph Duich, Pennsylvania State University and breeder of Pennfine, stated that fluorescence was an issue that some mistakes had been made on and that it was up to the seed industry to prevail with good sense in working the matter out. "Somehow we have to bring the ryegrass picture inline with truth in labeling."

Then, in June, the American Seed Trade Association met in Washington, D.C. During the Lawn Seed Division meeting, Chris Valentine, chairman of the Fluorescence Study Committee, gave the committee's report.

Summarizing the report, Valentine stated that, "Zero percent fluorescing seed is available on the market, but its value is questioned. The academic literature seems to indicate a very controversial area. The value overall is questioned. The identity of fluorescing

seedlings is controversial. The percentage fluorescence allowed is defined by the breeder. The presence or consequences of fluorescence was not proven to be harmful. It was clear that different varieties have different fluorescent allowances as defined by the breeder of each variety. It was thought to be unthinkable to dictate to the breeder the fluorescence he is allowed to release. It appeared to the committee that the current seed label presents ample information."

That summarized the majority report of the committee. However, appended was a minority report presented by Dr. William Meyer, research director for Turf-Seed, Inc.

Meyer stated that the parental clones of most of the presently available turf-type perennial ryegrasses (examples Manhattan & Pennfine) do not carry the genetic factor for fluorescent seedlings. When fluorescent seedlings are found in laboratory tests in lots of these turf-type perennial ryegrasses, they must be considered contaminants. He went on to say that the contaminants are "very objectionable because they usually germinate more rapidly than perennial ryegrass and have an upright rather than decumbent growth habit like the turf-type ryegrasses. In areas of the country without severe cold winters these coarse plants may persist for several years.

"If we don't express the fluorescent percentage as other crop on the seed tag we are misleading the consumer as to the genetic integrity of a seed lot for ryegrass content. The seed sent out by breeders for tests at public institutions is usually breeder's or foundation seed of the best quality available. If certified or commercial lots are sold with 4% or more fluorescence, will these perform as those plots in the public tests?"

A resolution approved by the Oregon Seed Trade Association and the Pacific Seedsmen Association was presented and passed by the Lawn Seed Division. The resolution read: "Whereas, regulations under the Federal Seed Act require fluorescent testing of

perennial ryegrasses; and whereas, a letter of interpretation of the fluorescent methods and formula was issued in 1973; and whereas, the ryegrasses producers, industry and technical seed personnel do not understand the interpretation as it was never enforced, and whereas there currently is disagreement between researchers and in the literature concerning the reliability of fluorescence as a factor for determining the difference between annual and perennial and varieties of perennial ryegrass; and whereas to accept the 1973 interpretation for calculation of fluorescence at this time for the 1979 crop would require changes in certification standards and be very costly to the producers, distributors and dealers; and whereas, the nonuse of fluorescence would have little, if any, effect on the purchases of ryegrass seed; now therefore be it resolved that a request be made to USDA, AMS, and FSA for a moratorium on the 1973 interpretation on the use of fluorescence on perennial ryegrass for kind or variety determination while a study is made of its reliability, practicality, and validity for use in making wanted determinations."

This resolution was also presented during the legislative meeting of the American Seed Trade Association and passed.

Whether the administrator of the Federal Seed Act will honor the resolution calling for a moratorium is doubtful, considering his answer when asked directly at the Oregon meeting. It is doubtful that he could, even if he wanted to, considering it is a law on the books, requiring Congressional action for change.

This is an issue that is not easily defined for the seed consumer. It will ultimately affect the price of seed and its quality. It is up to the seed industry to unite and develop a realistic testing procedure to tell the consumer what he is paying for.

With distinguished individuals within an industry severely disagreeing, it leaves the consumer wondering who to believe. The answer should come quickly from a united industry to cast away all doubts.

Ron Morris

Lawn Institute adds four new varieties

The Lawn Institute, during its annual meeting held in conjunction with the American Seed Trade Association meeting in Washington, D.C., added Ensylva fine fescue and Prominent

Creeping bent to their list of approved varieties. Fiesta and Blazer perennia ryegrasses were conditionally accepted during the 1978 meeting, pending additional data based on their application for Plant Variety Protection. Acceptance was made permanent this year.

The current approved list now includes the following:

Kentucky bluegrass

Adelphi	Majestic
Aboretum	Merion
Baron	Nuggett
Birka	Plush
Bonnieblue	Ram 1
Enmundi	Sydsport
Fylking	Touchdown
Glade	

Perennial ryegrass

Blazer	NK200
Citation	Omega
Derby	Pennfine

Diplomat

Fiesta	Regal
Manhattan	Yorktown II

Fine fescue

Banner	Koket
Ensylva	Ruby
Highlight	
Emerald Creeping Bent	
Highlight Colonial bent	
Prominent Creeping bent	
Sabre Poa trivialis	



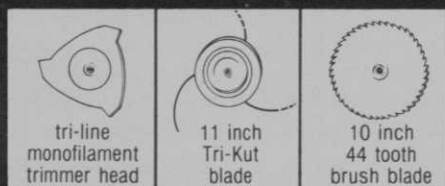
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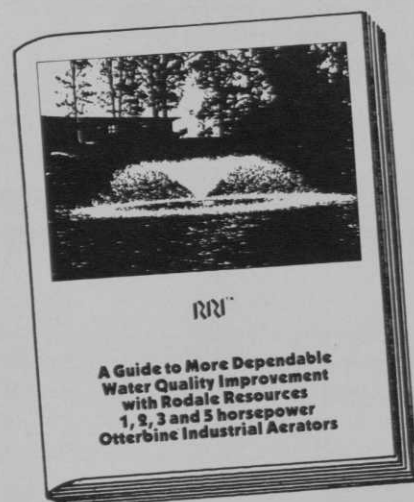
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Turfgrass standards Are they adequate?

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.

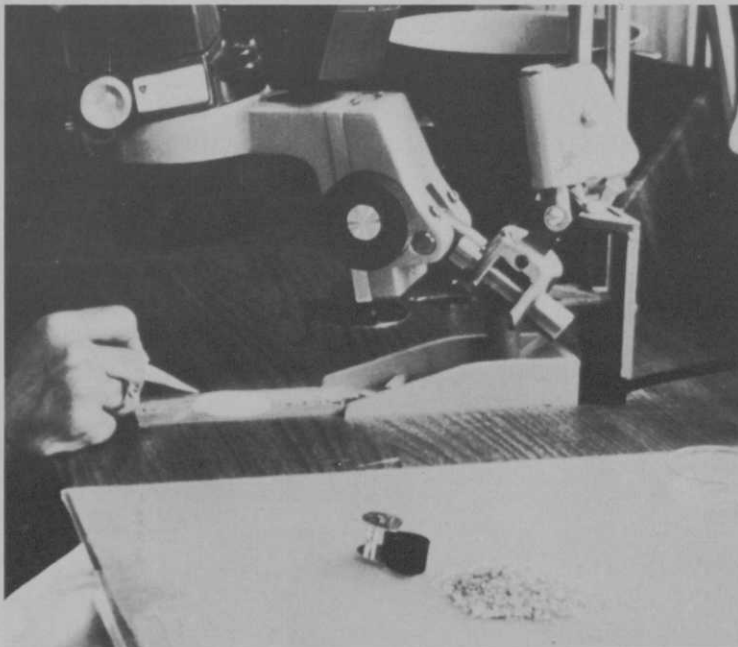
At the present time the minimum legal standards for bluegrass requires a laboratory to examine one gram, or

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



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Seed Technology is located in Marysville, Ohio.

