
JB COMMENTS:

The introduction and promotion of new turfgrass cultivars continues. You have the opportunity to choose from among many species and cultivars. Your choice(s) will be determined by a number of factors that must be prioritized as dictated by site-specific conditions. They include (a) climate temperature & rainfall distribution, (b) sun vs. shade, (c) soil - drainage, fertility, pH, salinity, and compaction proneness, (d) disease and insect severity by species, (e) type of use-ornamental vs sport, (f) intensity of use, and (g) cultural requirements.

Development of a new turfgrass cultivar should encompass research to characterize it relative to the above criteria. Unfortunately, too many new cultivars are being rushed to the market without adequate performance and adaptation assessments! The developer who releases a new cultivar prematurely, is generating information concerning its performance characteristics at the expense of the end-user, who may be the loser.

The performance assessments of a prospective new cultivar require a minimum of four years (after full turf establishment) in each individual location, with the evaluations being conducted in replicated plots (3 reps minimal) along with other cultivars of the same species that are currently in widespread, successful use. Five years is needed for the turfgrass ecosystem to evolve into a semi-stable state. Only then, may one make a reliable assessment of a cultivar's resistance or tolerance to environmental, soil, disease, and insect stresses.

Over the past 37 years of cultivar evaluations I have watched many entries that looked outstanding for 2 to 3 years that subsequently failed miserably in year 4 or 5!

Do you want to take a chance on an inadequately assessed cultivar, to essentially pay the assessment costs of a developer, and possibly experience a failure within 5 years?

JB VISITATIONS:

Malaysia-September

Presented a three-day lecture series on golf course turfgrass science and culture before attendees from Malaysia, Thailand, Singapore, Indonesia, Pakistan, and Hong Kong. It was an enthusiastic group with great eagerness to learn. Many questions!

While other parts of the world have slowed, the economic and golf booms continue in southeast Asia.

Night golf has arrived in southeast Asia. There are six lighted golf courses in Malaysia alone. These are 18-hole golf courses of full size and are of an international standard in design, that are lighted artificially throughout. Night play continues until 11:30 p.m. or even midnight. Night golf is very popular in these hot, humid countries, with golfers paying a premium for green fees.

A new horse race track facility was constructed in the Kuala Lumpur area, with planting of the turf track completed in late 1992. A sand root zone was used along with a vegetative bermudagrass (*Cynodon* spp.) planting. The surface is still not raceable after 1 full year of favorable growing conditions. It should be noted that they did not use the interlocking mesh matrix system.

Finally, on a newly constructed golf course in Malaysia I observed the use of buffelgrass (*Cenchrus ciliaris*) on unmowed secondary rough areas. Its performance after two years in the Kuala Lumpur area is positive.

Italy - September

The trip involved visitations to Rome, Milan, and Turin. In Rome visited the Italian Golf Federation Turfgrass Technical School on the LeQuerce Golf Course near Nepi. This program continues a valuable function in the upgrading of playing conditions of Italian golf courses through the formal training of golf

JB VISITATIONS (Cont.)

Italy - September (Cont.)

course superintendents. Having the teaching facility located on a fully operational golf course is ideal for hands-on training.

Mesh Element/Parking Lot Assessments. In Milan, visited a mesh inclusion test site at a parking lot at the newly constructed Milan 3 development. The relatively large parking lot area was divided into two test sections. One section consisted of a Texas-USGA specification high-sand root zone stabilized with interlocking mesh element matrices, while the second test area consisted of a sandy root zone permanently stabilized with rigid vertical-walled plastic constructed with a cup-like base having a single drain hole. This test was established two years ago.

The first full growing season was completed in 1993. The mesh element system has performed far superior in comparison to the rigid-walled cup arrangement. The latter exhibited extensive thinning of the turf during the July-August period. Most probably, a combination of extensive heat buildup in the surrounding plastic combined with a tendency for the root zone in the shallow, 3-centimeter deep cups to be prone to water stress. The failed area was overseeded once in the fall of 1993, while no replanting has been required in the interlocking mesh matrices treatment half of the parking lot area. It will be interesting to follow this test in the next several years.

Bentgrass Cultivar Assessments. A visitation to the bentgrass cultivar research site near Turin, Italy proved very interesting. The plot area had been constructed of a Texas-USGA specification root zone. Assessments during the first full year (1993) of evaluation included visual turfgrass quality ratings at 15-day intervals, spring green-up rating, shoot density counts, leaf texture measurements, percent moss invasion, and dollar spot susceptibility.

With no fungicides having been used, dollar spot (*Sclerotinia homeocarpa*) development was quite severe on many of the cultivars. Up to 30% of the turf cover was lost. The cultivars found to have high susceptibility to dollar spot included Emerald, SR-1020, National, Putter, and Southshore, ranked in order from 30 to 10% of the area infected. Those cultivars ranked lowest in percent dollar spot infection included, from least to most, Penncross, Providence, Cobra, Pennlinks, and Penneagle. Several experimental selections from the Penn State University bentgrass breeding program also had minimal dollar spot infections.

The lack of dollar spot resistance in some newer cultivars may actually increase the use of pesticides. This is not compatible with environmental goals of modern society.

Japan - October

Presented several turfgrass seminars for invited groups in Japan.

El Toro Zoysiagrass. Developed by the University of California at Riverside for use principally in southern California, El Toro has exhibited a superior turfgrass establishment rate compared to the *Zoysia japonica* and both the fine- and coarse-leaved *Zoysia matrella* now in widespread use in Japan. The fall low temperature color retention characteristics of El Toro also are proving superior to the zoysiagrasses commonly used on golf courses in Japan.

Interlocking Mesh System. Extensive testing of the interlocking mesh element root zone matrices system for soil stabilization and environmental enhancement is being conducted in Japan. Over 100 golf courses now have installations on golf tees and/or cart path areas. Approximately 90% of the tests are proving successful. Failures usually were associated with high-sand root zones where irrigation was not practiced and extended water stress occurred following planting. Test

sites also have been established on sports fields and golf courses. This should generate a great deal of information concerning proper use of the interlocking mesh element matrices on zoysiagrass turfs in Japan.

ASA - Cincinnati, Ohio - November

The Annual Meetings of the American Society of Agronomy and Crop Science Society of America were held in Cincinnati, Ohio. A total of 84 research papers on turfgrass science were presented. An extensive symposium was conducted on environmental quality as related to the use of pesticides and fertilizer practices on turfgrasses. Abstracts for these papers have been published in ASA Abstracts, which is available from the American Society of Agronomy, 677 South Segoe Road, Madison, Wisconsin 53711, USA.

UPCOMING JB VISITATIONS:

Provided for Institute Affiliates who might wish to request a visitation when I'm nearby.

- Feb. 1 to 7 - Dallas, Texas.
 - March 3 to 6 - Calgary, Alberta, Canada.
 - March 7 to 8 - Columbus, Ohio.
 - March 21 to 24 - Los Angeles, California
 - April 25 to 26 - Columbus, Ohio
 - May 14 to 26 - Australia
 - June 27 to 28 - San Diego, California
 - July 1 to 20 - Scotland and England
 - July 24 to Aug. 3 - Rhode Island, Massachusetts, and New York
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Cultivar, turfgrass - a strain or race that (a) has originated and persisted under turf culture and use for many years or (b) has been specially developed for the purpose of turf culture and use.

BOOKS PUBLISHED:

How To Have A Beautiful Lawn.

Author J.B. Beard. 113 pages (1993). Newly revised fifth edition. Widely used in (a) night school and community college turfgrass education courses, (b) employee training for lawn care, nursery, and landscape companies, (c) sales staff education, (d) premium gift for large sales items and clients, and (e) extension and master gardener programs. Well illustrated throughout, includes 12 pages of full color of turfgrass species, weeds, diseases, and insects. Price \$20.00 U.S.

Contact Beard Books, 1812 Shadowood Drive, College Station, Texas, 77840. U.S. FAX: 409-693-4878.

Management of Turfgrass Diseases.

Author J.M. Vargas, Jr. 294 pages. Second edition (1994). Includes more than 70 four-color photos and 100 in black-and-white. The book encompasses the cultural, genetic, biological, and chemical approaches to turf management and provides practical solutions to everyday problems. It covers cool- and warm-season turfgrasses, growing conditions, new diseases, and symptoms. More specifically, fungal, bacterial, and viral diseases, plus diseases caused by nematodes, are addressed for all the major turfgrasses. Price \$59.95 US.

Contact Lewis Publishers, P.O. Box 519, Chelsea, Michigan, 48118. U.S. or by calling 800-272-7737 within the continental U.S. or 407-994-0555 for other locations. FAX: 313-475-8650.

Proceedings 64th International Golf Course Conference and Show.

83 pages (1993). Contains 48 one or two page summaries of the papers presented.

Contact Golf Course Superintendents Association of America. Education Department. 1421 Research Park Drive, Lawrence, Kansas 66049-3859, U.S. FAX: 913-832-4433.