

BENTGRASS 101

By Cheryl Jones

How many of you know that the old expression, “growing like a weed,” originally was, “growing like bentgrass?” Not really, but it may well have been what the originator had in mind.

“Bentgrass: Wonderful Winner or Wicked Weed?” is an often debated topic among superintendents, golfers, agronomists, and all others interested in this unusual member of the GRAMINEAE family.

Bentgrass is a cool-season, perennial grass that is spread by stolens. It forms puffy, dense patches that may eventually dominate a lawn turf. Under close mowing and meticulous care, however, it can form an excellent lawn or sports turf; otherwise, it is usually regarded as a serious weed.*

It is very important to buy only certified seed, because with 7,890,000 seeds per pound of creeping bentgrass, you can imagine what one ounce of bad seed could do to a golf course green! Beware of the bentgrass seed pirates selling uncertified seed with as much as 10 percent of the mixture as weed seeds!

This genus includes approximately 125 species that grow in temperate and subarctic regions, and at high altitudes in tropical and sub-tropical areas. The common name of bentgrass is used for all the species in the genus except redtop. It's a fine-textured, dense, high-quality turf when it is closely mowed, therefore one of the most tolerant cool-season turfgrasses. Some species are annual, but all those used in the turfgrass industry are perennials. Within a turfgrass species, the density varies greatly, depending on genotypic and cultural factors and natural environment. You can get high density with bentgrass when it is closely mowed, fertilized and watered frequently, and kept free of pests and disease. Bentgrasses are subject to a large number of diseases, including Pythium Blight, Fusarium patch, Typhula blight, dollar spot, brown patch, red thread, stripe smut, spring dead spot, and others.

Let's look at the three major “turf” bentgrasses (and redtop). They include creeping bentgrass, colonial bentgrass and velvet bentgrass.

Creeping Bentgrass is a native of Eurasia but has crept throughout the world. It gets its name from its growth pattern — creeping stolens at the surface of the ground, initiating new roots and shoots from the nodes. Creeping bentgrass can spread quite rapidly and forms dense, fibrous root systems. It's the most widely-used cool season grass for golf and bowling greens. While it tolerates many types of soils, fertile, fine-textured soil of moderate acidity and a good water holding capacity is best.

Early in the 1900s, greens were planted with mixtures which contained small amounts of creeping bentgrass. The U.S. Golf Association and the U.S. Department of Agriculture worked together in the 1920s and '30s in an effort to develop many different creeping bentgrass cultivars.

Vegetatively propagated cultivars include *Culhansey*, released by the U.S., selected in 1935; *Washington*, released by the U.S.G.A. Green Section and CRD-ARS, U.S., selected in 1919; *Toronto*, released by the U.S., selected in 1936; *Penpar*, released by Pennsylvania AES, U.S., in 1967; and *Northland*, released by J.R. Watson, Toro Mfg., Minnesota, U.S., in 1955. Seeded cultivars include *Penncross* (Pennsylvania AES, U.S., 1954), *Seaside* (Lyman Carrier, Ore., U.S., 1923), *Emerald*, *Penn-eagle*, and *Prominent*.

DOES BENTGRASS BELONG IN THE SUNSHINE STATE? SOME MENTION IT IN THE SAME BREATH AS MIGRAINE HEADACHES.

All vegetatively propagated cultivars of creeping bentgrass have been developed in the United States. Turfgrass establishment rates for stolens and seed are about the same, but vegetatively propagated cultivars are usually more uniform in appearance. In Florida, the seeded bentgrass is primarily used on greens, but may see use on closely mowed tees, fairways, and exotic lawns.

Colonial Bentgrass is a native of Europe, but has been introduced in the Pacific Northwest and New England regions of North America, and in New Zealand. It is a grass best adapted in temperate-oceanic climates. A fine-textured, bunch-type-to-weakly-creeping grass, colonial has a poor tolerance to heat and is used mainly in cool, humid regions.

Colonial bentgrass is propagated mainly by seed. Cultivars include *Astoria*, released by Oregon AES in 1936; *Exeter*, released by Rhode Island AES in 1963, and *Highland*, released by Oregon AES in 1934. Breeding efforts in Europe include the release of *Boral* by Weibullsholm Plant Breeding Institution of Sweden in 1936, and *Holfior*, by D.J. van der Have of the Netherlands in 1940.

Velvet Bentgrass is a native of Europe that has become naturalized in New England and is restricted to use in very mild, temperate oceanic climates. It is said to be the most beautiful of all turfgrasses. Velvet bentgrass can be

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either vegetatively or seed propagated, but few cultivars have been developed. Currently available is *Kingstown*, released by Rhode Island AES in 1963.

Redtop is a native of Europe that was used mostly before 1945 in quality turfs. It is a coarse-textured species whose name came from the color of the seed head, and is propagated almost entirely by seed. *Redtop* is used mostly in cool humid climates as it does not withstand high temperatures. It was used in cool-season turfgrass seed mixtures in the past to promote rapid development of cover, but studies have shown that it does no better than improved ryegrasses and fescues, and its use has declined rapidly. Its unsightly appearance and stubborn tenacity has made it more unpopular as a nursegrass, but it's fine for roadsides and drainage areas, and waterways for erosion prevention. It will grow in poorly drained, unfertile areas. Due to its limited use, few cultivars have been developed, and none are available.

Does Bentgrass Belong in the Sunshine State? Some mention it in the same breath as migraine headaches; others claim its "true putting" properties can't be beat. It is not a native of Florida and must be carefully pampered to coax it to adapt (much like this cool-season writer), yet we see it used on major tournament courses here. ARE THE GRASS BREEDERS LISTENING? ■

**Turfgrass Management*, A.J. Turgeon, Reston Publishing Company, Inc., Reston, VA. 1980

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Sources: *Turfgrass: Science and Culture*, James B. Beard, Prentice-Hall, Inc. 1973; *Turfgrass Management*, A.J. Turgeon, Reston Publishing Company, Inc., Reston, VA. 1980; *Turf Management for Golf Courses*, James B. Beard, Burgess Publishing Co., Minneapolis, MN. 1982.

PRESIDENT'S MESSAGE (cont. from page 8)

Be sure to read Mike Bailey's article as it relates to the amount of time some of the above mentioned procedures inconvenience the golfer.

Hopefully a "Phase II" Bentgrass Seminar will take place early next year and that a lot of interested club officials will be in attendance.

A special THANK YOU to all the members who answered their surveys, participated in the program and shared their time and talents to make this Bentgrass Seminar a success.

THANK YOU Carl McKinney for the use of your club and fine facilities, the hospitality extended by your club was as always — FIRST CLASS. ■

Dick Blake

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