



A CREEPING BENTGRASS WITH A SWEDISH ACCENT

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EMERALD Creeping bentgrass, *Agrostis palustris*, joins Seaside and Penncross as a third alternative among the seed-propagated creeping bents. Emerald is the first seeded creeping bentgrass to combine vigor, good disease resistance, extremely fine texture and ease of establishment with the uniformity of type heretofore found only among stolon-propagated bents. While admittedly beautiful in appearance, the vegetatively planted strains are very difficult and costly to establish properly.

Emerald is well adapted for use in high quality turf areas such as golf courses, lawn tennis courts, bowling greens and fine lawns. On golf courses it forms an excellent putting surface that is uniform and without "grain". Additionally, testing under tee and fairway management levels has shown Emerald to be exceptionally well adapted for use in these areas. Its excellent density holds the ball up well, while the vigorous stolon production characteristic of the variety rapidly repairs injuries such as divot scars and golf cart tracks.

Emerald is a single clone synthetic variety. Every seed traces back to a single superior parent plant. It produces a very uniform turf which does not develop "patchyness" or "graininess" as the turf matures.

With this uniformity, the golfer is assured a truer ball roll from club face to cup than can be obtained with any other seeded creeping bent. It is this quality that makes Emerald the first creeping bent to combine the best attributes of both the seeded and stolon-propagated varieties.

On putting surfaces, Emerald should be seedwed alone to assure the uniformity so prized by golfers and superintendents alike. For tees and fairways, it may be seeded alone or blended with other varieties to provide genetic diversity.

Although this bentgrass is a new variety in North America, it has been used for fine turf in Europe for nearly ten years. It is marketed there under the name "smaragd," which is the Swedish translation of the word emerald.

Developed by W. Weibull of Sweden, one of the largest and most distinguished plant breeding firms in the world, the strain originated as a single superior plant selected from among many progeny of Congressional (C-19) Bentgrass, a well known stolon-propagated variety. After thorough testing, it was released for European use in 1965. Now, after extensive evaluation in

the U. S. and Canada, seed is available for the American market.

CHARACTERISTICS

Plant and growth characteristics render it distinctively different from other bents now available. Color is an attractive bright green, visibly darker than Seaside and often darker than Penncross. Its color is responsive to small amounts of iron and the shade of green can be adjusted accordingly. Regardless of how dark the color becomes, it never develops a slate-gray cast.

Uniformity and exceptionally fine texture are the two strong points of Emerald. It exhibited a finer texture than any other available seeded or stolonized bentgrass tested in a variety trial of a university in the northwest last year. Since all plants derived from this seed are so uniform. The exceptional texture and density of the variety are maintained year after year with no segregation into unsightly patches.

In seed size, seedling vigor and establishment, this new bent is essentially similar to other seeded types. After establishment, the mature turf is characterized by excellent vigor and aggressiveness, which are essential in rapidly healing di-



Author (r) inspects an Emerald bentgrass green on the Battle Creek Golf Course, Salem, Ore. Course owner Bill Stevely (l) says that the texture and uniformity of five greens now in Emerald has convinced him to switch over other greens as rapidly as possible.

vots, cart track blemishes and other damaged areas. It also helps prevent and crowd out weeds and *Poa annua*.

In aggressiveness, Emerald comes on stronger than Seaside but slightly less so than Penncross. As a result, there is slightly less puffiness than with Penncross and a slower rate of thatch buildup. Thus, Emerald does not have to be managed quite so intensely.

Despite the uniformity of this grass, it exhibits good overall disease resistance. It has very good resistance to *Fusarium nivale* and *Typhula* blight. It has exhibited moderate resistance to brown patch and dollarspot, and has shown no marked susceptibility to any of the common turf diseases. However, since this nor any other bentgrass variety is immune to disease, a nor-

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CREEPING BENTGRASS

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mal preventive fungicidal program consistent with the local area practices for quality turf should be followed.

In addition to its excellent turf characteristics, Emerald is also an exceptional seed yielding variety. Grown in Oregon since 1965, Its average seed yield has been consistently superior to all other creeping bentgrasses, which gives it the advantage of a lower cost of production.

To insure highest standards of quality seed production, all seed of this variety is grown under Oregon state certification standards. International Seeds, Inc., Halsey, Oregon is responsible for production of the entire world supply.

The Rudy-Patrick Company, Mission, Kansas, Marketer for the variety in this country, has found most leading turf seed distributors eager to participate in the introduction of Emerald. Even with substantial first-year seed stocks on tap, early interest and demand has prompted Rudy Patrick to make special provisions for widespread distribution. It is hoped that as many golf course

supply jobbers and superintendents as possible are able to share in the initial supply.

MANAGEMENT

Emerald is not a difficult variety to manage properly. A three-times-per-week mowing schedule is usually adequate at putting green height while twice weekly is sufficient at Tee and Fairway levels.

While it prefers a slightly acidic soil reaction, it can be adapted to a rather wide range of soil pH and salinity. On greens, adequate amounts of slow-release fertilizer such as the various ureaform types or milorganite should be applied to maintain the desired depth of color and vigor.

Emerald should be watered as needed, with the combined irrigation water and natural rainfall totalling about one inch per week. During very hot weather, particularly in the transition zone, irrigation should be applied as frequently as necessary to prevent wilting.

Although this new variety exhibits no extreme aggressiveness, it is a vigorous grower and will require periodic dethatching. Thatch buildup can be slowed by regular top dressing and vertical mowing.

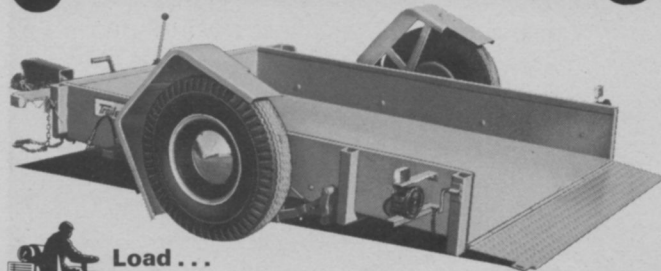
Thatch removal is easily accomplished by normal means.

It also tolerates the normal spectrum of fungicides, herbicides, and insecticides commonly used on bentgrasses. Label specifications and recommended rates of application should, of course, be strictly observed.

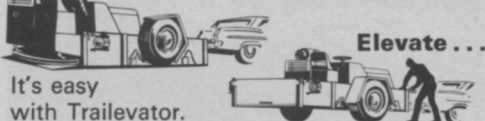
ADAPTION

Emerald has proved to be well adapted throughout the normal bentgrass region and, additionally, over an area deep within the transition zone and well into the upper south. During its initial North American testing, which began in 1968, it demonstrated high quality performance under putting green and fairway management conditions in areas ranging from Canada to the Houston, Texas area. Of course within this huge geographic expanse there may be some localized areas where another of the seeded or stolonized bentgrasses may be better adapted. But taken as a whole, Emerald adds a new dimension to the choices available to the superintendent and should be seriously considered by those committed to a program of excellence. □

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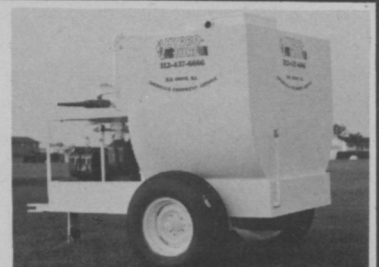
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