



PENN A-4 CREEPING BENTGRASS

The Mirabel Club • Scottsdale, AZ

Oregon's most experienced growers produce Penn A-4 to standards higher than general certified standards.

These are:

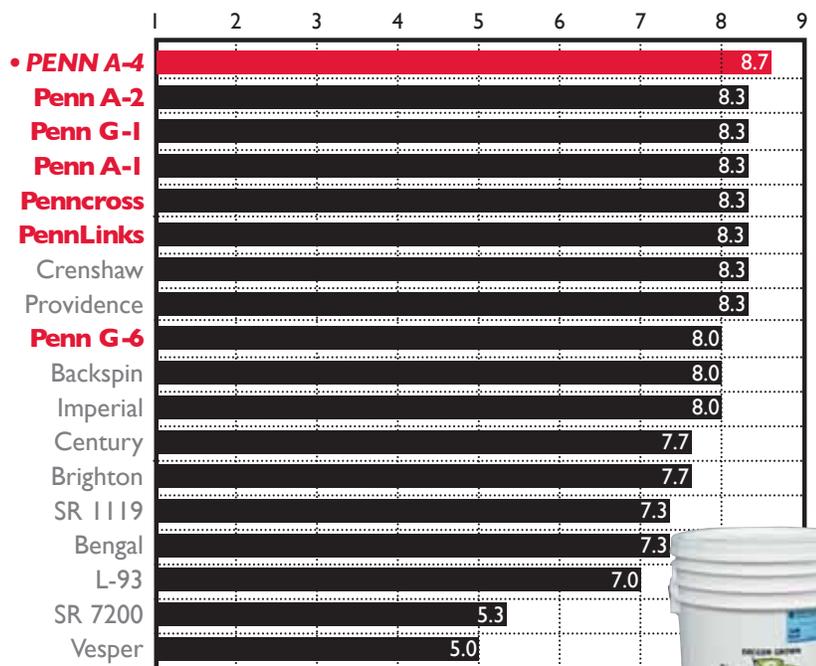
Pure Seed	98%	minimum
Other Crop	0.04%	maximum
Weed Seed	0.03%	maximum
Inert matter	2.00%	maximum
Germination	85%	minimum

Free of *Poa annua*, *Poa trivialis*, and all other noxious and objectionable weed seeds.

Penn A-4 is dark green, fine leaf texture, exceptional heat and cold tolerance, high density, disease resistance, and aggressive growth habit. Provides a smooth grainless putting surface. Will also provide a good playing surface for tees and fairways. Recommended seeding rate is 1.0-1.5 lbs./1,000 sq. ft. Proven to be adaptable to various conditions. University data shows that it is able to compete against grassy weeds, such as *Poa annua*, with great success. Prefers to be kept on the dry and lean side, thereby reducing maintenance costs.

1999–2002 seedling vigor ratings for entries in the National Bentgrass Trial for bentgrass cultivars grown on a green seeded in 1998.

Seedling vigor ratings 1-9 • 9=Maximum vigor



LSD (1.0) Value

Red = Tee-2-Green Varieties



Management Practices that have Proven Successful on Creeping Bentgrasses

It has been stated these grasses are different and not to be managed as other bents are. Summarizing this, it means less fertilizer, less water, less babying than the old bents that superintendents are accustomed to. Summation of this is it also adds up to less worry. These bents are tough, useful grasses that require different management but overall the management is actually easier than the superintendent is accustomed to. The end result is a very high quality putting green surface that thrives on low mowing and culminates in a near perfect putting surface with no grain and no extraordinary practices.

depending on growth, clippings and performance. The yearly amount of nitrogen will be from 2 to 4 pounds, phosphorous 2 to 3 pounds, and potassium 6 to 10 pounds. As far as micronutrients amounts this should be checked with tissue tests during the year and again with a soil test in the early spring.

Maintenance Program

The first mowing should be when there is uniform turf coverage with a height from 1/4 to 3/8 inch and definitely not more than a 1/2 inch. The mower should have a smooth front

mowing height within 6 to 7 weeks after the first mowing if not sooner. The Penn series grasses are being maintained by most facilities at 5/32nd or 9/64th for greens.

It is important to irrigate only when necessary, when required fill the soil profile to field capacity or like trying to flush salts from the soil profile. This could be a 30 to 40 minute cycle depending on the type of irrigation used or time of year. Do not irrigate the next few nights with a 5 or 10-minute cycle. Stretch the time between irrigation cycles as long as possible. Again, this will vary from the time of year, it is possible to go at least 4 to 10 days longer, with only needing to hit hot spots if required.

As far as aeration, this has varied from course to course. Most golf courses aerate two to three times a year. Once in the spring, early summer and fall, similar to what is currently being done with other bentgrasses. Some courses are going less, others more, all depends on the size of the greens, soil type and traffic.

Top dressing varies depending on management style from light weekly applications to once a month when verticutting. As with all bentgrasses it is important to get as much topdressing into the canopy as possible. This can only be accomplished if the canopy is opened up by the use of groomers, verticutting, grooving or spiking.

These are basic guidelines, which should be adjusted to location conditions or requirements.

Grow In Fertility Program

lbs. fertilizer per 1000 sq. ft.

Preplant -

Starter Fertilizer 19-25-5 w/ 35% SAN	8 lbs.
STEP / Hi-Mag Trace Element Package	12 lbs.
0-0-45 Polymer Coated SOP	8.8 lbs.
21-0-20 w/100% Poly-S	5.3 lbs.

Week 2 - 17-3-17 w/ 50% Methylene Urea 6 lbs.

Week 4 - 22-3-14 w/ 33% SAN 4.5 lbs.

Week 6 - 13-2-13 Ammon Sulfate + 2% Micros 8 lbs.

Week 8 - 17-3-17 w/ 50% Methylene Urea 3 lbs.

Week 10 - 22-3-14 w/ 33% SAN 4.5 lbs.

Week 11 - 19-25-5 w/35% SAN 4 lbs.

Week 12 - 13-2-26 w/ 100% Methylene Urea 3 lbs.

Week 14 - 22-0-22 w/ 65% Nutralene + Micros 2 lbs.

The formulations and rates may need to be adjusted according to soil test results and turfgrass performance of the listed grow-in. After the turfgrass has grown in, fertilizer applications should be kept light and infrequent. This can be accomplished by the use of a fertigation system or a soluble product.

The amount of the fertilizer should be .1 of a pound of nitrogen maybe every 14 days +/-,

roller. It has been reported that some people have used grooved rollers too early. Clippings should not be caught early on as this will help build a biomass or padding that will protect the plant from damage. During the early stage it is important to do a weekly light topdressing. This will cover the clippings and smooth any roughness in the surface as well as accelerate the filling in of the turf grass canopy. It is possible to get to the desired

SUPERINTENDENT FREQUENT BUYER PROGRAM

Contact your Tee-2-Green distributor for details.

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