

# SEED RESEARCH OF OREGON

The germination of ideas

## FEATURES

- The industry standard for heat, salt, and drought tolerance for nearly 20 years
- Deep rooted, extremely resistant to drought, stress and wilt
- Excellent seedling vigor for faster establishment
- Durable and attractive turf
- Fine textured, upright growth without being thatchy
- Dark green color
- Uses: Ideal for use on golf course greens, tees and fairways in the Transition and Southern zones

## BENEFITS

- Excellent *Pythium sp.*, Brown Patch resistance
- Hot weather thoroughbred
- Tolerant of a wide range of soil and water conditions, including effluent irrigation
- High shoot density for fast wear recovery, fast putting speeds and uniform color and texture
- NTEP standard for summer performance

## SEEDING RATES

- Seeds/lb: 6,000,000
- New turf:  
1–1.5 lbs/1,000 sq ft  
45–65 lbs/acre  
5–7.5 gr/m<sup>2</sup>  
50–75 kgs/ hectare
- Overseeding/Interseeding:  
2–3 lbs/1,000 sq ft  
90–135 lbs/acre  
10–15 gr/m<sup>2</sup>  
100–150 kgs/hectare

## ESTABLISHMENT

- Germination: 3–5 days (6–10 in cooler weather)
- First mowing: approximately 21 days depending on usage
- First limited use: approximately 6–8 weeks depending on conditions

## SR 1020

CREEPING BENTGRASS

**SR 1020** Creeping Bentgrass remains a standard for heat tolerant creeping bentgrasses from the Genetics by Seed Research breeding program. It combines excellent drought tolerance with a uniform color and texture, deep, fibrous rooting, and aggressive growth without becoming thatchy. SR 1020 has a long-proven record of thriving under a wide variety of soil and water conditions including effluent water and both high and low pH soils.



## Breeding

SR 1020 was developed from the original USGA germplasm collection of Dr. Robert Kneebone. Dr. Kneebone collected hundreds of individual bentgrasses from across the southern tier of the United States, searching for materials that would be both heat tolerant and uniform in color, texture and growth habit. The most desirable clones were then tested on a University of Arizona practice green under heavy traffic wear. Additional screening was performed for salt tolerance, due to the increasing use of effluent water on golf courses.

## Application

SR 1020 is perfectly adapted for greens, tees and fairways over a broad range of climatic conditions, but it truly shines in southern and transitional climates where deep rooting and aggressive summer growth is essential. Because of its dark green color and fine texture, SR 1020 can be blended with any of the other fine Seed Research of Oregon creeping bentgrasses for added genetic diversity.

SR 1020 has an aggressive growth habit, especially during the hottest days of summer. This aggressiveness has made SR 1020 one of the fastest bentgrasses to recover from wear damage and aeration without producing a thatchy stand.

Since 1986, SR 1020 has created superior playing surfaces across North America, Southern Europe, Australia and Asia. SR 1020 is available in greens and fairway quality for both domestic and overseas customers. This variety performs well in blends with other quality Seed Research of Oregon creeping bentgrass varieties.

**PVP**

IMPROVEMENT THRU RESEARCH

## BENTGRASS CONVERSION – IT CAN WORK!

By Dr. Leah Brillman — Seed Research of Oregon

**B**entgrass conversion can refer to changing from one bentgrass cultivar to another, or converting from *Poa annua* or perennial ryegrass to bentgrass. All of these can be done on greens, tees and fairways but the success rate depends on many factors. These factors include the climate zone of the course, the acceptable amount of disruption of the playing surface, timing of conversion and amount of perseverance.



### Key Concepts

- ▶ *Bentgrass seedlings are very small and initially weak. Some varieties such as **Tyee, 007** and **SR 1150** have greater seedling vigor and can greatly increase your chances of success.*
- ▶ *In competition for critical resources including light, water and nutrients the established plant always has an advantage over the seedlings.*
- ▶ *Timing the winter-overseeding to correspond with favorable growing conditions is extremely important. In some regions this may be a fall application, whereas in other regions it may be in the late spring or early summer.*
- ▶ *The existing plants must be weakened to give the seedlings a chance to compete.*
- ▶ *Conversion is more difficult in milder climates where existing turf has a longer period of active growth (and minimal seasonal dormancy).*
- ▶ *The new seedlings must be kept moist, which can make the existing playing surface softer and slower.*
- ▶ *The microclimate within the canopy may be favorable to *Pythium* spp. outbreaks.*

### Bentgrass to Bentgrass or *Poa annua* to Bentgrass

Success in any conversion depends on the relative competitiveness of the new bentgrass seedlings, the climatic and regional adaptation of *Poa annua*, the health of the stand before conversion, the timing of the seeding and the level of acceptable disruption.

1. Apply a growth regulator such as Primo®, Cutless®, Turf Enhancer®, Prograss®, Embark® or Proxy® — growth regulators that damage turf quality are often more effective but less aesthetically acceptable. **Do not apply a preemergent before seeding.** (Always follow labeled rates and recommendations)
2. Reduce height of cut on existing turf (scalp - <0.115" – or lower).
3. Verticut heavily to reduce any thatch and further weaken existing turf (this can also be done after core aerifying).
4. Core aerify with largest acceptable tines to create holes in canopy. Solid tines may also be used. The aim is to allow seedlings time to establish before competition returns and to assure seed-soil contact.
5. Top-dress or drag in cores to fill holes.
6. Best times for conversion are late spring, through the summer until late summer. *Pythium* control is very important – Allegiance® treatment of the seed will give you 14–17 days of *Pythium* control. Go as late in the spring as you can and still maintain acceptable playing conditions. Go as early in the fall as play allows. Seeding dates of June 19, July 1, August 17 and 20 most successful in New Jersey. August seeding dates were also better at Purdue University. Dr. Watschke at Penn State reports that at soil temperatures above 70° bentgrass germination is favored over *Poa annua*.
7. Seed with **Tyee, 007, SR 1150, SR 1119, Providence, SR 1020, Brighton, Dominant, Dominant Plus, Dominant X-treme or Dominant X-treme 7** at 1-2 lb./1000 ft<sup>2</sup> and topdress or drag seed into surface. Seed-soil contact is vital.
8. Keep surface moist – Stay on the dry side if converting from *Poa annua*.
9. Fertilize lightly after seedlings germinate with quickly available nitrogen source.
10. Keep height of cut low to enable more light to seedlings and reduce growth of existing stand (<0.125").
11. Dimension may be applied 14-21 days after seedling emergence to limit *Poa annua* competition (Reicher, 2003).
12. Repeat spring and fall for at least two years. Significant results are generally observable in the third year.

### References

- Bigelow, C.A. and D.R. Chalmers. <http://sudan.cses.vt.edu/html/Turf/bigelow.htm>
- Kopek, D.M. <http://ag.arizona.edu/turf/glf0399b.html>
- Murphy, J.M. et. al. 1999. 1999 Rutgers Turfgrass Proceedings. pg. 227-238.
- Ralston-Hooper, K. and Z. Reicher. 2002. [www.agry.purdue.edu/turf/report/2002/page80.pdf](http://www.agry.purdue.edu/turf/report/2002/page80.pdf)
- Reicher, Z. and Hardebeck, G. 1997. Conversion of fairways without using nonselective herbicides.
- Annual Purdue Turfgrass Research Report (1997).
- Watschke, T.L. 1997. Convert your fairway to bentgrass. Grounds Maintenance. July.