RPR®

REGENERATING

Perennial Ryegrass

So unique and distinctly different, RPR is recognized in a category of its own – *Lolium perenne ssp. stoloniferum.*

BARENBRUG®

Great in Grass®

PATENT PENDING

BARENBRUG®

IMPROVE YOUR FIELDS, FAIRWAYS AND TURF AREAS WITH RPR

Barenbrug's innovative research and development has produced a new star; a tough, traffic tolerant, regenerating perennial ryegrass, RPR. Recognized as a species distinctly different than traditional perennial ryegrass, *Lolium perenne ssp. stoloniferum* was first described in 1836. Barenbrug's RPR varieties are now the first turf quality 'stoloniferum' ryegrasses to be made available. *Regenerating Perennial Ryegrass*, or RPR, tolerates heavy traffic while maintaining its overall quality and appearance. With strong recuperative ability, RPR outperforms traditional perennial ryegrass when the games start. Resilient and tolerant of tough summer conditions, when perennial ryegrass is the turf of choice, RPR is the ideal selection for your sports field, golf course, recreational turf area, home and commercial lawn.

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REGENERATING
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YEARS OF RESEARCH – *REMARKABLE RESULTS*

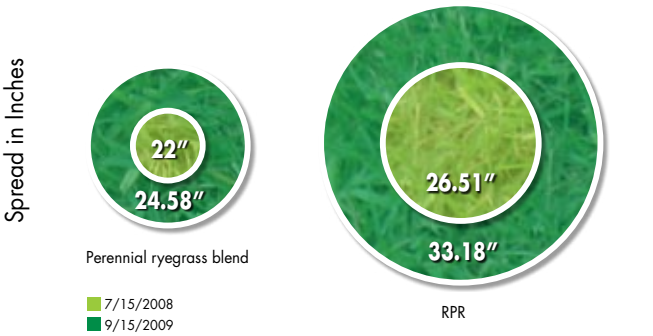
It is RPR's unique regenerating ability that separates it from both traditional and spreading perennial ryegrasses. A product of advanced breeding techniques, RPR plants develop ***determinate-stolons*** which allow for regeneration in all directions. Determinate-stolons arise from an auxiliary bud near the base of the mother plant and then grow horizontally 6-8" at, or just below, the soil surface, creating identical new plants as they grow.

RPR first drew the attention of turfgrass plant breeders at the Barenbrug research site in Virginia where new grasses were developed for traffic, drought and cold tolerance. Researchers noticed that RPR was thriving under very difficult conditions, producing determinate-stolons and recovering in areas of highest traffic stress.

With the best plants selected, continued development of RPR was performed at Barenbrug's turf research center in Oregon. Utilizing the technique of space plants and frequent mowing, Barenbrug's turfgrass breeders studied the lateral growth of RPR comparing it to a typical perennial ryegrass blend.

At left regular perennial ryegrass. At right RPR after one year.

CIRCUMFERENCE OF SPACE PLANTS



RPR spread measured in inches compared to a perennial ryegrass blend.

In the graph above, on two recording dates, an RPR plant was significantly larger than a typical perennial ryegrass blend. In Sept. 2009, the circumference of the RPR plant was 33 inches compared to perennial ryegrass measuring 24 inches, a difference of 27% larger for the RPR.

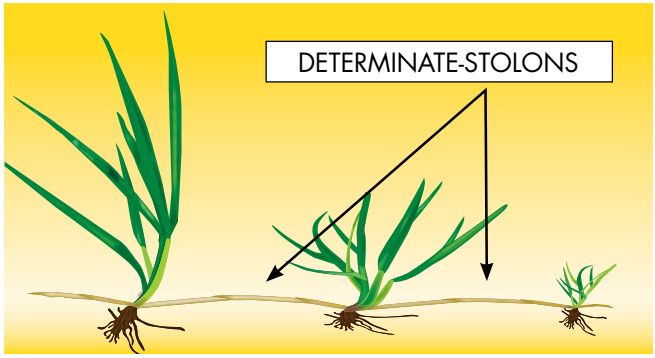
Within two years, the RPR plants were well rooted, uniform and dense and had grown to three feet wide.

Barenbrug extensively tests all of its varieties and RPR is no exception. It has exceeded the company's most stringent quality requirements for traffic tolerance and recovery, drought tolerance and turf quality.

DETERMINATE-STOLONS

Determinate-stolons are shoots of growth emerging from auxiliary buds at the crown of each plant. When RPR turf is damaged from an extreme traffic event or worn from persistent traffic, its determinate-stolons will grow horizontally into the worn areas, develop roots and rapidly repair the damaged area. See the photos to the right, showing RPR plants, determinate-stolons and the developed roots.

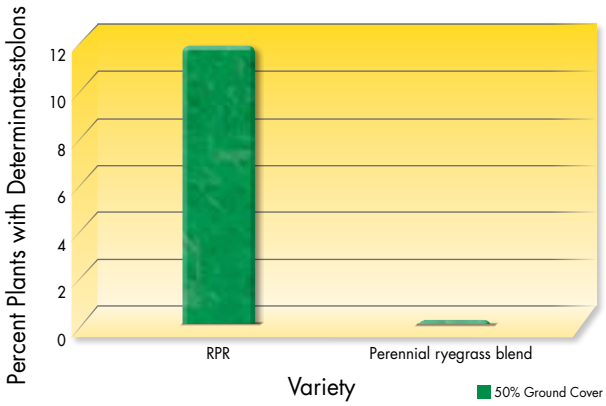
RPR is the only commercially available Perennial ryegrass that exhibits determinate-stolons.



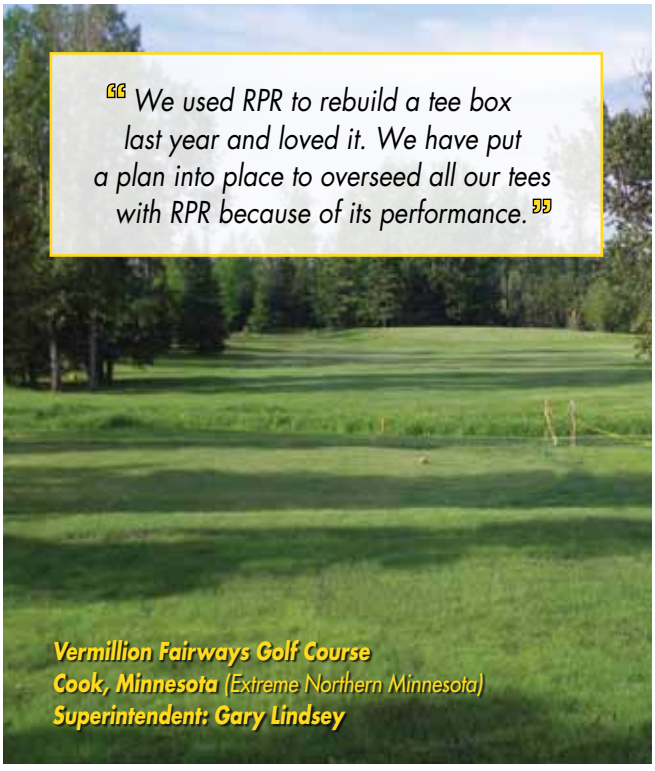
The pictures above show determinate-stolons rooting down in RPR.

Turf researchers at Ohio State University conducted a determinate-stolon count, comparing RPR and a perennial ryegrass blend. The study was done on turf plots with both 50% ground cover and 100% ground cover.

DETERMINATE-STOLON COUNT AFTER TRAFFIC APPLICATION



The difference in percent of plants with determinate-stolons between RPR and a perennial ryegrass blend. Data was taken in May 2009 at The Ohio State University.



RPR EXHIBITS EXCELLENT ESTABLISHMENT, TRAFFIC TOLERANCE AND RECOVERY

In recent years, RPR performance has been evaluated by turf researchers at several different universities where it was analyzed for fundamental turf characteristics including establishment under traffic, traffic tolerance and recovery. The results: RPR is superior in traffic tolerance trials when compared to other perennial ryegrass and maintains high turf quality under these conditions of heavy traffic.

At The Ohio State University, research plots were rigorously subjected to damage by a traffic simulator. In the graph to the right, data supports RPR's ability to maintain quality and integrity despite three days of traffic applied.

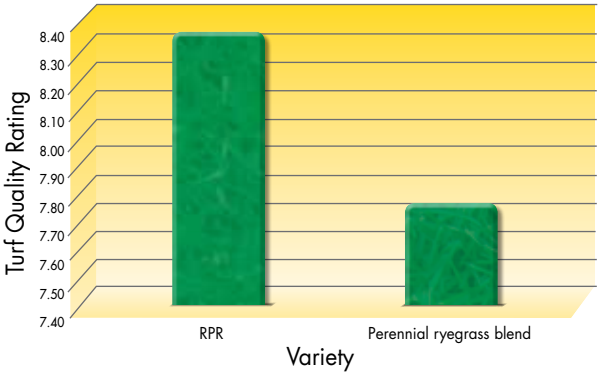
RPR was also tested for traffic tolerance at the Southeastern Turfgrass Research Center in Lexington, Kentucky. As in The Ohio State University study, the results showed RPR to be superior to traditional perennial ryegrass when evaluating traffic tolerance.

In separate studies conducted by Iowa State in 2010, the establishment of RPR was evaluated under various levels of traffic and compared with mixtures containing both Kentucky bluegrass and SOS Turf Annual Ryegrass. Conducted in both the spring and fall, and using a traffic simulator, the trial area was subjected to various levels of traffic intensity. For the spring study, traffic started six days after planting in mid-April. The Kentucky bluegrass never established and the SOS turf annual transitioned as early summer temps spiked. Only the RPR and mixtures containing it thrived and maintained cover during the trial duration thru August.

In the Iowa State fall study, an early September planting was again subjected to various intensities of traffic simulation 13 days after planting. Similar to the spring, the Kentucky bluegrass was again the poorest performer, while the RPR and SOS, alone or in mixtures, topped the trial with superior ground cover.

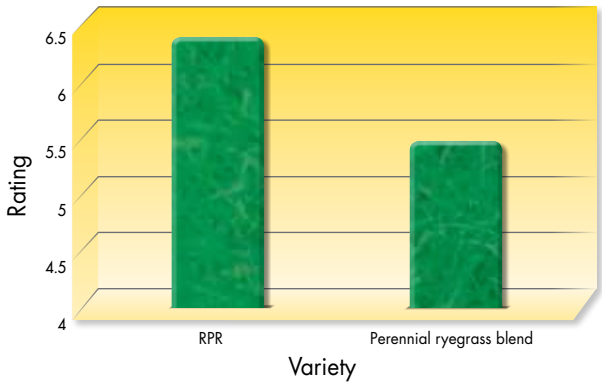
Barenbrug agronomists also evaluated RPR for turf quality at several sites across the US. At the Southeastern Turfgrass Research site in Sept 2009, after a long summer of heat stress, the RPR rated significantly higher in turf quality over an average of three perennial ryegrasses. The three perennials failed to meet the minimum acceptable turf quality rating of 5.5.

INTENSE TRAFFIC TOLERANCE - THE OHIO STATE UNIVERSITY



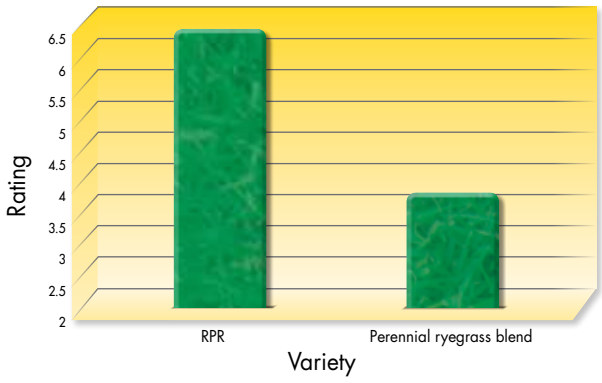
The graph above shows the average of the two RPR varieties compared to a perennial ryegrass blend after three days of intense traffic. Recorded in September 2008. Data from The Ohio State University, P.J. Sherratt, John R. Street and A. Drake.

VISUAL WEAR - MARCH 2008



RPR compared to an average of the perennial ryegrass blend. Data was collected late in the season at the Southeastern Turfgrass Research Center when the pressure on fields is high. RPR performs very well.

TURF QUALITY - SEPTEMBER 2009



Comparison between RPR and the average of three perennial ryegrasses for turf quality. 5.5 is the lowest acceptable turf quality rating for NTEP standards. Recorded at the Southeastern Turfgrass Research Center.

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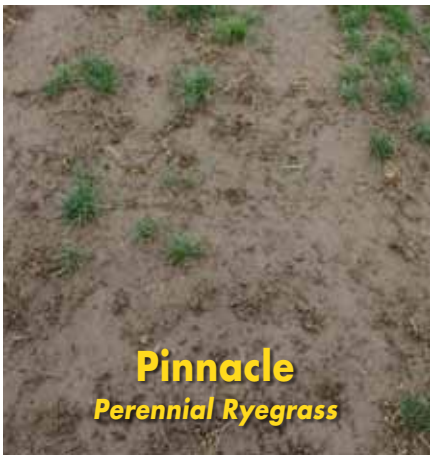
Traffic Study, Barenbrug Research, Albany, Oregon



RPR VARIETIES, BLENDS AND MIXTURES

RPR varieties all feature the traditional BAR prefix and are associated with the Greek alphabet. Our first three varieties are Baralpha, Barbeta and Bargamma with additional, improved varieties to be released in the near future.

RPR is available as a 100% RPR blend or in various mixtures with Kentucky bluegrass, tall fescue or turf annual ryegrass. Contact Barenbrug or a local distributor to see what is recommended for your climate and use.

RPR at Ocean State Soccer Club, Exeter, Rhode Island.

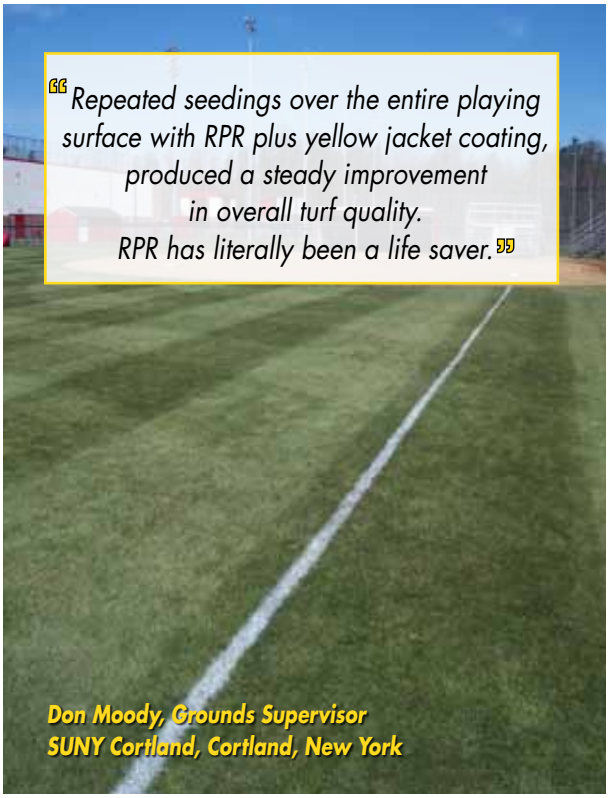
RPR SEEDING RATE AND BASIC MAINTENANCE

The recommended seeding rate for RPR is 300 lbs. per acre or about 7 lbs. per 1,000 sq. ft. Seeding at lower rates slows establishment, increases weed potential and increases the time needed to establish for use. Quick to germinate and establish, RPR also competes very well when over-seeded into an existing turf. Depending upon use, RPR may be mowed from a fairway cutting height of ⅜" to 3".

To maintain high quality turf, annual fertilizer and irrigation requirements are similar to standard perennial ryegrass. Endophyte enhanced, RPR is a very drought and heat tolerant perennial ryegrass blend.

BENEFITS OF RPR REGENERATING PERENNIAL RYEGRASS

- **Perennial ryegrass with determinate-stolons**
- **Extremely traffic tolerant**
- **Exhibits strong ability to recover from extreme wear and use**
- **Ideal for athletic fields, parks and rec, golf courses where perennial ryegrass is the turf of choice**
- **High endophyte content for improved stress tolerance**
- **Significant heat and drought tolerance when compared to standard perennial ryegrass. Initial breeding work conducted in Virginia.**
- **Strong disease resistance and insect tolerance**
- **Excellent in mixes with Kentucky bluegrass and fine fescue**
- **Great for residential and commercial turf use**
- **Excellent for sod production/improved harvest performance**



RPR for sod production is available exclusively through Sod Solutions.
For information please call 843.849.1288 or visit www.sodsolutions.com.

Distributed by:

BEWARE OF IMITATORS:

Since its introduction in 2009, RPR has proven to be a strong, durable performer. As is common with success, several other seed companies are now claiming similar levels of performance from spreading perennial ryegrasses. These products, however, do not produce determinate-stolons and are not capable of regeneration after severe traffic. RPR is so unique, it is recognized in a category of its own – *Lolium Perenne ssp. stoloniferum.*

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