

LS™ Perennial Ryegrass

Turfgrass Developed to Withstand Wear

Contains

LATERAL SPREAD

TECHNOLOGY



- ▶ **Patent Protected**
Improved Technology
- ▶ **Lateral Spread™ Tiller**
Fills in Bare Spots
- ▶ **Increased Density**
Highly Wear Tolerant
- ▶ **Reduced Seeding Rate**
Small seeded variety means more seeds per pound
- ▶ **Exceptionally Fine Leaf Texture and Dark Green Color**



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INTRODUCTION

NEVER FEAR WEAR

Most times you don't know what you need till it's too late – like choosing the wrong turfgrass variety that thins and withers under heavy use. With LS Perennial Ryegrass you can avoid the failures of traditional ryegrass varieties. LS Perennial Ryegrass is one tough grass - not only able to withstand wear it also has the ability to self-repair those heavy traffic areas. But that's just the beginning - LS Perennial Ryegrass look better than the lighter green European varieties. Its dark green color, fine leaf texture and dense sward make it an ideal choice for all your permanent turfgrass needs. In fact, LS Perennial Ryegrass is so unique it's been awarded its own patent.

DEVELOPMENT

DEVELOPED TO WITHSTAND WEAR

LS Perennial Ryegrass is a blend of elite grass varieties bred specifically to excel under the intense wear found on sports fields and golf courses. Although greatly improved over the last 4 decades, most turfgrass is basically a bunch grass species exhibiting growth patterns that are more vertical than lateral. This is great for seed production – but not for high-wear areas. Individual selections however vary greatly in their ability to generate shoots or tillers which enhance plant density. On occasion, these selections have also been observed to create rhizomes/tillers, which similar to bluegrass, form distinct new plants adjacent to the mother plant, again increasing stand density and hastening recuperation.

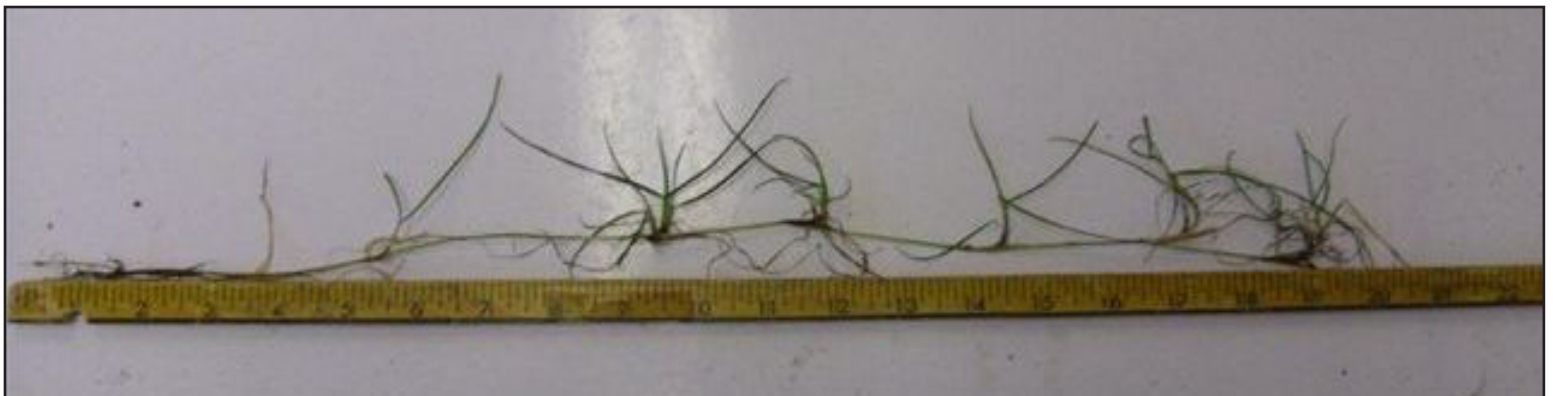
Mountain View Seeds (collaborating with both public and private breeders) examined tens of thousands of individual collections, selecting for these expressions that in addition to excellent appearance and disease resistance show increased tendency to fill in newly seeded areas as well as areas thinned by wear and environmental conditions.



Growth pattern differences between LS Perennial Ryegrass on the right and the other "re-generating" ryegrass on the left after 6 months.



The photos above show the regrowth potential of LS Perennial Ryegrass. The divots were taken 7-14-11 and regrowth has almost completely filled in by 8-21-11.



LS Perennial Ryegrass spreads through tillers seen above. This spreading ability is the secret to the self-repair ability of LS Perennial Ryegrass.

RESEARCH

TRIAL BY FIRE - SIENNA AND INSIGHT

Developing unique varieties does not happen overnight. It can take a decade or more before a variety is released for trials. Significant investments of capital can be lost if the varieties do not hold up to independent trial work. The varieties submitted for trials should consistently exhibit the traits selected for with no regression possible. Proper breeding ensures the variety will always exhibit the characteristics that it has been selected for and the buyers of the seed know exactly what to expect. If a variety has been bred and selected correctly trials simply echo and validate what was observed during the private development process.

The only national independent source to trial turfgrass varieties is the National Turfgrass Evaluation Program (NTEP). The National Turfgrass Evaluation Program is designed to develop and coordinate uniform evaluation trials of turfgrass varieties and promising selections in the United States and Canada. Test results can be used by national companies and plant breeders to determine the broad picture of the adaptation of a cultivar. Results can also be used to determine if a cultivar is well adapted to a local area or level of turf maintenance. The two primary varieties in the LS Perennial Ryegrass blend are SIENNA and INSIGHT. They were submitted for the NTEP trials and excelled, exhibiting all the traits that they were selected for

There are a few companies that do not use the NTEP and simply rely on their own research to validate their breeding programs. Unfortunately these in-house trials are anything but independent. In addition most grass seed companies only test their cultivars in a few locations due to cost, the NTEP tests nationally. Make sure you ask for NTEP data – the only truly independent turfgrass trial in the country.



The photo to the right shows the dense root mass of LS Perennial Ryegrass.

Live Tiller count on LS Perennial Ryegrass grown in Aurora, Oregon

Tillers per 100 cm²

Variety	2010	2011	Avg
LS prg	393	398	395.5
Conventional	164	158	161

NTEP TRIAL DATA

TABLE 1 - TURFGRASS QUALITY (MEAN OF 10 LOCATIONS)

SIENNA	6.03
INSIGHT	5.78
FIESTA 4	5.77
PALMER V	5.72
PINNACLE	4.46
LINN	3.06

TABLE 2 - % GROUND COVER AFTER WEAR (PA1)

	Before Wear	After Wear
SIENNA	99	84.3
INSIGHT	99	77.7
PALMER V	99	77
PINNACLE	99	74
FIESTA 4	99	67.7
LINN	96.7	67.7

TABLE 3 - SUMMER DENSITY RATING (MA1)

INSIGHT	7.3
SIENNA	6.7
FIESTA 4	6.3
PALMER V	6
PINNACLE	5.3
LINN	3.7

TABLE 4 - SEEDLING VIGOR (MEAN OF 4 LOCATIONS)

SIENNA	6.8
INSIGHT	6.7
PINNACLE	6.4
FIESTA 4	6.2
MACH 1	6.1
PIZZAZZ 2 GLR	6.1

TABLE 5 - PERCENT LIVING GROUND COVER - SPRING (MEAN OF 2 LOCATIONS)

INSIGHT	94.5
SIENNA	93.7
PALMER V	92.2
MACH 1	90.5
FIESTA 4	87.5
BONNEVILLE	86.5

TABLE 6 - BROWN PATCH RATINGS (MEAN OF 2 LOCATIONS)

INSIGHT	5.8
SIENNA	5.2
PALMER V	4.3
PINNACLE	4
FIESTA 4	3.7
LINN	2.2

*All data taken from the 2011 NTEP Perennial Ryegrass report.

APPLICATIONS FOR ALL YOUR HIGH-TRAFFIC, HIGH-QUALITY TURFGRASS NEEDS

LS Perennial Ryegrass is the ideal product for any professional application. Its dark green color, dense sward and fine texture make it an ideal choice for golf applications. Whether it's on a tee box, fairway or rough it will always look great and hold up well. Its wear tolerance and recuperative trait also makes it a great choice for cart paths and driving ranges. These traits also make LS Perennial Ryegrass a great choice for any sports field.

Whether it's a college football field or a large soccer complex you can rely on LS Perennial Ryegrass to hold up to all your high traffic uses. LS Perennial Ryegrass is also an ideal choice for Landscapers and Contractors. Reduce call backs due to thinning lawns or yellow turf. Rely on LS Perennial Ryegrass for happy customers.

PATENT PROTECTED



Due to the unique spreading ability of LS Perennial Ryegrass, it has been awarded a US Patent. Recuperating tillers begin to form 1 season (7 months) after sowing. These tillers allow LS Perennial Ryegrass to spread and fill in much quicker than other "recuperating" ryegrass. Traditional perennial ryegrass does not spread. Technology advances in chemicals, equipment and irrigation - Isn't it time your turf caught up? Don't be fooled by imitators – ask for the patent number before you buy.



Mountain View Seeds brings Oregon's best to you.

Sheltered by Mt. Hood, the Willamette Valley enjoys mellow sunshine, gentle rain and mild winters. It's the grass seed production capital of the world.

In 1946, farmers in Pratum, just east of Salem, founded a co-op to handle the prime seed that grows in our fertile soils. More than a half century later, Mountain View Seeds still reaps the benefits of the outstanding Willamette Valley climate.

In the northern part of the valley, crop rotation and abundant irrigation produce clean, high-quality turf seed.

The grain elevator at the Pratum Co-op has been a Willamette Valley landmark since 1946. For 35 years, the co-op handled public grass seed varieties, adding private varieties in the 1980's. Mountain View Seeds, Ltd., a subsidiary of the Pratum Co-op, was created to manage mounting demand of grass seed production.

At Mountain View Seeds, we rely on experience and people. We know grass seed research, production and processing — after all, we have more than 50 years of experience.

We also take pride in the knowledge and skill of our staff. From research and development to production to order fulfillment, we hire the best... to make buying grass seed easy.



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