

SEED RESEARCH OF OREGON

The germination of ideas

FEATURES

- High levels of Gray Leaf Spot resistance
- Fast germination
- Fine leaf texture with dark green color
- High levels of endophytes
- Broad genetic base
- Superior disease resistance
- Excellent for both permanent turf & winter overseeding
- Uses: Golf courses, sports fields, parks, schools and commercial landscaping

BENEFITS

- Rapid establishment to out-compete *Poa annua* and other weeds
- Reduced inputs and lower maintenance costs
- Widely adapted
- Superior performance at low mowing heights

SEEDING RATES

- New Turf: 7–9 lbs/1,000 sq ft, or 300–400 lbs/acre
- Winter Overseed Rate:
30 lbs/1,000 sq ft for golf greens
250–450 lbs/acre for golf roughs and sports fields
450–700 lbs/acre for golf fairways and tees
- Seeds/lb:
Approximately 220,000–250,000

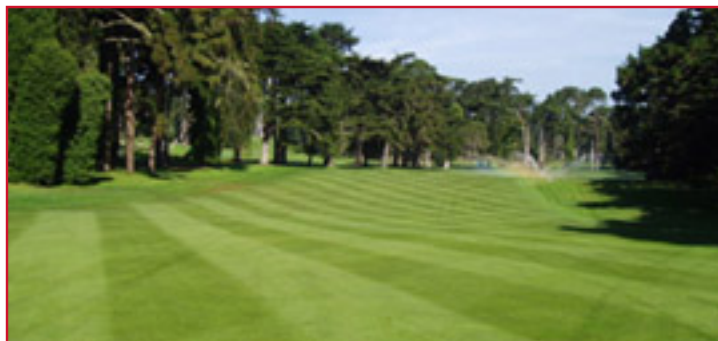
ESTABLISHMENT

- Emergence: 3–7 days under ideal conditions
- First mowing: 14 days after emergence



PERENNIAL RYEGRASS

CHAMPION® GQ Perennial Ryegrass, was developed with an emphasis on selection based on qualities turf professionals have told us are most important: rapid establishment, stress and disease resistance, and rapid recovery. CHAMPION® GQ is composed of the SR 4000 series and other exceptional varieties of perennial ryegrasses adapted for your specific region.



Disease Resistant

The SR 4000 series perennial ryegrasses — including SR 4600, SR 4220, SR 4350, SR 4420, SR 4500 and SR 4550 — have excellent resistance to common turf diseases including: Crown Rust, Gray Leaf Spot, Winter Netblotch, Large Brown Patch, Leaf Spot, Red Thread and good resistance to Stem Rust. The broad genetic base and high disease resistance of these varieties contributes to the superior performance of CHAMPION® GQ.

Gray Leaf Spot Resistant

Since the initial outbreak in the mid-1990's, Seed Research has been feverishly working to develop varieties that can withstand the ravages of Gray Leaf Spot (GLS). The initial GLS screening cycle has yielded varieties that are significantly more resistant to GLS than has ever been seen before — SR 4220, SR 4350, SR 4420, SR 4500 and SR 4550. The addition of SR 4600 adds the highest level of GLS resistance. All succeeding generations of our perennial ryegrasses will go through this grueling screening process before they are approved for blending in CHAMPION® GQ.

Endophyte-Enhanced

CHAMPION® GQ contains very high levels of viable endophyte. A wide range of endophyte sources in the different varieties are used so these also have a broad genetic base. Due to these very high endophyte levels, CHAMPION® GQ exhibits enhanced resistance to a number of important insects including: billbugs, sod webworms, chinch bugs, armyworms and aphids. The presence of the endophyte also contributes to improved stress tolerance with better summer survival, enhanced fall recovery and reduced weed invasion. These high endophyte levels are maintained through proper storage of breeder, foundation, and certified seed.



1999 Perennial Ryegrass Ratings
2002 Data - NTEP Trials - All Locations

Turfgrass Quality 1-9; 9=Ideal Turf

Variety	Mean	Pentium	6.2	Premier II	5.9	Monterey II	5.7
SR 4220	6.3	Hawkeye	6.1	SR 4350	5.8	Buccaneer	5.1
Applaud	6.3	SR 4500	6.0	Palmer III	5.8	Linn	3.4
SR 4420	6.2	Brighstar SLT	6.0	Manhattan 3	5.7	<i>LSD Value</i>	<i>0.2</i>

Gray Leaf Spot Ratings of Perennial Ryegrass Cultivars
2000 Data – NTEP Trials – Southern Illinois University, Carbondale II.

Gray Leaf Spot Ratings: 1-9; 9=No Disease

Variety	Mean	Kokomo	6.0	Fiesta 3	5.0	Panther	3.3
Courage	6.3	Divine	5.7	Manhattan 4	5.0	<i>LSD Value</i>	<i>1.5</i>
SR 4350	6.0	Pizzazz	5.7	Manhattan 3	4.0		
SR 4220	6.0	Mach 1	5.7	Pennant II	4.0		
SR 4500	6.0	Applaud	5.3	Palmer III	3.7		

Wear Tolerance

Perennial Ryegrass Cultivars – Grown under traffic stress at three locations
2002 Data

Wear Tolerance 1-9; 9=Ideal Turf

Variety	Mean	Manhattan 4	5.8	Fiesta 3	5.7	Charger II	5.2
Grand Slam	6.1	Blazer IV	5.8	Quest II	5.6	Monterey II	5.1
SR 4220	6.0	Churchill	5.8	Brightstar II	5.6	Palmer III	5.0
Courage	6.0	SR 4420	5.7	Mach 1	5.5	Affinity	5.0
Kokomo	6.0	Premier II	5.7	Pizzazz	5.5	<i>LSD Value</i>	<i>0.7</i>
SR 4350	5.9	Divine	5.7	Secretariat	5.4		

2004 NTEP National Perennial Ryegrass Trial
Gray Leaf Spot Ratings: Mean of 2 Locations
2005 Data

Disease Rating: 1-9; 9=No Disease

Variety	Mean	Charismatic II GLSR	8.2	Keystone 2	6.8	Brightstar SLT	4.7
Fiesta 4	9.0	Palmer IV	8.0	Overdrive	6.5	Pinnacle	3.3
SR 4600	8.8	Regal 5	7.8	Pizzazz	5.5	<i>LSD @ 5%</i>	<i>1.1</i>
Harrier	8.5	Revenge GLX	7.7	Palmer III	5.3		
Derby Xtreme	8.3	Fusion	7.3	Affinity	5.2		
Manhattan 5 GLR	8.3	Buena Vista	7.2	Pianist	5.2		

To determine whether a cultivar's performance is different from another, subtract one entry's mean from another entry's mean. If this value is larger than the LSD value, the observed difference in cultivar performance is significant and did not happen by chance. Complete tables are available upon request.