# SEED RESEARCH

# The germination of ideas

## **FEATURES**

- High Brown Patch and Crown Rust resistance
- High turf density, with fine leaf texture and dark green color
- Strong seedling vigor for quick establishment
- Early development of aggressively spreading rhizomes
- High drought tolerance, with good persistence
- Good cool weather active growth, with early spring green-up
- Uses: Ideal for use on commercial turf and home lawns, parks, schools, sports fields and golf courses

#### BENEFITS

- Excellent blending variety; with tall fescue or Kentucky bluegrass
- Reduced fungicide requirements
- Overall high turf quality
- Fast establishment
- High endophyte levels for insect control and stress tolerance
- Increased wear tolerance and persistence
- Improved summer turf quality

#### **SEEDING RATES**

- Seeds/lb: 220,000
  Seeds/kg: 484,000
- New turf: 8–10 lbs/1,000 sq ft 40–50 grams/sq m 350–400 lb/acres 400-455 kg/ha
- Repair Rates:
  6–8 lbs/1000 sq ft
  30–40 grams/sq m
  250–350 lbs/acre
  285–400 kg/ha

#### **ESTABLISHMENT**

- Germination: 7–10 days under ideal conditions
- First mowing: 21–30 days
- First limited use: 40-60 days



**Grande 3 Turf-Type Tall Fescue** (CCR1) *(Festuca arundinacea)* is a dark green, fine textured turf-type tall fescue developed as the next in the Grande line of proven performance tall fescue varieties. Grande 3 was selected for a semi-dwarf, upright growth habit with a high shoot density. Improvements to Crown Rust and Brown Patch resistance and were also focus traits during development. Many of the parental clones that led to Grande 3, were collected from highly stressed Transition Zone type climates where turf persistence is critical. Further selection pressure was applied for reduced rate of growth and tolerance of closer mowing heights.



Grande 3 was selected for the early expression of strong, aggressively spreading rhizomes under mown turf conditions. The most persistent plants, under a wide range of climate and disease stresses, with higher turf quality went through further cycles of selection leading to the release of Grande 3. This variety has exhibited high wear tolerance under sports and high-use pressure. The very high turf density, combined with very fine leaf texture delivers a superior turf-type tall fescue with a wide range of uses: landscape, schools and parks, sports fields and golf courses.

Excellent resistance to Brown Patch and Crown Rust, with very high tolerance to summer stress conditions, makes Grande 3 a superior variety among the many turf-type tall fescues available. Grande 3 blends very well with other tall fescue varieties, as well

as with Kentucky bluegrass for higher demand turf applications. The excellent cool weather active growth gives Grande 3 an advantage when soil and air temperatures cool off in late fall, winter and early spring. This active growth gives Grande 3 an edge over *Poa annua* during cool weather.







### Turf-Type Tall Fescue Cultivar Trial – Selected Commercially Available Cultivars Planted September 2010 – Establishment Speed Data September 2010 Rutgers University – Adelphia, NJ

Speed of Establishment: 1-9; 9=Quick Establishment									
Variety	Mean	Variety	Mean	Variety	Mean	Variety	Mean	Variety	Mean
Atlas	8.3	Signia	6.7	Tar Heel II	6.3	Rebel Extreme	6.0	Rhambler SRP	5.3
K-31	7.3	Arid 3	6.7	Firenze	6.0	Rebel Advance	6.0	Masterpiece	5.0
Grande 3	7.0	Speedway	6.3	Regenerate	6.0	Falcon V	6.0	Terrier	4.7
Endeavor II	7.0	Monet	6.3	Dynamic II	6.0	Wolfpack II	5.7	Dakota	3.3
Greystone II	7.0	Finelawn Express	6.3	Faith	6.0	Shenandoah Elite	5.7	LSD@5%	1.1
Picasso	7.0	Rebel IV	6.3	Jaguar 4G	6.0	Traverse SRP	5.7		
2nd Millenium	7.0	Greenkeeper	6.3	Rembrandt	6.0	Shenandoah Sport	5.3		
Van Gogh	6.7	Rebel Sentry	6.3	Cezanne RZ	6.0	Scorpion II	5.3		

#### Turf-Type Tall Fescue Cultivar Trial – Selected Commercially Available Cultivars Planted September 2010 – Brown Patch Disease Ratings July 2011 Rutgers University – Adelphia, NJ

Disease Rating: 1-9; 9=Least Disease									
Variety	Mean	Variety	Mean	Variety	Mean	Variety	Mean	Variety	Mean
Grande 3	7.0	Shenandoah III	5.7	Scorpion II	5.0	Van Gogh	4.7	Masterpiece	3.7
Falcon V	6.0	Millenium SRP	5.3	Finelawn Express	s 5.0	Rembrandt	4.7	K-31	3.3
Traverse SRP	6.0	Rhambler SRP	5.3	Tar Heel II	5.0	Jamboree	4.3	Gazelle II	3.3
Rebel Extreme	6.0	Rebel Advance	5.0	Wolfpack II	4.7	Endeavor II	4.3	Montana TF19	3.3
Mustang 4	6.0	Monet	5.0	Arid 3	4.7	Dynamic II	4.0	Picasso	3.3
Shenandoah Elite	5.7	3rd Millenium	5.0	2nd Millenium	4.7	Rebel Sentry	4.0	Greenkeeper	3.0
Cayenne	5.7	Shenandoah Sport	5.0	Rebel Pro	4.7	Prospect	4.0	Greystone	2.3
Regenerate	5.7	Cezanne RZ	5.0	Rebel Exceda	4.7	Jaguar 4G	3.7	LSD@5%	1.8

#### Turf-Type Tall Fescue Cultivar Trial – Selected Commercially Available Cultivars Planted September 2010 – Turfgrass Quality Data 2011 Average Rutgers University – Adelphia, NJ

Turfgrass Rating: 1-9; 9=Ideal Turf									
Variety	Mean	Variety	Mean	Variety	Mean	Variety	Mean	Variety	Mean
Grande 3	6.9	Traverse SRP	5.8	Braveheart	5.3	Scorpion II	4.7	Arid 3	4.2
Regenerate	6.5	Mustang 4	5.7	Monet	5.1	Reel Exceda	4.6	2nd Millenium	4.1
Faith	6.4	Rhambler SRP	5.6	Six Point	5.0	Rebel Sentry	4.5	Rebel Pro	4.1
Finelawn Express	6.0	Rebel Extreme	5.6	Rebel Advance	4.9	Tar Heel II	4.5	Masterpiece	4.1
Falcon V	6.0	Van Gogh	5.5	Gazelle II	4.9	Jaguar 4G	4.4	Prospect	3.8
Wolfpack II	6.0	3rd Millenium	5.5	Dynamic II	4.8	Rembrandt	4.4	K-31	1.1
Shenandoah Elite	5.8	Shenandoah III	5.4	Rebel IV	4.7	Shenandoah Sport	4.3	Atlas	1.0
Millenium SRP	5.8	Greenbrooks	5.4	Endeavor II	4.7	Cezanne RZ	4.3	LSD@5%	0.8

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.