


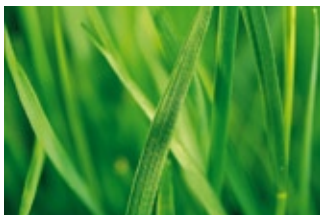


Turf-Seed



## Turf-Seed

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Scotts now offers a broad range of turf seeds for Australia and New Zealand after acquiring the Turf-Seed company in the United States.

The range features turf varieties that previously weren't widely available here. Specialising in turf varieties that are disease resistant, drought tolerant, salt tolerant and insect resistant.

### What do the icons mean?

The icons help you to identify, at a glance, those Scotts Turf-Seed varieties with the characteristics you desire in the turfgrass you maintain. You'll find Bluegrasses, Ryegrasses, Fescues, and more, available with heat tolerance, shade tolerance, disease resistance, and other important qualities you need, conveniently identified with one or more icons.

### How does the program save me money?

When you get with the program, you quickly find the Scotts Turf-Seed varieties that help you save water, apply fewer chemicals and fertilisers, control weeds easier, irrigate with effluent water, or grow top-quality sod with fewer weeds, all of which contributes to your bottom line and helps preserve the environment.



#### Heat tolerance

Reduce stress, water use, and labour costs with varieties bred to withstand the heat and drought of summer.



#### Wear tolerance

Keep heavy-traffic areas green and lush with our wear-tolerant varieties.



#### Shade tolerance

Provide a strong and healthy stand of turf in tough-to-maintain shaded areas with our hardy shade-tolerant program varieties. There are a variety of Fine Fescue, Tall Fescue and Bluegrass varieties that are particularly shade tolerant e.g. Seabreeze GT.



#### Salt tolerance

Maintain beautiful green turf even in high-saline soils and where effluent water is used with our salt tolerant program varieties. These salt tolerant varieties are well suited for use near seashores, in desert climates, and regions of the country where water quality continues to be an issue. A number of Fine Fescue, Tall Fescue, Kentucky Bluegrass, Perennial Ryegrass and Seashore Paspalum (SeaSpray – the first seeded seashore paspalum) varieties have been designed as salt tolerant.



#### Gray Leaf Spot resistance

Save money with fewer fungicide applications and less need to overseed damaged areas with our Gray Leaf Spot resistant varieties.

Perennial Ryegrasses like Silver Dollar and a number of other Gray Hawk Blend varieties have been identified as Gray Leaf Spot resistant.



#### Brown Patch resistance

Take control of your Brown Patch disease management program and reduce your fungicide applications by using our Brown Patch resistant program varieties. Specific Tall Fescue varieties like Silverado II and Olympic Gold are Brown Patch resistant.

# Turf-Seed



	Heat tolerance	Wear tolerance	Shade tolerance	Salt tolerance	Gray Leaf Spot	Brown Patch	Colour	Disease resistance	Endophyte enhanced %	Comments
<b>Kentucky Bluegrass</b>										
Best of Blues							Dark green	Good overall		Blend
Full Moon							Dark green	Leaf Spot, Fusarium		Fast establisher for Kentucky Bluegrass
High Noon							Dark green	Stem & Stripe Rust		Good winter colour
Longhorn TM							Medium green	Fusarium, Rusts		Good quality transition
Midnight							Very dark blue/green	Dollar Spot, Leaf Spot		Low growth habit
Midnight II							Dark blue/green	Dollar Spot, Rusts		Billbug resistance
Midnight Star							Dark green			Low growth habit
Moonbeam							Dark green	Fusarium, Stem Rust		Low growth habit
Moonlight							Dark blue/green	Leaf Spot, Rusts		Billbug resistance
Moonlight SLT							Medium dark green	Fusarium, Rusts, Leaf Spot		Good for treated water use
Moonshine							Dark green	Leaf Spot, Rusts		Excellent wear tolerance
North Star							Dark green	Good overall		Performs well on low N levels
Prosperity							Very dark green	Rusts, Leaf Spot		Low mowing tolerance
Voyager II							Green	Leaf Spot, Rusts		Good winter colour
<b>Perennial Ryegrass</b>										
Alliance Blend							Dark green	Good overall	Yes	Blend
Brightstar SLT							Dark green	Red Thread, Stem Rust	48 %	Good for treated water use
Catalina II							Dark green	Red Thread, Stem Rust	88 %	Fast establisher
Chaparral II							Very dark green	Rusts	65.95%	Low growth habit
Charger II							Medium green		54 %	Fast establisher
Citation Fore							Dark green	Red Thread, Rusts	94 %	Good quality transition
Gray Hawk Blend							Very dark green	Spot Rust, Red Thread	50-90 %	Blend
Gray Star							Green	Rusts	40 %	Good for treated water use
Quick Trans							Dark blue/green	Rusts, Red Thread	20 %	Good transitional use
Quicksilver							Dark blue/green	Rusts	68 %	Glyphosate tolerant
Quickstart II							Dark blue/green	Red Thread, Rusts	20 %	Fast establisher
Salinas							Dark green	Red Thread, Rusts	92 %	Good transitional use
SaltEase							Dark green	Red Thread, Rusts		Blend
Showtime							Medium dark green	Rusts	52 %	Good for overseeding
Silver Dollar							Green	Rusts, Dollar Spot	76 %	Good for overseeding

# Turf-Seed



	Heat tolerance	Wear tolerance	Shade tolerance	Salt tolerance	Gray Leaf Spot	Brown Patch	Colour	Disease resistance	Endophyte Enhanced %	Comments
<b>Tall Fescues</b>										
Apache III							Dark green		32 %	High drought tolerance
Endeavor							Medium dark green		16 %	Good early maturity growth
Innovator							Dark green		70 %	High drought tolerance
Matador GT							Dark green	Rusts, Fusarium	58 %	
Olympic Gold							Dark green	Rusts	22 %	Deep rooted
Pure Gold							Dark green		4 %	Glyphosate tolerant
Silverado II							Dark green	Rusts	94 %	High density rye
Silverstar							Dark green	Pythium, Blight, Rusts	40 %	Low growth habit
Tar Heel II							Dark green	Rusts, Fusarium	80 %	Good all rounder
Tomahawk GT							Dark green		20 %	Glyphosate tolerant
Triathalawn							Dark blue/green	Leaf Spot, Rusts		Blend
Wolfpack							Dark green	Leaf Spot, Rusts	80 %	Quick germinator
<b>Fine Fescue</b>										
Aurora Gold Hard Fescue							Medium dark green		6 %	Glyphosate tolerant
Aurora II Hard Fescue							Medium dark green	Red Thread, Pythium, Leaf Spot	4 %	Low growth habit
Florentine GT Strong Creeping Red Fescue							Dark green		74 %	Glyphosate tolerant
Inverness Strong Creeping Red Fescue							Very dark green	Rusts, Leaf Spot	40 %	Good winter colour and summer performance
Little Bighorn Blue Hard Fescue							Blue/Grey	Red Thread, Leaf Spot	64 %	High drought tolerance
Seabreeze GT Slender Creeping Red Fescue							Dark green		12 %	Glyphosate tolerant
Shadow II Chewings Fescue							Bright medium green	Red Thread, Leaf Spot	93 %	Good drought tolerance
Tiffany Chewings Fescue							Dark green	Rusts, Leaf Spot	88 %	Promotes high sward
<b>Colonial Bentgrass</b>										
Glory							Dark green	Dollar Spot, Leaf Spot		Roughs/fairways

# Turf-Seed



	Heat tolerance	Wear tolerance	Shade tolerance	Salt tolerance	Gray Leaf Spot	Brown Patch	Colour	Disease resistance	Endophyte Enhanced %	Comments
<b>Bentgrass</b>										
Penn A-1	■					■	Dark green	Spot, Leaf Spot		Dense upright growth
Penn A-4							Very dark green	Good overall		Dense upright growth
Penn G-2	■						Medium green	Good overall		Dense fine leaf
Penn G-6			■			■	Medium green	Dollar Spot		Good overseeder for existing grass
Pennlinks II							Medium green	Dollar Spot		Good overseeder for existing grass
Seaside II				■			Medium green			Adapted to high soil pHs
<b>Seashore Paspalum</b>										
SeaSpray	■			■			Light/Medium green			Higher salt tolerance than couch grass
<b>Velvet Bentgrass</b>										
Greenwich			■				Medium green	Dollar Spot		Fertility requirement low
Seeded Bermuda										
Savannah	■	■					Dark green			Low water use, drought tolerant
Sunbird	■	■		■			Medium dark green			Low water use
Transcontinental	■	■		■			Very dark green			Quick spring green-up
<b>Poa trivialis</b>										
Winterlinks							Dark green			Quick establishment
Winterplay							Very dark green			Good overseeding & transition
Winterstar			■				Dark blue			Blend

Varieties of seed outlined are subject to availability and new product advancements.



Provide a strong and healthy stand of turf in tough-to-maintain shaded areas with our hardy shade tolerant program varieties.



### Featured varieties

Perennial Ryegrasses:

- Silver Dollar
- Gray Star
- Citation Fore
- Varieties of the Gray Hawk Blend

### What qualifies Scotts Turf-Seed varieties as shade tolerant?

Many turfgrass species naturally grow well in shady areas, but growing dense, consistent, disease-free grasses in shade has always been challenging. To solve this problem, researchers at Pure-Seed Testing, Inc. developed turf trials under intense shade conditions, to determine which varieties tolerate low-light conditions the best. Varieties with a turf quality rating 5 or higher for at least one or more years, which have survived multiple years in intense deciduous shade, qualify for the shade tolerant icon.

### Research & breeding work

The Pure-Seed Testing, Inc. research facility in Oregon dedicates a large area to ongoing shade trials. Varieties are established under a dense canopy of trees, allowing researchers to identify those varieties that can perform well in low light. Since 2001, Pure-Seed Testing, Inc. researchers have rated Tall Fescue and Fine Fescue trials seeded and maintained under low-light conditions. The trials were maintained at a 2" mowing height and evaluations were made on a 1-9 scale, with 9 being ideal. Varieties at the top of the rating charts are used to breed new varieties with improved shade tolerance.

#### i. Fine Fescue

Variety
Seabreeze GT
Shadow II

#### ii. Tall Fescue

Variety	
Endeavor	Innovator
Pure Gold	Silverado II
Silverstar	Tar Heel II

# Shade tolerance

### ► Scotts Fact

Scotts Turf-Seed is a leading supplier of quality commercial seed varieties for landscape, golf courses, sports fields, and other turf grass applications. Turf grass managers worldwide have trusted Scotts Turf-Seed varieties for over 30 years.

# Salt tolerance

Maintain beautiful green turf even in high-saline soils and where effluent water is used with our salt-tolerant program varieties. These salt-tolerant varieties are well suited for use near seashores, in desert climates, and regions of the country where water quality continues to be an issue.



## Featured varieties

Tall Fescues:

- Tar Heel II
- Silverado II
- Endeavor

## What qualifies Scotts Turf-Seed varieties as salt tolerant?

The interest in salinity-tolerant turfgrasses grows as the availability of potable water for irrigating decreases. Therefore, Pure-Seed Testing, Inc. conducted turf survival tests in greenhouse saltwater baths, to determine which varieties tolerate high levels of salinity. Different ppm levels of salt were used for the various species of turfgrass, depending on the inherent tolerance to salt of the turfgrass species being tested. Any variety that had 50% or greater survival rate over the length of the study was deemed qualified to receive the Scotts Turf-Seed salt tolerant icon.

## Research & breeding work

Pure-Seed Testing, Inc. identifies plants with salinity tolerance for use in breeding projects and to find existing varieties that have natural high salt tolerance. Using a synthetic ocean salt (Instant Ocean from Aquarium Systems), a salt bath was created, containing six different salts as well as minor elements. Plants were placed in saltwater baths in each of four replications for a specified period of time. Percent survival was calculated, based on the number of plants maintaining green colour versus number of dead plants subjected to a salt bath.

### i. Fine Fescue

Variety	ppm NaCl	Survival
Seabreeze GT	10000	94.9%
Florentine GT	10000	60.0%

### ii. Tall Fescue

Variety	ppm NaCl	Survival
Tar Heel	25000	85.0%
Pure Gold	25000	66.0%



### iii. Kentucky Bluegrass

Variety	ppm NaCl	Survival
Moonlight SLT	10000	65.0%
North Star	10000	57.5%
Moonbeam	10000	50.0%

### iv. Perennial Ryegrass

Variety	ppm NaCl	Survival
Brightstar	17000	84.0%
Salinas	22000	61.7%
Gray Star	22000	57.7%
Silver Dollar	22000	56.9%

### v. Seashore Paspalum

Variety	ppm NaCl
SeaSpray	Up to 17000 for germination





# Gray Leaf Spot resistance

Save money with fewer fungicide applications and less need to overseed damaged areas with our Gray Leaf Spot resistant varieties.



## Featured varieties

Perennial Ryegrasses:

- Citation Fore
- Gray Star
- Silver Dollar
- Varieties of the Gray Hawk Blend

## What qualifies Scotts Turf-Seed perennial ryegrass varieties as Gray Leaf Spot resistant?

Gray Leaf Spot (*Pyricularia grisea*) is a disease of increasing concern and perennial ryegrass (*Lolium perenne*) is extremely susceptible. To help turfgrass managers battle Gray Leaf Spot, researchers at Pure-Seed Testing, Inc. in Rolesville, NC are conducting trials exposing perennial ryegrass to heavy Gray Leaf Spot pressure. The varieties that perform in the top 12% of those trials show good-to-excellent Gray Leaf Spot resistance, with 60-100% live mature turf after being subjected to high levels of Gray Leaf Spot disease pressure. The majority of commercially available perennial ryegrass varieties succumbed.

Additionally, these varieties have performed well in trials at other locations that were infected with gray leaf spot as very young seedlings. Our Gray Leaf Spot resistant varieties have maintained 50-100% cover when damaged by Gray Leaf Spot in these trials and have gone on to completely recover from disease damage as the turf matured.

## Research & breeding work

Pure-Seed Testing, Inc. works to identify perennial ryegrass varieties with increased Gray Leaf Spot resistance for use in breeding projects. These Gray Leaf Spot outbreaks have occurred on mature turf trials that are 9-12 months old. Of 43 commercially available varieties evaluated in 2004, 38 (88%) rated below 2.0 for Gray Leaf Spot damage. This is based on a scale of 1-9, where 9 = no disease and 1 = dead. In 2005, 88% of varieties rated below 4.0. Each year, perennial ryegrass survivors from the Pure-Seed Testing, Inc. trials in North Carolina are selected and recombined in Oregon. The performance of the Pure-Seed Testing, Inc. experimental varieties, under heavy disease pressure, shows progress in identifying varieties that are genetically resistant to Gray Leaf Spot.

## What varieties made it?

### Perennial Ryegrass

Variety	New variety
Citation Fore	PST-2MNG
Gray Star	PST-2LAN
Silver Dollar	PST-2J15

# Brown Patch resistance



Take control of your Brown Patch disease management program and reduce your fungicide applications by using our Brown Patch resistant program varieties.



## Featured varieties

Tall Fescues:

- Tar Heel II
- Silverado II
- Endeavor

## What qualifies Scotts Turf-Seed varieties as Brown Patch resistant?

Brown Patch (*Rhizoctonia solani*) is becoming a common turfgrass disease in Tall Fescues throughout the transition zone. Because of its good heat and drought tolerance and its improved turf characteristics, Tall Fescue is a popular turfgrass species in the transition zone. Pure-Seed Testing, Inc. conducted multiple-year trials under heavy Brown Patch pressure at its Rolesville, North Carolina (NC) site. Tall Fescue varieties that receive the Brown Patch resistance icon have maintained a minimum average rating of 6 or greater over multiple trial years, under heavy Brown Patch disease pressure, at Rolesville, NC. The rating scale is from 1-9, where 9 = no disease and 1 = completely diseased.

## Research & breeding work

Pure-Seed Testing, Inc. identifies existing Tall Fescue varieties with increased Brown Patch resistance for use in breeding projects. The warm-climate location of the North Carolina research facility allows researchers to identify Tall Fescue germplasm with improved Brown Patch resistance and excellent summer turf performance in warm, humid conditions, where Brown Patch can be a significant problem. Since 1999, Pure-Seed Testing, Inc. researchers have continued to rate Brown Patch damage in Tall Fescue species. Species at the top of the rating charts are used to breed new Tall Fescue varieties with improved Brown Patch resistance.

## What varieties made it?

Mean Brown Patch ratings for Scotts Turf-Seed Tall Fescues in Rolesville, NC over multiple trial years from 1999 - 2006.

Variety	Number of trial years	Mean
Tar Heel II	5	6.81
Silverado II	5	6.4
Innovator	5	6.2
Wolfpack	8	6.2
Olympic Gold	8	6.0

## ► Scotts Fact

Scotts employs an intensive research and development program, backed by the industry's highest standards of seed harvesting, cleaning and testing.