



DROUGHT FAIRWAY OVERSEEDING PRODUCTS



“Sustainable Grass Technology” – Barenbrug’s research-driven concept designed to deliver outstanding turf performance in high stress conditions with reduced fertiliser, chemical and water inputs.

Barenbrug aims to develop seed cultivars and grass seed mixes that respond to customers’ needs and a changing climate. Our Sustainable Grass Technology (SGT) products are designed to reduce the chemical, fertiliser and water input for turf managers.

Products under the SGT banner promise stress-tolerant grass for sustainable turf management and are the result of years of independent and in-house trials.

Barenbrug’s SGT products have been tested extensively, and offer exceptional performance in one or more of four pillars of research:

- Nitrogen-use efficiency to reduce fertiliser use and cost
- Drought tolerance to increase survival and reduce the need for irrigation in stress periods
- Increased disease tolerance to reduce the need for fungicide
- Lower biomass production (or clipping yield) to reduce mowing frequency, man hours and fuel use

Visit our website to explore our detailed video series showcasing the years of independent and in-house trials that led to the development of SGT:
www.barenbrug.co.uk/sports/technologies/sgt



Sustainable

Drought tolerance

The SGT products are curated from particular species and cultivars. In drought trials at Landlab in Italy and Barenbrug breeding stations, hard fescue always out-performs red fescue in periods of heat and drought (Fig. 1). The species features strongly in both **SGT Fine Fescue** and **SGT Rye Fairway**.



Figure 1 - Drone Image From Landlab. Highlighted plots are the hard fescue. The quality and endurance of hard fescue stood alone during the most intense heat.

Included in **SGT Fine Fescue** for 2026 are two new cultivars of hard fescue, *Barlegant* and *Beacon*. *Barlegant* offers a new standard of turf quality for the species and is listed as the new #1 cultivar in Table L6 of Turfgrass Seed 2026; *Beacon* is not far behind in the #2 position.

In the GEVES Turfgrass List (independent trials in several European countries), *Beacon* is #1-ranked for hard and sheep’s fescue for Lawn Index. The introduction of these two new cultivars cements SGT products in their market-leading position for overseeding golf fairways.



Nitrogen Efficiency

In **SGT Rye Fairway**, *Barprrium* offers proven capacity for nitrogen-use efficiency, requiring up to 50% less nitrogen. In an 18 month STRI trial (shown in Fig. 2), results demonstrate nitrogen efficiency from a number of cultivars against live ground cover. *Barprrium* delivers the highest mean turf cover compared to all other cultivars. Put simply, it requires far less N to deliver equivalent turf performance.

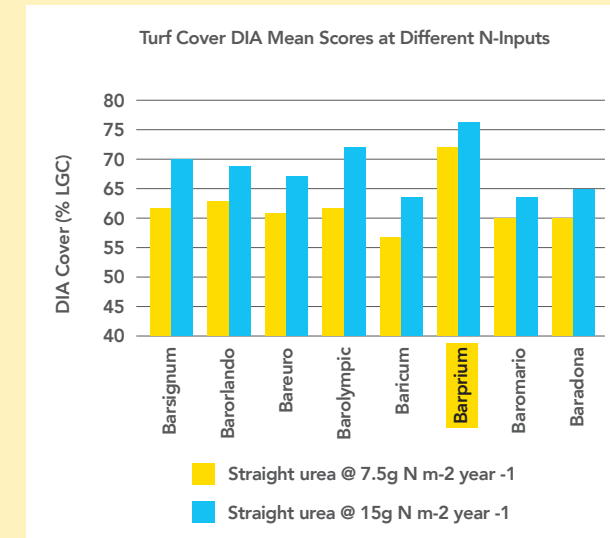


Figure 2 - STRI N-Efficiency Trial Data. *Barprrium* delivers equivalent mean turf cover to all other cultivars at 50% less nitrogen input.

STRI researchers concluded: “The best performing cultivar in this trial was *Barprrium*, with good turf quality and coverage observed at all N levels and N types. Even at very low levels of N, *Barprrium* still showed good quality and coverage.”

Barprrium is highly ranked in the BSPB Turfgrass Seed 2026 booklet with a mean score of 7.4 on Table L1 and exhibits strong summer colour – another useful characteristic for low-input golf fairways.

Products available in the SGT range represent the culmination of many years of research and targeted at golf course fairway overseeding to combat the effects of climate change and reduce future maintenance inputs.

Products available with SGT technology:

SGT Fine Fescue
SGT Rye Fairway

Disease Tolerance

Disease tolerance is an increasingly important focus of Barenbrug’s turfgrass breeding programme for Europe. **SGT** products contain cultivars that have the highest levels of protection against a range of relevant pathogens.

Hard fescue as a species has excellent tolerance to Dollar Spot, which is an increasing concern, particularly on links courses. Figure 3 has data from recent NTEP trials, showing that hard offers higher levels of tolerance on average compared to the red fescue sub-species. Overseeding fairways with **SGT Fine Fescue** is likely to be a good option to improve fairway performance against Dollar Spot.

Dollar Spot Tolerance - All data, all locations 2015-2019 NTEP				
	FRR (Strong)	FRC (Chewings)	FO (hard/sheep's)	FRL (slender)
cultivars	6.9	8.2	8	7.4
	6.7	7.9	7.8	6.6
	6.7	7.8	7.7	5.9
	6.6	7.7	7.7	5.6
	6.2	7.6	7.6	
	6.1	7.6	7.5	
	5.8	7.5	7.5	
	5.6	7.4	7.4	
	5.4	7.2	7.4	
	5.2	7.1	7.2	
	5.2	7	7.2	
	5.1	7		
	4.9			
	4.9			
	4.7			
Mean	5.73	7.50	7.55	6.38

Figure 3 - 2015-2019 NTEP fine fescue trials; all data, all locations.

Red Thread is a common turfgrass disease affecting sustainably managed turf areas, such as fairways. SGT mixtures contain highly ranked cultivars for Red Thread tolerance, such as strong creeping red fescues *Barrisie* (#1-ranked; Table L5) and *Barjessica* (#3-ranked; Table L5), slender creeping red fescues *Barnoustie* (#4-ranked), and Chewings red fescue *Nightclub* (#2-ranked).

The designated SGT perennial ryegrass *Barprrium* not only delivers benefits in terms of drought tolerance, nitrogen-use efficiency and lower biomass production, but it also exhibits broad tolerance to a wide range of disease pathogens including *Drechslera* leaf spot, GLS and *Rhizoctonia*.



SGT Fine Fescue

Pure fine fescue blend, utilising our sustainable grass technology (SGT), with cultivars bred to deliver reduced water, fertiliser and chemical inputs.

- SGT technology offers outstanding turf performance with reduced water, fertiliser and chemical inputs
- An innovative mixture of fine fescue species
- Three #1-ranked cultivars for lawn/fairway use
- 50% hard fescue for increased drought tolerance
- High tolerance to Dollar Spot and Red Thread pathogens



Usage

Overseeding, divoting and construction for medium-fine turf on sites with particular drought stress.

Features & benefits

Central to the product is a large proportion of hard fescue, a fine fescue species with well-documented tolerance to drought and heat stress and proven performance with low-input maintenance, as well as good overall turf quality for density and visual merit, helping to maintain good aesthetics in the harshest environments. Hard fescue also offers increased Dollar Spot tolerance and a potential reduction in insect damage.

New cultivars of hard fescue *Barlegant* and *Beacon* offer unparalleled turf quality parameters for the species in both UK and European trials (BSPB Turfgrass Seed and GEVES Turfgrass List).

The mix also includes the new #1-rated slender creeping red fescue *Barnoustie* and #1 Chewings *Nightclub* for added turf quality and density, and *Barrissee*, the #1-ranked strong creeping red fescue cultivar for Red Thread tolerance.

☐ Greens ☒ Tees ☒ Fairways ☐ Walkways ☒ Roughs

How to use it



Sowing rate
25-35g/m²



Oversowing rate
15-25g/m²



Sowing depth
5-10mm below thatch



Mowing height
down to 7mm

In the bag

In the bag		Bag size 20kg
<i>Barnoustie</i>	20%	Slender creeping fescue
<i>Barrissee</i>	20%	Strong creeping red fescue
<i>Beacon</i>	20%	Hard fescue
<i>Barlegant</i>	10%	Hard fescue
<i>Barchip</i>	10%	Chewings red fescue
<i>Mentor</i>	20%	Hard fescue

Find out more at barenbrug.co.uk/sports/products/sgt-fine-fescue

SGT Rye Fairway

Utilising our sustainable grass technology (SGT) delivering grass requiring reduced water, fertiliser and chemical inputs.

- SGT technology offers outstanding turf performance with reduced water and chemical inputs
- Drought and disease tolerance, and superior colour
- *Barprrium* for fine-leaf grass with proven capacity for nitrogen-use efficiency



Usage

Overseeding, divoting and construction of medium-fine turf areas across a range of soil types.

Features & benefits

The "driver" of the mixture is *Barprrium* perennial ryegrass. An outstanding fine-leafed ryegrass with proven capacity for nitrogen-use efficiency; put simply, it requires far less nitrogen (up to 50% less) to deliver equivalent turf performance. It also outperforms other ryegrasses in independent drought trials.

Barprrium is highly ranked with a mean score of 7.4 on Table L1 Turfgrass Seed 2026 and exhibits strong summer colour, another useful characteristic for low-input golf fairways.

The fine fescue cultivars are chosen for their turf performance and sustainability traits also. The new slender creeping red fescue *Barnoustie* is ranked #1 in the 2026 BSPB/STRI Turfgrass Seed booklet for lawn/fairway use, and in trials at Landlab in Italy *Hardtop* hard fescue and *Barjessica* strong creeping red fescue perform particularly well in periods of heat and drought.

The mixture exhibits high disease tolerance in low-input environments. Hard fescue copes well under Dollar Spot pressure, and both *Barnoustie* and *Barjessica* have excellent Red Thread tolerance.

☐ Greens ☒ Tees ☒ Fairways ☐ Walkways ☒ Roughs

How to use it



Sowing rate
25-35g/m²



Oversowing rate
10-25g/m²



Sowing depth
5-10mm below thatch



Mowing height
down to 10mm

In the bag

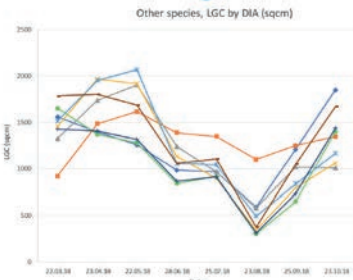
In the bag		Bag size 20kg
<i>Barprrium</i>	40%	Perennial ryegrass
<i>Barnoustie</i>	25%	Slender creeping red fescue
<i>Hardtop</i>	20%	Hard fescue
<i>Barjessica</i>	15%	Strong creeping red fescue

Find out more at barenbrug.co.uk/sports/products/sgt-rye-fairway

Why Choose Hard Fescue For Golf Fairways?

The toughest fine fescue for future-proofing medium-fine turf

Climate-Ready Resilience



Graph to show fluctuations in fescue performance (Live Ground Cover assessments) over 9-month period during 2018 in Landlab, Italy. Note the superior performance of *Hardtop* hard fescue & *Barjessica* strong creeping red fescue.

Outstanding Drought & Heat Tolerance

- Higher survival rates than red fescue
- Lower stomatal density = reduced water loss
- Proven in Barenbrug & Landlab trials

Breeding Advancements

Cultivar	Shoot Density	Visual Merit	Mean
<i>Barlegant</i>	7.2	7.5	7.4
<i>Beacon</i>	7.3	6.9	7.1
<i>Crystal</i>	7.4	6.8	7.1
<i>Sword</i>	6.8	6.8	6.8
<i>Hardtop</i>	6.2	5.9	6.1
<i>Dumas 1</i>	5.9	5.8	5.9
<i>Mentor</i>	5.6	5.6	5.6

Data for Hard Fescue under Lawn maintenance; Table L6 BSPB Turfgrass Seed 2026.

Hard vs Sheep Fescue

Not All Fescues Are Equal

- Hard is more tolerant to wear & shade (Braun *et al.*, 2020) & Dollar Spot
- More variety choice of hard fescue in market

Genetic Difference

- Hard = hexaploid (42 chromosomes)
- Sheep = tetraploid (28 chromosomes)

Superior Disease Tolerance

Dollar Spot Tolerance - All data, all locations 2015 - 2019 NTEP				
Cultivars	FRR (Strong)	FRC (Chewings)	FO (Hard/Sheep's)	FRL (Slender)
	15 cultivars	12 cultivars	11 cultivars	4 cultivars
Mean	5.73	7.50	7.55	6.38

2015-2019 NTEP Fine fescue trials; all data, all locations.

Dollar Spot Resistance

- Rated *Good to Excellent*
- Higher tolerance than other fine fescues, including Sheep (Patton *et al.*, 2022)

Sustainable, Low-Input Performance

Thrives in Poor Soils

- Excellent for free-draining, low-fertility environments
- Higher nutrient use efficiency (NUE) than red fescue (Bourgoin, 1997)

Slow Growth = Less Maintenance

- Less mowing & thatch production
- Perfect for fairways & roughs with infrequent mechanical inputs

Part of Barenbrug's SGT Concept

4 Pillars of SGT Mixtures:

- Drought Tolerance
- Low Biomass Production
- Nutrient Use Efficiency
- Disease Tolerance

Products available in the SGT range:
SGT Rye Fairway
SGT Fine Fescue

*References: Bourgoin, B. (1997). Variability of fine-leaved fescues (*Festuca* spp.) grown at low nitrogen levels. *International Turfgrass Society Research Journal*; 8: 611-620.

Patton, A., Braun, R., Barnes, M., Nelson, K., Reiter, M., Watkins, E., Koweleski, A., Koch, P. & Murphy, J. (2022) Fine fescues: Understanding the differences. *Horticulture and Landscape Architecture, Turf-63-W* Purdue Extension, online.

Braun, R., Patton, A., Watkins, E., Koch, P., Anderson, N., Bonos, S. & Brilman, L. (2020). Fine fescues: A review of the species, their improvement, production, establishment, and management. *Crop Science*; 60: 1142-1187.



E3 Essential Rye Fairway

For areas that demand excellent aesthetics combined with the ability to withstand high wear. Wide range of applications: golf course fairways, tees and high-quality lawns and landscapes.

- Excellent appearance combined with durability
- Good tolerance of drought conditions
- Fast establishment
- A golf course fairway type mixture, ideal for use on quality lawns and landscaping

All round excellent aesthetics & wear tolerance

In the bag	Bag size 20kg	
Barcristalla	20%	Perennial ryegrass
Fandango	20%	Perennial ryegrass
Barrissee	40%	Strong creeping red fescue
Barustic	20%	Strong creeping red fescue

Sowing rate: 25-35g per m²
Height of cut: Down to 12mm



E4 Essential Fairway

A 100% red fescue mixture for high quality formal lawns and low-maintenance landscapes. Suitable for golf course tees and fairways where perennial ryegrass is not required.

- Ryegrass-free mixture
- Low maintenance lawns, landscapes, golf course tees and fairways
- 100% fescue blend for a traditional fine turf
- Excellent appearance
- Very tolerant of drought conditions

Classic 100% fescue mix

In the bag	Bag size 20kg	
Barrissee	40%	Strong creeping red fescue
Barustic	20%	Strong creeping red fescue
Bodega	20%	Chewings red fescue
Barnoustie	20%	Slender creeping red fescue

Sowing rate: 25-35g per m²
Height of cut: Down to 8mm

A cost-effective solution for rapid recovery

For turf managers looking to repair large areas of fairway damage quickly and within a tight budget, our economy mixtures provide a practical overseeding solution. They are designed to establish quickly and help restore playing surfaces following significant wear or damage.

While these mixtures offer an economical route to rapid recovery, they are best viewed as a short-term solution rather than a long-term strategy for turf resilience.

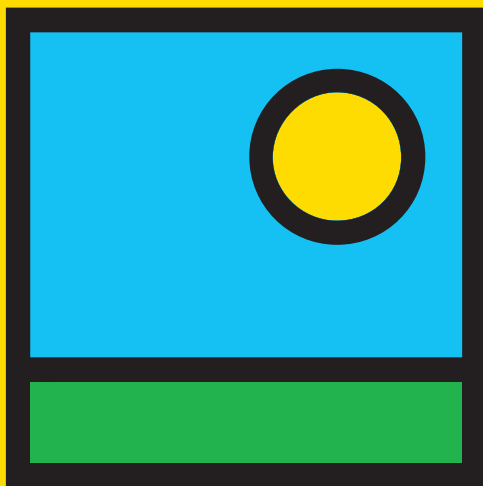
For courses looking to build more resilient, sustainable playing surfaces and reduce reliance on inputs over the longer term, Sustainable Grass Technology (SGT) provides the longer-term solution.

Regional Technical Support

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Conditions of sale

In case of unavailability Barenbrug UK Limited reserves the right to substitute any variety in any mixture with one of similar merit. Any change will be detailed on the bag.
The placing of an order constitutes an acceptance of our terms and conditions of sale by the buyer.
Full terms and conditions can be found at www.barenbrug.co.uk.

