



# SCANGREEN 2023-26

A new round of variety testing on greens has started

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## A new round of variety testing on greens has started



**Photo 1 (left):** Three weeks after seeding the new experimental green at Reykjavik, Iceland (15 August 2023) and **Photo 2 (right):** Field day two weeks later (31 August 2023). Photos: Bjarni Hannesson.

The SCANGREEN project, testing new turfgrass varieties for greens in Scandinavia, has been running since 2003 with trials of new varieties every four years. In the summer of 2023, the current round (2023-2026), was established on test greens in Smørum, Denmark, Landvik and Apelsvoll in Norway, Reykjavik in Iceland, and Minneapolis, Minnesota, USA. Each month from April to November, turfgrass quality, weeds, diseases, and other characteristics are evaluated. In the spring of 2025, the variety lists on [www.scanturf.org](http://www.scanturf.org) will be updated with interim results, and after another two years, the final results will be available.

Establishment of the new greens presented some challenges due to the dry summer of 2023, but after some winter damage, particularly on the two greens in the northern zone, all locations had good establishment.

### What is the SCANGREEN project?

SCANGREEN tests the best varieties of creeping bentgrass, colonial bentgrass, red fescue, and other grass species for greens under growth conditions found in Denmark, Norway, Sweden, Finland, and Iceland. The market for turfgrass varieties for golf greens in this region is relatively small, so therefore the project is supported by the Scandinavian Turfgrass Research Foundation (STERF) to ensure that winter-hardy and disease-resistant varieties are available for golf courses here.

The seed companies that submit varieties for the trial also contribute financially. SCANGREEN 2023-2026 includes varieties from Barenbrug and DLF, as well as from the American companies Landmark Seeds and Mountain View Seeds.

### Challenges in 2023-24

If you remember the weather in the summer of 2023, it featured a long, dry spring and early summer, which is not ideal for establishing new greens. Both in Smørum and at the two Norwegian locations (Landvik and Apelsvoll), there were challenges in getting the grass seeds to germinate and establish well. Irrigation systems were used extensively, as well as fiber tarp to retain moisture, but the best condition for good establishment from seed on a sandy substrate is natural, regular rainfall.

By late summer 2023, the test green in Iceland, which had received plenty of natural rainfall, was the best established, and already by the end of August, the first field day for Icelandic greenkeepers was held (photo 1+2).

The winter of 2023-2024 caused significant winter damage on the two



**Photo 3:** Re-seeding creeping bentgrass after winter damages at SCANGREEN Apelsvoll, Norway in the middle of June 2024. Photo: Jørgen Hornslien.

greens in the northern zone (Apelsvoll and Reykjavik), where ryegrass and creeping bentgrass had to be reseeded (Photo 3). However, as of September 2024, all test greens are in good condition.

### Which species and varieties are being tested?

For creeping bentgrass, the American companies Mountain View and Landmark Seeds have submitted some of their top varieties: 'Spectrum,' 'Oakley,' and 'Piper.' Check their rankings

on the American NTEP list (National Turfgrass Evaluation Program): <https://maps.umn.edu/ntep/> For more special species for greens, both DLF and Barenbrug have each submitted a variety of perennial ryegrass for the trial. Perennial ryegrass is generally not suited to the low mowing heights on greens, but it is being tested at a mowing height of 5 mm, as it may be relevant in situations where rapid establishment is required.

A comprehensive list of all species, varieties, and mixtures included in SCANGREEN 2023-26 can be found

at [www.scanturf.org](http://www.scanturf.org). Most of the new varieties do not yet have official names and are only identified by breeder codes. The SCANGREEN protocol for establishment and maintenance, as well as rankings of varieties from the last round (2019-2022), can also be found at [www.scanturf.org](http://www.scanturf.org).

### A completely new grass species for greens

A unique feature of this round of SCANGREEN is the inclusion of a grass species that has never been tested on greens before: *Phleum bertolonii* – commonly known as 'smaller cat's tail'. This species was suggested for testing by Barenbrug's grass breeder. It produces stolons and has advantages such as rapid establishment. In some areas, it has been used as a more winter-hardy alternative to perennial ryegrass. However, its performance on greens is unknown, and in SCANGREEN 2023-2024, it has so far shown variable quality across the different test sites. It established very quickly in the northern zone and has not yet exhibited signs of winter diseases. In June 2024, it was observed in 27°C full sun at the University of Minnesota's test site in Minneapolis, and two weeks later in rainy, misty 12°C conditions at the Icelandic test green in Reykjavik, drawing significant interest from both researchers and



**Photo 4 and 5:** A new grass species for greens – smaller cat's tail – attracts a lot of attention at experimental green in Minnesota (left) and in Iceland (right). Photos: Martin Hesselsøe.



**Photo 6:** Field day, early September 2024 in Smørum, Denmark. Foto: Torben K. Petersen.

greenkeepers (Photo 4+5).

## Conclusion

The SCANGREEN project offers a unique opportunity to test the latest turfgrass varieties for greens without fungicide applications under the specific climatic conditions found in Scandinavia. The project also facilitates knowledge exchange between greenkeepers, grass breeders, and

researchers through field days. The most recent field day was held in early September 2024 in Smørum, Denmark, with about 50 participants. A field day focusing on winter damages will be arranged at Apelsvoll, Norway in the beginning of June 2025.

### Project name:

SCANGREEN 2023-2026: Turfgrass species and varieties for integrated pest management of Scandinavian putting greens

**Project period:** 2023-2026

### Test Greens (Responsible Parties):

- **Denmark:** Smørum Golf Club (Head Greenkeeper Per Rasmussen/Karin Normann, Turfhouse)
- **Norway:** NIBIO-Landvik and NIBIO-Apelsvoll, Norwegian Institute of Bioeconomy (Karin Juul Hesselsøe, Trond Pettersen, Paula Lawicka, Pia Heltoft, and Jørgen Hornslien)
- **Iceland:** Ness Golf Club (Head Greenkeeper Bjarni Hannesson, Reykjavik GC)
- **USA:** University of Minnesota, Minneapolis (Andrew Hollmann/Eric Watkins). This test green is not funded by STERF but is included because American researchers find it interesting to conduct a variety trial without fungicide applications.

### Project Objectives:

- To test which varieties of bentgrass, red fescue, ryegrass, and other species are most winter-hardy, stress-tolerant, and disease-resistant on greens in Scandinavia.
- To facilitate knowledge-sharing among plant breeders, seed companies, and greenkeepers about the importance of having high-quality, healthy turfgrass varieties available.

### Sponsors:

- STERF (Scandinavian Turfgrass Environmental Research Foundation) and the seed companies that submit varieties.