

Testing, Testing

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The continuous demand for better varieties of grass means a variety of testing procedures. Who does not recall the five foot downhill putt on the 18th green at Augusta that gave Nick Faldo the US Masters? Who can forget the last service in the tie break which gave Richard Krajicek his first Wimbledon title? How about Gareth Southgate's penalty miss during Euro '96 which saw England out of the competition?

None of this would have taken place without grass. Without grass the world would be a dull place. It is vital for gardens, parks, and roadsides but it's an indispensable part of sport. Imagine football, golf, or rugby without grass!

Market Demands

Better lawns, harder wearing pitches, and shade tolerant varieties—modern stadia demand different and better grass varieties in many respects. The aim of the breeder is to exploit the genetic diversity of plants and select those with the desired qualities. By crossing plants from different backgrounds, it may be possible to select some which inherit the best characteristics from their parents.

The process of breeding and selection is long and complex. To find just one new good hard wearing, shade tolerant variety of grass requires the screening of many thousands of crosses.

Instruments of Torture

One of the main criteria when selecting grasses for sports fields is the ability to withstand a football boot skidding over its surface. A quick look at programs such as "Match of the Day" or "die Sportschau" shows the kind of punishment that can be meted out by 23 pairs of boots.

A special machine is used to test grass for this characteristic. It has three rollers which are pulled across small squares of individual varieties which are laid out to form a complete playing field. It does not sound very stringent until you realize that the middle roller contra-rotates. Its metal studs tear across each variety every three days for a year.

After a few weeks of this severe treatment, some varieties are unable to withstand the "torture" and small bare patches begin to appear on the field. However, some other varieties do very well remaining green and continuing to grow and produce a true playing surface.

New Varieties

Breeding a new variety takes about 15 years. Towards the end of this period, samples of the variety are sent to national independent trial stations such as the Sports Turf Research Institute (STRI) in England, the INRA in France, the BSA in Germany, and the NOC-NSF in the Netherlands. These stations assess all the characteristics of the varieties entered by plant breeders like Barenbrug. Grounds staff are able to select the recommended varieties from lists which are published annually by these institutes.

It isn't just common species for sports fields but also new species that are entered at the independent trial stations. New species are considered to enable new developments in sports turf technology. One of these new species is known as Barcampsia Tufted Hairgrass.

Barcampsia

Deschampsia caespitosa, or Tufted Hairgrass, has been developed from naturally occurring grasses in shady woodland areas. Barenbrug breeders have exploited its ability to grow in shaded conditions and have incorporated a remarkable wear tolerance.

Barcampsia will not compete with other species and blends very well with perennial ryegrass. As ever more new stadia face the problem of shaded pitches, this new species will be able to help alleviate the problem.

Barcampsia has been tested for the last three years at the STRI in Bingley. It has been grown within smooth stalked meadow grass, or Kentucky bluegrass, plots and the latest figures show excellent wear tolerance, shoot density, and fineness of leaf. The STRI performance ratings show a wear tolerance of 7.4, shoot density of 7.5, fineness of leaf of 8.0, and slow regrowth of 1.7.

Barenbrug's Trials

An increasing demand for shade tolerance, drought tolerance, and disease resistance has prompted Barenbrug to set up trials to simulate these conditions. Mixtures are currently being tested using perennial ryegrass, Barcampsia, smooth stalked meadow grass, and red fescues. Mixtures containing Barcampsia are performing better than the traditional mixtures after just one year.

Barenbrug have over 90 years of experience in plant breeding, seed production, and seed trading. They will continue to produce improved varieties and new species adapted to specific demanding conditions. Barenbrug's consultants can offer technical assistance wherever it is needed to support local distributors and their professional end users. ♦

— Lex van der Weerd is the international product manager of Barenbrug Holland BV. This article was first printed in the "Panstadia International Quarterly Report," January, 1997.

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