

**P***oa trivialis*., often called rough bluegrass, is native to northern Europe, temperate Asia, and North Africa, and has been introduced to both North and South America and Australia.

Brought to the United States from Europe during the Colonial period, it is best adapted to moist, shaded areas from Newfoundland to North Carolina and from Alaska to California.

*Poa trivialis* produces a moderately-fine textured, light green, medium-dense turf. It is a cool-season, sod forming perennial which spreads by creeping leafy stolons, and may be found growing in soils with a pH from 5 to 8, with the best growth between 6 and 7.

Beside being well-adapted to damp, shaded locations, it is also found growing in wet meadows, in fertile grasslands and along ditchbanks. *Poa trivialis* has the ability to germinate and grow at low temperatures, displays good color retention in the fall, produces early spring greenup, germinates rapidly

with good seedling vigor, and has excellent winter hardiness.

Rough bluegrass has also been useful for winter overseeding of dormant warm-season turfs in the South. In southern overseeding mixtures, rough bluegrass is usually combined with improved turf-type perennial ryegrasses (10 to 15% *Poa trivialis* with 85 to 90% perennial ryegrass by weight).

Rough bluegrass does not tolerate drought and is likely to be short-lived on dry sites. The root system is fibrous, relatively shallow, and annual in nature. It may be severely damaged or killed during periods of moisture stress, especially in dry sandy soils. *Poa trivialis* also has poor wear tolerance and will not persist under heavy traffic.

There are approximately 2.3 million seeds per pound. The seed germinates under a wide temperature range with peak germination occurring at approximately 50 degrees F. Below 40 degrees F. less than 50% of the seed will germinate.

Rhizoctonia brown patch, leaf spot, and dollar spot are the most common diseases associated with *Poa trivialis*, however grey snow mold, pink snow mold, ophiobolus patch, pythium blight, fusarium blight, rust, stripe smut, and powdery mildew have also been reported as occurring on this species.

Before the release of Sabre *Poa trivialis* in 1977, no domestic cultivars were commercially available and most of the seed was imported from Europe. European common types are normally taller, lighter green, and form a looser sod than Sabre. Common types are of limited value for quality turf in moist shaded lawns or for winter overseeding. However, these common types may be useful for forage purposes in cool, moist environments, normally found in northern Europe.

Development of cultivars with lower growth habit, darker color, denser sod, improved disease resistance, and reduced seed shattering would be helpful in expanding the potential useage of this species.

# ***POA TRIVIALIS***

## **A Specialty Use Turfgrass**

by **Richard Hurley**, Ph.D., Vice President and Director of Research and Agronomy, Lofts Seed Inc., Bound Brook, NJ

**Rough bluegrass variety shade test at Lofts research farm in New Jersey.**





## Management

Rough bluegrass as a permanent turf is limited to shaded sites in the cool humid and cool semi-arid regions of the U.S. (zones 1, 5, 6, and 7). It should not be used for a permanent turf in transition or warm-season zones (zones 2, 3, 4, and 8) or in full sun in cooler climates (zones 1, 5, 6, and 7).

For permanent turf a seeding rate of two pounds per 1,000 square feet is recommended. Three pounds per 1,000 square feet is suggested when using a seed mixture designed for shaded sites, such as 30% *Poa trivialis*, 30% shade tolerant Kentucky bluegrass, 20% fine fescue, and 20% turf-type perennial ryegrass.

In shaded areas rough bluegrass may be mowed lower than other cool-season grasses (as low as 1/2-inch). Applications of a 25:5:10 or equivalent complete fertilizer should be applied once in early spring before trees leaf out and in mid- to late-fall after the leaves have fallen.

Dandelion and broadleaf weeds may be controlled with 2,4-D, however injury to *Poa trivialis* may occur if this herbicide is applied at higher than normal rates or when temperatures are above 85 degrees F.

Rough bluegrass benefits from

both light and frequent irrigation because it is shallow-rooted.

When used for overseeding dormant warm-season putting greens, *Poa trivialis* seeding rates of 15 to 20 pounds per 1,000 square feet are recommended. However, rough bluegrass mixtures containing 85% perennial ryegrass with 15% rough bluegrass, or 60% perennial ryegrass

During establishment, irrigate lightly 3 to 4 times per day between 10 a.m. and 4 p.m. Once the turf is established, syringing during mid-day may be necessary when dry, windy weather causes surface drying. If rough bluegrass is damaged by heat or drought, premature spring transition may occur.

## Improved varieties

Sabre was developed by Dr. C. Reed Funk and Bill Dickson at Rutgers University and released in 1977. It has a medium leaf texture with a darker green leaf color when compared to Danish common. Sabre, like other sources of *Poa trivialis* is sensitive to heat and drought and is susceptible to dollar spot and brown patch disease. Sabre has performed well when used as a component in mixtures for use in overseeding dormant warm-season turfs. It is also useful for permanent turf in damp cool, shaded locations in temperate climates.

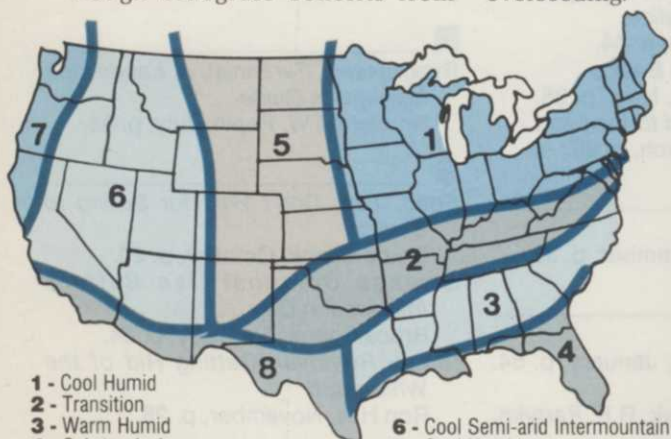
WT&T

Dr. Hurley studied *Poa trivialis* as part of his graduate work under Dr. C. Reed Funk at Rutgers University and is currently working on an improved variety of rough bluegrass for the landscape market for Lofts Seed Inc.

## Look for Landscape Manager's Guide to Bentgrasses in the January 1985 Golf Issue of WT&T.

with 25% chewings fescue and 15% rough bluegrass are desirable.

Once established, *Poa trivialis* can withstand heights of cut below 3/16-inch. Frequent light verticutting is necessary to prevent grain from developing. Light frequent applications of soluble nitrogen at 1/2 pound per 1,000 square feet is recommended every two to three weeks after winter overseeding.



- 1 - Cool Humid
- 2 - Transition
- 3 - Warm Humid
- 4 - Sub-tropical
- 5 - Cool Semi-arid Plains

- 6 - Cool Semi-arid Intermountain
- 7 - Cool Humid
- 8 - Warm Arid

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