
Turfgrass Portraits IV:

"Wintergrass"

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This is the fourth in a series of nine articles on the basic traits and maintenance procedures for common turfgrasses. Next month author Schery discusses Bermudagrass.

THERE'S no such thing botanically as "wintergrass."

The term is used particularly in the South, for lawngrasses interseeded into the permanent turf (usually bermuda), to provide attractive green cover during winter. Lawngrasses adapted to cool weather are chosen. Whether they be annual or perennial makes no difference, since their handling is as an annual; come spring they are expected to gradually thin, as the permanent turf revives with warmer weather. The season for wintergrass planting is usually October in the South, onset of bermuda dormancy. The wintergrass should be at its best from Christmas until March, after which there is gradual transition back to bermuda for the summer. Of course many of these same "wintergrasses" are sown in early autumn in more northerly climates to bolster thin turfs, with promise of persisting there.

Traditionally, annual ryegrass has been used to overseed southern turfs. By the pound ryegrass is inexpensive (although more seed ordinarily must be used than with types having a greater

seed count). The large seed is easily planted, sustaining vigorous seedling growth without a great deal of attention. But recently research has taken a second look at winterseeding, wondering whether other lawngrasses might not in many cases be more satisfactory than ryegrass. Such research has centered chiefly on golf turf, where the demand for excellent putting surfaces is great when the winter tourist season is at its height. The findings, of course, spill over to general turf; Mississippi State University especially has checked winterseeding for turfs maintained like a home lawn.

There has been lingering dissatisfaction with ryegrass through the years, because of its aggressiveness, and its failure to give ground gracefully in spring as the bermuda revives. Many years ryegrass is aggressive late into spring, then melts away suddenly; the bermuda has been set back by this late competition, and an ugly transition period ensues at the very height of the attractive spring season. Also, annual ryegrass grows vigorously, requiring more mowing than might other species. Its color is yellowish, contrasted to the bluish green of fine fescues and Kentucky bluegrass (the color usually preferred). And to top it off in recent years, with freezing south to the Gulf, ryegrass has often killed out. Ryegrass will by no means be abandoned, and it seems to suffer less from these faults in the Southwest than the Southeast. But for the more meticulously kept turfs, there is increasing interest in mixtures of fine-textured northern grasses such as the Kentucky bluegrasses, fine fescues, and bentgrasses discussed in previous numbers of this series, and in *Poa trivialis* (rough bluegrass).

General Observations

Timing is important wherever and with whatever grass winterseeding is practiced. If winterseeding is carried out too soon (or autumn growth of bermuda is lingering), a new seeding may be smothered. It is especially important with superior grasses

such as fine fescues, bluegrass, and bentgrass, to initiate planting just as the permanent grass slows down for winter dormancy. Ryegrass' biggest advantage lies here, in aggressiveness that enables it to grow roughshod whether the timing is quite exact or not.

Timing continues important through the winter, since differing grasses have differing peaks of performance. The fine fescues (varieties include Chewings, Illahee, Pennlawn), and *Poa trivialis* are almost as quick to present a winter cover as is ryegrass, and are possibly not so susceptible to juvenile diseases. Kentucky bluegrass is next in the seasonal sequence, spreading to a beautiful tight turf in mid-winter. Most bentgrasses are slow, but may merit inclusion in winterseeding mixtures because of their fine performance late in winter. With this variation in seasonal performance, it's easy to understand why mixtures of grasses, rather than individual species, are increasingly recommended. Almost all mixtures of the finer grasses contain a fine fescue base for excellent color and relatively quick start.

Southern turfs are usually started from living shoots or sod. There is increasing interest in seeding lawns, as has long been customary in the North. As more bahia, zoysia, centipede, and other southern seed types become available, some of the finer "wintergrasses" well may be included to provide an "any-time-of-the-year" blend. There are definite economies, flexibility, and maintenance advantages, to being able to seed a lawn and bolster it with seed thereafter. Indeed, this would seem a splendid opportunity for professional lawn services, rounding out the slack season while providing greater winter attractiveness to an increasingly sophisticated South.

Winterseeding interest may be divided as for: 1. golf greens, and 2. general turfs (including lawns and fairways). Until recently, research has centered on the intensively managed golf green. Widespread testing, es-

pecially at state universities and experiment stations, has ensued. Max Brown's master's thesis (University of Florida) deals with winterseeding of Tifgreen bermuda, the universal golf green variety in the South. The most intensive study on general turf is probably William James Gill's (Mississippi State University) thesis, "An Evaluation Of Overseeding Procedures For Southern Lawns." Conclusions from these studies will be worth quoting in the following discussion.

Golf Greens

The advantages and disadvantages of ryegrass, long used for winterseeding golf greens, have been mentioned. In some instances as much as 200 lbs. of ryegrass/M is used (the average is estimated 50 lbs.). Only by keeping the ryegrass "tight" is the putting surface acceptable. Even then ryegrass is said to be "slow" because of succulence. In most instances golf experts have rated the fine fescues, and later in the season Kentucky bluegrasses or bentgrasses, as superior to ryegrass for putting surfaces.

The Milwaukee Sewage Commission organized the testing of seeding mixtures (including a blend furnished by the Lawn Institute) on a wide range of golf courses. The Milwaukee people favor mixtures containing *Poa trivialis*, usually in combination with fine fescues and other fine-textured species. Probably any of the eight combinations scrutinized during the '63-'64 season would rate "tops," compared to desultory ryegrass turfs of a few years ago. The Lawn Institute blend was a combination of two fine fescues, two Kentucky bluegrasses, and Highland bentgrass. *Poa trivialis* was left out because some people object to its yellowish cast, and because the seed (imported) frequently contains winter weeds.

There have been some tests with growth retardants (maleic hydrazide, CCC, Phosphon), for inhibiting growth and perhaps inducing early dormancy in ber-



Winterseeding test plots, such as these at the University of Arizona, help turf professionals discover the best adaptable species.

mudagrass. Some injury to the bermuda has occurred, possibly due to careless application; in middle latitudes there have been reports of definite injury to U-3 bermuda. Successes have been reported, too, although it is uncertain whether the advantages obtained are sufficient to warrant special chemical treatments. Perhaps improved seeding procedures can do as much? Golf courses are accustomed to thinning turf (aerifying, vertical mowing, etc.), and have the equipment for this. Such preliminaries to winterseeding, followed by topdressing and watering, make for little difficulty in establishing wintergrass under this professional care.

General Turf

For lawns, fairways and similar turf, the specialized equipment used on golf greens is not available, nor the intensive techniques possible. The main needs are for easy autumn establishment, and minimum attention through winter. Ryegrass is good for the former, the finer-textured species better for the latter. If ways can be found to keep winterseeding simple, inexpensive—and this knowledge

becomes widely diffused—winterseeding of southern lawns should become popular. In some sections of the South, less than 1% of the lawns are winterseeded; in other sections, as the posh suburbs around Atlanta and Phoenix, 50% of the lawns may be winterseeded. The practice might seem most appealing in the upper South, where bermudagrass is dormant nearly five months of the year.

Mississippi State University research indicates that for establishing wintergrass the permanent turf should be mowed low prior to seeding. "Low" means in the neighborhood of 1 inch, as compared to a customary height of 1½ or 2 inches. Of all procedures, including vertical thinning, topdressing, etc., low mowing proved the most important.

The same grasses, preferably in mixture, that do the job on golf greens, suffice for lawns. With proper techniques it appears possible to seed quality grasses (centering on the fine fescues) almost as readily as ryegrass, at a 5-lb./M seeding rate. Once established, these offer darker color, greater hardiness, less need for mowing, better spring transition, and so on.