



*Outfield tests by some experiment stations, such as those Virginia Polytechnic Institute had at James River Country Club, Newport News, Va., were conducted by Richard E. Schmidt.*

## What's Best for Overseeding Bermuda?

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Not too many years ago ryegrass was used almost exclusively for overseeding bermuda greens for winter play. It is still used on many courses today.

However, during the past six years, several different types of grass seed have been used, and the result is improved putting surface quality. Single grasses and combinations of grasses have been readily adopted.

Much of this change has been effected by the Milwaukee Sewerage Commission, which established outfield plots on country clubs where bermudagrass is used on greens. Some experiment stations have done research along this line and have even overseeded plots in their experimental areas. But as a whole, they have not carried on extended outfield testing on golf courses.

There are several reasons for interest in the

use of finer leaf grasses for overseeding:

- 1) Finer leaf grasses hold their color better under severe cold weather.
- 2) Poor transition in the spring is a constant problem in the upper South.
- 3) Ryegrass is very competitive with bermuda, but if hot weather prevails it will die rather fast.
- 4) In the past, disease problems with ryegrass overseeding were great, but fungicides and improved management techniques are largely controlling this in most cases today.

The finer grasses also give a more desirable texture and better quality putting surface. Similarly, the transition in the spring has not been as objectionable as with ryegrass. One of the plots at the Athens Country Club, Athens, Ga., included 90 pounds of ryegrass per 1,000 square

feet. This gave quick coverage, but it was still ryegrass. Fortunately this heavy rate coincided with a mild winter and the transition in the spring was good on this plot.

Where there was a loss of bermuda this year, ryegrass gave a poor transition; a more satisfactory transition was given by **Poa trivialis**, Pennlawn fescue and bent. In fact, small amounts of bent, fescue, or **Poa trivialis** were still present in some greens as late as August 1, 1967. This year bermuda in these areas will make a complete cover in time for a month or six weeks of play, and then overseeding starts again.

Cost definitely influences the type of seed used for overseeding. This has caused some clubs not to use the finer grass seeds. Ryegrass is a large seed and more pounds per 1,000 square feet are required. For instance, the cost of seed per 1,000 square feet can be deceptive, as shown in the table below.

#### MERITS OF GRASS MIXTURES

Some merits of these mixtures and reasons for overseeding are:

1. They will withstand close cutting, and in most cases withstand very cold weather without losing color. Ryegrass at zero degrees Fahrenheit or below appears to suffer most, but this may vary with the selection.

2. Even before the desired putting surface is obtained from the fine-textured grasses, the ball rolls true and the putting surface progressively improves.

3. Ryegrass appears to withstand more wear in areas of excessive traffic, but this depends a great deal on management.

It is doubtful that ryegrass will be completely eliminated from overseeding. However, for a good quality putting surface and to withstand excessively low temperatures, it would be more satisfactory to include **Poa trivialis** (weed free) or Pennlawn fescue when ryegrass is used for overseeding bermuda greens. Ryegrass develops fast, but the finer grass seed should be included to fill in the voids of the ryegrass.

If a fast growth is desired, it is suggested that ryegrass at 20-30 pounds per 1,000 square feet be used. **Poa trivialis**, Pennlawn, and bent develop slowly and in most cases are seeded together. It takes longer for a mature putting surface to develop, but the transition in the spring is not as abrupt as with ryegrass alone. Finer grasses tend to linger longer in early summer and yet offer less competition to the bermuda than ryegrass.

Progress has been made in the overseeding of bermudagrass greens. Try grasses other than rye.

Type of Seed	Cost per pound	Amount needed per 1,000 square feet	Cost per 1,000 square feet
Ryegrass	8¢	40 pounds	\$ 3.20
Colonial bent	60¢	5 pounds	\$ 3.00
<b>Poa trivialis</b>	60¢	10 pounds	\$ 6.00
Seaside bent	\$2	5 pounds	\$10.00

#### SUGGESTED MIXTURES

The grass seed alone or in mixtures being used most in the South now are:

<b>Poa trivialis</b>	4-6	pounds per 1,000 square feet
Pennlawn fescue	15-20	
Bent	3-5	
<b>Poa trivialis</b>	6	pounds per 1,000 square feet
Pennlawn	20-24	
<b>Poa trivialis</b>	4-6	pounds per 1,000 square feet
Ryegrass	30	
Ryegrass	25	pounds per 1,000 square feet
Pennlawn fescue	15	
Bent (Penncross)	3	
<b>Poa trivialis</b>	10	pounds per 1,000 square feet
Ryegrass	40	pounds per 1,000 square feet