



## PERENNIAL RYEGRASS USE IN MICHIGAN

M.T. McElroy

Many improved varieties of perennial ryegrass feature desirable qualities which account for their growing popularity in medium and high maintenance situations. Ryegrasses germinate very quickly, typically in less than one week. This is an important advantage when quick establishment is necessary to control soil erosion or to rapidly improve the aesthetics of a turf site. Ryegrasses have high growth rates which enables a mature turf to withstand moderate to heavy traffic. They possess tough leaf blades which accounts for their popularity for use on athletic fields and parks and other heavy use turfs. The growth habit of perennial ryegrasses is such that thatch accumulation is rarely a problem.

With some cultivars a tough seedstalk may persist for 2 or 3 months following early summer seedhead production. Although ryegrasses have tough leaves, this characteristic often results in lower mowing quality, especially when a rotary mower is used and/or when the blade is not sharp. Many ryegrasses are susceptible to diseases such as dollarspot, red thread, pink patch and brown patch. They possess a bunch type growth habit which results in less vegetative spreading following seeding and slower filling-in following thinning. Stress tolerance may be poor under low temperatures, particularly when the site tends to be wet.

The recommended seeding rate is 5-8 pounds per 1000 sq. ft. It is important to follow this recommendation because the final density of the turf is largely determined by the seeding density due as a result of the bunch type growth habit. As with other grasses it is suggested that a blend of 2 or 3 cultivars be used. We strongly recommend that ryegrasses be mixed with other species, preferably with no more than 30-40% ryegrass. Polystands with several grasses tend to survive severe stress and/or disease infestations far better than monostands. For best results, perennial ryegrasses should receive 3-5 pounds N per 1000 sq. ft. annually. Mowing height should be 1.5-2.5 inches and irrigation is recommended as needed.

Table 7 gives quality ratings from the 1984 cultivar trials. These were established in 1980. The data can be used as a guide in selecting a specific cultivar(s).

A field study on the effects of nitrogen fertility programs on the wear tolerance of Ram I Kentucky bluegrass and of a mixed stand of Omega and Yorktown perennial ryegrass was initiated in the summer of 1985. This wear unit was developed by Shearman and Beard. Data are still being gathered, but wear response will be evident on the plots.

TABLE 7.

## Perennial Ryegrass Cultivar Evaluation

Ratings

<u>Variety</u>	<u>6-11-84</u>	<u>7-6-84</u>	<u>8-4-84</u>	<u>9-13-84</u>	<u>10-12-84</u>	<u>Grand Means</u>
Fiesta	5.3	6.7	6.7	7.0	7.7	6.7
Bellatrix	6.3	8.3	5.3	6.3	7.0	6.6
Ranger	6.7	7.7	5.3	6.0	7.0	6.5
Pennfine	5.3	7.0	6.3	6.7	6.0	6.3
Omega	6.0	8.0	5.7	5.7	6.3	6.3
Crown	5.7	6.7	4.7	7.3	7.3	6.3
Trimmer	5.7	7.3	6.0	5.7	6.3	6.2
Blazer	6.0	6.7	4.3	7.3	6.3	6.1
Yorktown II	5.7	6.0	4.7	6.7	7.0	6.0
Hunter	6.7	7.7	6.0	4.7	4.7	6.0
Pronto	5.3	5.7	6.3	6.0	6.3	5.9
Acclaim	5.3	7.0	5.0	6.0	6.3	5.9
Manhattan	6.0	7.3	3.7	6.3	5.7	5.8
Belle	5.0	6.0	4.0	6.7	7.3	5.8
Derby	5.0	5.3	6.3	6.3	6.3	5.8
Arno	6.0	6.7	4.3	6.0	6.0	5.8
Jackpot	5.7	7.0	4.3	6.0	6.0	5.8
Elka	6.0	7.0	4.0	5.3	6.0	5.7
Premier	4.7	5.0	4.0	7.3	7.0	5.6
Loretta	6.3	7.3	3.7	5.7	5.0	5.6
Diplomat	5.7	6.3	4.3	5.3	6.3	5.6
Regal	4.3	4.7	6.7	5.7	6.3	5.5
Ensporta	4.7	7.7	4.3	5.0	5.7	5.5
CBS	4.3	5.0	5.0	6.7	6.0	5.4
Player	4.7	7.3	5.7	5.0	4.3	5.4
Idole	3.0	5.7	7.0	4.7	6.0	5.3
Goalie	5.7	5.7	4.7	4.7	5.7	5.3
Compas	5.7	5.7	6.3	4.3	4.0	5.2
Dasher	5.0	4.7	4.7	5.7	6.0	5.2
Princess	4.7	6.0	4.3	5.7	5.0	5.1
Pennant	5.0	5.7	4.3	5.0	5.7	5.1
Citation	3.7	4.3	5.3	6.0	6.0	5.1
Delray	5.3	4.7	3.7	5.7	5.7	5.0
Norlea	4.7	6.3	4.0	4.7	4.7	4.9
Clipper	3.3	4.3	4.3	6.0	6.3	4.8
Venlona	3.0	6.3	5.7	4.7	4.0	4.7
Runner	5.3	6.0	3.7	4.0	4.7	4.7
NK 200	3.7	6.0	4.7	4.0	4.3	4.5