



## Reed Canarygrass

N.J. Ehlke and D.J. Vellekson

Varietal Trials Results, January 2006



Reed canarygrass is adapted throughout Minnesota for use as hay, pasture and silage. It is one of the best grass species for poorly drained soils and tolerates flooding

better than other cool-season grasses. While reed canarygrass utilizes nitrogen efficiently and is adapted to liquid manure application, its seedling vigor is not as good as that of other commonly grown forage grasses.

The most recent developments in reed canarygrass breeding have been the release of varieties low in indole alkaloid concentrations. Animal performance and palatability are dramatically improved when these varieties are grazed. Alkaloids are bitter, complex, nitrogen containing anti-quality compounds.

In grazing trials, lambs and steers performed better on low-alkaloid varieties than on common reed

canarygrass. Hay should be harvested between the boot and early heading stage because quality declines with maturity.

Each of the available varieties is winterhardy and persistent in Minnesota.

Trials were established in pure stands in 1993 at Grand Rapids and Rosemount. Trials also were established in 1999 and 2002 at Rosemount and Grand Rapids. Trials are generally harvested three times per year at Rosemount and two times at Grand Rapids. Nitrogen was applied early in the spring and after the first two harvests at a rate of 50 pounds per acre per application.

### ***Dry matter yield, in tons per acre, of reed canarygrass varieties seeded at two locations.***

| Variety  | Vigor*<br>05/01/03 | Rosemount     |               |               | Grand Rapids  |               |               |
|----------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|
|          |                    | 1994-<br>1996 | 2000-<br>2002 | 2003-<br>2005 | 1994-<br>1996 | 2000-<br>2002 | 2003-<br>2005 |
| Chiefton | 6.5                | —             | 3.7           | 5.3           | —             | 4.9           | 1.7           |
| Lara     | —                  | 3.0           | —             | —             | —             | —             | —             |
| Marathon | 6.5                | —             | —             | 5.1           | —             | —             | 1.6           |
| Palaton  | 5.3                | 3.1           | 3.8           | 5.1           | 3.5           | 4.8           | 1.6           |
| Rival    | 5.0                | —             | 3.8           | 4.9           | —             | 4.6           | 1.6           |
| Vantage  | 3.0                | 3.3           | 3.7           | 5.2           | 3.3           | 5.1           | 1.7           |
| Venture  | 6.0                | 3.1           | 3.9           | 5.0           | 3.5           | 5.1           | 1.6           |
| LSD 5%   | 0.5                | NS            | NS            | 0.3           | NS            | .4            | NS            |

\* Vigor, Rosemount; 1 = least, 9 = best.

### ***Reed Canarygrass Planting Rate and Date***

|                            |         |                              |                             |
|----------------------------|---------|------------------------------|-----------------------------|
| Bushel Weight, Pounds      | 46      | Planting Rate, Seeds/Sq. Ft. | 85                          |
| Seeds/Pound                | 526,000 | Alone                        | 60                          |
| Planting Rate, Pounds/Acre |         | In Mixtures                  |                             |
| Alone                      | 7       | Planting Date                |                             |
| In Mixtures                | 5       | Alone                        | Early Spring or Late Summer |
|                            |         | With Legumes                 | Use Date for Legume         |