

BROMEGRASS **VARIETY TRIALS**

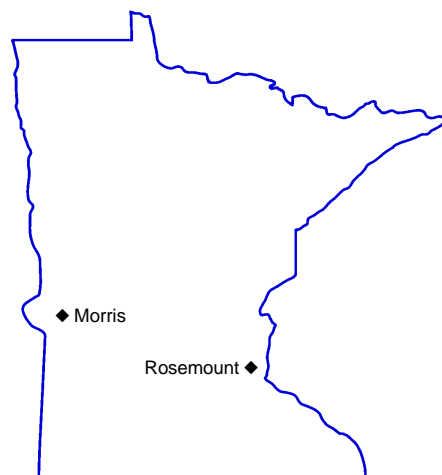
Minnesota Agricultural Experiment Station — University of Minnesota
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This is a report on results of a new series of bromegrass variety performance tests conducted by the Minnesota Agricultural Experiment Station. This report was prepared by Nancy J. Ehlke (612-625-1791; <ehlke001@tc.umn.edu>), agronomist, and Donn J. Vellekson (612-625-9765; <velle001@tc.umn.edu>), research plot coordinator, Department of Agronomy and Plant Genetics, University of Minnesota, St. Paul, MN 55108.

Successful bromegrass production can often depend to a considerable extent on selecting the best varieties for a particular farm. For that reason, varieties are compared in trial plots on Minnesota Agricultural Experiment Station fields at Morris and Rosemount. Varieties are grown in replicated plots at each location. These plots are handled so that the factors affecting yield and other characteristics are as nearly the same for all varieties at each location as is possible.

Bromegrass is generally grown for hay in mixture with alfalfa, or is used as pasture in mixture with other grasses and legumes. Varieties can be classed as southern, intermediate, and northern types. Varieties of the southern type may not be higher yielding, but are generally less susceptible to leaf diseases and earlier in maturity than northern types. All varieties are winter-hardy.

Some stand losses may occur when bromegrass is managed under three- and four-cut alfalfa harvest systems.



Locations where bromegrass trials were conducted for this report.

Performance in Trials

Varieties are currently being evaluated in pure stands at Minnesota experiment stations. Nitrogen was applied at all locations in early spring and after harvest at a rate of 50 pounds per acre. Average dry matter yields were very high in 1998 and few differences were found between performance of the varieties.

Interpreting the Tables

The LSD (Least Significant Difference) values associated with the data in table 1 are measures of variability within the trials. If a yield difference between two varieties within a single column exceeds the LSD value at the bottom, you can assume that the higher yielding variety was truly better yielding.

A 5 percent level of significance is used in the table. This means that yield differences exceeding the stated LSD value are real 95 percent of the time. If the difference is less than the LSD, greater attention should be given to other traits which are also important in making your variety choices.

Acknowledgements, Permissions and Caveats

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Table 1 — Dry matter yield, in tons dry matter per acre, of smooth brome grass seeded at two locations, 1998.

Seedlot of Lincoln has low germination which resulted in poor stand establishment.

Variety	Rosemount	Morris
Alpha	5.6	3.2
Badger	5.4	3.0
Bounty	5.3	3.2
Lincoln	4.8	—
York	5.3	3.4
LSD 5%	0.6	NS

Table 2 — Potential 1999 bromegrass seed sources known to the Minnesota Crop Improvement Association.

ABT/La Crosse Seed Company PO Box 187 LaCrosse WI 54601 800-658-9428	Olds Seed Company Box 7790 Madison WI 53707 800-356-7333, 608-249-9291
Agassiz Seed & Supply 445 7th Street NW West Fargo ND 58078 701-282-8118	Peterson Seed Company Box 346 Savage MN 55378 800-328-5898
Albert Lea Seed House 1414 West Main, PO Box 127 Albert Lea MN 56007 507-373-3161, 800-352-5247	Premium Seed Company, Inc. 7800 East State Hwy 101 Shakopee MN 55379 612-496-1783
Croplan Genetics PO Box 64089, Cenex/Land O' Lakes St. Paul MN 55164 612-451-5490	R.J. Hunt Seed Company 13477 County Road 101 Wadena MN 56482 218-631-4190
Discount Farm Center PO Box 84, West Hwy 212 Watertown SD 57201 605-886-5888	Top Farm Hybrids 17177 60th Street Southwest Cokato MN 55321 320-286-5516
Garst Seed Company 2369 330th Street Slater IA 50244 800-831-6630	Trelay, Inc. 11623 Hwy 80 North Livingston WI 53554 800-421-0397, 608-943-6363
Geertson Seed Farm 1665 Burrough Rd Adrian OR 97901 541-339-3768	Twin Cities Seeds 7265 Washington Avenue South Edina MN 55439 800-545-8873
International Seeds Inc. PO Box 168 Halsey OR 97348 541-369-2251	Werner Farm Seeds 3104 Millersburg Blvd. Dundas MN 55019 507-645-7995

Bromegrass Planting Rate and Date

Rate is based on normal seedbeds and on normal size, good quality seed. Rate used can vary greatly depending on seed cost, desired stand, expected mortality, emerging ability, seed weight, seed germination, seedbed condition, depth of planting and planting equipment. Weight given is the most widely accepted in the U.S.

Crop Use	Bushel Weight (pounds)	Seeds/pound (number)	Rate/acre (pounds)	Rate (seeds)	Planting Date
Alone	14	136,000	16	50/square foot	Early spring or late summer
In mixtures			10	31/square foot	