

MICHIGAN ALFALFA VARIETY TRIALS, 2009

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East Lansing, Michigan

The Michigan Agricultural Experiment Station will accept proprietary varieties and experimental strains of alfalfa for evaluation at three locations in 2009. Entries with tolerance to leafhoppers and/or resistance to Phytophthora, Anthracnose, and/or Verticillium are solicited. The trials are designed for high yield utilizing all factors to maximize yield, with natural rainfall, particularly at the East Lansing site. Only varieties resistant to bacterial wilt will be accepted.

1. Locations. Michigan State University Research Farm at East Lansing. Trials are intensively managed for high yields (8 tons/acre) with high fertility using a 4-cut system.

Michigan State University Beef Forage Research Station at Lake City, 130 miles north of East Lansing. Winter temperatures are considerably lower at the Lake City Station than at East Lansing. Three cuttings are taken beginning in early June.

Upper Peninsula (UP) at Chatham, approximately 300 miles north of East Lansing. Chatham has colder winters than Lake City, but with more snow. Winter-hardiness and persistence are important at Chatham. Three cuttings are usually taken in a year between June 15 and October 1.

2. Description of Trials. Trials are seeded with a five-row nursery seeder with six-inch spaces between rows in plots 3 feet wide and at least 20 feet long (generally 22-25 feet). A minimum of four replications is used. Plots are harvested with a Carter self-propelled forage flail harvester. Four cuttings (late May to early June, July 5-10, August 10-20, and after October 15) in the year after seeding are normally taken at East Lansing and the Thumb. Three cuttings are normally taken at Lake City and the UP. Insecticides are applied when necessary so that yields are not reduced by injury from the alfalfa weevil (late May-early June) or potato leafhopper (June 15-September 15)*.

Standard procedures for determining dry matter yield are used. Plots will be harvested for at least three years after the seeding year unless stands are injured by uncontrollable causes. Normally, alfalfa is clear-seeded in the spring and harvested one to three times in the seeding year. An herbicide is used for weed control at establishment. Seeding may be delayed until late July or early August to achieve best results in stand establishment.

Data on stand longevity, disease reaction, and maturity will be obtained when appropriate. Winter injury and recovery data will be obtained at all locations. Michigan State University will conduct the trials in a professional manner but assumes no financial liability for failure to obtain stands or loss of stands due to uncontrollable conditions.

*East Lansing Potato Leafhopper Resistant (PLHR) Variety Trial- A trial will be seeded in East Lansing to evaluate PLH-resistant varieties under no-insecticide treatment.

3. Eligibility of Entrants. Private developers or merchandisers of alfalfa varieties or other Agricultural Experiment Stations may enter varieties or experimental strains. The developing firm (unit) or merchandiser will make application for entry/company.

4. Rejection. Any entry may be rejected if:

- (1) There is misrepresentation.
- (2) Seed arrives too late for planting.
- (3) Adequate seed is not available.
- (4) The trial is cancelled.
- (5) Seed is a blend.

5. Entry Fee.

Yield comparisons at East Lansing and Lake City.
\$500.00 per variety per location

Chatham (UP)
\$250.00 per variety

Make checks payable to Michigan State University/Alfalfa and send to Dr. Richard Leep, Dept. of Crop and Soil Sciences, Michigan State University, East Lansing, MI 48824.

6. Deadline for Entry. The applications should be in the possession of Dr. Rich Leep or Tim Dietz, Department of Crop and Soil Sciences, Michigan State University, East Lansing, Michigan 48824,(517) 355-2287 FAX (517) 353-3515, e-mail: dietzt@msu.edu by March 27, 2009.

7. Seed Required. Seed should be received at MSU by April 3, 2009. Commercial seed may be sent to MSU through the central distribution center at the University of Wisconsin. Arrangements may be made with MSU to deliver commercial seed through local dealers, distributors, or other sources.

Released varieties: 200 grams of seed per entry for each location. Seed for released varieties is to be from a commercial source. Seed will be inoculated with Rhizobium at MSU prior to planting.

Experimentals: 100 grams per trial is adequate. Seed treated with a fungicide i.e. Apron will be accepted. Seed will be inoculated with Rhizobium at MSU prior to planting.

8. Publication. Data will be analyzed statistically and summarized annually. Each entrant will receive a yearly summary of the data in early January. The yearly summaries will be published in the Michigan Farm News, the Plant Management Network online journal <www.plantmanagementnetwork.org>, and an MSU bulletin. The results of commercially available varieties may be published by the Michigan Agricultural Experiment Station or the Michigan State University Extension Service and will be posted on the MSU Forage Information web site:
< www.msue.msu.edu/fis/ >.

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Submit one form for each variety or entry and send to the address below by March 27, 2009. Seed of released varieties (200 grams per location from a commercial source) and experimentals (100 grams per location) should be received by April 3, 2009. Only genetically reproducible seed will be accepted. Blends will not be accepted.

1. Company _____
 Contact person _____ Marketer _____

Email _____
 Would you like to continue to receive a paper copy of the results? Yes No

2. Address _____

City _____ State _____ Zip _____

Phone (____) _____ Fax (____) _____

3. Name or number of entry _____
 (Please indicate name desired when data are reported)

4. Brief description _____
 Is this a released variety? Yes No

5-13. Classify the fall dormancy, winter hardiness (1 to 5) and resistance of your entry according to the following scale. Use the breeder or developer's rating. HR = >51% resistant plants, R = 31-50%, MR = 15-30%, LR = 6-14%, and S = susceptible.

(Circle One)

- 5. Fall Dormancy 1 2 3 4 5 6
- 6. Winter Hardiness 1 2 3 4 5
- 7. BW HR R MR LR S
- 8. PRR HR R MR LR S
- 9. Anthracnose resistance HR R MR LR S
- 10. VW resistance HR R MR LR S
- 11. Fusarium wilt resistance HR R MR LR S
- 12. Aphanomyces (Race 1) HR R MR LR S
- (Race 2) HR R MR LR S
- 13. Stem/Bulb Nematode HR R MR LR S

Date of Seed Test _____

Purity _____

Germination, quick _____

Germination, hard _____

Germination, total _____

Scarified - yes or no (circle one)

Chatham _____ East Lansing Standard _____

East Lansing PLHR _____ Lake City _____

Total locations _____ x\$500 (Chatham \$250)= _____

Payable to Michigan State University/Alfalfa:
 Dr. Rich Leep, Crop and Soil Sciences, Michigan
 State University, East Lansing, MI 48824
 Questions: Tim Dietz, 517-355-2287