

**2010 MSU Potato Research Abstract
To The
Michigan Potato Industry Commission**

Title: UPPER PENINSULA POTATO VARIETY TRIAL

Investigator: Doo-Hong Min, Upper Peninsula Experiment Station, P.O. Box 168, Chatham, MI 49816-0168. Phone (906) 439-5188. Fax (906) 439-5698.
Cooperator: Christian Kapp, Chris Long, Tony Vandamme, Warren Schauer, and Jim Isleib

Michigan's highly variable agricultural environment results in significant regional differences in performance of potato varieties. Growers in the Upper Peninsula have a long history of interest and involvement in on-farm potato variety and agronomic trials. Variety testing plays a pivotal role for potato producers' farm sustainability in the Upper Peninsula region. These trials, designed and conducted by MSU Upper Peninsula Agricultural Experiment Station staff and MSU Potato Specialist with cooperation from various local potato farms and county extension educators, provide growers with dependable, local data generated under Upper Peninsula climatic and soil conditions. This information has economic value as growers consider variety selection. This trial has two objectives. The first is to evaluate experimental varieties from Michigan State University and other sources under Upper Peninsula climatic and soil conditions. Entries will be coordinated with MSU faculty, MPIC personnel and local growers. The second is to identify a promising potato line and plant a large scale block trial. This block trial will then be harvested and stored in the cooperators warehouse to determine if it has significant promise over the current variety's being grown within the region. A summer field day will be held at Tony Vandamme's potato farm in Cornell in late August or early September of 2010 to provide an educational opportunity on variety performance, potato production and management from industry and university personnel for the benefit of the Upper Peninsula potato growers.

**2010 MSU Potato Research Proposal
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Michigan Potato Industry Commission**

Title: UPPER PENINSULA POTATO VARIETY TRIAL

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Justification: Michigan's highly variable agricultural environment results in significant regional differences in performance of potato varieties. Growers in the Upper Peninsula have a long, excellent history of interest and involvement in on-farm potato variety and agronomic trials. Variety testing plays a pivotal role for potato producers' farm sustainability in the Upper Peninsula region. These trials, designed and conducted by MSU Upper Peninsula Agricultural Experiment Station staff and MSU Potato Specialist with cooperation from various local potato farms and county extension educators, provide growers with dependable, local data generated under Upper Peninsula climatic and soil conditions. This information has economic value as growers consider variety selection.

Objectives:

1. To compare performance of available commercial potato varieties currently grown or available to growers under Upper Peninsula conditions.
2. To identify a promising potato line and plant a large scale block trial in order to determine if the variety is significantly improved over other varieties currently being grown in terms of yield and warehouse storage.
3. To conduct a summer field day at the trial site and have an annual potato educational program for Upper Peninsula growers.
4. To evaluate experimental varieties from Michigan State University and other sources under Upper Peninsula climatic and soil conditions.
5. To cooperate with the statewide potato variety research, development and evaluation program.

Procedure:

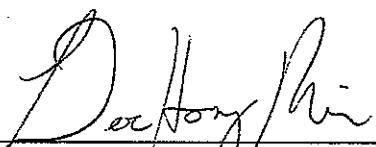
Plant plots consisting of 23 foot long, single 36 inch row entries. Two seed spacing such as 8.5 and 12.25 inches will be used for round white and Russet type varieties, respectively. Seedbed preparation, fertilizer and pesticide application, irrigation and other cultural practices will be performed by the cooperating farmer as normal to their

operation. Seed will be planted with farm equipment. Plots will be protected from deer depredation by portable, electric fencing if needed. Entries will be coordinated with MSU faculty, MPIC personnel and local growers. A summer field day will be held at Tony Vandamme's potato farm in Cornell in late August or early September of 2010 to provide an educational opportunity on potato production and management, and variety performance for the Upper Peninsula potato growers.

Observations on emergence, plant stands, disease, insect, soil moisture, and general growth will be collected during the growing season. Harvest will be with a single-row digger with tubers lab-graded and weighed. Yield and quality information including specific gravity and internal defects will be collected.

Budget:

<u>ITEMS</u>	<u>MSU CONTRIBUTION</u>	<u>MPIC REQUEST</u>
Personnel	\$2,200	\$ -0-
Travel (to the plot & annual meeting)	-0-	500
Field day expenses	-0-	300
Supplies and materials	-0-	600
TOTAL	<u>\$2,200</u>	<u>\$1,400</u>



 Doo-Hong Min

12/1/09

 Date



 Department Chair

12/1/09

 Date