

Guidelines for Potato Variety Trialing - 2013

1. Treat all the varieties you have received in the same way. For example:

- plant the varieties on the same day, at the same spacing.
- fertilize, irrigate, and implementing any pest control or other field management in the same way and on the same dates for all varieties.

Please use your own management practices—plant when you normally do, use the spacing you normally use, fertilize, control weeds, etc., in your normal way.

2. **Planting instructions**

- Plant your trial in a part of your field or garden that is reasonably uniform (soil type, slope, amendment, past use).

For example, avoid planting some varieties in a patch or bed that has recently been heavily fertilized and planting the remaining varieties in an adjacent bed that has much lower fertility. Also, avoid planting some varieties at the top of a slope and other varieties at the bottom of that slope. In other words, plant the varieties so that they all have an “equal shot” at growing and yielding.

- Please plant 2 rows of each variety, side by side, at the spacing you normally use.

Most variety triallers will receive 10 tubers for each variety, so you will plant 2 rows of 5 tubers (side-by-side). Be as accurate as possible in spacing the tubers (and reporting this spacing) for the trial. Use a tape to measure out the total length of row needed for each variety (see table below), and then plant all the tubers of that variety within this designated area.

Desired within-row spacing of tubers	Row length - 5 tubers	Row length - 10 tubers
8"	3 feet 4 inches	6 feet 8 inches
9"	3 feet 9 inches	7 feet 6 inches
10"	4 feet 2 inches	8 feet 4 inches
12"	5 feet	10 feet
Formula to calculate length of row in ft: 5 tubers: (within-row spacing x 5)/12 10 tubers: (within-row spacing x 10)/12		

- Please double mark each variety row with a labeled stake and a flag.
- Please also make a map of your trial in case the stakes/flags are lost.

3. Record information on the data sheets during the season – not from memory! Please take time, once in early-mid summer, and once in late summer/early fall, to evaluate the potato plants for each variety. See the **Growing season evaluation guidelines for potato varieties** for more information.

4. Harvesting. Harvest these potatoes at peak yield, rather than for new potatoes. Please record a total weight and marketable/eatable weight for each variety, on the **Potato Variety Harvest** form. Bathroom scales work fine. If you feel confident about the reasons for culling, please record them.

If you have any questions or concerns, please don't hesitate to contact Ruth Genger. Phone 608-239-6088, or email rkgenger@wisc.edu.

2013 Potato Variety Trials – Farm Environment and Management

Name: _____

Address: _____

Phone/email: _____

The following questions refer specifically to your potato production:

Land in potato production: _____ row feet OR _____ acres

Soil type: _____
(e.g., silt loam, heavy clay, etc., or soil survey name if known)

Previous cash crop: _____ Year/season: _____

Previous cover crop: _____ Year/season: _____

Fertilizer applied: (Circle all that apply) None Manure Compost Other _____

Approximate amount of fertilizer used per *acre* or *row foot* (strike one): _____

If you have soil test results or fertilizer analyses, please attach a copy.

Irrigation: _____

Mulch used if any: _____

Number of hillings: _____

Pest control used: _____

Weed control used: _____

Success of weed control over the season (please circle one):

Excellent ☺

Good

Fair

Poor ☹

Please return this and other data sheets to:

Ruth Genger

1630 Linden Drive, Madison WI 53706

Ph. 608-239-6088; fax 608-263-2626; rkgenger@wisc.edu

Growing season evaluation guidelines for potato varieties

Rating varieties should take half to one hour, depending on how many varieties you are growing. Please assess twice:

- once in early-mid summer, 6-8 weeks after planting
- once in late summer – early fall, 10-12 weeks after planting

Don't get too concerned about the exact rating descriptions. These are merely guides. Take some time to look at the different varieties before you start to rate them, and see what differences you notice. The ratings are just a way to show which varieties were better or worse than others.

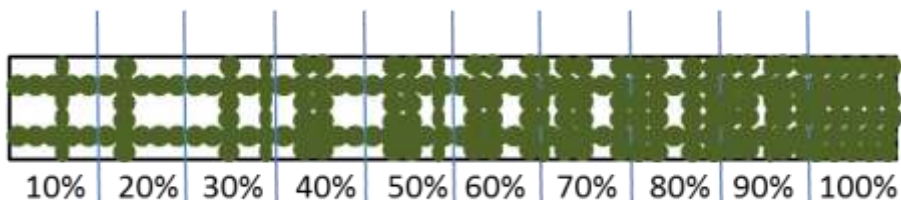
Good luck and have fun!

Number of plants – count the number of plants emerged out of 10. If any major damage occurs before the second assessment, please re-count.

Plant vigor – rate from 1 – 5.

- 1) Very feeble plants.
- 2) Slower or less vigorous growth than other varieties.
- 3) Average growth rate.
- 4) Steady, vigorous growth.
- 5) Stands out for its fast, vigorous growth.

Row closure – percentage of plot for which the canopy is touching between rows (to nearest 10%).



Weeds – rate from 1 – 5.

- 1) Dense weeds shading most of the potato plants.
- 2) Fairly dense weeds, but potato plants are easily seen.
- 3) Moderate weed density.
- 4) Some weeds visible through the potato canopy.
- 5) A few small weeds, mostly under the potato canopy.

Hopperburn – rate from 1 – 5, based on overall appearance of the plot.

- 1) Almost all leaves are curled with brown, dead edges.
- 2) Most leaves have curled, crispy brown edges, and may have a purple or bronze sheen.
- 3) Many leaves have curled edges and/or a noticeable purple or bronze sheen.
- 4) Some leaves have curled edges and/or a purple or bronze sheen.
- 5) Green, healthy leaves.



Colorado potato beetle damage – rate from 1-5, based on overall appearance of the plot.

- 1) Beetles and larvae ate most of the leaves – only stalks are left.
- 2) Many plants were damaged by beetles or larvae.
- 3) Some damage from pest insects.
- 4) Minor damage from beetles or larvae.
- 5) No damage from beetles or larvae.

Other insect pests on foliage – rate from 1 – 5.

- 1) Plants wiped out by pest insects.
- 2) Many plants damaged by pest insects.
- 3) Some damage from pest insects.
- 4) Minor damage from pest insects.
- 5) No damage from pest insects.

Evidence of disease – rate from 1 – 5. Note the disease if you recognize it.

- 1) Plants wiped out by disease.
- 2) Many plants damaged by disease.
- 3) Some damage from disease.
- 4) Minor damage from disease.
- 5) No disease damage.

Date: _____

Please rate once, 6-8 weeks after planting. For all ratings (1-5), 1 is worst, 5 is best. Don't be afraid to use the whole scale! Before you start rating, walk along the rows to see the range of vigor, damage etc. See the "greensheet" for more detailed guidelines.

[illegible]

Farm: _____

Date: _____

LATE SUMMER POTATO VARIETY RATINGS

Please rate once, 10-12 weeks after planting. For all ratings (1-5), 1 is worst, 5 is best. Don't be afraid to use the whole scale! Before you start rating, walk along the rows to see the range of vigor, damage etc. See the "greensheet" for more detailed guidelines.

[illegible]

Farm: _____

Harvest date: _____

Rating date: _____

POTATO VARIETY HARVEST

Please record the total weight and marketable weight of tubers from each variety. If it is easier to record the cull weight than the total weight, strike out "Total" and write in "Cull". If possible, indicate the major causes of culling.

[illegible]

Farm: _____

Rating date: _____

POTATO VARIETY TASTE RATINGS

Rate on a 1-5 scale:

Texture: 1 = waxy 5 = mealy

Sweetness: 1 = not sweet 5 = sweet

Potato flavor:

1 = weak

5 = strong

Unusual or off-flavors:

1 = absent

5 = strong

Overall experience:

1 = bleh

5 = more please!

[illegible]