

Northeast Organic/Sustainable Potato Project

Guidelines for Potato Variety Trialing

Please read through and follow the following guidelines as closely as possible. This will allow us to combine data collected from all the farms participating in the trial and provide you and your fellow growers with useful, accurate information. If you have any questions or concerns, please don't hesitate to contact us.

1. Please treat all the varieties you have received in the same way. This requires

- **planting the varieties on the same day.**
- **fertilizing, irrigating, and implementing any pest control measures in the same way and on the same dates.**

(Note that you should use your own management practices—plant when you normally do, use the spacing you normally use, fertilize, control weeds, etc., in your normal way. This is a critical part of the trial! It is just that there are certain guidelines that need to be followed so that when we put your results together with that of other growers, we can make a valid comparison.)

2. Please be sure to plant the control variety, Red Maria (NY 129). Not all of you may be interested in this variety, but by planting the same control on each farm, we can get a more accurate understanding of the performance of the “test” varieties. For those of you who have your own seed stock of Red Maria, please plant the Red Maria material you receive from us as part of the trial: this is important because, as you know, performance can vary depending on the source of the seed material.

3. **Planting instructions**

a. Please plant your trial in a part of your field or garden that is reasonably homogenous in terms of soil type, slope, and 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.

b. Most of you will have received 10 or 20 tubers of each variety (depending on what you requested). Please do not cut up these tubers even if they seem big enough to cut in two: plant them intact and plant all of them. (The exception to this “rule” is when you have received a bag with the label, “Please cut tubers in half.”)

c. Please plant at the spacing you normally use. However, it is very important that you be as accurate as possible in spacing the tubers (and reporting this spacing) for the trial. This is because we will be calculating yield on a per area basis. Inaccurate planting/recording will seriously skew yield! If possible, please use a field or measuring tape to place each tuber. If this is not possible, then 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	10 tubers	20 tubers
9"	7.5 ft row	15 ft row
12"	10 ft row	20 ft row
15"	12.5 ft row	25 ft row
18"	15 ft row	30 ft row
24"	20 ft row	40 ft row
Formula to calculate length of row in ft: 10 tubers: (within-row spacing x 10)/12 20 tubers: (within-row spacing x 20)/12		

- d. Please **double mark** each variety row with a labeled stake and a flag.
- e. Please also make a map of your trial in case the stakes/flags are lost.
- f. Finally, on the **Yield** page of the data sheets, note your planting date and spacing within and between rows.
- g. Pause to pat yourself on the back for a job well done (and possibly craft a few, well-chosen words for the project team who thought all this up).
4. **Record information on the data sheets during the season, including:**
- variety emergence and vigor
 - any sign of insect pest attack or disease on foliage (please identify or describe the pests or plant symptoms).
5. **Harvesting:** If at all possible, please harvest these potatoes at peak yield, rather than for new potatoes. Please record a total **weight** for **each variety**. Bathroom scales work fine. If you anticipate needing help during harvest, please contact Elizabeth. She can help you harvest and record your yield. **Also, please record the yield of marketable (if a commercial grower) or eatable (if a gardener) potatoes. This means that rotten potatoes, badly damaged potatoes, or tubers too small to sell or save for cooking should not be included in the yield.**