## Frost tolerances - Fall 2018 #2 September 19, 2018

On September 19, photos of eight varieties were taken at State Bog. In addition, photos of Ben Lear, Stevens, Howes, and Early Black were taken at Rosebrook Bog. Fall frost tolerance is estimated based on the color of the fruit. That color development is a reflection of the internal biochemical changes in the fruit that lead to a tolerance of increasingly lower temperatures during the fall. Tolerance should be estimated by looking down into the canopy - do not remove fruit for examination. The photos below represent what you would see looking down at the fruit. Photos were taken using the camera on an iPhone.

While some cultivars had developed substantial red color, Stevens, Howes, Mullica Queen and Grygleski #1 had many berries with only a deep blush on the exposed surfaces - 27°F tolerance. Ben Lear, Early Black, Crimson Queen, and Demoranville were uniformly red with tolerances estimated to be from 26°F to 24°F (see photo captions for specific variety and location tolerances).

## ALWAYS CHECK THE TOLERANCE ON YOUR BOGS.



Early Black, 25°F, Rosebrook Bog, 9/19. Red stage.



Early Black, 25°F, State Bog, 9/19. Red stage.



Howes, 27°F, Rosebrook Bog 9/19. Deep blush on exposed surfaces.



Howes, 27°F, State Bog 9/19. Deep blush on exposed surfaces.



Ben Lear, 26°F, Rosebrook Bog, 9/19. Deep blush stage.



Ben Lear, 25°F, State Bog, 9/19. Red stage. Note: color is more advanced here.



Stevens, 27°F, Rosebrook Bog, 9/19. Deep blush on exposed surfaces.



Stevens, 27°F, State Bog, 9/19. Deep blush on exposed surfaces.



Crimson Queen, 25°F, State Bog, 9/19. Red stage.



Mullica Queen, 27°F, State Bog, 9/19. Deep blush on exposed surfaces.



Demoranville, 24°F, State Bog, 9/19. Deep red stage.



Grygleski #1 (GH), 27°F, State Bog 9/19. Deep blush on exposed surfaces.