## Frost tolerances - Fall 2018 #3 September 26, 2018

On September 26, 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 deep red color, Howes, Stevens at State Bog, and Grygleski #1 had many berries with only a deep blush - 26°F tolerance. Stevens at Rosebrook, Ben Lear at State Bog and Mullica Queen were red – 25°F. Ben Lear at Rosebrook, Early Black at State Bog, Crimson Queen, and Demoranville were dark red – 24°F tolerance. Early Black at Rosebrook were deep red (maroon) with an estimated tolerance of 23°F. See photo captions for specific variety and location tolerances.

## ALWAYS CHECK THE TOLERANCE ON **YOUR** BOGS.



Early Black, 23°F, Rosebrook Bog, 9/26. Deep red (maroon) stage.



Early Black, 24°F, State Bog, 9/26. Dark red stage. Note lighter color at this location.



Howes, 26°F, Rosebrook Bog 9/26. Deep blush stage.



Howes, 26°F, State Bog 9/26. Deep blush stage.



Ben Lear, 24°F, Rosebrook Bog, 9/26. Dark red stage. Note: this variety never tolerates below 24°F.



Ben Lear, 25°F, State Bog, 9/26. Red stage. Note: color is less advanced here.



Stevens, 25°F, Rosebrook Bog, 9/26. Red stage.



Stevens, 26°F, State Bog, 9/26. Deep blush stage. Note lighter color at this location.





Crimson Queen, 24°F, State Bog, 9/26. Dark red stage.



Mullica Queen, 25°F, State Bog, 9/26. Red stage.





Demoranville, 24°F, State Bog, 9/26. Deep red (maroon) stage. Note, like Ben Lear, Demoranville never tolerate below 24°F.





Grygleski #1 (GH), 26°F, State Bog 9/26. Deep blush stage.