May 16, 2017

- ALWAYS check the tolerance at your bog [tolerance photos for all stages are shown at the end of this file]

- All cultivars at Rosebrook are at late elongation to early roughneck stage.

- Buds have advanced by growing outward (upward) with many reaching 1/8 to 1/4 inch or more. Based on previous research, once buds reach cabbage head stage (as they had by May 3), they advance in tolerance every 5-7 days until reaching 29.5°F, regardless of appearance.

- Roughneck tolerances are 29.5°F for Early Black, Howes, Stevens, Ben Lear and new hybrids

- Buds observed at State Bog on the 16th were a bit more advanced (longer new growth) compared to those observed at Rosebrook.

- Since for all spring stages from this point, tolerance will remain at 29.5°F, this was the last team visit to Rosebrook for the spring season. We will post additional growth stage photos from State Bog over the next few weeks.

UMass Cranberry Station 5.16.17
Frost check at Rosebrook on May 16, 2017

Ben Lear

Stevens

Early Black

Howes

UMass Cranberry Station 5.16.17
Buds at State Bog
May 16, 2017
Tolerance 29.5°F

Buds have grown outward and are about ¼ inch in length.

Ben Lear
Demoranville
Crimson Queen
Mullica Queen

UMass Cranberry Station 5.16.17
Frost tolerance check protocol 2017

• Tolerance check team:
  Glenn Reid, Carolyn DeMoranville [CCCGA frost committee]
  Anne Cote, Patti Silvia [CCCGA frost program]
  Erika Saalau Rojas, Peter Jeranyama [UMass Cranberry Station]
  Other growers attend from time to time

• Visit Rosebrook Bog in Wareham:
  Observe buds of Early Black, Howes, Ben Lear, Stevens
  Take in-field photographs, collect buds to bring to the lab
  Agree on current frost tolerance

• In the lab at the Station:
  Take close up photos of buds
  Cut buds (at early stages) and photograph
  Post photos and tolerance report to the UMass Cranberry Station web site
Spring Frost Tolerances - Early Black and Howes

- Early Black
  - Spring Dormant: 18°F
  - Cabbage Head Stage: 25°F
  - Bud Elongation: 27°F
  - Bud Swell Stage: 22°F
  - White Bud Stage: 20°F
  - Bud Elongation: 27°F

- Howes
  - Spring Dormant: 18°F
  - Cabbage Head Stage: 25°F
  - Bud Elongation: 27°F
  - Bud Swell Stage: 22°F
  - White Bud Stage: 20°F
  - Bud Swell Stage: 22°F

- Roughneck Stage: 29.5°F
- Hook Stage (L), Bloom (R): 29.5°F

Cranberry Station April 2015
Spring Frost Tolerances - Ben Lear and Stevens

Tolerances for large-budded hybrids are assumed to be similar to these. Crimson Queen, Mullica Queen, and Demoranville have been observed to develop in a similar timeline as Ben Lear.