

May 6, 2021

ALWAYS check the tolerance at your bog. A fact sheet showing all spring tolerances is available in the Frost Tolerance Reports section of the Cranberry Station website (under 2020). Access via the Frost Tolerance Report in Quick Links on the Home Page.

Hard copies are available at CCCGA and at the Station.

Tolerances provided here are determined at Rosebrook bog in Wareham and confirmed at State Bog in East Wareham.

For comparison purposes, this year we are including photos from additional locations.

- On May 6th, at Rosebrook and at State Bog, some early **elongation** was seen on Early Black, Howes, and Ben Lear; while Stevens remained at **cabbage head stage** at both locations.

Newer hybrids at State Bog were generally similar to Ben Lear (**early or full elongation stage**).

Note: starting with cabbage head stage, development continues even when visual stages appear not to change. Each stage, starting with cabbage head, only lasts 5-7 days!

- Elongation stage bud tolerance for Early Black and Howes is 27°F; for Ben Lear and Stevens it is 29.5°F.
Cabbage head stage tolerance for Stevens is 27°F.
- The Dee model predicts bud swell at 150 GDD (degree days). On April 28th, East Wareham reached that benchmark. Bud swell was observed in the field on April 26-27th.
The Dee model predicts cabbage head at 200 GDD; East Wareham reached that benchmark on May 3rd. We first observed this stage on April 30th.
- Bud (microscope) closeups at State Bog and Rosebrook, by Peter Jeranyama, UMass Cranberry Station; Rosebrook, Plympton, and Rochester photos by Erika Saalau Rojas, Ocean Spray.
- Next check is scheduled for May 11th.

Stevens, Rosebrook 5.6.21
Cabbage head stage, tolerance 27°F



Ben Lear, Rosebrook 5.6.21
Elongation stage, tolerance 29.5°F



Early Black, Rosebrook 5.6.21
Early elongation stage, tolerance 27°F



Howes, Rosebrook 5.6.21
Early elongation stage, tolerance 27°F



Bud photos, State Bog May 6, 2021

Stevens, cabbage head
27°F



Ben Lear, early elongation
29.5°F



Bud photos, State Bog May 6, 2021

Early Black, cabbage head
25° F



Howes, cabbage head
25°F



Note: some early elongation stage was seen on State Bog Early Black and Howes (not shown).
Based on cabbage head stage being first observed 6 days ago, tolerance for these beds would be considered to have moved to 27°F.

Bud photos, State Bog May 6, 2021

Crimson Queen, early elongation
29.5°F



Mullica Queen, early elongation
29.5°F



Demoranville, early elongation stage
29.5°F



BL, Plympton
Pics taken 5/3/2021



ST, Plympton
Pics taken 5/3/2021



ST, Rochester
Pics taken 5/4/2021



ST #2, Rochester
Pics taken 5/4/2021



DM, Rochester
Pics taken 5/4/2021

