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 April 30th, at Rosebrook and at State Bog, early **cabbage head stage** was seen on Early Black, Howes, and Ben Lear, while Stevens remained at **bud swell stage** at *Rosebrook*.
 - Newer hybrids at State Bog were generally similar to Ben Lear (cabbage head stage), with some Demoranville's showing early elongation stage (29.5°F tolerance).
- Cabbage head stage bud tolerance for Early Black and Howes is 25°F; for Ben Lear and Stevens it is 27°F. Bud swell stage tolerance for Stevens is 25°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; current forecasts predict reaching that benchmark on May $3-4^{th}$. We observed this stage at Rosebrook on April 30^{th} .
- Bud closeups at State Bog, by Peter Jeranyama, UMass Cranberry Station; Rosebrook and Rochester photos by Erika Saalau Rojas, Ocean Spray.
- Next check is scheduled for May 4th.

Stevens, Rosebrook **4.27.21**Bud swell stage, tolerance 25°F





Note – no new photos No changes seen This is from previous visit!

Ben Lear, Rosebrook 4.30.21 Cabbage head stage, tolerance 27°F





Early Black, Rosebrook 4.30.21 Cabbage head stage, tolerance 25°F





Howes, Rosebrook 4.30.21 Cabbage head stage, tolerance 25°F



Bud photos, State Bog April 30, 2021

Stevens, cabbage head 27°F



Ben Lear, early cabbage head 27°F

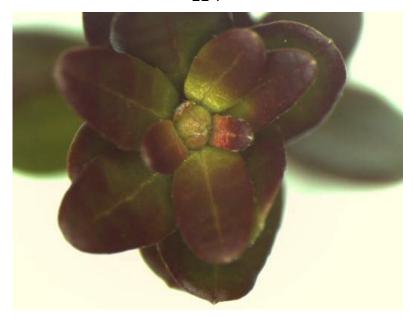


Bud photos, State Bog April 30, 2021

Early Black, cabbage head 25° F



Howes, bud swell 22°F



Note: some cabbage head stage was seen on State Bog Howes (not shown)

Bud photos, State Bog April 30, 2021

Crimson Queen, early cabbage head 27°F



Mullica Queen, cabbage head 27°F



Demoranville, elongation stage 29.5°F



'Stevens' Rochester, MA 4.30.2021





Note: Slightly more advanced than at Rosebrook, very early cabbage head

'Demoranville' Rochester, MA 4.30.2021





Note: some buds were starting to elongate here