

May 14, 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 14th, at Rosebrook, Early Black, Howes, Ben Lear, and Stevens were fully in **elongation** stage. Observations at State Bog were similar except that Ben Lear was in early **roughneck** stage . ***Tolerance was advanced to 29.5°F for Early Black and Howes*** since it has been 8 days since 27°F tolerance was observed. Newer hybrids at State Bog were generally similar to Ben Lear (**elongation to early roughneck** 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 5-7 days from first observation or until they advance to roughneck stage (if that occurs sooner), at which time tolerance is advanced to 29.5°F.
- Tolerance for Ben Lear, Stevens, and newer hybrids at elongation and all subsequent stages is 29.5°F.
- Bud (microscope) closeups at State Bog by Krystal DeMoranville, UMass Cranberry Station; Rosebrook and Kingston photos by Erika Saalau Rojas, Ocean Spray.
- There will be no more frost tolerance checks this spring, since all varieties at Rosebrook and State Bog have reached 29.5°F tolerance.

Stevens, Rosebrook 5.14.21
Elongation stage, tolerance 29.5°F



Note: once 29.5°F tolerance is reached, that remains the tolerance for all subsequent spring stages.

Ben Lear, Rosebrook 5.14.21
Elongation stage, tolerance 29.5°F



Note: once 29.5°F tolerance is reached, that remains the tolerance for all subsequent spring stages.

Early Black, Rosebrook 5.14.21

Late elongation stage, tolerance advanced to 29.5°F (8 days after 27°F was observed)



Howes, Rosebrook 5.14.21

Late elongation stage, tolerance advanced to 29.5°F (8 days after 27°F was observed)

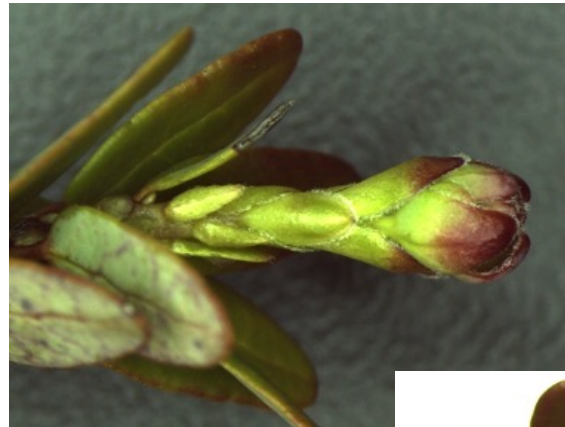


Bud photos, State Bog May 14, 2021

Stevens, elongation
29.5°F



Ben Lear, roughneck
29.5°F



Bud photos, State Bog May 14, 2021

Early Black, elongation
29.5° F**



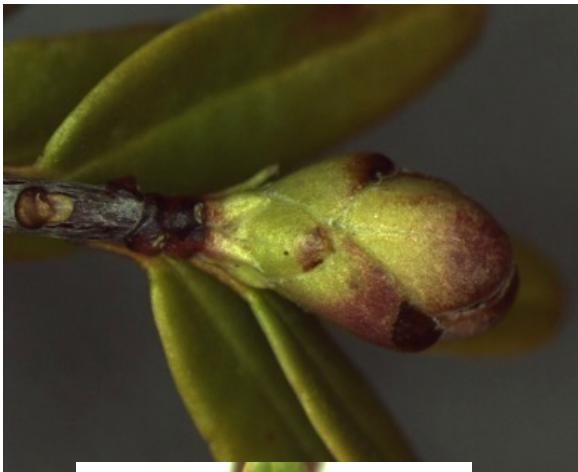
Howes, elongation
29.5°F**



**Many buds on State Bog Early Black and Howes still have an elongation stage appearance (27°F tolerance). However, based on elapsed time (8 days), tolerance for these buds is considered to have moved to 29.5°F.

Bud photos, State Bog May 14, 2021

Crimson Queen, elongation
29.5°F



Mullica Queen, elongation
29.5°F



Demoranville, elongation/early
roughneck stage 29.5°F



ST, Rochester
Pics taken 5/13/2021



ST #2, Rochester
Pics taken 5/13/2021



DM, Rochester
Pics taken 5/13/2021



Note: early Roughneck stage