

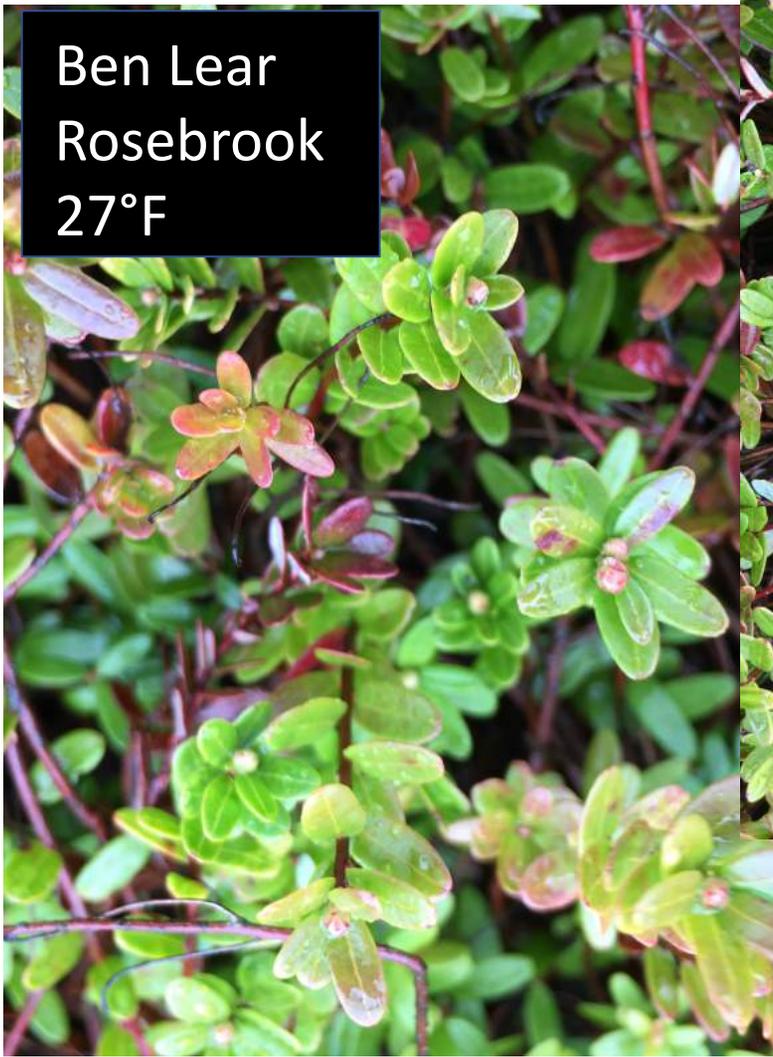
May 6, 2019

- ALWAYS check the tolerance at your bog. A fact sheet showing all spring tolerances is available in the fact sheet section of the Cranberry Station website. Hard copies are available at CCCGA and at the Station.
- At Rosebrook Bog, based on visual assessment, most buds for all varieties are at Bud Swell stage but a small percentage have reached Bud Break/Cabbage Head Stage. At State Bog, all varieties were at Bud Break/Cabbage Head. New cultivars were similar in appearance to Ben Lear.
- In the Dee model, degree days predicting the Bud Break or Cabbage Head Stage have been reached (>200 GDD).
- At Bud Break/Cabbage Head, the bud is visibly rounder and larger and is approaching 2 mm in diameter; it resembles a cabbage and when observed from above, the bud covers the base of the adjacent leaves.
- Bud Break (Cabbage Head) Stage tolerances are 25°F for Early Black and Howes; and 27°F for Stevens, Ben Lear and new hybrids.
NOTE: once Cabbage Head Stage is reached, bud tolerance advances every 5-7 days even if appearance does not change.
- Photos by Carolyn DeMoranville.
- Next check is scheduled for May 14th.

Degree Day Models

- This spring we are looking at degree day models for when the buds break dormancy and thus should be protected from cold temperatures. In other words, we were hoping to use these models to determine when to begin the spring frost protection season.
- There are 3 models. The 'Dee model' developed for MA conditions predicted that in 2019 the 20°F tolerance on Early Black and Howes should be reached around April 21. The 2 other models (from WI) were predicted to reach their trigger (start to protect for 23°F) on about that same date. These outcomes are in rough agreement with what we saw in the field on April 22rd.
- Note: in WI they protect beds for 23°F around the White Bud Stage, while in MA we protect that stage for 20°F.
- The Dee model predicts that the Bud Swell Stage (22°F tolerance for Early Black and Howes) is reached at 150 degree days. In 2019, that number was reached on April 25th.
- **The Dee model predicts that the Bud Break/Cabbage Head Stage (25°F tolerance for Early Black and Howes) is reached at 200 degree days. In 2019, that number was reached on May 5th.**

Ben Lear
Rosebrook
27°F



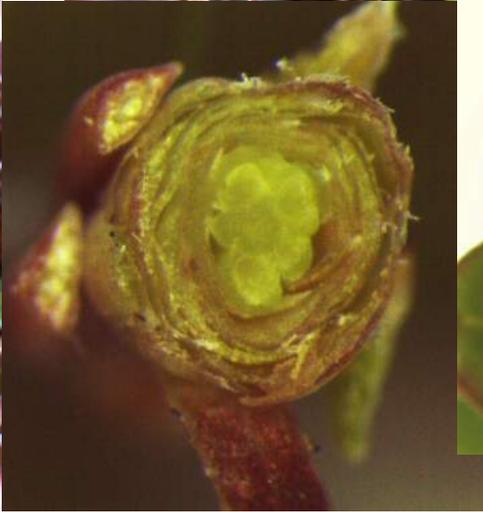
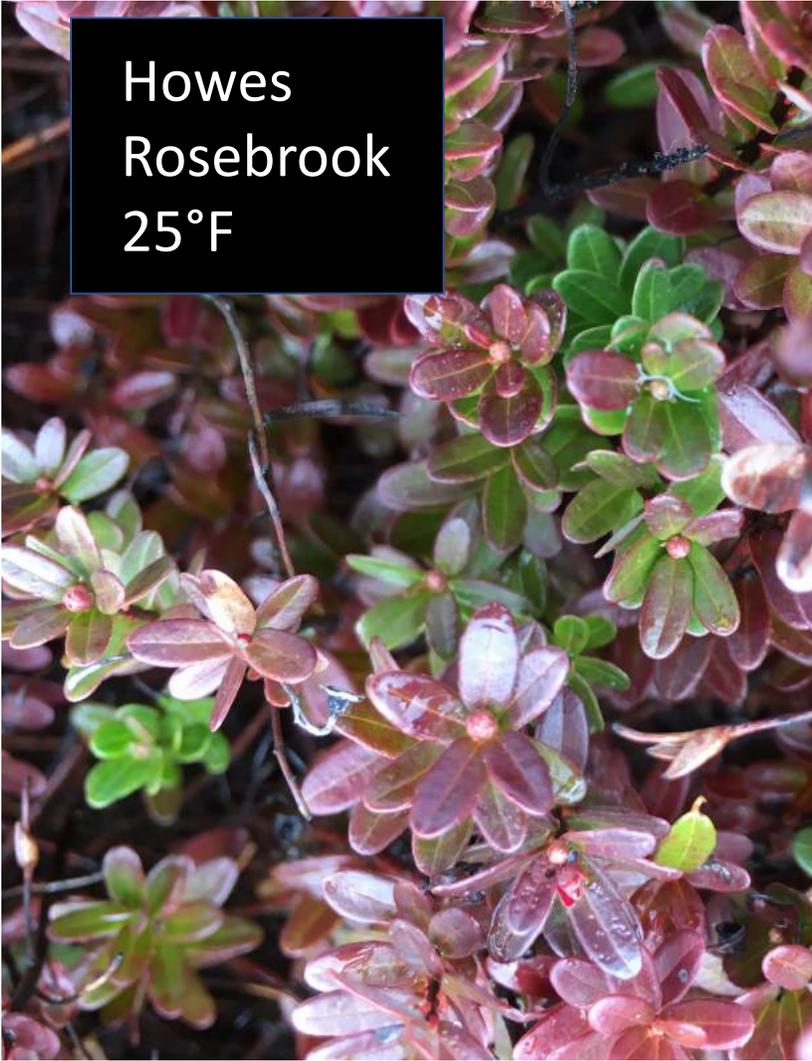
Early Black
Rosebrook
25°F



Stevens
Rosebrook
27°F



Howes
Rosebrook
25°F



Additional bud photos from State Bog May 6, 2019

All are at Bud Break / Cabbage Head Stage

Early Black 25°F

Howes 25°F



Stevens 27°F



Buds have expanded to cover the base of the surrounding leaves. The bud resembles a cabbage.

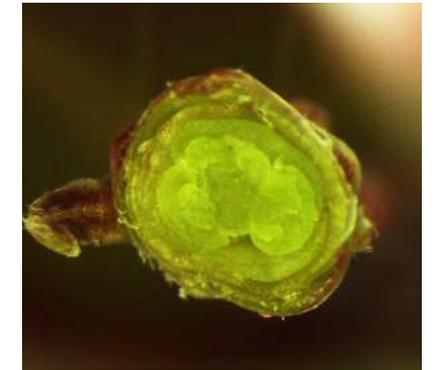
Additional bud photos from State Bog May 6, 2019

All are at Bud Break / Cabbage Head Stage

Ben Lear 27°F



Demoranville 27°F



Crimson Queen 27°F



Mullica Queen 27°F

