Frost tolerances - Spring 2014 #7
May 13, 2014

On May 13, buds were examined from the following cultivars: Howes (H), Ben Lear (BL), Stevens (ST) from Rosebrook Bogs and those three cultivars plus Early Black (EB), Grygleski #1 (GH), Crimson Queen (CQ), Mullica Queen (MQ) and Demoranville (DE) from State Bog. ST at Rosebrook was predominantly at the cabbage head stage with a few approaching elongation stage. BL, EB, and H at Rosebrook and all cultivars at State Bog were mostly at bud elongation stage, with a few remaining at the cabbage head stage.

At the cabbage head stage, buds are visibly swollen and approximately 2 mm in diameter but have not yet begun to elongate. Compare how the bud looks in relationship to the base of the surrounding leaves. At cabbage head, you cannot see the leaf base when you look down at the bud. At the bud elongation stage, the bud has begun to grow upward (or outward). Look at the bud from the side and you can see the elongation.

At cabbage head stage, tolerance for EB and H is 25°F; tolerance for BL and ST is 27°F. At the bud elongation stage, tolerance for EB and H is 27°F; tolerance for BL and ST is 29.5°F. Based on appearance, new hybrids should be assumed to have the same tolerance as BL.

ALWAYS CHECK THE TOLERANCE ON YOUR BOGS.

EB, bud elongation, 27°F, State Bog, 5/13. Note that bud is expanding upward (photo taken with upright laid on its side).

EB, State Bog 5/13. Note that the central area shows development of a circle of leaves.


BL, bud elongation, 29.5°F, Rosebrook Bog, 5/13.

BL, bud elongation, 29.5°F, State Bog, 5/13. Note this one is more advanced than the one on the left.

DE, elongation, 29.5°F, State Bog, 5/13. Photo taken from above does not show this stage well, but note bud scales are opening.

CQ, elongation, 29.5°F, State Bog, 5/13.

CQ, cut bud, 5/13. Structures similar to DE above.

DE, cut bud, 5/13. Note pink floral initials around the edges and formation of leafy spiral in center.
MQ, bud elongation, 29.5°F, State Bog, 5/13.

MQ, bud elongation, photo from above. Note opening of bud scales.