Fort Collins grape variety trial

- Planted in 2013, with additions in 2014

- Randomized Complete Block (RCB) design with 4 replications (8 vines per rep)

- Vine x row spacing is 5’ x 9’

- Training system is High Cordon

- Drip irrigation with “volunteer” grass in the inter-row area
Test Varieties

- Aromella
- Chambourcin
- Frontenac
- La Crescent
- Marquette
- Vignoles
- (Noiret and Traminette in guard rows & panels)
Results

Two extreme low temperature events occurred in late 2014

-9 F (12 Nov 2014)

-22 F (31 Dec 2014)

Buds were evaluated in early January 2015
Temperature data Oct 2014 - Jan 2015

Daily max & min temperature (°F)

-20 0 10 20 30 40 50 60 70 80

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01-Oct-14 01-Nov-14 01-Dec-14 01-Jan-15

max
min
January 2015 bud evaluations

Live buds (%)

- Traminette
- Chambourcin
- Noiret
- LaCrescent
- Vignoles
- Marquette
- Frontenac
- Aromella

Secondary
Primary
Summary

- Poor bud survival of Traminette, Chambourcin, and Noiret
- Very good bud survival of MN varieties, Aromella, and Vignoles particularly in light of the extreme November event.
- But a late spring frost (23 F on 11 May 2015; after bud break) caused near 100 % crop loss on all varieties.
Summary

• Many vines needed re-training due to the repeated cold damage during fall & winter 2014, and spring 2015.
• At this site vines have low vigor, and only a small crop was produced in 2016.
2016 Harvest

Yield (ton/acre)

- Aromella
- Chambourcin
- Frontenac
- La Crescent
- Marquette
- Vignoles
Outlook 2017

- Another low temperature event occurred on 6 January 2017 (-20 F)

- This site might be too cold for medium-hardy varieties such as Chambourcin, Noiret, and Traminette
Questions?

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