

Frost Management Trial Update

Evan Elford, New Crop Development Specialist, OMAFRA

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Background:

In 2013 and 2015, growers across the province reported damage to tender shoots and growing points of hops due to late spring (late May) frost episodes. Cultural management practices to optimise yields in years with severe frost damage, such as retraining new growth or allowing double leaders to sprout from damaged bines, are unknown.

Field Assessment:

In 2014, five treatments over four reps were applied to hop plants (cv. *Nugget*) at the Simcoe Research Station based on suggestions from growers and researchers .

2014 Treatments:

1. Control (no cut back or removal)
2. Cut back to above second node from growing point (simulate frost damage to growing point)
3. Cut back to above second node from growing point & re-train one bine from basal growth
4. Remove all bines and retrain shoots from basal growth
5. Remove all bines and retrain shoots from basal growth 7 days later

Preliminary Results:

In 2014, bines were mechanically harvested and fresh weight (g) was recorded.

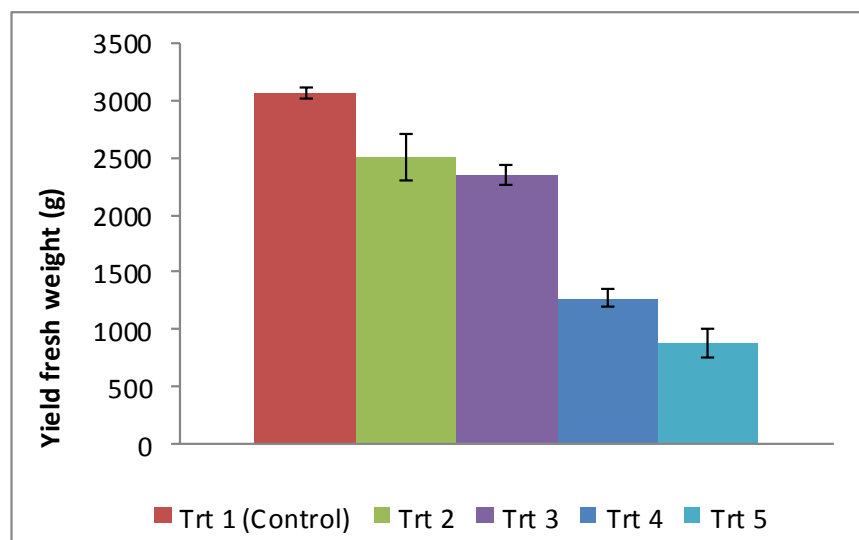


Figure 1: Fresh Weight Yield (g) of Hops by Treatment Harvested from 2014 Frost Management Trial (cv. *Nugget*) at the Simcoe Research Station.

Table 1: Percent (%) Yield of Hops by Treatment Harvested from 2014 Frost Management Trial (cv. *Nugget*) at the Simcoe Research Station.

2014 Treatment	Percent (%) expected yield
1	100
2	82
3	77
4	41
5	28

2015 Treatments:

In 2015, some treatments were modified as basal growth of hop plants had already been removed prior to trial placement and treatment application.

1. Control (no cut back or removal)
2. Cut above second node from growing point (simulate frost damage to growing point)
3. Cut above second node from growing point & re-train one bine from basal growth 7 days later
- 4&5. Remove all bines and retrain shoots from basal growth 7 days later

Results will be summarised and reported after the 2015 growing season.