



Effects of Foliar Calcium Applications on Fruit Quality and Storage for High Density Honeycrisp Apples in Michigan. Experiment 15 – 806C

Experiment Info:

Planted:	2012
Harvest:	9-4-2015
Yield Goal:	1500 bushels
Target Fert.:	
Variety:	Honeycrisp
Population:	1100 / acre
Row Width:	
Prev. Crop:	
Plot Size:	10 trees
Replications:	4
Rootstock:	Bud 9

Soil Test Values (ppm):

pH:	7.7
CEC:	9.5
%OM:	1.2
Bray P1:	23
Bicarb P:	-
K:	129 ppm
S:	7 ppm
%K:	2.1
%Mg:	17.2
%Ca:	70.2
%H:	0.6
Zn:	1.2 ppm
Mn:	8 ppm
B:	0.5 ppm

Objective:

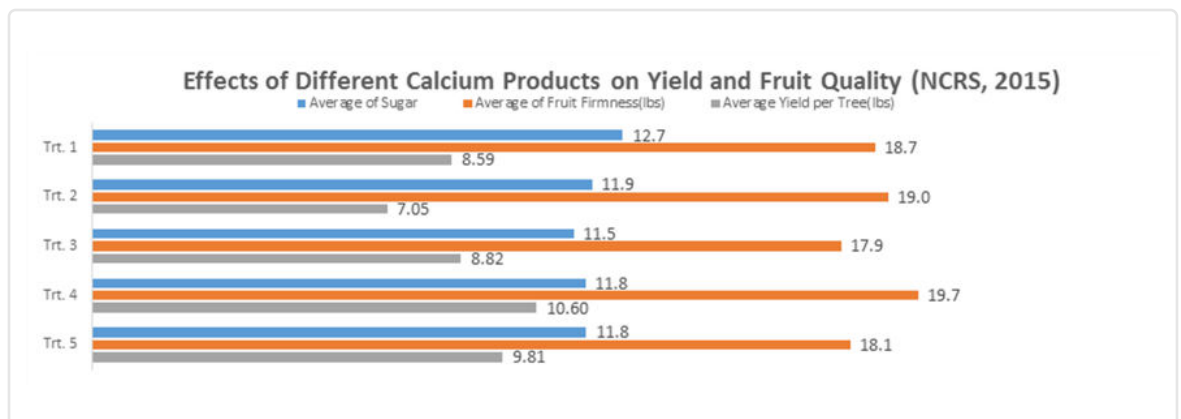
Determine the effects various foliar calcium products have on yield and fruit quality on high density Honeycrisp apples.

Material & Methods:

In the spring of 2012, the apple trees were planted at a spacing of 3.5 feet between trees and 11 feet between rows. All the trees are trained to slender spindle. Within the row, the plots are separated by ornamental crab apple trees to be used as a border tree and as an additional source of pollen at the time of flowering. In the Spring of 2014, all of the trees were headed at 18" above the soil and new tops were trained to the trellis. A base soil applied program for the Agroliquid plots included (all rates are per acre) 12 gallons of High NRG-N + 5 gallons of Pro-Germinator + 0.5 gallons of Micro 500 + 0.125 gallons of Boron + 0.125 gallons of Manganese. All of the different fertility products were applied before bloom in the spring in a band next to the trees; foliar applications were made according to the treatment descriptions (all rates are per acre) and a total of 6 application were made per treatment:

- Trt. 1 = Agroliquid soil application only. No additional foliar application of calcium made.
- Trt. 2 = Agroliquid + AgroK Liquid Ca: With weekly foliar applications of AgroK Liquid Calcium at a rate of 2 quarts per acre of calcium made.
- Trt. 3 = Agroliquid + Liberate Ca: With weekly foliar applications of Agroliquid Liberate Ca product at a rate of 2 quarts per acre of calcium made.
- Trt. 4 = Agroliquid + Liberate Ca: With weekly foliar applications of Agroliquid Liberate Ca product at a rate of 1 pint per acre of calcium made.
- Trt. 5 = Agroliquid + Foli-cal: 1 With weekly foliar applications of Foli-cal product at a rate of 2 quarts per acre of calcium made.

Results:



Conclusions:

- The different foliar calcium treatments did have impacts on yield and also fruit quality. Overall, best quality of fruit was produced by using the weekly applications of Liberate Ca at 2 quarts per acre during the season.