

Evaluation of Foliar Phosphorus, Potassium & Calcium in Apples

Experiment Info:

Planted:	
Harvest:	9/18/2021
Yield Goal:	
Target Fert.:	
Variety:	Gala
Population:	
Row Width:	13'
Prev. Crop:	Apple
Plot Size:	20 trees
Replications:	4

Soil Test Values (ppm):

7.2

pH:

Objective:

Evaluate effectiveness of phosphorus (Pro-Germinator or FP-20), potassium and calcium (Sure-K + Liberate Ca or Kapitalize) sources as foliar nutrition in apples.

Trial was conducted on mature 'Gala' apples planted in a high density orchard.

Kapitalize is a combination of potassium, sulfur, and calcium. FP-20 is an experimental phosphorus product designed to provide effective foliar phosphorus nutrition.

Grower standard included dry potash, and no foliar crop nuttrition.

Phosphorus and potassium + calcium treatments included:

- 1. Pro-Germinator 0.5 G/A + Sure-K 0.5 G/A + Liberate Ca 0.25 G/A applied as foliar cover sprays.
- 2. Pro-Germinator 0.5 G/A + Kapitalize 0.5 G/A applied as foliar cover sprays.
- 3. FP-20 2 G/A + Sure-K 0.5 G/A + Liberate Ca 0.25 G/A applied as foliar cover sprays.
 - Apple Yield and Value Response to Foliar Fertilizer New York, 2021 1200 \$14846 1000 \$12998 \$11216 \$**12965** 800 Apple Yield (bu/acre) 600 400 200 0 Gr. Std FP20 + Kap PG + SK/Lib FP20 + SK/Lib PG + Kan Small, Less Color (\$10/bu) Large, More Color (\$20/bu)
- 4. FP-20 2 G/A + Kapitalize 0.5 gal/A applied as foliar cover sprays.

Conclusions:

- Overall apple yield was similar for all treatments in the trial.
- Treatments containing Kapitalize or FP-20 had larger, more red colored apples that were higher in value than the smaller, less red apples, causing the value of the harvested crop to be higher than the grower standard or the Pro-Germinator + Sure-K treatment.
- This trial demonstrates the effectiveness of FP-20 and Kapitalize for improving yield, quality, and value of 'Gala' apples.

CEC: 7.7 %OM: 26 Bray P1: 17 Bicarb P: K: 178 S: 7 %K: 5.9 %Mg: 27.3 %Ca: 66 %H: 0 Zn: 36 Mn: 87 B: 1.4