

NOVAHIPEAK™ Trial

Apples
(Malus domestica)
on a loam soil

High purity, fully soluble Nova HiPeak™ is our most highly concentrated phosphorus and potassium fertilizer in the Nova water-soluble straight portfolio.

N	0
P	44%
K	44%

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When

Orchard Age:
7th Leaf
Harvest Date:
September 2022

Where

LTI Ag Research
Kent City, Michigan, USA

Crop

'Gale Gala' apple on G11 rootstock
(Malus domestica 'Gale Gala')

Soil type

Loam

Measurements

Fruit size and yield per acre

Objective

The purpose of this study was to study foliar application of Nova HiPeak™, a P and K containing water soluble fertilizer, for improving apple yield. An additional objective was to determine the rate effect of Nova HiPeak compared to a grower standard product and application rate.

Treatments

All treatments received a grower standard dry granular N-P-K blend in the spring as well as cover sprays of insecticides, fungicides, and growth regulators according to local recommendations. Nova HiPeak (0-44-44) was applied at two rates (1.875 or 7.7 lbs/acre). These treatments were compared to an untreated control as well as a grower standard practice of a 0-50-33 water soluble fertilizer applied at 2.5 lbs/acre.

The three treatments that received a foliar fertilizer (0-50-33, low-rate HiPeak, and high-rate HiPeak) were applied six times to coincide with scheduled cover sprays. In total, the 0-50-33 treatment received a cumulative total of 7.8 lbs P_2O_5 and 4.95 lbs K_2O; the low-rate treatment of HiPeak received 4.95 cumulative pounds of each nutrient; and the high-rate treatment of HiPeak received 20.4 cumulative pounds of each nutrient per acre. Each treatment was replicated four times and there were 10 harvested trees within each treatment replicate.

At harvest, the number of fruit per tree, yield per tree, and weight per individual fruit were measured. Yield equivalent (bushels per acre) was derived from the measured values.

Results

- There was no effect of treatment on fruit number per tree. Averaged across the four treatments, there were approximately 110 fruit harvested from each tree.
- All foliar P and K treatments significantly increased average individual fruit weight and yield equivalent per acre compared to the untreated control. On average, foliar nutrition increased individual fruit weight by nearly 30% compared to the untreated control, or an equivalent yield per acre increase of approximately 343 bushels per acre.
- Applied at equivalent amounts of cumulative potassium, 0-50-33 and HiPeak 0-44-44 performed similarly. The high-rate treatment of HiPeak trended higher in yield compared to both 0-50-33 and the low-rate HiPeak treatment.

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NOVAHIPEAK™

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For more information visit
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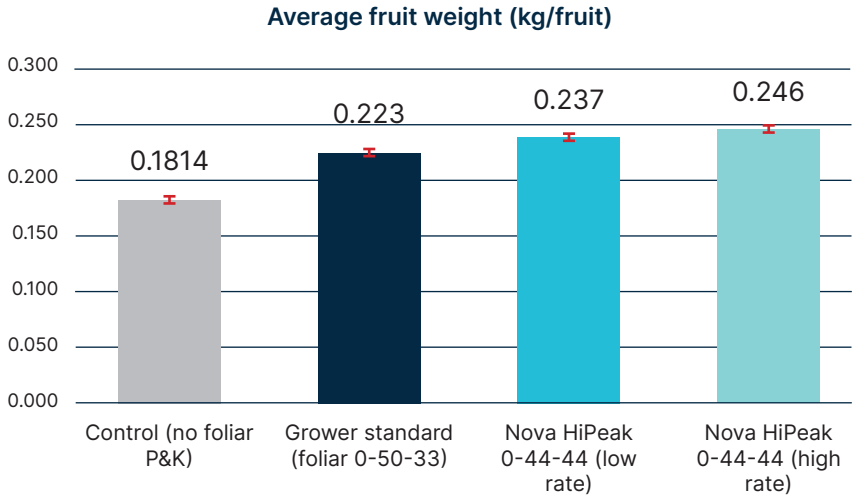


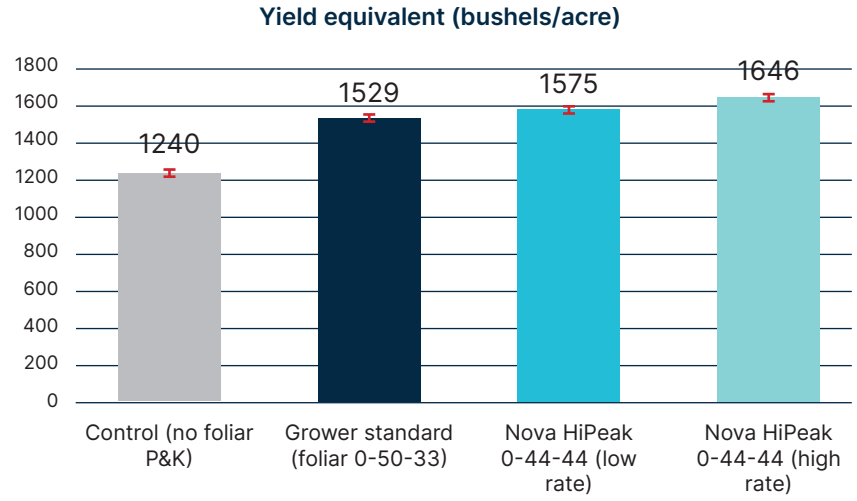
About Nova HiPeak

- Flexible application options
- Crystalline, dust-free physical form keeps the fertilizer free-flowing
- Safe to use, non-hazardous for you and your crop
- Chloride and sodium free, ideal for the most delicate crops
- Quick dissolving in water, in the field, even at low temperatures
- The high concentration of PK provides savings on the number of applications, transport, and storage costs



Effect of foliar Nova HiPeak (0-44-44) on yield of Gala apples





Means presented +/- the standard error of the mean (n=40).

Conclusion

- This study demonstrates that foliar nutrition is an important tool for increasing apple yield because of increased individual fruit size. Although both fertilizers used contained P and K, the influence of foliar K was likely greater on fruit sizing than foliar P.
- Nova HiPeak at a rate of approximately 2 pounds per acre can be used as an alternative to other common water-soluble fertilizer products. There is potential for greater responses to be achieved by increasing HiPeak rate, but this should follow local recommendations based on economic and agronomic considerations.

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For more information visit
www.icl-growingsolutions.us
or contact our agronomy experts at:
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