



PISTACHIO GROWERS

DO YOUR FOLIAR NUTRIENTS PENETRATE THICK, WAXY PISTACHIO LEAVES?

A novel SAP analysis method proves Agro-K foliar formulations penetrate rapidly and dramatically increase plant available nutrient levels.

There are those in the pistachio industry that believe foliar nutrients cannot penetrate pistachio leaves once they harden off and develop the thick waxy cuticle and are therefore late summer foliar applications are ineffective and not worth the grower's investment. Using a sophisticated testing method called SAP testing, developed over the last decade in the Netherlands not only demonstrates that Agro-K's foliar nutrient formulations get into the leaf fast but also that they significantly increase nutrient levels inside the leaf where it matters most.

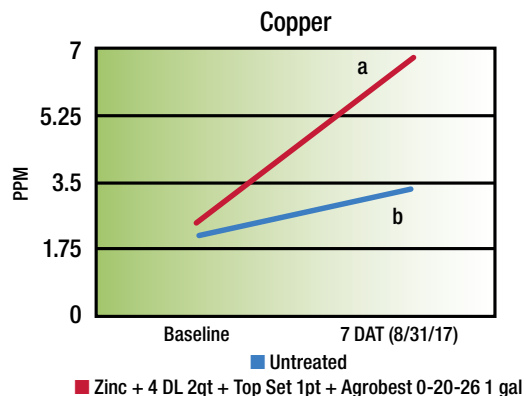
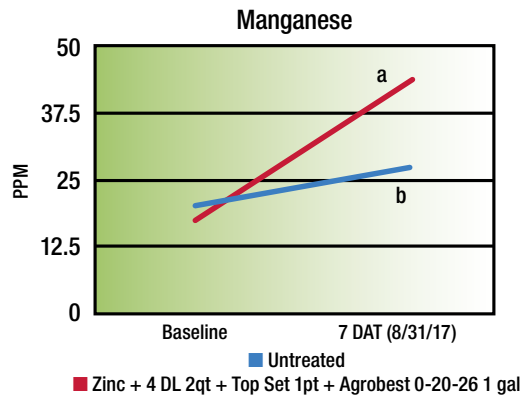
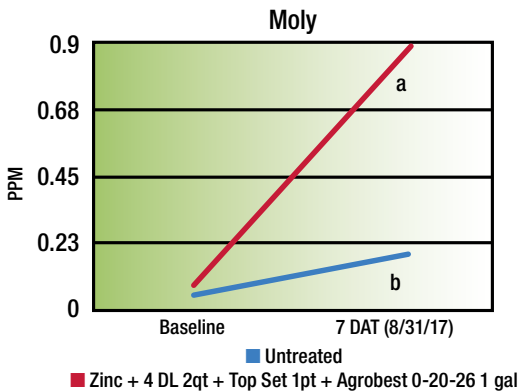
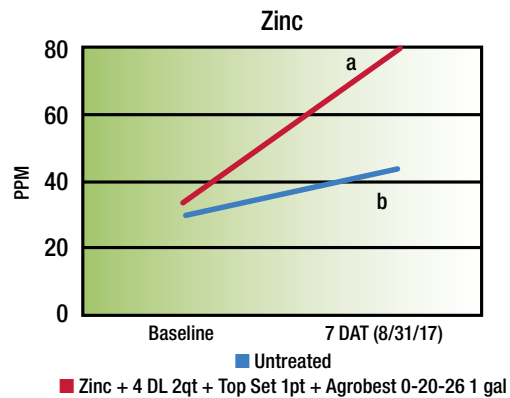
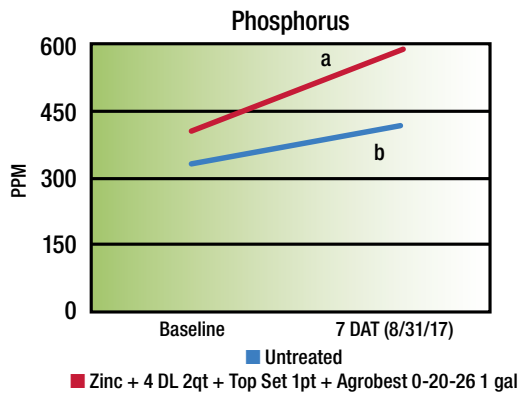
The form of foliar nutrients DO matter. Many foliar nutrient formulations are built on large chain molecules or ground unreacted oxides or carbonates that are not in-solution. These types of foliar nutrients and others have limited uptake on most leaf surfaces but even less on pistachios. Agro-K has two main foliar lines – one based on phosphite (**Sysstem®**) and the other on sugar (dextrose/lactose). Both are true 100% nutrient solutions based on low pH small molecular formulations that penetrate even tough hardened off pistachio tissue.

To demonstrate the effectiveness of its products Agro-K conducted a trial on August 24, 2018 after the pistachio leaves had hardened off and developed a waxy cuticle. A mix of Agro-K foliar nutrients specifically designed to address the nutrient demands of pistachios at hull split was applied. Leaf samples were pulled just before application and 7 days after on August 31st.

Utilizing the SAP testing methodology which extracts only the sap an accurate look at available nutrients inside the leaf compared to standard tissue testing which measures mostly unavailable nutrients bound up in the leaf cell structure. Analyzing just leaf sap gives you a look at nutrient levels that are immediately available for plant use gives growers current and accurate information on which to base nutrient applications to correct and prevent nutrient deficiencies rapidly.

The charts on next page are based on replicated data and show **significant** increases in five different nutrients 7 days after application. Zinc, manganese, copper, molybdenum, and phosphorus levels all increased on a statistically significant basis vs. the untreated control in the week after application of **AgroBest 0-20-26, Top Set DL and Zinc +4 DL**.

The 5 R's of foliar nutrition are – apply the Right nutrients, in Right form, at the Right time, in the Right mix and in the Right place. Applying effective nutrients based on a "Science Driven™" approach that DO penetrate leaf tissue will help maximize **nut size** and **splits** on this year's crop increasing current year per acre returns. In addition, foliar nutrient programs added to late season NOW sprays will also benefit next year's crop – nut set, nut size and yield. Even though this year's crop has not yet been harvested, by mid-season the tree is already building next season's crop. Take steps now to increase next year's yield!



Late season NOW sprays provide a great opportunity to increase nut size, splits and yield and set the stage for higher yields next year. However - many conventional foliar chemistries do not penetrate well especially from mid-summer onward after the pistachio leaf has hardened off and developed a thick waxy cuticle, making these competing foliar products ineffective. But Agro-K's **System®** and **Dextro-Lac®** foliar product lines are designed to move through even the toughest, hardened off, waxy pistachio leaf - even in late summer, making them extremely effective nutrient delivery tools as shown in this independent SAP analysis trial.

This year, take advantage of your summer NOW application to feed your pistachio trees the key nutrients they need to maximize current year yield and set the stage for next year. For more information, call 800-328- 2418, visit www.agro-k.com, or email info@agro-k.com. Your authorized Agro-K distributor and/or PCA can provide guidance on all Agro-K products. Call today.



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