Almond – Postharvest Nutrition

Postharvest nutrition can improve plant carbohydrate and nutrient reserves following harvest, laying the foundation for next year’s crop. Postharvest nutrition focuses the plant’s energy into storing carbohydrates and not on shoot growth.

Eric McGee, Ph.D., agronomist, CP Ag/CCA, teamed up with CPS to develop a new product and foliar program specifically focused on postharvest nutrition. Carbo-Boost 2-15-15 is specifically formulated with Carbomin technology to get critical nutrients (P & K) and energy into the plant. Carbomin technology enhances movement of these nutrients and energy to plant spurs prior to normal leaf drop at the end of November. These nutrients are then stored and utilized the following spring playing a major role in bloom development and nut set.

Brent Holtz, county director and pomology advisor, writes about postharvest nutrition in the Western Farm Press, “Plant nutrient levels are important, especially when heavier almond crops are produced. Nitrogen should not be added in late fall or winter due to leaching and potential loss. Potassium, foliar-applied zinc, and boron however, should be added if needed.”¹

“As potassium deficiency progresses, fruit bearing spurs often die and spur renewal is reduced. The current crop is not affected but future yields are reduced, making the correlation between potassium deficiency symptoms and reduced yields difficult in a single year. Recovery from potassium deficiency is a long-term process; once you see leaf symptoms the trees are already deficient and you may experience yield loss before you can correct the problem.”²

Other postharvest concerns include micronutrient deficiencies. Holtz writes, “Zinc deficiency symptoms often appear in late summer and are referred to as ‘little leaf’ or ‘rosette’ and are characterized by a shortening of the internodes toward the tips of the shoots and small narrow leaves. Often leaves are bent upward on either side of the mid-rib. Zinc foliar sprays are often applied in the fall to correct deficiency …boron nutrition often goes unnoticed and should be monitored with hull samples at harvest. If hull samples are less than 80 ppm boron, your trees could be deficient and you may be experiencing a yield loss as a result. Boron can be applied to the soil, in herbicide mixes, or in foliar applications.”³

Carbo-Boost 2-15-15 with Carbomin technology allows growers the flexibility of product compatibility. Carbomin is been proven to be compatible in many fertilizers and pesticides. Carbomin zinc and Carbomin boron can be combined with Carbo-Boost 2-15-15 to allow growers to address nutrient deficiencies in one foliar application, minimizing application costs.

Carbo-Boost 2-15-15 benefits include:
- Low salt index
- No chloride
- Urea nitrogen for rapid uptake
- Phosphorous for energy and sugar production
- Potassium for sugar translocation

Our recommended foliar program includes:
- Carbo-Boost 2-15-15   2 gal/acre
- Carbomin Zn 7.5%   1 qt/acre
- Carbomin B 5.0%   1 qt/acre

This postharvest program has been utilized over the last several years and is gaining popularity and spreading throughout the valley.

If you have further questions or would like more information on postharvest nutrition, please contact your local CPS Representative.

¹,²,³ Brent Holtz. (November 17, 2010) Fall almond applications of zinc, boron and potassium, Western Farm Press, Retrieved August 17, 2012, from http://westernfarmpress.com/