

Post-Harvest Nutritionals in Tree Nuts

Post-harvest nutrition programs can be extremely important for tree nut production. With the removal of this season's crop, it's a great time to start replacing those lost nutrients and building for next season.

Almonds, walnuts, and pistachios all lose large amounts of potassium when the crop is removed. Conventional practice is to band high rates of sulfate of potash in the late fall to build soil levels for the next season. It may also be worth considering fertigating a highly soluble potassium source like BRANDT[®] EnzUp[®] K DS in the first irrigation after harvest. Rather than feeding the soil reserves with a late fall application, an earlier application will take advantage of the late summer root flush most tree nuts develop and start replacing what the tree lost, especially in varieties that harvest relatively early. BRANDT EnzUp K DS is a low salt index, low pH source of potassium that is highly available to the plant and is ideally suited for fertigation. This will be especially beneficial if your mid-July tissue sample results were around or below 1.2% in walnuts, 1.4% in almonds, and 1.8% in pistachios (See Table 1).

Another consideration for post-harvest is making a foliar micronutrient application. BRANDT[®] Manni-Plex[®] Zn at 1-2 qt/ac and BRANDT Smart B at 1 pt/ac are a good combination for this application. Both Zinc and Boron are needed in next year's bloom in order to get adequate pollination and nut set. Foliar applications allow these micronutrients to directly penetrate next year's fruiting buds. The BRANDT Manni-Plex and BRANDT[®] Smart System[®] delivery systems improve foliar uptake and facilitate phloem mobility and translocation. In seasons where there is a lot of early spring rain, it can be difficult to get a foliar micronutrient spray on your orchard prior to bloom. Applying these materials post-harvest may be a good solution to avoid potential weather issues next year. Foliar nutrient sprays also benefit from including a good surfactant like BRANDT Super Wetter. This is especially true late in the season when the leaf cuticles are thicker.

TABLE 1

Crop	Pounds K₂O Removed per 1,000 lb Nuts (Includes hulls)	Suggested Potassium Concentration in Mid-July Leaf Analysis
Almond	85-95 lb/1,000 lb nut meat	>1.4%
Pistachio	29 lb/1,000 lb marketable yield	1.8-2.0%
Walnut	27.5-32.5 lb/1,000 lb in shell	>1.2%

Source: California Fertilization Guidelines

<https://apps1.cdfa.ca.gov/FertilizerResearch/docs/Guidelines.html>