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What comes after Bloom? Petal Fall.

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Almond growers know they have a narrow window from pink bud to petal fall and nut formation to improve both disease control and tree nutrition. Carefully monitoring environmental factors during this critical period and taking the appropriate steps to optimize tree nutrition can be the difference between a healthy, productive crop and a season of complications. As orchard nutrition management plans are put into place for this season, it is important to remember that foliar nutrient applications are applied to augment a sound comprehensive nutrient plan.

Very intensive growth that follows the flower fertilization. This starts 15-20 days after the peak bloom and continues for eight more weeks. As we enter petal fall and going into full leaf expansion, the demand for nutrients will increase dramatically. Remember that "cell division" is happening during this period and it is estimated that almost 50% of the nitrogen for this year's crop is taken up by the tree, as well. Applying readily available nutrients (nitrate-nitrogen and ortho phosphate) today will provide the fuel to support this new growth increasing the tree's ability to produce photosynthates needed to support this year's crop and future bud development. Application of foliar nutrients during this time is an important component of a comprehensive nutrient management plan to help assure the top yield. Always take advantage of a "free ride" to help provide nutrition to your trees.

There are 17 essential elements required by plants for healthy growth and reproduction During this time period the role of nitrogen, phosphorus, calcium and potassium play key roles in maximizing almond size and kernel weight.

Nitrogen is important to build the tree canopy and encourage vegetative growth leading to improved bud formation and higher nut protein contents.

Phosphorus is vital to plant growth and is found in every plant cell. It is involved in key plant functions, including energy transfer, photosynthesis, transformation of sugars and starches, nutrient movement within the plant and transfer of genetic characteristics from one generation to the next.

Potassium is associated with Its involved with enzyme activation within the plant, which affects protein, starch and adenosine triphosphate (ATP) production. The production of ATP can regulate the rate of photosynthesis. Potassium also helps regulate the opening and closing of the stomata, which regulates the exchange of water vapor, oxygen and carbon dioxide. If K is deficient or not supplied in adequate amounts, it stunts plant growth and reduces yield.

Calcium is essential during early cell division and growth, resulting in a distinct effect on vegetation and fruit set. Adequate calcium is important for forming cell walls, rigid structures, enhancing pollen germination and growth. Calcium is not very mobile in plant tissues, which makes foliar applications especially important during periods of rapid cell division and growth. Adequate calcium during bloom improves quality of fruit, especially in stone and pome fruit, where

flavor, shipping, and storage qualities are especially important to growers. Additionally, calcium helps build the tree and is particularly important for the development of good quality nuts with less disease.

In summary, based upon your specific soils and last year's Fall Nutrition program, these early applications provide a foundation for the long growing season ahead and can give your trees a boost during the critical "cell division" period.

Happy Farming!