Nickels Soil Laboratory Projects

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PROJECT SUMMARY

Objectives:

In support of two ongoing series of projects on almond production at Nickels Soil Laboratory:

- Continue to evaluate the economics of organic almond production methods suitable for California conditions and in compliance with U.S. Department of Agriculture and CCOF (California Certified Organic Farmers) certification requirements and compare the results with those for standard production methods.
- Continue to evaluate tree training/pruning methods that promote both maximum early production and sustained long-term yield in high-density almonds, with emphasis on standard pruned trees versus minimally pruned trees.

Background and Discussion:

Like other food producers, more almond growers are shifting to organic production methods, thanks to a growing market.

Making such a transition, though, poses challenges for the growers. Among them would be how to deal effectively with such critical issues as disease control, insect control, weed control, and providing adequate nutrition, especially nitrogen.

Furthermore, although anecdotal information abounds on organic almond growing practices, there remains a lack of science-based information relevant to organic almond production.

To objectively explore what's involved in organic production, the Nickels Soil Lab is being used as the site of a research and demonstration orchard.

Since it was planted in 2006, this orchard has been used to monitor and evaluate all aspects of producing organic almonds, including costs. During the ten seasons of this trial, disease management, weed control, nitrogen fertility and organic production levels have been the most challenging issues.

Another current and key topic of interest to almond growers is how best to train and prune their trees as the industry diversifies in terms of varieties and rootstocks, and pruning practices continue to evolve.

Those changes reflect the underlying rationale for an ongoing field trial planted in 1997 at the Nickels Soil Lab. Several pruning methods are being evaluated, in terms of the effects not only on production but also on orchard management practices and cost. Updated pruning recommendations continue to evolve from these types of studies.

Results indicates that minimal pruning is both yield and cost efficient, as long as enough canopy is pruned to ensure nuts can dry on the orchard floor.

Project Cooperators and Personnel: John Edstrom, UCCE-Colusa County (retired); Bill Krueger, UCCE-Glenn County (retired); Bruce Lampinen, UC Davis; Stan Cutter, Nickels Soil Lab, Arbuckle, CA, Luke Milliron, UCCE Farm Advisor Intern

For More Details, Visit

- Poster location 73 and 74, Exhibit Hall A + B during the Almond Conference; or on the web (after January 201) at A6lmonds.com/ResearchDatabase
- 2014 - 2015 Annual Reports CD (14-HORT6-Niederholzer); or on the web (after January 2016) at Almonds.com/ResearchDatabase
- Related project: 15-HORT5-Duncan