

TREE CROP INTERN

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PROBLEM AND ITS SIGNIFICANCE

How can the University of California (UC) and agricultural industries work together to deliver practical research and educational programs to growers and support industries at a time of shrinking public support for UC?

State support for the University of California (UC), on a per student basis, has declined 60% since 1990. Budget cuts have affected all divisions (campuses) of the UC.

In the last decade, the UC ANR core work group for prune production has dwindled from six campus faculty/specialists (DeJong, Shackel, Polito, Southwick, Elmore, and Thompson) and six farm advisors (Reil, Olson, Krueger, Buchner, Niederholzer, and Sibbett) to two campus faculty member (DeJong and Hanson) and three advisors (Fichtner, Niederholzer, and Buchner). Two of these advisors have administrative duties that limit their availability for field activities. In the near future, these number may further dwindle. Furthermore, those advisors will be stretched to support other commodities and/or disciplines as well as statewide responsibilities previously filled by campus based extension specialists.

Additional, sustained support is needed to maintain current commitments (prune rootstock trial) and develop new research and education programs.

Finally, the UC is hiring new advisors. The new advisors will each cover more than one county and multiple commodities. In all probability, given the shrinking state support for UC, it will not be feasible to return farm advisor staffing to 1990 level. In order to fill any open positions with highly qualified individuals and ease their “learning curve”, those persons should have experience with California tree crop productions systems and the UC system.

OBJECTIVES

- Provide sustained support (60%) for a qualified UC employee to work on prune production research and education in the Sacramento Valley.
- Help existing farm advisors deliver applied research and extension to prune growers.

PROCEDURES

Andrew “Bobby” Johnson, a Masters student in Dr. Brad Hansen’s lab at UC Davis, was hired by UC using Almond Board of California funds in July, 2012. Bobby brought with him the expertise of the Hansen lab (weed management). When those funds were expended, he was switched to CDPB funds in early, 2013. He left UCCE and returned to finish his MS in

Horticulture at UC Davis on March 31, 2013.

During his internship with UCCE, Bobby contributed significantly to the dried plum extension program in the south Sacramento Valley. He directly supported the following projects:

- Heat at Bloom. Bobby set up the temperature/RH loggers in four orchards in Solano and Yolo Counties, tracked bloom dates, and counted initial set. He recorded the results and reported them to UCCE advisors.
- Prune Rootstock. Bobby pruned the rootstock plot at Winters and cut and painted the plot markers for the 30 individual blocks in the replicated rootstock trial in Yuba County.
- Weed control in prunes. Bobby sprayed weed control plots with mixtures or single treatments of a range of labeled herbicides in spring, 2013 in Sutter and Glenn Counties. He evaluated these plots to measure weed control.
- Nutrient sprays to advance prune maturity. Individual prune trees were sprayed with different nutrients and maturity (internal pressure) and sugars tested on a weekly basis following spraying. Bob helped with plot layout and application.

In addition to participating in farm calls and contributing to those interactions with growers, Bobby delivered grower talks on weed management in dried plums:

- Tehama Prune Day, January 31, 2013: Weed control and resistance management
- South Sacramento Valley Prune Day, Feb 27, 2013: Weed control in prune orchards

CONCLUSIONS

Support from the CDPB for an intern in 2013 was extremely timely. It allowed UC to continue important projects in Solano/Yolo Counties after the unexpected departure of Carolyn DeBuse in December, 2012. Without the help of a talented, motivated intern, this work couldn't have been done.

In addition, the weed management portion of UCCE prune program in the Sacramento Valley was greatly improved by the presence of an intern with a specialty in weed management.

Both the UCCE and the dried plum industry benefited from CDPB support of a tree crop intern in 2013.