



Pine Tree Ranch Demonstration Grove

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On July 1, the California Avocado Commission formally leased 11 acres from the Cal Poly Pomona Foundation at the 60 acre Pine Tree Ranch research orchard on Highway 126 near Santa Paula for use as a demonstration grove. The 11 acres consisted of about two acres of established avocados and about nine acres of lemons, which have already been removed and chipped to make way for more avocados.

The grove is intended to be a place where cultural management principles and practices can be tested and dem-

onstrated, rootstock and fruit varieties can be planted, and various types of equipment can be evaluated. As the demonstration grove is developed, grower field days will be held at the site and updates on various projects will be published in *From the Grove*. The projects will be managed by CAC staff with the assistance of a grove management company. Oversight will be provided by an advisory group of industry members from Ventura County along with a representative from Cal Poly Pomona.

The advisory group met in late September and came up

with a list of plantings that could be established on the former lemon acreage that would be useful for growers. The plan that was developed from this includes planting a double row screen of high density 'Lamb Hass' trees along the front of the property, a block of standard density 'Hass' trees, a high density block of 'Hass' trees, a variety block, and a rootstock block.

The standard density block will be composed of 10 rows of 'Hass' trees on a combination of 'Dusa' and 'Toro Canyon' rootstocks. The trees will be spaced 20 feet by 20 feet, which is an historically "typical" planting density in the area. The first five rows will be planted on flat ground, the second five rows will be planted on berms, and the rootstocks will be distributed among the two planting systems. The trees in this block can be used to demonstrate tree planting technique, training and pruning practices, as well as irrigation and fertilizer practices.

The high density block will be planted with 15 rows of 'Hass' on 'Toro Canyon' rootstock. Based on the advisory groups' input and experience in the area, it was determined that 'Toro Canyon' is the best rootstock for this specific grove. The block will consist of three sets of five rows spaced 20 feet, 15 feet and 10 feet apart. The within row spacing will vary along each row, from 20 feet to 15 feet to 10 feet. This will result in nine different spacings: 20x20, 20x15, 20x10, 15x20, 15x15, 15x10, 10x20, 10x15, and 10x10. Since the 20x20 foot spacing will be well replicated in the standard density block, another spacing (e.g., 20x7.5) may be substituted in its place. The block will allow growers to see how increasing density with row spacing, tree spacing or the combination of both affects tree growth, yield and grove management.

When considering planting variety and rootstock blocks, the advisory group was adamant that the blocks be composed of genotypes that are currently available to growers. We want to be certain that if a grower attends a field day and sees something they like, they could order it from their nursery and have it in their grove. With these criteria in mind, the group identified Dusa, Toro Canyon, Duke 7, Borchard, Uzi, Stedham, Zentmyer and Mexican as rootstocks to have in the block. All will be grafted to Hass for the sake of uniformity and so growers can better compare differences in tree form, growth habit and traits among the rootstocks.

The fruit varieties identified are Hass,

Bacon, Ettinger, Fuerte, Gwen, Lamb Hass, Pinkerton, Reed, Sharwil, Zutano, Carmen, Gem, and Leavens Hass. Again, for the sake of uniformity and ease of comparison all these varieties will be grafted onto Toro Canyon rootstock. Ideally, this block would include all of the fruit varieties planted on all of the rootstocks, but unfortunately our space is too limited.

This current plan will utilize about seven of the nine acres that are open. This will allow room for future expansion of the rootstock and/or variety blocks, or planting a new block for a purpose that we have not yet thought of.

We will be holding our first grower field day at the site on Thursday, January 23, from 10:00 a.m. to noon. There will be presentations on fertilization practices and pruning for disease management, as well as hands-on pruning demonstrations. Stay tuned to the *Greensheet* and the CAC grower website for more details.

Through Pine Tree Ranch, the Commission is looking forward to more in-field interaction with growers, and the opportunity to get undergraduate and graduate students interested in avocados through Cal Poly Pomona. The demonstration grove will also be available for researchers as a place to demonstrate the application of their research findings. 🥑



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