

## Tree Height – Its Role in Tree Height Production

Kevin R. Day, Tree Fruit Advisor

For the past several years we have been studying the relationship between tree height, labor costs, and related production and fruit quality issues. Using a block of Summer Bright nectarine trees planted at the Kearney Ag Center, we compared standard sized trees (12-13' tall) with short trees (8-9' tall). Trees were planted as either 2-leader V's or 4-leader V's at 6'x18' and 9'x18' respectively. In order to get comparable planar bearing area between the two systems we flattened the limbs of the shorter trees as

represented below in **figure 1** and **figure 2** on next page. Yield studies have indicated in this trial that short trees have a yield/sizing potential equivalent to that of the tall trees.

The following is a summary of what we have learned so far:

- Labor costs can be reduced by an average of 20-30% depending on the labor operation in question.



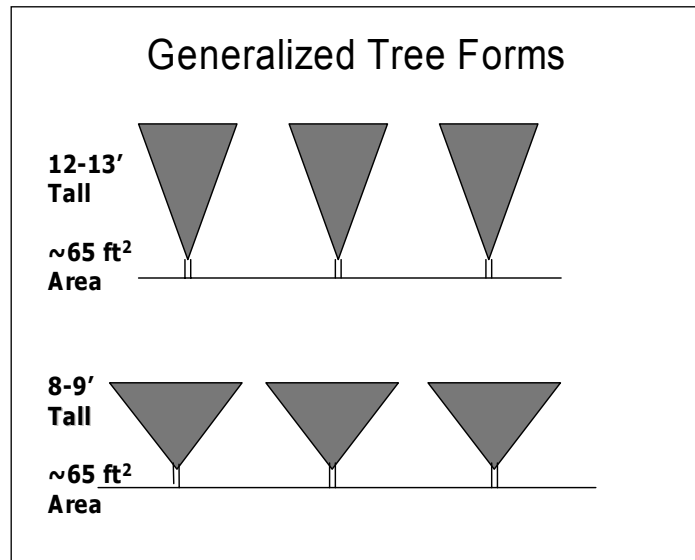
**Figure 1.** 2-Leader Kearney V trees showing flattened limb angle to reduce height and vigor.

- It is possible to design a short tree/orchard system that intercepts as much light as a standard tall system.
- When light interception is constant, short trees have as great a capacity to bear and size as crop as do tall trees.
- Vigor control is an issue, but it can be done through judicious care, development of

proper tree form, and especially by not fertilizing too much.

- Proper limb orientation and branch placement is critical to success.

I will be giving a more detailed presentation on this topic at the Winter Tree Fruit Meeting on December 3, 2003 in Dinuba. Please see the attached agenda and registration form.



**Figure 2.** Generalized tree forms of tall and short trees, showing equivalent planar area.

## Meeting Notice:

### **Pruning Stone Fruit Trees: Tree Physiology and Applications**

**November 13, 2003 – 9:00 AM to Noon**

**Kearney Ag Center, Parlier**

**Instructors: Ted DeJong, UC Davis and Kevin Day, UCCE Tulare County**

**Free to all, no pre-registration required**

**For more information please call Kevin Day at (559) 685-3309, ext. 211**

University of California Cooperative Extension



WINTER TREE FRUIT MEETING



Wednesday, December 3, 2003

Dinuba Memorial Hall, 249 S. Alta Avenue, Dinuba

- 8:00 – 8:30 a.m. Registration
8:30 – 8:55 Root Growth & Nutrient Movement in the Soil
8:55 – 9:25 Stone Fruit Nutrition & Fertilization Practices
9:25 – 9:35 Update on Sour Rot
9:35 – 10:05 Nematode Symptoms & Biology
10:05 – 10:25 Break
10:25 – 10:55 Economics of Short Trees
10:55 – 11:35 Katydid Feeding Preferences and Dormant Scale Management
11:35 – 12:00 Integrated Pest Management for San Jose Scale
12:00 p.m. Lunch – Catered by the Safari Club Restaurant, Dinuba

Return lower portion

Cost: \$20 per person (includes lunch)

Preregister no later than Thursday, November 28, 2003

NOTE: Payment will be accepted at the door, but no guarantee of lunch

For further information contact: JoAnn Coviello (559) 646-6525

Make checks payable to:

UC Regents

Mail registration & check to:

JoAnn Coviello

Kearney Ag Center

9240 S. Riverbend Ave.

Parlier, CA 93648

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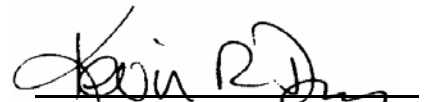
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# Orchard Notes

November/December 2003

  
Kevin Day, Farm Advisor

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