# CITRUS ADVANCED TECHNOLOGY PROGRAM

**QUARTERLY & FINAL REPORTS:** Control of Citrus Greening, Canker & Emerging Diseases of Citrus

▶ INSTRUCTIONS

(●) *Quarterly Report* ( ) *Annual Report* ( ) *Final*

Required: What is the "headline" for this report (e.g. a one-sentence "newspaper headline" describing what you accomplished)

## New citrus cultivars show potential.

Proposal Title

Citrus Variety Evaluation for Trueness-to-Type and Commercial Potential.

| Today's Date | Sponsoring Organization (drop-down) | Category (drop down) |
|---|---|---|
| 2/8/11 | California Citrus Research Board | Unclassified |

**REPORT UPDATE** (500 words; summarize your accomplishments )

Our project provides the industry with preliminary data about characteristics of a large number of newly introduced selections and cultivars, evaluates trueness-to-type of these cultivars distributed by the CCPP and maintains citrus blocks for evaluations, fruit displays, field days and tours that permit growers to examine the performance of new selections.

Of the 33 mandarin and navel orange cultivars and commercial controls scheduled for evaluation in 2010-2011, samples of twelve representative fruit from each of the two trees of each variety were randomly collected three to five times from the LCREC Demonstration Block or Foundation Block and the UCR Citrus Variety Collection (CVC). Three additional cultivars, one mandarin and two pummelo hybrid cultivars which were released from the CCPP during the transition period between CCPP directors are also being evaluated from both locations at one sample date to determine if evaluations during future seasons are warranted. Data was collected from each sample per cultivar for the following characteristics: fruit width, length, weight, peel thickness, rind color and texture, flesh color, seed number, juice weight and presence of granulation. Juice samples for all cultivars for each sample date and location were also collected for chemical analysis. So far data has been collected on the total soluble solids (TSS) and percentage titratable acidity (TA) from juice aliquots for the first sample date (Sept. 26, 2010) for the 16 Satsuma selections. Five of the Satsuma selection were evaluated for the first time this year and of those, 'China S-17' fruit had the highest SSC/TA ratio when sampled from LCREC and had similar ratios to 'China S-9', 'China S-1' and 'Miho Wase' from Riverside with TA levels above 0.9. 'China S-1' fruit had the highest SSC/TA when sampled from Riverside with TA less than 0.9. The 'China S-1'selection had the highest rind color rating from both locations yet the fruit were still prior to color break at this sample date. We are currently collecting total soluble solids and percentage titratable acidity data from the juice aliquots of all remaining samples of the 33 mandarin and navel orange cultivars.

For the three lemon selections 'Femminello Siracusano 2KR', 'Lemonade' and control 'Limoneria 8-A', a sample of 50 fruit from each available tree from LCREC, UCR-CVC and the Coachella Valley Agricultural Research Station (CVARS) in Thermal were harvested for concurrent evaluation with the second harvest date (Jan. 7, 2011) of lemons for another CRB project (Lemon Variety Evaluation for the Desert) to utilize the portable packingline to collect fruit size, shape color and exterior grade for each selection. This data was collected and is currently being analyzed. In addition, fruit quality data is being collected for these three selections for the same traits listed above.

This fall and winter we provided one presentation at LCREC on our results of new Satsuma selection evaluations, provided a tour of the demonstration block at CVARS and another at LCREC which coincided with the December fruit tasting event, and a presentation on "What's New in Citrus" at the Citrus Institute in San Bernardino CA for growers.


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*Total Funds (current year)* $77,605.00

SUBMIT REPORT

CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.