

# **PUBLICATIONS**

**1987**

FRUIT AND NUT CROPS RESEARCH IN TEXAS, 1987

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10	G. R. McEachern	
19, 20, 48	Bert Johnson	
12	J. Benton Storey	
48	Berry Tompkins	
15	R. D. Marquard	Pecan
17	L. Austin Stockton	Grapes Apples
19, 20, 21, 23	John A. Lipe	Peach
19, 20	Duery Menzies	Pecan

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**SUBJECT TOPIC:** Citrus and Peach Production in The Lower Rio Grande Valley

**INVESTIGATOR(S):** Julian W. Sauls - TAEX, Weslaco

**CROP(S):** 1. Citrus  
2. Peach

**ABSTRACT:**

**Objective:**

Increase production and profitability of citrus and peaches in the Lower Rio Grande Valley.

**General Approach and Findings:**

1. Performance testing of 4 navel orange cultivars ('Fisher', 'Atwood', N33E and 'Washington') in a commercial orchard, at high density of 227 trees per acre.
2. Performance testing of 3 citrus rootstocks (Swingle citrumelo, Carrizo citranage and Sour orange) under 'Rio Red' grapefruit in a commercial orchard.
3. Compare Temik brand aldicarb treatment of young citrus trees with standard pest control.

Recording growth and quantitative pest data for single-side vs. double-side application of Temik to ascertain if single-side treatment (most economical) is as effective as double-side.

Recording growth and quantitative pest data for treatment effects of no Temik, 2 seasonal applications and 3 seasonal applications (each application = 1.8 oz/per tree). Initial results indicate complete control of brown soft scale in Temik treatments and significant growth enhancement in Temik treatments during the first year.

4. Comparing 3 nitrogen source fertilizers (calcium nitrate, ammonium sulfate and 30-0-0 slow release encapsulated) at higher than recommended rates on growth and productivity of young navel orange trees.
5. Compare and correlate the occurrence of irrigation scheduling for citrus using soil tensiometers, Class A pan evaporation and daily mean temperature methods to measure and/or predict citrus water use in a mature grapefruit orchard.



6. Identify and determine suitable herbicides or herbicide combinations to control persistent weeds and vines in citrus orchards. Major problem weeds include nutgrass, Colorado grass, false ragweed (Parthenium spp.), sunflower, guara, alamo vine, milkweed vine and others as yet unidentified.
7. Little locally developed peach orchard cultural practices research exists to support the emerging peach industry in the Valley. Consequently, close contact with growers is maintained to discuss peach production problems that exist or might be expected to occur and thereby work with growers to overcome or preclude such problems before economical limitations occur. This effort involves numerous TAEX personnel, both specialists and county agents. Major areas of emphasis include pruning, fruit thinning, nutrition, irrigation, and weed and pest control.

Results to date indicate that current educational programs are effective, inasmuch as better attention to and control of pests that attack the fruit resulted in very little fruit damage this season as compared to last season. Moreover, growers did a better job of fruit thinning this season, as fruit size was generally much better than last season; however, even better thinning is still required.

Herbicides and Rates Used:

Bravo 500 2.5 lbs (4.5 pts/acre) (4 applications)  
 Bravo 500 1.0 lbs (2.0 pts/acre) (4 applications)  
 Orbic 0.5 lbs (4 oz/acre) (4 applications)  
 Orbic 1.5 lbs (8 oz/acre) (4 applications)  
 Orbic 1.5 lbs (8 oz/acre) (1 application - Sept. 4)  
 Cultar 4.1 lbs (3.5 pts/acre) (4 applications)

Spray Dates:  
 July 3, July 17, Aug. 21 and Sept. 4