# Gulf Coast Fruit Study Newsletter

#### Volume 23, Issue 1

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#### Next Gulf Coast Fruit Study Meeting

Our upcoming meeting is at **7:00 PM** on **Tuesday, March 10**. Current Montgomery County and former Harris County Extension Agent and early member of our fruit study group, Tom LeRoy, will be doing a program on propagation, germination, stratification, and how to achieve success with these techniques.

#### Contact Us!

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March 10, 2009 Meeting

## To Graft High or To Graft Low - That is the Question

Most of our fruit trees are grafted either by bud or scion grafts of a desired variety onto particular, and often clonal (genetically identical), rootstocks. Grafted trees allow accurate reproduction of the desired cultivar, which may not occur with its seedlings. Additional reasons for grafting include the need for a sturdy root anchor in heavy wet soils accompanied by resistance to regional soil-borne diseases and the desire to achieve size control either for a high density commercial orchard or for a city lot with limited space. Still other reasons for grafting are to induce early fruit bearing (precocity), to increase the size of the fruit, to provide increased plant vigor in the case of a cultivar with a weak growing habit or to support a trellising system, and, in some instances, to induce increased cold hardiness for the plant. After trees are newly planted, over time they will sink at least 2 inches below the original planting level. If the graft site uniting the desired bud or scion with the rootstock is very close to the soil level, the scion, itself, may send out roots, defeating the purpose of the rootstock system. If the graft site is very high, especially with grafts applied to a dwarfing rootstock, the tree will be even further dwarfed. Depending upon the cultivar, the latter effect may be either desirable or create too small a plant with limited production.

Some examples of these principles as applied in the Houston area and in the South are seen with the grafting of desirable citrus cultivars to the *trifoliata*, or its further dwarfing variant, Flying Dragon. When grafted low, the mature tree will ultimately be larger and less cold hardy. When grafted as high as 24 inches from ground level on trifoliata, a wild native citrus species which, unlike mainstream citrus, goes fully dormant in the winter, a slight dormancy effect is induced for the grafted citrus, thereby increasing its resistance to damage during a brief frost, as well as reducing ultimate tree size. Similarly, fig hardiness to cold can be improved by grafting a chill-susceptible cultivar to the Celeste fig, which is among our most cold-hardy cultivars. Another example of necessary rootstock selection in our area would be the planting of apricot cultivars. Here a self-rooted apricot or a graft to apricot rootstock will rapidly die in its first season because apricot root systems cannot survive in our wet clay soil, forming cyanide-like compounds which rapidly kill the plant. Instead, desired apricot cultivars are grafted onto peach rootstocks, such as Nemaguard, or to certain compatible plum rootstocks, such as Mariana 2624, which thrive in our soil conditions. The grafting of pears which are compatible with dwarfing clonal quince rootstocks may provide many good features for us including ease of tree management, an increased fruit size, and early bearing.

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# To Graft High or To Graft Low – That is the Question (continued)

On the other hand, commercial trellised pear orchards-particularly of Asian pears-favor extremely vigorous rootstocks such as *P. betualaefolia*, in order to push a maximum of lateral growth of the desired cultivar on the trellis system, since vertical tree size is controlled, and not an issue. This necessary vigor cannot easily be achieved with the dwarfing pear root systems. A recent article on graft height appears in the January 2009, issue of The Good Fruit Grower, and the author advises, as a general principle, that all plantings should initially place the graft site at least 4 inches above the ground level.

For those fruits which do not have a preferred dwarfing or standard compatible rootstock, such as jujubes, pomegranates, berries and most figs, the preferred cultivars are derived from self-rooted cuttings, and the qualities such as plant size, fruit size, productivity, tree shape and disease resistance all lie with the particular selected cultivar, and may vary widely.

## The Best Louisiana Figs Are Under Trial in Houston

During the last year David Lavergne, a fig fancier from Jarreau, Louisiana, and member of NAFEX and SFF, has sent me cuttings (all now rooted and growing well with a few plants distributed at one of our last meetings) from what he considers the best quality figs for his area. Some are in the trade in Houston. Here are his descriptions of these cultivars which we hope to make more widely available.

- 1. **O'Rourke**: Named for the legendary fig breeder at LSU and formerly called **Improved Celeste**. These fruits are larger than **Celeste**, set a heavier crop, and ripen a week earlier – you can't beat that.
- 2. Champagne: Formerly known as LSU Golden Celeste and 25% larger than Celeste.
- 3. **Tiger**: Formerly known as LSU Giant Celeste. Large fruit ripening between **Celeste** and the Texas A&M variety, **Alma.**
- 4. **Scott's Black:** The largest and best tasting of all black-skinned figs with a bright red interior. Ripens with **Alma**. A must for our area.
- 5. **Cordi:** Sometimes marketed under the name of **Stella**, light yellow with red interior, medium size, and outstanding flavor.
- 6. **Grantham Royal**: A large San Pedro type (unfortunately these types usually have an open eye but are large with good flavor).

## Gulf Coast Fruit Study Tour – May 30<sup>th</sup>, 2009

Our next Gulf Coast Fruit Study Group tour will occur on **Saturday, May 30<sup>th</sup>, 2009**, and will be a two stop event. We will depart from the extension service offices promptly at **8:00** AM for Chmielewski's Blueberry Farm in Hockley, Texas, and the E & B Peach Orchard in Hempstead, Texas. These both are U-pick operations, and the peach operation has value-added features including blackberry picking and homemade peach and blackberry ice cream. As before, seats are limited on the air-conditioned bus supplied to us at no cost by the County for these tours, so make your reservations early by sending us the form below, but please do so only about 30 days before the tour. If you are a couple, we require both names. We plan to stop for lunch at a local restaurant between the tours. For those who are driving, directions to Chmielewski's operation are to take Hwy 6 to Hwy 290, turning west to Becker Rd (past Outlet Mall). Turn right on Becker Rd and proceed 1.5 miles to Bauer Hockley Rd. Turn right and proceed 0.25 miles, and your destination is on the left at 23810 Bauer Hockley Road, Hockley, Tx, 77447. The E & B Orchards are located at 28268 Clarke Bottom Road, Hempstead, Texas 77445. Proceed out Hwy 290 to Hwy 6 and turn right on Hwy 6 for 3.4 miles. Then turn left on FM 1736 for 3.5 miles and turn right on Clarke Bottom Rd for 0.6 miles and you are there.

### SIGN-UP FORM Gulf Coast Fruit Study Tour – May 30th, 2009

Name:	
Address:	
Phone:	
NAME AND PHONE NUMBER OF EMERGENCY CONTACT PERSON (REQUIRED):	
Name:	
Address:	
Phone:	
Send to: Harris County Extension Service 3033 Bear Creek Dr.	
Houston, TX 77084-4233	
Phone: 281/855-5611	
Fax: 281/855-5638	
Attn: Yvonne Gibbs	DATE:

HARRIS COUNTY MASTER GARDENER ASSOCIATION 3033 BEAR CREEK DR. HOUSTON, TX 77084-4233

CHANGE SERVICE REQUESTED

## March 10, 2009 Meeting

Our upcoming meeting is at 7:00 PM on Tuesday, March 10. Current Montgomery County and former Harris County Extension Agent and early member of our fruit study group, Tom LeRoy, will be doing a program on propagation, germination, stratification, and how to achieve success with these techniques. NON-PROFIT ORG.

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