

University of Florida/IFAS

# Water Conserv II Field Day: Pomegranate

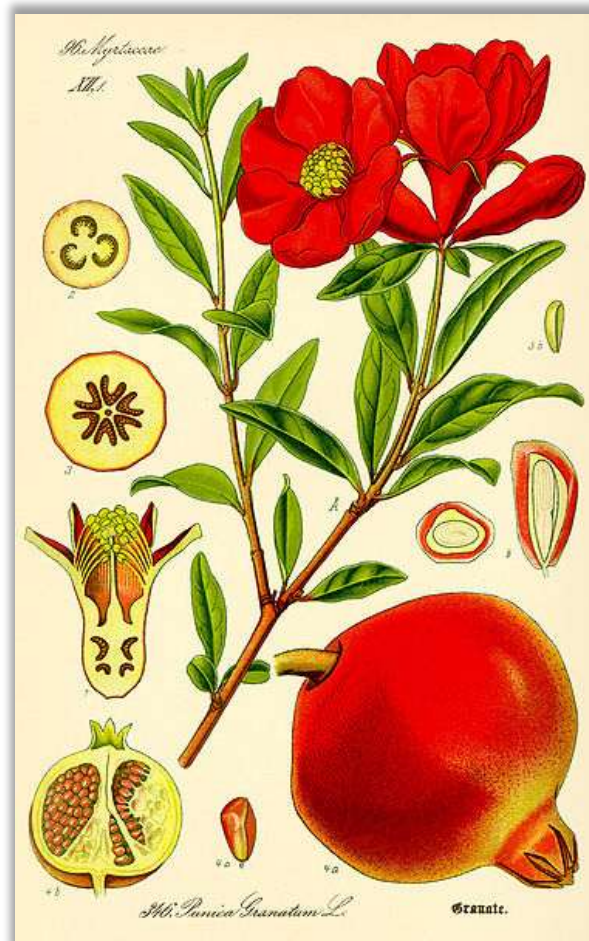
August 30, 2011

## Hosts

Gary England, Multi-County Extension, Sumter County

## Presenter\*

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VISIT THE **UPDATED** POMEGRANATE WEBSITE AT

<http://www.crec.ifas.ufl.edu/>

### Q1. What are the best poms for Florida?

A. Yield [fruit count] this year among the 38, 2-year-old plants is provided below. The results are similar to those observed last year so a pattern is beginning to appear. However, there are differences in fruit size and distribution of fruit sizes that may affect selection decisions.

[**Bolded cultivars have 30 or more fruit/plant**].

	Tree number in row	Yield [fruit count] 11 Aug 11	Notes
<b>Cultivar</b>			
Shirin Zigar	38	5	
<b>Surh-anor</b>	37	37	
Kazake	36	15	
Kunduzski	35	25	
Al-sirin-nar	34	5	
<b>Salavatski</b>	33	47	
Toryu-shibori	32	12	
Double Red #2	31	0	
Double Red #2	30	0	
Wonderful	29	11	
Wonderful	28	10	
Wonderful	27	0	
<b>Sakerdze</b>	26	49	
<b>Sakerdze</b>	25	42	
Sakerdze	24	12	
<b>Afganski</b>	23	38	
<b>Afganski</b>	22	41	
<b>Grenada</b>	21	35	
<b>Angel red</b>	20	37	
Sweet	19	6	
Sin Pepe	18	13	
Sin Pepe	17	12	
Desertnyi	16	23	
Desertnyi	15	20	
Desertnyi	14	20	
Gissarskii Rozovyi	13	4	
Medovyi Vahsha	12	15	
Medovyi Vahsha	11	18	
Medovyi Vahsha	10	12	
Vkusnyi	9	4	
Vkusnyi	8	15	

Parfyanka	7	21
Parfyanka	6	4
<b>Azadi</b>	5	30
Sirenevyi	4	3
Sirenevyi	3	0
Azadi	2	16
Azadi	1	9

## Q2. Pests and diseases?

A. Samples of suspect fruit and leaves have been routinely submitted this summer to the UF/IFAS Plant Disease Clinic [PDC] in Gainesville. Their assistance has been excellent and very timely. The objective is to see what results are consistently returned from their analyses and then develop a management approach. The first fruit sample was diagnosed as *Colletotrichum* and the leaf sample with necrotic margins had *Alternaria*. In subsequent fruit rot samples from Water Conserv and another cooperator site in Dundee, the culprit appeared to be the fungus ***Botryosphaeria***. This organism has been associated with a similar problem on pomegranates grown in Georgia. The following link will help you get started learning about this fungus: <http://fruitsandnuts.ucdavis.edu/files/73464.pdf>. Also, from the PDC: "***Botryosphaeria spp.*** can cause stem cankers and dieback diseases in blueberry, mango and other woody fruits and ornamentals. Stem blight shows up as a wilting, browning, or reddening of the infected leaves, and branch dieback above cankers, which frequently precedes the death of the plant. This is a vascular disease that most often starts from a wound infection site. The most typical symptom would be a flag (limbs killed by the disease that do not drop their leaves). The stems can be cut open to reveal a light-brown discoloration in the stem cross-section, often in a pie-shaped wedge. Mechanical damage, freeze damage, chemical burn, or insect injury can predispose stems to infections. Drought and other stresses may exacerbate disease symptoms. Prune 4-5 inches below obvious symptoms. Remove prunings from the planting area. Reduce overhead irrigation to reduce risk of splashing spores to new growth." Furthermore, one sample from a the peel of a fruit was diagnosed as ***Colletotrichum***.

**Root-knot nematodes.** Pomegranates are reported to be susceptible to this nematode which is everywhere in Florida and when present, galls can be observed on the roots. Preplant organic soil amendments apparently have some value in assuring plant establishment, good growth and helping diminish any damage from the nematode. See page 8 in the following publication, <http://edis.ifas.ufl.edu/pdf/NG/NG03200.pdf>, for some ideas.

## Q3. Nursery and canopy training practices?

A. We have continued to produce nursery plants essentially as whips. The growth and development of such plants is evident among the pomegranates set in mid-April this year at Conserv.



These images show canopy development of two pomegranates planted at Conserv in April 2011 with 18" trunk wraps. They are illustrations of some of the better plants. All plants are tied to a stake for plant support. Scattered flowering occurred this year and several plants set fruit.

The wisdom of continuing to produce nursery plants as whips is being revisited. From a recent conversation with a California colleague, there may be justification for growing **free-form nursery and field plants**. A fully free-form plant would be one not pruned in the nursery or the field. It would be allowed to sucker and grow freely, or, there would be a canopy with some measure of pruning and training that is growing on a short, single trunk. Free-form plants are thought to yield better and to begin producing earlier. In some California orchards, pomegranate plants are being grown on a trellis [see below].



#### **Q4. Nutrition?**

A. A single leaf sample composited across the 2-yr-old plants was collected in July for mineral nutrient analysis. To date the trees have received the following fertilizer:

- February 400#/acre 16-0-16.
- April Application of 9-0-9 liquid.
- April Sprayed with KNO<sub>3</sub>.
- May Application of 9-0-9 liquid.
- June Application of 9-0-9 liquid.
- June Application of 9-0-9 liquid.
- July Application of 9-0-9 liquid.
- August Application of 9-0-9 liquid.

Leaf analysis results: **N – 2.57%; P – 0.26; K -1.26; Mg – 0.39; Ca -3.50; S – 0.26; B - 75ppm; Zn – 53; Mn – 37; Fe – 137; Cu – 79.**

#### **Q5. Who has plants?**

A. This is a critical question because interest is building, leading to increased plant demand. There are various potential growers that want to plant an acre of two. Who can supply plants of those selections that appear to be emerging as the better ones?