

The Backyard Orchard – Citrus – Module 3.1 – Annual Maintenance: Fertilization and Watering



LSU AgCenter Backyard Orchard Certificate
Course

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Don't guess. Soil test!



Soil Testing & Plant Analysis Lab

Learn the right combination of fertilizer, sulfur, lime or other ingredients for your soil. The LSU AgCenter Soil Testing Lab is the only lab that makes fertilizer recommendations based on Louisiana-specific research.

For more info, visit: LSUAgCenter.com/SoilTest

Fertilization

- Soil test prior to planting
- Soil test every 2-3 years for most accurate data
- Follow soil test recommendations
- DO NOT fertilize a newly planted tree until 6 weeks after transplanting
- If the soil pH needs adjusting, you can add required materials one month prior to planting

Fertilization – General Recommendations

Table 1. Fertility Schedule for Homeowners Citrus Trees

Tree Age	Time of Year	Amount of Fertilizer per Tree
Year of transplanting	Mid-March 6 weeks after transplanting	½ lb of 8-8-8 or 13-13-13
First year	Late January-early February	1-1 ½ lb of 8-8-8 or 13-13-13
Second year	Late January-early February	2-3 lb of 8-8-8 or 13-13-13
Third year	Late January-early February	3-4 ½ lb of 8-8-8 or 13-13-13
Fourth year	Late January-early February	4-6 lb of 8-8-8 or 13-13-13
Fifth year	Late January-early February	5-7 ½ lb of 8-8-8 or 13-13-13
Sixth year	Late January-early February	6-9 lb 8-8-8 or 13-13-13
Increase the rate of fertilizer 1 - 1 ½ lb of 8-8-8 or 13-13-13 per year as the tree gets older.		
Twelfth year and older	Late January-early February	12-18 lb of 8-8-8 or 13-13-13

Generally, 1 pint 13-13-13 equals 1 pound

Fertilization – General Recommendations

Table 2. Summer Nitrogen Fertilizer for Homeowners Citrus Trees

Tree Age	Time of Year	Amount of Fertilizer per Tree
Fourth year Bearing age	Late May or June	1 lb AmNO_3 or AmSO_4 or 2 lb CaNO_3
Fifth Year	Late May or June	1 ¼ lb AmNO_3 or AmSO_4 or 2½ lb CaNO_3
Sixth Year	Late May or June	1 ½ lb AmNO_3 or AmSO_4 or 3 lb CaNO_3
Seventh Year	Late May or June	1 ¾ lb AmNO_3 or AmSO_4 or 3 ½ lb CaNO_3
Increase the rate of AmNO_3 or AmSO_4 ¼ lb (CaNO_3 ½ lb) per year age of tree as the tree gets older		
Twelfth Year and Older	Late May or June	3 lbs AmNO_3 or AmSO_4 or 6 lb CaNO_3

Fertilization

- Broadcast the fertilizer beyond the spread of the limbs where most of the feeder roots occur.
- A general rule when fertilizing trees is to put your left shoulder near the outer branches and hold the can of fertilizer in your right hand.
- Walk around the tree and evenly spread the fertilizer in a 12- to 18-inch band around the tree canopy dripline.
- This technique will ensure that the fertilizer is placed a proper distance from the tree for maximum utilization.
- Special “Citrus Fertilizer” is not necessary.
- You can use Organic Fertilizer equivalencies.
- Fertilizer “spikes” are not recommended

Fertilization

- Avoid fertilizing citrus trees after the end of June.
- Do not be tempted to believe “If a little is good, a lot is better.”
- Late or excessive fertilization will encourage vigorous growth, delay fruit maturity and decrease the cold hardiness of the tree.
- Vigorous growth can result in extensive freeze damage or death of the trees, even in a moderate freeze.

Irrigation

- This may seem a silly idea in some parts of the country.
- Irrigation for container trees is a given – definitely necessary.
- The average rainfall in Louisiana ranges from 48" in the north to 75" in the south. Rainfall occurs throughout the year, with a predominantly wet season from April to September and the dry season from October to March. *U.S. Weather Service*
- Research from the University of Arizona has found that mature citrus trees use about 60 inches of water per year. Varies with citrus type.
- This corresponds to as much as 17 gallons of water per day in the winter and 135 gallons of water per day in the summer.

Irrigation

- Long periods of drought may necessitate irrigation. This is especially true for young trees.
- Water only when the top 6 inches of soil is dry.
- Occasional deep irrigation is preferred to frequent shallow irrigation.
- Soil type, tree age and time of year determine irrigation frequency.
- Irrigate from the trunk of the tree to just beyond the dripline.
- Leaf curling is a sign of water stress.

Irrigation

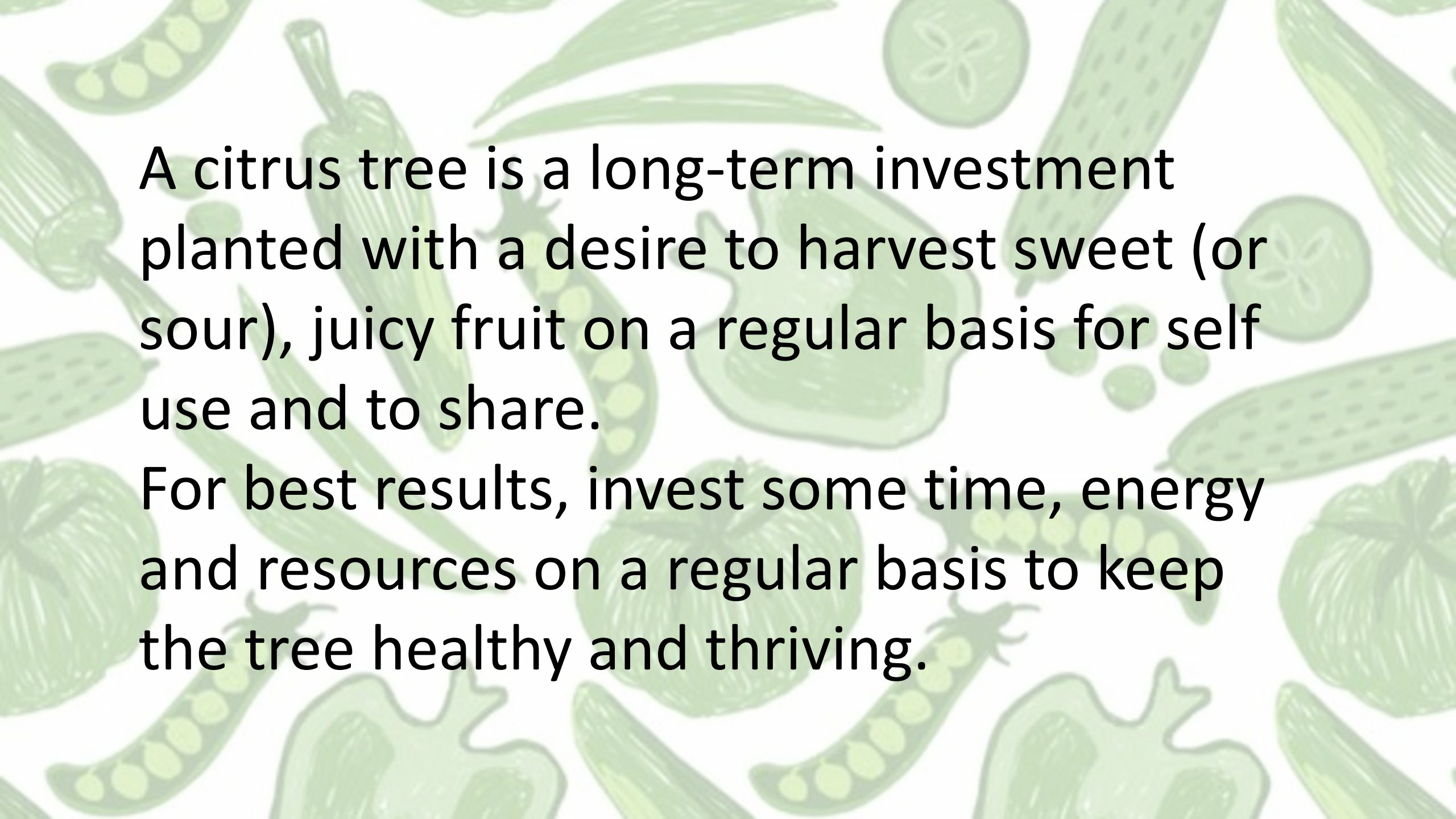
	Month				
Time after planting	Dec. - Feb.	Mar. - Apr.	May - Jun.	Jul. - Sep.	Oct. - Nov.
0 - 1 month	← 2 to 3 days →				
2 - 3 months	← 3 to 5 days →				
4 months to 1 year ²	14 days	7 to 10 days	5 to 7 days	2 to 5 days	5 to 10 days
1 to 2 years	14 to 21 days	10 to 14 days	7 to 10 days	7 to 10 days	10 to 14 days
3 years or older	21 to 30 days	14 to 21 days	14 days	10 to 14 days	14 to 21 days

This table from the University of Arizona illustrates watering frequency

Recent Irrigation Research at UFL

Summary Conclusions:

- Overall, the use of soil amendments, particularly compost, is critical for improving water-holding capacity.
- Frequent irrigation practices, (drip and microjet irrigation systems are efficient) are important for achieving rapid tree growth, root mass development and high productivity.

The background of the slide features a repeating pattern of various green vegetables, including bell peppers, zucchini, and pea pods, rendered in a light green, sketchy style.

A citrus tree is a long-term investment planted with a desire to harvest sweet (or sour), juicy fruit on a regular basis for self use and to share.

For best results, invest some time, energy and resources on a regular basis to keep the tree healthy and thriving.



Please post all your questions and results to the message board that was emailed to you.