

The Backyard Orchard - Citrus

Module 1.1 – Types and Characteristics



LSU AgCenter Backyard Orchard Certificate Course

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Citrus

- The genus *Citrus* is native to South Asia, East Asia, Southeast Asia, Melanesia, and Australia.
- Small to medium evergreen trees from 8'-50' tall.
- Leaves are alternately arranged with an entire margin and are pleasantly fragrant when crushed.

Citrus

- Almost all commercially available citrus trees are grafted.
- The most common rootstock is trifoliate orange (*Poncirus trifoliata* or *Citrus trifoliata*) but there are many others and new ones being constantly developed.
- Fruits (hesperidium) vary greatly in size depending on variety, but all have a leathery rind and a juicy acidic flesh.
- Citrus is the most common backyard fruit tree in areas where it can be grown.

Different Types of Citrus Available in Louisiana



Satsuma

Satsuma (*Citrus unshiu*)
Sweet Orange (*C. x sinensis*)
Grapefruit (*C. x paradisi*)
Kumquat (*C. japonica*)
Lemon (*C. limon*)
Lime (*C. x aurantifolia*, *C. hystrix*, *C. x latifolia*)
Mandarin (*C. reticulata*)
Tangerine (*C. x tangerina*)
Tangelo (*C. x tangelo*)
Pommelo (*C. maxima*)
Calamondin (*C. x macrocarpa*)



Grapefruit



Tangerine



Kumquat



Sweet Orange



Mandarin



Lemon



Pommelo



Tangelo



Calamondin

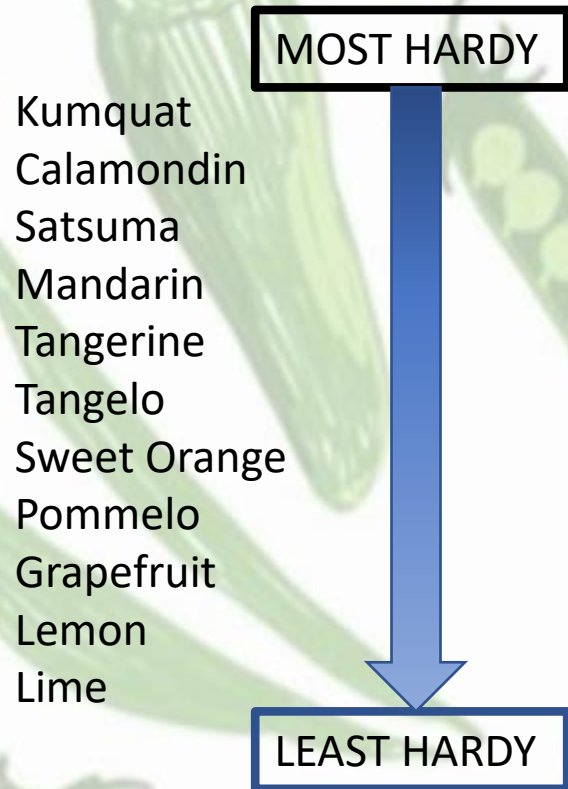


Lime

Citrus' Botanical Complexity

- Members of the *Citrus* genus hybridize readily
- Genetic studies have only recently begun in an attempt to unravel the genus
- Majority of cultivated species are hybrids involving:
 - Citron (*Citrus medica*)
 - Mandarin (*Citrus reticulata*)
 - Pommelo (*Citrus maxima*)
 - Micrantha (*Citrus micrantha*)

Cold Hardiness Chart for Citrus Types



- Kumquats, Calamondin and Satsumas can withstand temperatures as low as 20°F
- Mandarins, Tangerines and Tangelo can withstand the low 20's
- Orange, Pommelo and Grapefruit can withstand the mid 20's
- Lemons can withstand the high 20's
- Limes only about 29°F

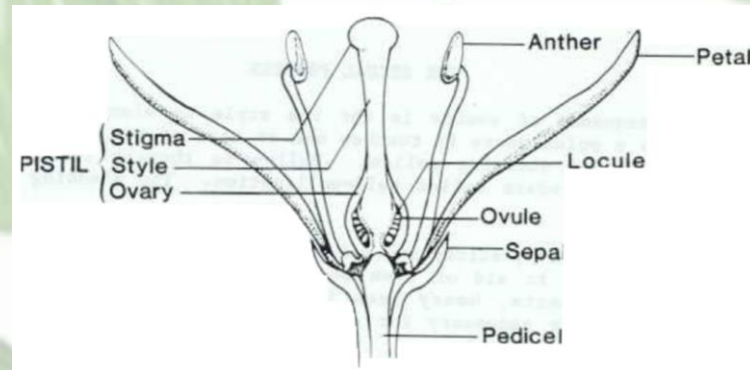
Citrus fruits of any type easily freeze when temperatures drop to 26-28°F for several hours.

Additional Important Factors Affecting Impact of Cold Weather on Citrus

- The lowest freezing temperature reached.
- The duration of the minimum temperature.
- How well the plant became hardened or conditioned before freezing temperatures occurred. (The freezing point of tissue of a hardened citrus plant may be 5 to 6 degrees lower than an unhardened plant.)
- Age of plant. (A young plant cannot withstand as much cold as a more mature tree.)
- Tree health. (Healthy trees are hardier than diseased trees.)
- Tree rootstock.

Citrus Flowering

- Most citrus varieties flower once in early spring (Mar – Apr) (oranges, grapefruit, mandarin, tangelo, tangerines)
- Satsumas usually flower about a month later (late Mar – early May)
- Kumquats have a pronounced winter dormancy and will flower later (Apr/May).
- Lemons and Limes will have a strong spring flush (Mar) but will flower throughout the year.
- All citrus flowers have a strong sweet fragrance.
- Most citrus varieties will flower profusely but only about 0.1 – 3% of the flowers will set fruit and carry through to maturity.



Pollination & Fruit Production

- Flowers are perfect - have both male and female parts.
- The majority of citrus cultivars are self-compatible and a single tree will produce fruit.
- Tangelos and tangerines are an exception, a pollinator is required.

Pollination & Fruit Production

- Many cultivars are parthenocarpic – produce fruit without pollination. Fruit is seedless. Navel oranges and Satsuma are two examples.
- “June Drop” – much of the fruit set at bloom will drop but a good crop is still produced. As mentioned earlier, only 0.1-3% of the flowers produced will produce a mature fruit. The tree keeps what it can handle.

Before You Purchase A Citrus Tree

- Citrus requires at least 8 hours of daily sunlight and very good drainage. Do you have such a location for your tree?
- Citrus can also be grown in containers. Are you planning to grow the tree in a container or in the ground? Containers need to be at least 20 gallons.

Before You Purchase A Citrus Tree

- What is a typical winter where you live? Will you need to provide protection for your inground tree? Will you need to move your containerized tree inside? How and Where?
- How much growing space will be provided for your tree? Pruning?
- Choose a type and variety.



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

