



Fruit & Nut Tree Pruning

**CENTRAL
TEXAS
FOOD
BANK**

for the
**Home
Landscape**

Greg Mast, Gardener
Central Texas Food Bank



What we'll cover

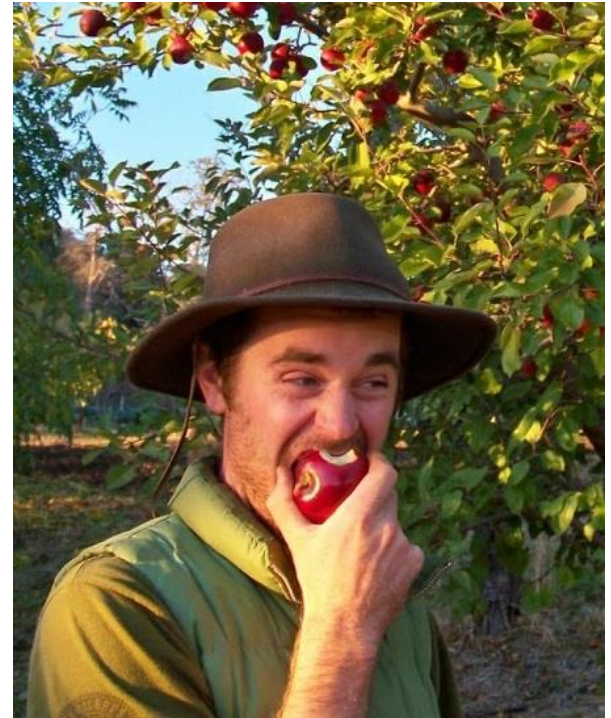
- Introductions
- What is a tree?
- Site and selection
- Planting
- Pruning
- Pests
- Diseases
- Notes on specific trees



The mission of the Central Texas Food Bank is to nourish hungry people and lead the community in the fight against hunger.

Who is Greg?

- Gardener - Central Texas Food Bank
- ISA Certified Arborist
- MS Geography – Motivations of Community Gardeners
- Lifelong gardener
- Eater of food



The mission of the Central Texas Food Bank is to nourish hungry people and lead the community in the fight against hunger.



Our mission: To nourish hungry people and lead the community in the fight against hunger.

HOW DO WE DO IT?



Our Facility



Our Partners



Our Programs



Social Services



Advocacy



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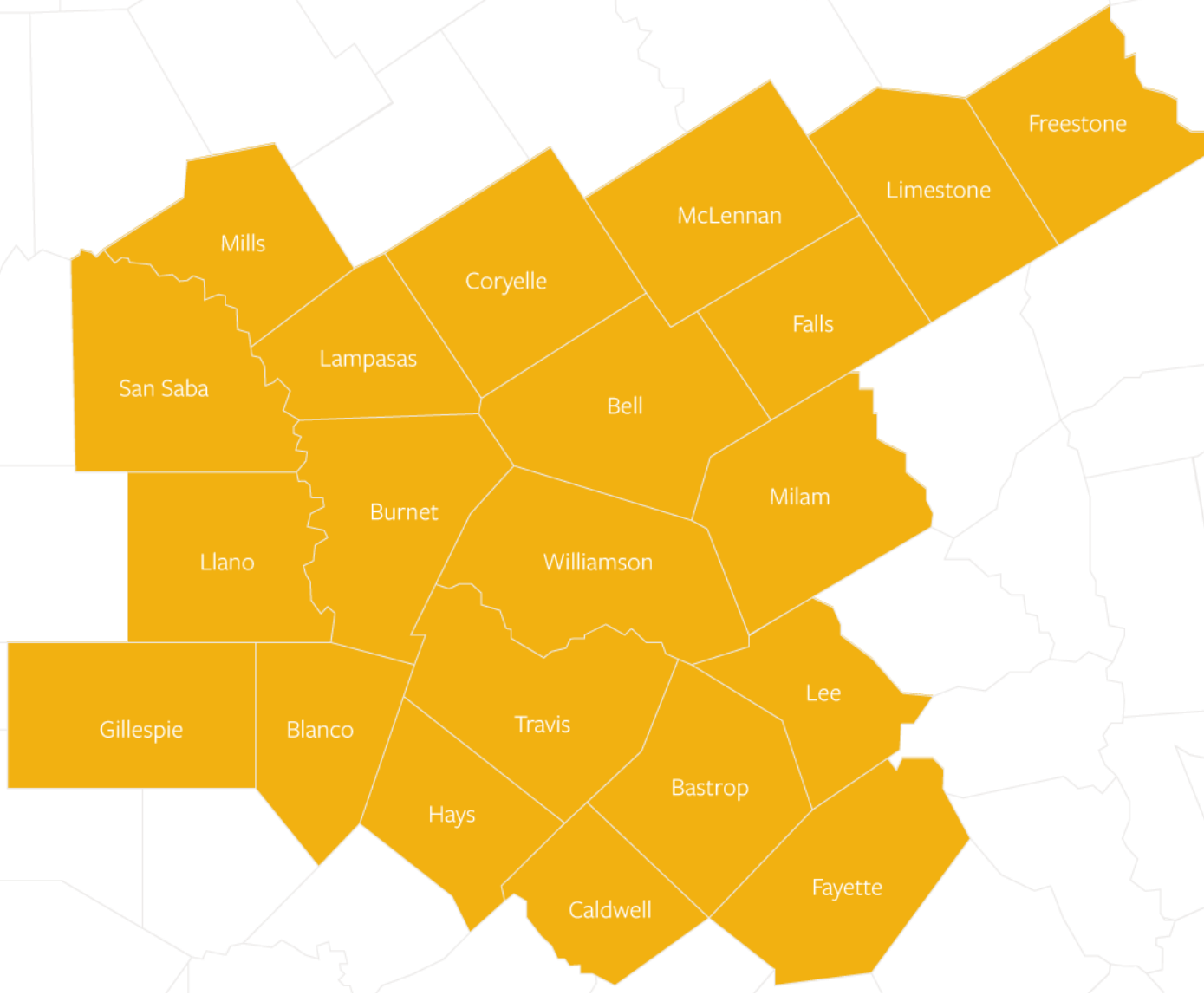
FOOD DISTRIBUTION



45 million pounds = 38 million meals



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330,00 Central Texans
receive food from the Food
Bank every year.



1 in 6 Central Texans is
hungry or at risk of hunger.



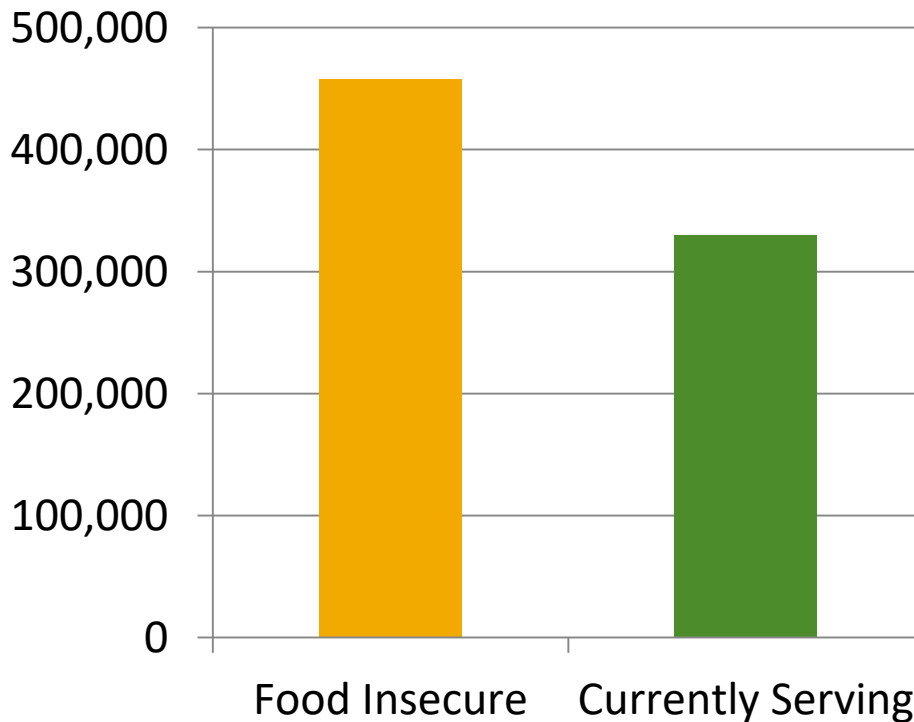
1 in 5 Central Texas
children is hungry or at risk
of hunger.



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IMPACT

Our Reach



Source: *Hunger in America 2014*

Despite our best efforts, we are still falling short by 30%.



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EFFECTS OF FOOD INSECURITY



83%

have to choose
between food and
utilities



80%

have to choose
between food and
medicine



66%

have to choose
between food and
housing



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Central Texas Food Bank Garden

- **1.25 acre teaching and production garden**
- **50 fruit trees**
- **Blackberries, grapes**
- **Lots of veggies**
- **Classes, field trips, workshops for kids and adults**
- **Volunteers!**

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Central Texas Food Bank Garden



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What is a tree?

- Woody perennial
- Single or multiple trunk
- Primary and secondary growth



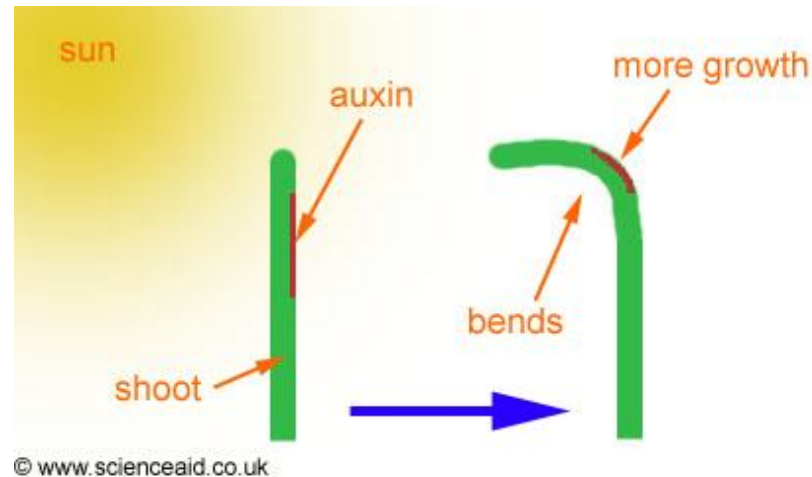
What is a tree?

- **Woody** means it makes wood, as opposed to just soft tissue (like lettuce)
- **Perennial** means it lives for many years
- **Primary growth** means it gets tall and long
- **Secondary growth** means it gets thicker over time



Choosing a site – Light

- Light = Photosynthesis = Sugar = Growth = Fruit
- 8+ hours of full, direct sun
- Morning sun is best if you have to choose
- Balanced exposure = balanced growth



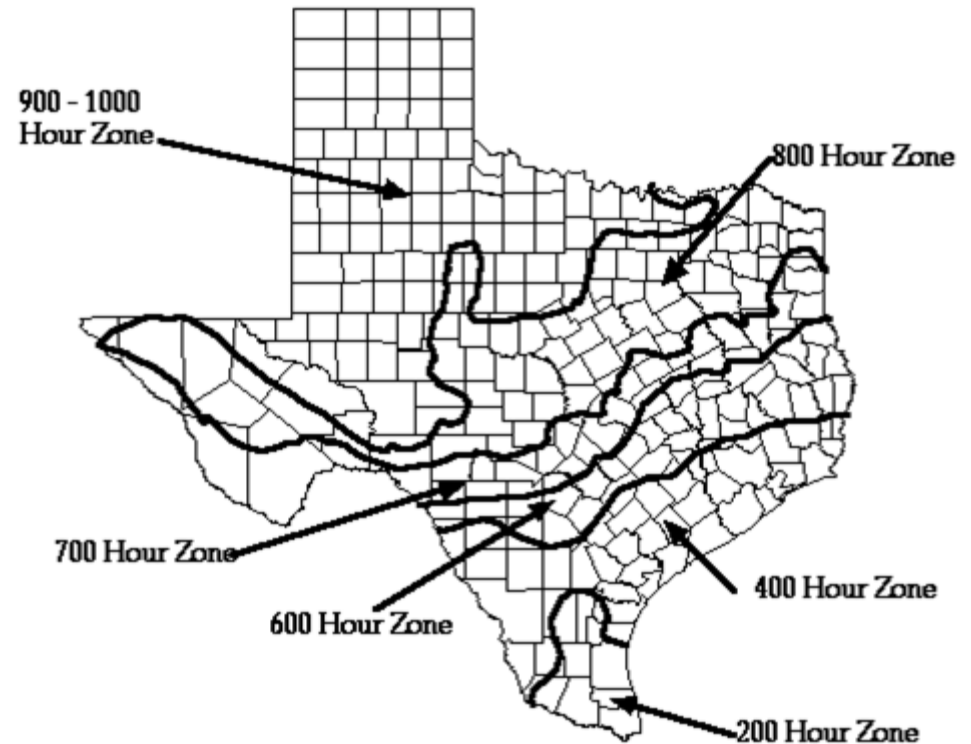
http://leavingbio.net/Plant%20Responses_files/image015.jpg

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Choosing a site – Climate - Chilling Hours

- Chilling Hours
 - Required time between 32 – 45 F while dormant
 - Bud development
 - 500 – 800 for Austin



https://ask.extension.org/uploads/response/images/attachments/000/025/947/Chilling_hours_for_Texas_original.gif?1389649431



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Choosing a site – Climate - Hardiness

- Cold Hardiness
 - Avg. min temp
 - Mature plant
 - Survive ≠ Thrive



Peaches							
Peaches	Swollen Bud	Calyx Green	Calyx Red	First Pink	First Bloom	Full Bloom	Post Bloom
Old temp	23	--	--	25	--	27	30
10% kill	18	21	23	25	26	27	28
90% kill	1	5	9	15	21	24	25

<http://msue.anr.msu.edu/uploads/files/PictureTableofFruitFreezeDamageThresholds.pdf>

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Keeping trees healthy

- Pruning
 - Pests & Disease
 - Structure



<http://www.apsnet.org/edcenter/intropp/lessons/fungi/ascomycetes/PublishingImages/BrownRotStoneFruits03sm.jpg>



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Keeping trees healthy - Pruning

- Why prune?
 - Air circulation
 - Sunlight
 - Branch strength
 - Fruit production
 - Disease
 - Access
 - Space

Prunus = Prune Us



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Keeping trees healthy - Pruning

- Open Center
 - Light penetration
 - Fruit within reach
 - Low profile to wind
 - Min. dripping
 - Weak branches
 - Shorter lived
- Central Leader
 - Strong structure
 - Longer lived
 - Ladders, poles
 - Dripping
 - Shade on branches



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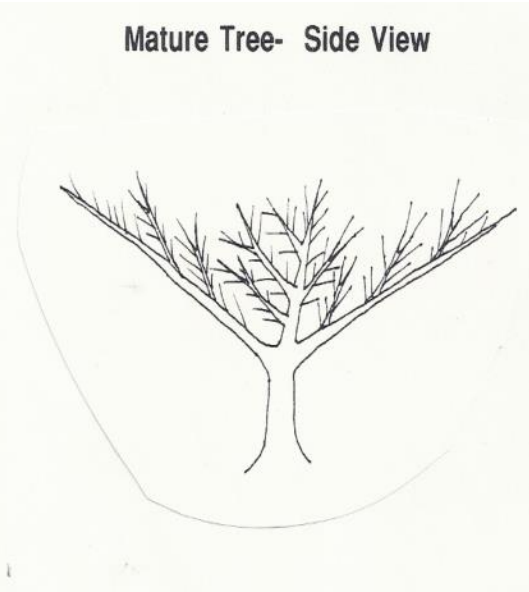
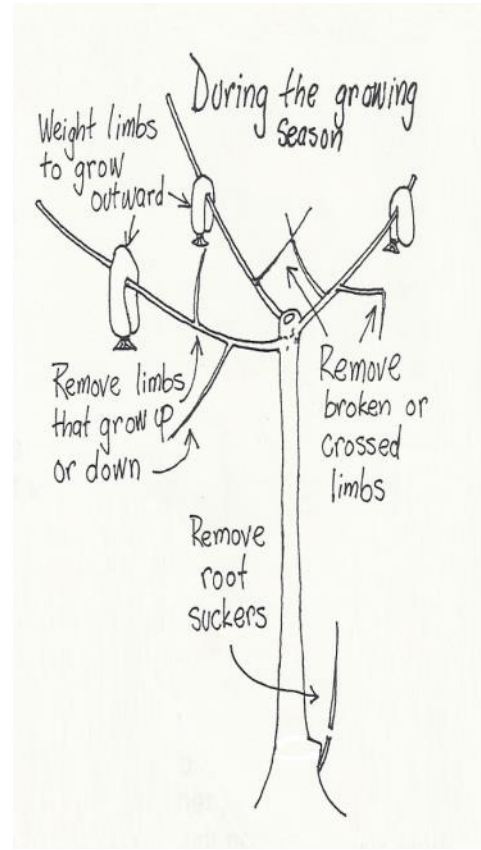
Keeping trees healthy - Pruning

- Open Center
 - Peach
 - Plum
 - Apple (dwarfed)
- Other...
 - Fig
 - Citrus
 - Pomegranate
- Central Leader
 - Pear
 - Persimmon
 - Apple (standard)
 - Nut
 - Mulberry
 - Jujube



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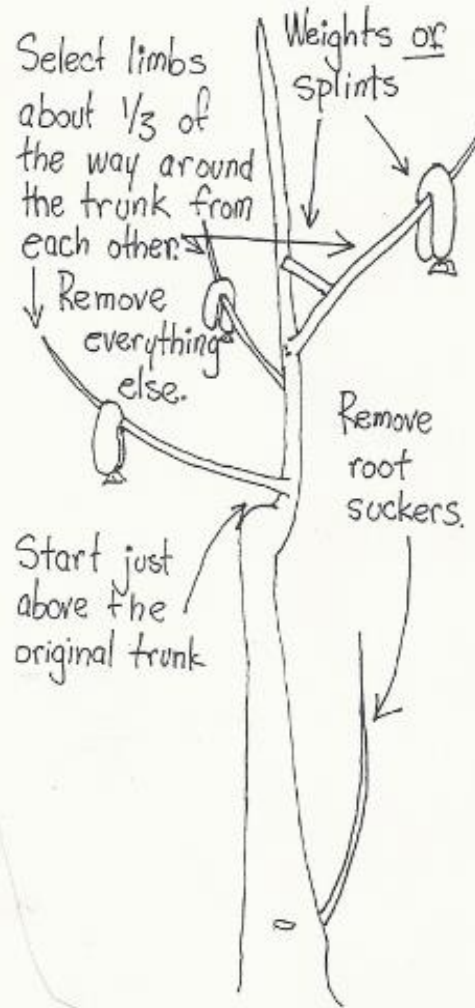
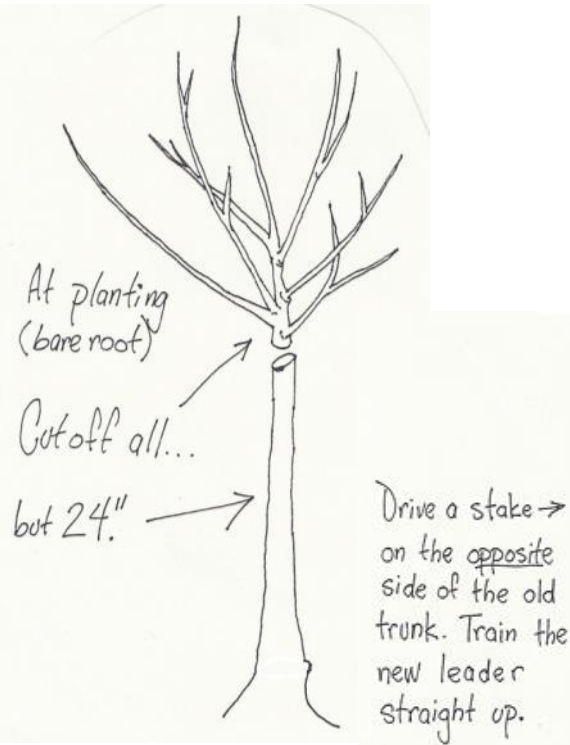
Keeping trees healthy – Open Center Pruning



TreeFolks, Inc. *Open Vase Tree*

The mission of the Central Texas Food Bank is to nourish hungry people and lead the community in the fight against hunger.

Keeping trees healthy – Central Leader Pruning



TreeFolks, Inc. *Central Leader Tree*

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Keeping trees healthy - Pruning



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Keeping trees healthy - Pruning

Vegetative Bud



Flower Bud (Spur)

The Walden Effect, No image title. 2012. Last accessed 1/11/2016. <http://www.waldeneffect.org/20120306applebuds.jpg>

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Brown Rot



<http://www.apsnet.org/edcenter/intropp/lessons/fungi/ascomycetes/Article%20Images/BrownRotStoneFruits03.jpg>

<https://www.staff.ncl.ac.uk/ethan.hack/disease-pictures-public/backus-060-plum-brown-rot.jpg>

<http://www.clairehiggins.com/images/110.jpg>

<https://mobileimages.lowes.com/product/converted/037321/037321008118.jpg>



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Fire Blight



https://www.groworganic.com/organic-gardening/images/posts/articles/fire_blight_lead.jpg
<https://www.groworganic.com/serenade-garden-disease-control-biofungicide-32-oz-concentrate.html>
http://static.wixstatic.com/media/52cd90_60cf1114a23acfc56a943f7dac051528.jpg
http://www.bartlettman.com/assets/images/ProductImages/PNG/HP-6250_BP6250_CORONA_HAND_PRUNER.png
http://www.bartlettman.com/assets/images/ProductImages/PNG/HP-6250_BP6250_CORONA_HAND_PRUNER.png

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Notes on Specific Trees

- Apple and Pear
 - Central Leader
 - Soil pH and drainage
 - Usually not self fertile
 - Lots of pests and diseases
 - Pears are a little easier
 - Fruiting spurs on 2+ year old wood



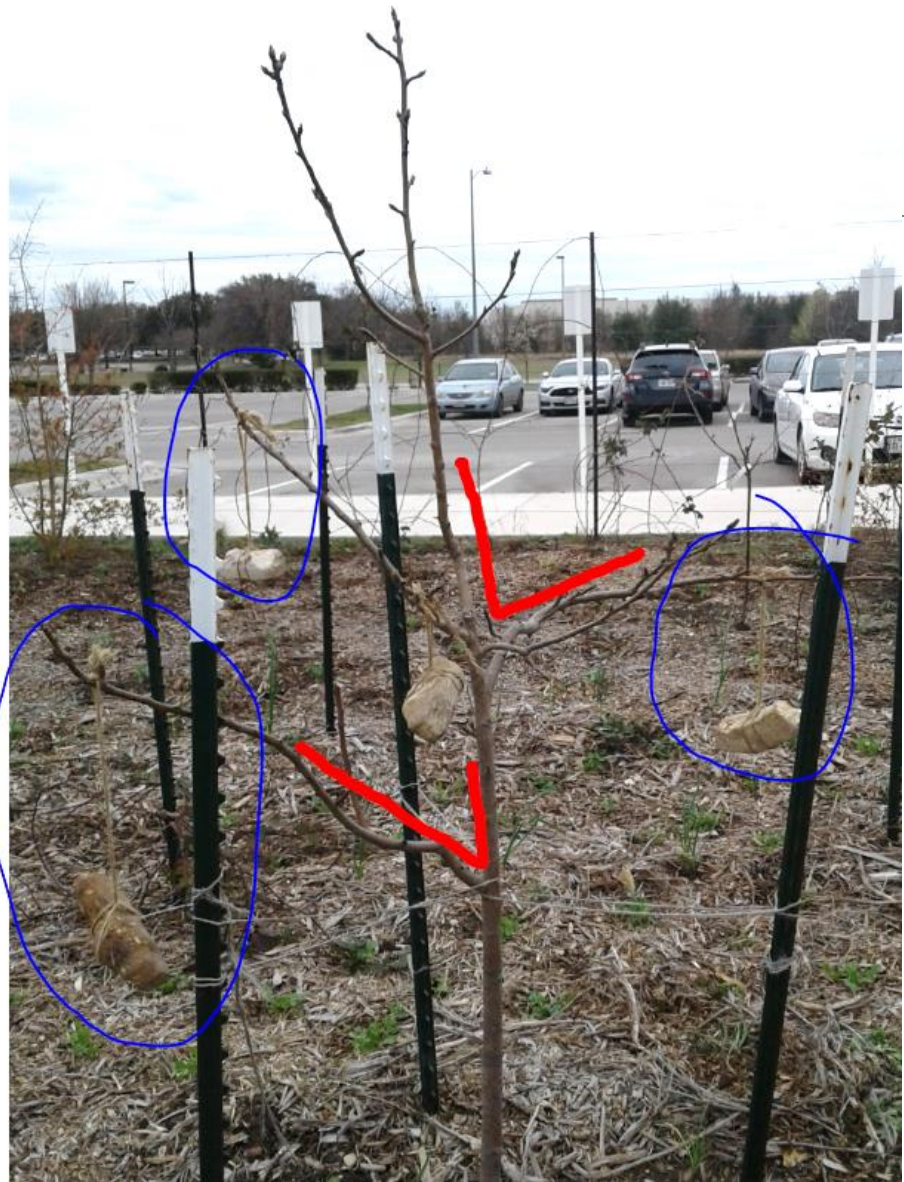
<http://chloesblog.bigmill.com/uploads/Image/Pear-Tree-blog.jpg>

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Notes on Specific Trees

- Citrus
 - Cold sensitive
 - Highly productive
 - Lots of N
 - **Lots** of H₂O
 - Self pollinating
 - Fruits on new growth
 - Prune for size and structure



Notes on Specific Trees

- Citrus



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Notes on Specific Trees

- Fig
 - Fruits on new growth
 - Hardy to mid teens
 - No pollination required
 - Rust in wet years
 - Prune to shape and size
 - 2 harvests per year



Notes on Specific Trees

- Mulberry
 - Native and exotic varieties
 - Very early fruit production
 - Fruits on new growth
 - Fall webworm, 'popcorn' fungus
 - Birds



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Notes on Specific Trees

- Stone Fruit
 - Peach, Plum, Nectarine
 - Should be aggressively pruned every year (50%)
 - Open center
 - 12-15 years
 - Lots of pests and diseases
 - Fruits on 2 year old wood
 - Plums also make spurs, prune less aggressively (25%)



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Notes on Specific Trees



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Notes on Specific Trees

- Pecan

- Central leader
- 7-10 years until harvest
- Squirrels, scab
- Weak wood
- Messy
- Wind pollinated, not self pollinating
- Deep, rich soil and lots of water



State Symbols USA, No image title. No date. Last accessed 1/11/2016. <http://www.statesymbolsusa.org/symbol-official-item/texas/state-tree/pecan-tree>



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Notes on Specific Trees

- Asian persimmon
 - Astringent and Non-astringent varieties
 - Self pollinating
 - Central leader
 - Fruits on new growth
 - No major problems



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Notes on Specific Trees

- Pomegranates

- Hardy to mid teens, some varieties lower
- Commercial production prunes to 4-12 trunks
- Prune to 4-6 trunks with modified open center
- Fruits on new growth coming off of old growth
- Black heart, cause unknown
- Self pollinating



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Notes on Specific Trees

- Jujube
 - Fruit is sweet but kind of dry
 - Better fruit set with multiple varieties
 - No pests or diseases
 - Super drought hardy
 - Has thorns
 - Central leader



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Additional Resources

California Rare Fruit Growers – <http://www.crfg.org/>

Grow Organic Apples - <http://www.groworganicapples.com/>

The Natural Gardener – <http://www.naturalgardeneraustin.com/>

Orchard Equipment and Supply - www.oescoinc.com

Peaceful Valley Farm Supply - <http://www.groworganic.com/>

Sustainable Food Center - <http://sustainablefoodcenter.org/>

Texas Organic Farmers and Gardeners Association - <http://www.tofga.org/>

Texas A&M University Extension - <http://agriflifeextension.tamu.edu/>

TreeFolks, Inc. – <http://www.treefolks.org>



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Questions?



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