Fruit & Nut Tree Pruning for the Home Landscape

Greg Mast, Gardener
Central Texas Food Bank

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

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

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

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

45 million pounds = 38 million meals

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330,000 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.
Despite our best efforts, we are still falling short by 30%.

Source: Hunger in America 2014
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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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

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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
Choosing a site – Climate - Hardiness

• Cold Hardiness
  – Avg. min temp
  – Mature plant
  – Survive ≠ Thrive

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

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Keeping trees healthy

- Pruning
  - Pests & Disease
  - Structure


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Keeping trees healthy - Pruning

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

*Prunus = Prune Us*
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
Keeping trees healthy - Pruning

- **Open Center**
  - Peach
  - Plum
  - Apple (dwarfed)

- **Central Leader**
  - Pear
  - Persimmon
  - Apple (standard)
  - Nut
  - Mulberry
  - Jujube

- **Other…**
  - Fig
  - Citrus
  - Pomegranate

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TreeFolks, Inc. Open Vase Tree
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Keeping trees healthy - Pruning
Keeping trees healthy - Pruning

Vegetative Bud

Flower Bud (Spur)

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Brown Rot

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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
Fire Blight

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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

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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
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

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Notes on Specific Trees

• Mulberry
  – Native and exotic varieties
  – Very early fruit production
  – Fruits on new growth
  – Fall webworm, ‘popcorn’ fungus
  – Birds
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

• 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


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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
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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