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Establishing and Maintaining Urban and Rural Fruit Orchards: Challenges and Opportunities from two Canadian Case studies

CUFC11 – Victoria, B.C.
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Tree Canada
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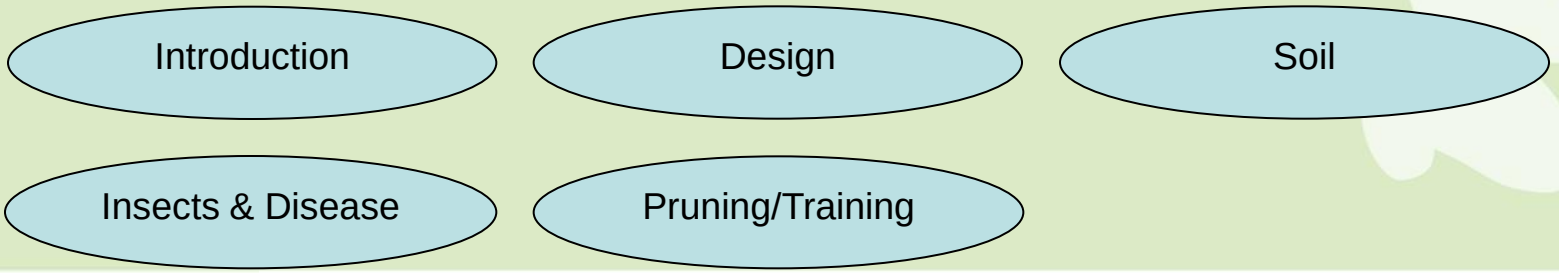
Growing better places to live

About Edible Trees

- 2012 was the first year
  (3 years = 60 winners/orchards)
- Educational webinars in 2013 and 2014
- Goal: To ensure that most of the trees planted through this program were going to thrive and produce fruits for a long time
- 2013 = Susan Poizner (Orchard People)
- 2014 = Stephen Sobkowiak (MIRACLE Farms)



Fruit Trees 101

- Hardiness
- Pests and disease
- Soils
  - Soil test
  - Sandy or silty soils are more desirable than clay
  - Fruit trees don’t like wet feet
  - pH of 6 to 6.5 (usually)
  - Small slope with access to sun is recommended
- Tree size
- Cross-Pollination
- Time of Harvest
- Utilization/Purpose

Self-Pollinating	Not Self-Pollinating
Sour Cherry	Sweet Cherry
Apricot	Apple (*Lodi, Liberty, Gala)
Peach	Pear
	Plum

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Susan Poizner and the Ben Nobleman Park

Planting Design

- Limited space
  - Kid's playground
  - Walking path
- Susan's experience:
  - Pears, Plums, Cherries and Apples
  - Staggered outside North-West of the Park
  - Jagged row
  - 4-5 metres apart
- Bees will travel 2-3 Kms to seek nectar from fruit trees but better chances if trees are closer.

Soil

- City = Poor soil (very often)
  - Struggling fruit trees
  - Stunted growth
  - Vulnerability to pest and disease
  - Poor harvest
- Susan's experience:
  - Clay berm
  - Amendments every year:
    - Compost mix and
    - Green manure
  - 3 buckets of water every few days
  - Removing the baby fruits in the first 2 years for root establishment

Insects and Disease

- Susan's Quotes:
  - "Growing fruit organically is not the same as neglect"
  - "Fruit trees are like kids...very vulnerable in the early years."
- Susan's experience:
  - Birdhouse
  - Diluted white latex paint (0 to 60 cm)
  - Footies
  - Protective sprays
    - Tanglefoot spray
    - Dormant oil
    - Sulfur spray
    - Insecticidal soap
  - Collect fallen fruit and leaves
  - Monitoring

Rust:
Did you know that rust is a serious problem in urban orchards? The fungus overwinters in juniper bushes which are common in our city gardens?

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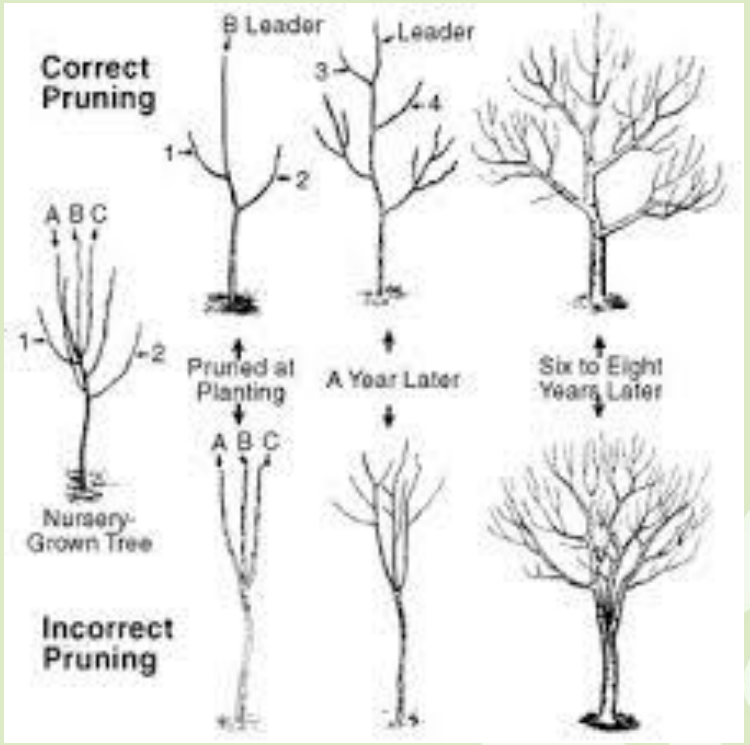
Pruning Young Trees

- Goal: Create a stable structure that can support fruit, promote air circulation, and give all the branches equal access to sun.
- Susan's experience:
  - Remove any broken, dead or diseased branches
  - Select your leader and prune and competing leaders
  - Cut all branches below knee height
  - Create a 2nd set of scaffold branches between 1st and the leader
  - Prune the central leader back to encourage growth the following year.



www.gardenaginginplace.com

Pruning out disease:
Dry day
Clean tools
Cut off an extra 6 – 20 cm to ensure all infected material is remove
Garbage bag

MIRACLE Farms

Stefan Sobkowiak, MSc MLA

- Biologist
- Teacher at McGill
- Bought 5 hectare land in Cazaville (QC) in 1992

What is Permaculture

- Working with, rather than against nature
- Everything is designed to foster biodiversity
  - All the species have a job in his orchard
  - More than 100 cultivars of apples
- Because of permaculture:
  - Reduced his working hours
  - Reduced pollution
  - Reduced costs
  - Reduced insects and disease
  - Increased yield and fertility

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Grocery Orchard

- Clients go in alleys to select their fruits
- Each alley produce fruit at set times
- Around 50 members
- Members enjoy:
  - Relaxing environment
  - Fruits and vegetables are not perfect looking
  - Assurance of no pesticides

Planting Design

Planting Design

Everything has its purpose

- Trees
  - Shade for smaller plants
- Nitrogen fixing trees
  - Absorb nitrogen from the air and transforms it into fertilizers for surrounding trees
  - Hold the pipes that prevents flowers frost because they are taller
- Fallen fruits
  - Nourish chicken, birds and insects
- Chicken, duck, goose, rabbit
  - Fertilize soil of current and future orchard
  - Clean soil from fallen fruits
  - Control insect population
- Insects
  - Pollination
  - Food for predators

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Stefan's Words of Wisdom

- Each animal/insect is potentially an employee that works hard enough to ask for a salary
- With pleasure I'm giving the birds 5 to 10% of my crop. They worked so hard for me all summer long eating insects. We don't lose this 5 to 10%, we share it with them to thank them
- If we make one step towards nature, nature will make 10 steps towards you.

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Insects and Disease

- Disease is often a sign of bad soil (too much water)
- Try to attract as much wildlife as possible (they will decide)
- Traps if it becomes too much of a problem

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Soil

- Sandy soil with low water table
- No fertilization
- Irrigation system
- Nitrogen
- Leaves decomposing
- Chicken, wild birds, etc.

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Pruning (more like Training for Stefan)

- Training instead of pruning in the early years

Conclusion

- Please consult Susan Poizner's website (www.urbanfruittree.com) where you can learn more.
- Similarly, I invite you to follow Stephen Sobkowiak at (www.permacultureorchard.com) for more details.
- Please visit Tree Canada's website at www.treecanada.ca for more details on how you can apply.
- The online application form is usually available at the end of November to mid-February.
- After the application deadline, we select the best projects across the country (usually 20 winners) and the grant can go up to $4,000.

Thank You!