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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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

<table>
<thead>
<tr>
<th>Self-Pollinating</th>
<th>Not Self-Pollinating</th>
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<tbody>
<tr>
<td>Sour Cherry</td>
<td>Sweet Cherry</td>
</tr>
<tr>
<td>Apricot</td>
<td>Apple (*Lodi, Liberty, Gala)</td>
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<tr>
<td>Peach</td>
<td>Pear</td>
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<td></td>
<td>Plum</td>
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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?
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.

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

www.gardenaginginplace.com
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
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
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.
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
Soil

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

Growing better places to live