

Agroforestry: Integrated Options for Adapting to Change

Presented to the
2009 BC Land Summit 'A Better Future: Adapting to Change'
May 20 - 22, 2009
Whistler, BC

George W. Powell, PhD, PAg

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Outline

Definitions & Examples

Intentional, Integrated, Intensive, Interactive

The Agroforestry Advantage

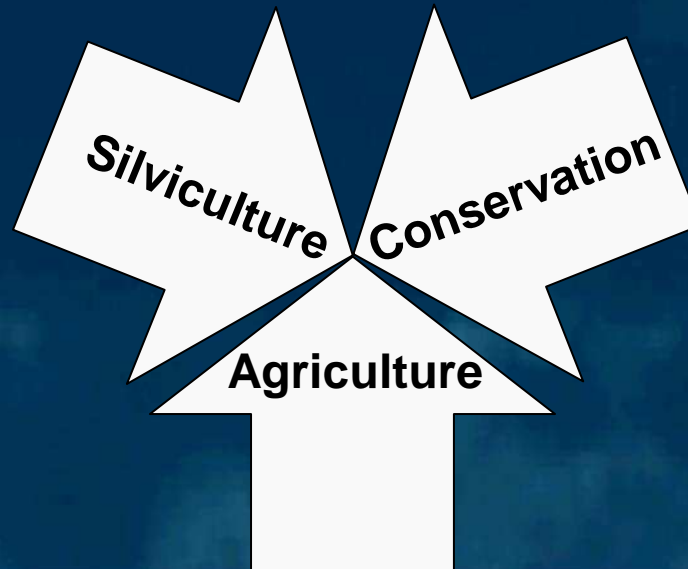
Local Solutions for Global Challenges

Edge Planning Options

Site and Landscape Level Transitions and Buffers

Agroforestry

The **intentional, integrated** production of trees or shrubs with other crops and/or livestock. **Intensive** management of the **interactions** between components.



Shelterbelts



Wikimedia Commons Photo

Prairie Windbreaks

Integrated Riparian



Red-osier dogwood riparian planting - Matsqui

Silvopasture



Cattle and Douglas-fir Christmas trees – Cranbrook

Alley Cropping



Hybrid poplar and mixed hay – Manning, AB

Forest Farming



'Wild' ginger in woodlot understory - Quebec

Used Globally



Agroforestry is one of the oldest new ideas on the planet

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Traditional Use



Wikimedia Commons Photo

First Nations used fire as a tool to manage forest cover to optimize:

- Berry production (e.g. huckleberry, saskatoon) = forest farming; and,
- Wildlife habitat (i.e. enhance forage and browse) = silvopasture.

Global Challenges

By 2050, global population will grow by >3 billion

Population growth is a driving force for rising:

- Food and energy demand

- Urbanization

And these demands link to global challenges:

- Food Security

- Loss of Natural Systems and Functions

- Climate Change

Local Solutions

- We need to adapt to changing land use and increasing demand for food, conservation and urban development.
- We need to produce more with less.

Agroforestry offers practical options for addressing these challenges.

The Agroforestry Advantage

1. Production

- a. Effective capture and use of natural resources can produce more per unit area.
- b. Wider range of production opportunities.



Photo Courtesy Gary and Teesh Backlund

Bigleaf maple syrup - Ladysmith

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The Agroforestry Advantage

2. Economics

- a. Diversification
- b. Cash flow
- c. Labour & capital efficiency



Hawthorn alley cropping - Edgewood

The Agroforestry Advantage

3. Environmental Services

- a. Protect: soil, crops, livestock, buildings
- b. Conserve: diversity, habitat, natural functions
- c. Filter: dust, noise, odours, visual
- d. Sequester carbon



Walnut fenceline planting - Agassiz

Edge Planning Options

1. Rural – Urban Interface
2. Buffer for Land Management
3. Landscape-Level Transitions and Buffers

Edge Planning Options

1. Rural – Urban Interface

Transition urban developments with options to integrate conservation and production:



Community
forest-gardens?

Edge Planning Options

2. Buffer

a. Riparian – trap run-off, sediment, agri-chemicals



Wikimedia Commons Photo

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Edge Planning Options

2. Buffer

b. Trap dust



Edge Planning Options

2. Buffer

c. Nutrient / Odour Management



J&D Farm - Abbotsford

Edge Planning Options

2. Buffer

d.

Aesthetics



Edge Planning Options

2. Buffer

e. Reduce noise by 5 -10 dB



Edge Planning Options

3 a. Landscape-level Transitions

From Wilderness to Actively Managed



e.g. transition
agricultural
development areas
in the mountain
pine beetle zone

Edge Planning Options

3 a. Landscape-level Buffers

e.g. Silvopasture for:

- Ecosystem restoration to open forest structure; and,
- Managed landscapes to reduce interface fire risk.



Development Needs

The Opportunity

- Conservation, restoration and land use transitions subsidized by economic activity.

Some Challenges

- Most practices require R&D support – additional partnerships are needed.
- Address First Nations' rights and titles.
- Need enabling legislation / policies for activities on Crown land / in riparian zones.

Development Needs

- Develop formal agroforestry guidelines in conjunction with “Edge Planning Guide”.
- Amendments / definitions needed in Official Community Plans, zoning / landscaping bylaws.
- Public education, particularly regarding maintenance / harvest activities.

Summary

- Agroforestry is a group of integrated production opportunities that can assist to strengthen and diversify the economy and address conservation challenges.
- Because of their integrated nature, they are options for achieving multiple land use objectives.
- Need to expand R&D partnerships and address a host of policy and planning issues for more widespread use of agroforestry options.

For More Information

BC Agroforestry Initiative

www.woodlot.bc.ca/agroforestry/

BC Ministry of Agriculture and Lands

www.agf.gov.bc.ca/agroforestry/

BC Agroforestry News

<http://ag4bc.blogspot.com>

Contact me:

gpowell@agforinsight.com

www.agforinsight.com

AgForInsight.com