

Beef & Trees

Engaging Beef Producers in Reducing GHG

World Social Marketing Conference

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About the project

- **Duration:** April'11 – March'15
- **Sponsor:** AGGP/AAFC
- **Goal:** reduce GHGs
- **Partners:** UARCD & RDI
- **Objectives:** Model shelterbelts, more shelterbelts



Social marketing

- Engaging beef producers to maintain, expand, and plant more shelterbelts (SB)

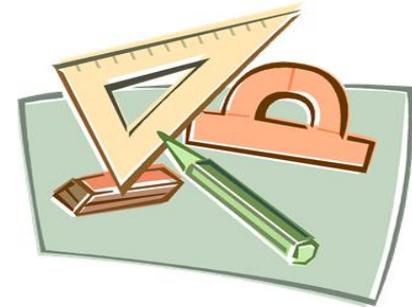
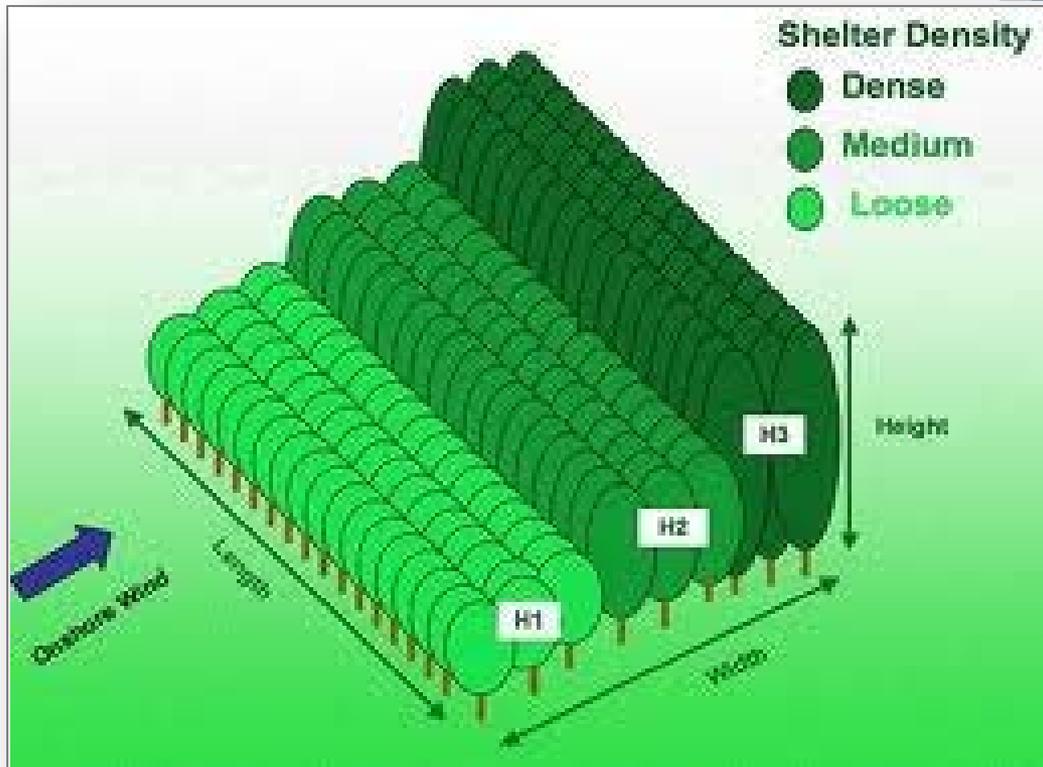


Outline

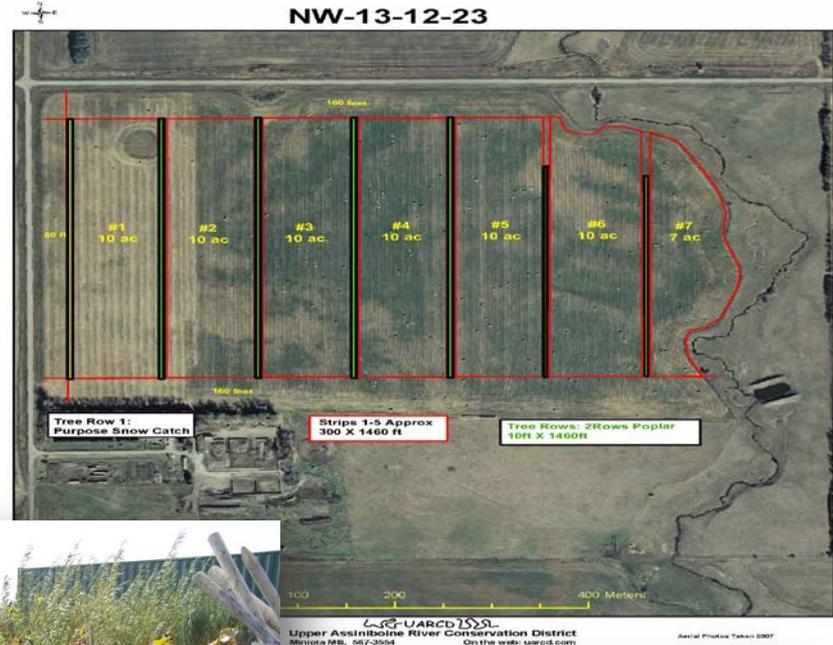
- SB model
- GHG connections
- Beef producers
- Annual campaign
- Findings
- Next steps



Shelterbelt



- Plant, maintain 2500 trees
- Monitoring soil
- Tracking costs & benefits
- GHG impacts



NW-13-12-23



1 centimeter = 40 meters

Upper Assiniboine River Conservation District
Minota MB, 567-3554
On the web: uarcct.com

Aerial Photos Taken 2007

GHG impacts (potential)

- Reduced equipment use
- Reduced fertilizer use
- Improve carbon sequestration
- Improved nutrient distribution
- Lower methane emissions: digestion, respiration
- Reduced evaporation



- How many and where are SBs
- Understand BP attitudes towards SBs
- **How:** social marketing approach
 - A systematic application of marketing concepts and techniques, along with behavioural change theory over time, while aiming to achieve specific goals for a social good
 - E.g. residential water conservation
 - E.g. Health Canada vs. smoking and obesity



Sources: Hawke, 1999; Christmas, S. et al, 2009

Shelterbelt challenges

- **Maintain/keep**

- More benefits than costs
- Some BP removing SBs

- **Expand existing**

- Future benefits with ongoing costs
- Design, plant, nourish

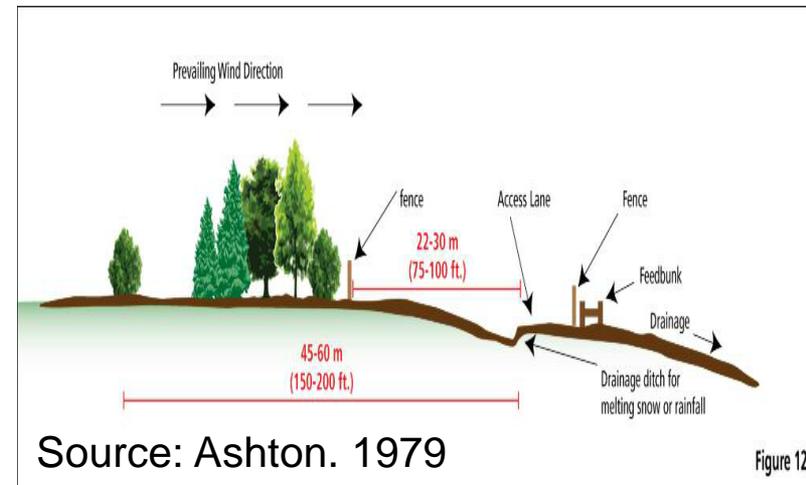
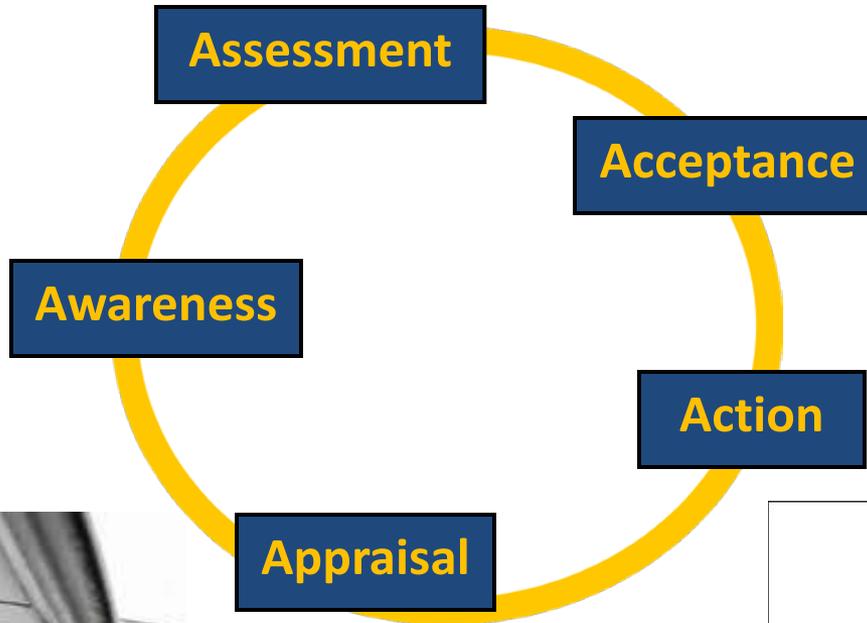
- **New**

- Future benefits with ongoing costs
- Design, plant, nourish



Social marketing approach

5 stage model



Social marketing approach

Awareness

- Have SBs?
 - Multi-purposes of SBs?
 - Keep SBs?
 - How maintain SBs?
 - Plant more SBs?
 - Benefits vs costs?



Assessment

- Knowledge of SBs
- GHG benefits
- Benefits – now, later
- Costs – now, ongoing
- # of trees, planting
- Barriers, opportunities
- Negotiations

Social marketing approach

Acceptance

- Yes, NO, Maybe
- Yes – take action
- No – for now, forever
- Maybe – help decide

Action

- Maintain, expand, new
- Investment plan
- Funding, trees
- Learn from others

Appraisal

- Measure success, yearly, over time
- Continue, adjustments
- Share know-how (champion)



Social marketing approach

Champaign elements

- Baseline survey
- SB workshops & info
- Videos and virtual tours
- Website
- Communications
 - BP events & workshops
 - Factsheets
 - Articles, newsletters
 - Conferences



What do we know (n=532 of 8000)

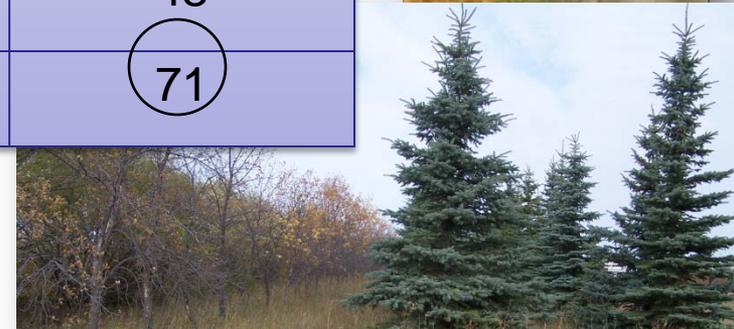
- 87% have SBs
- 13% no SBs, rent land
- 99% keep SBs
- 50% expand, improve
- 90%+ mutli-use of SBs



Beef producers

Strong perception of multiple uses of SBs (n = 201)

Role of SB	Agree (%)	Neutral (%)	Disagree (%)
Livestock protection	95	2.5	2.5
Wildlife habitat	94	4.5	1.5
Drifting snow	94	2.5	3.5
Soil erosion	90	6	4
Animals vs. crops	32	35	33
Soil nutrients	20	32	48
Trouble to maintain	11	18	71



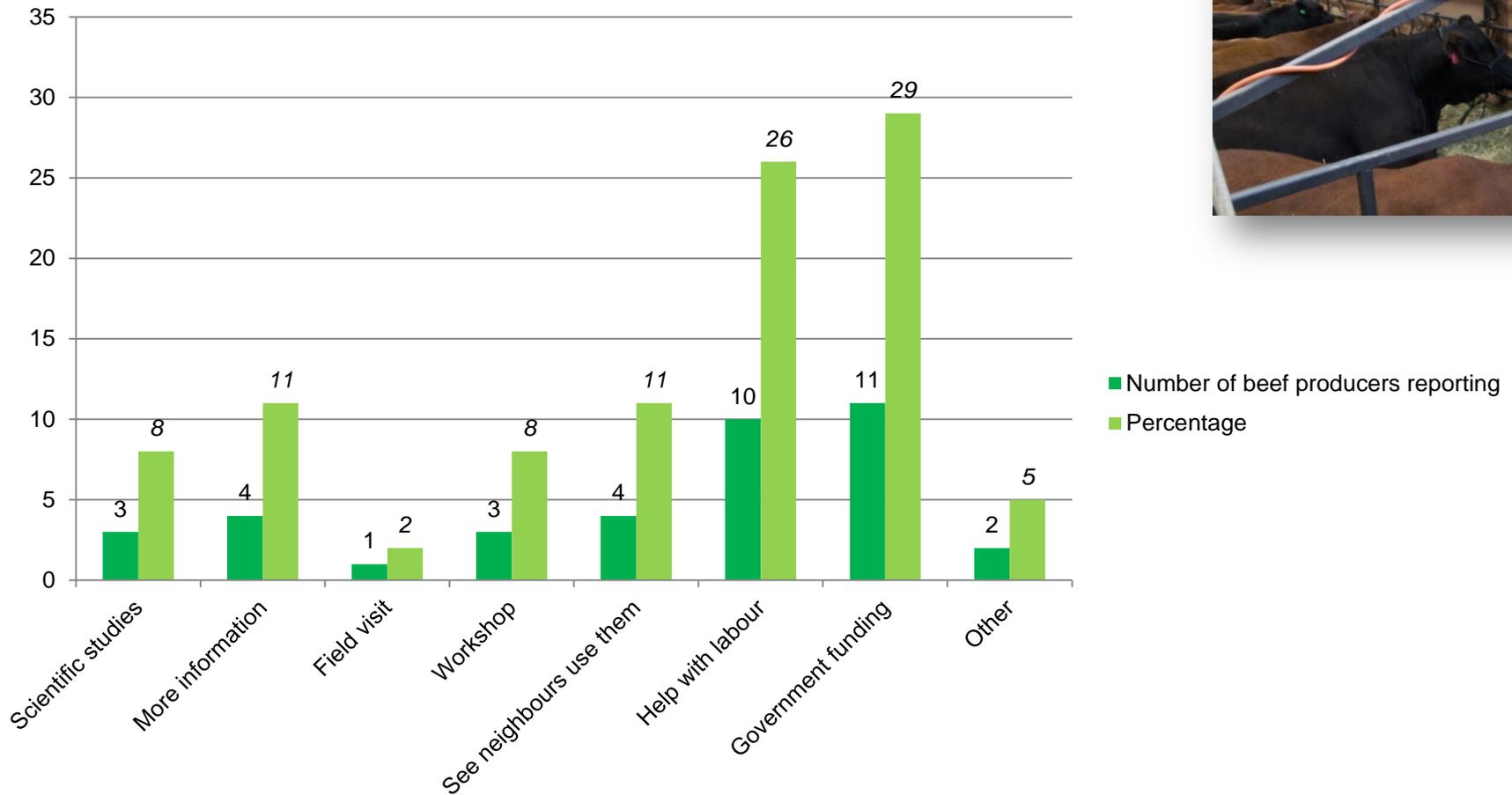
What do we know (n=532)

- 3 groups of BP
 - <100 head, <300 head, 300+ head
- Fiercely independent
 - Not grain producer, annual operation
 - Produce own feed
 - Committed to a breed (eg., Angus)



Beef producers

Factors for reconsideration of SBs

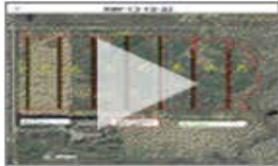


Demonstration and Investigation into Livestock Systems Adoption

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About Shelterbelts

Design of a Shelterbelt



Roles of a Shelterbelt



Shelterbelt Maintenance



Picture Gallery



Shelterbelts prevent snow accumulation on roads and driveways or in farmlands.

Snow Control

Soil Erosion

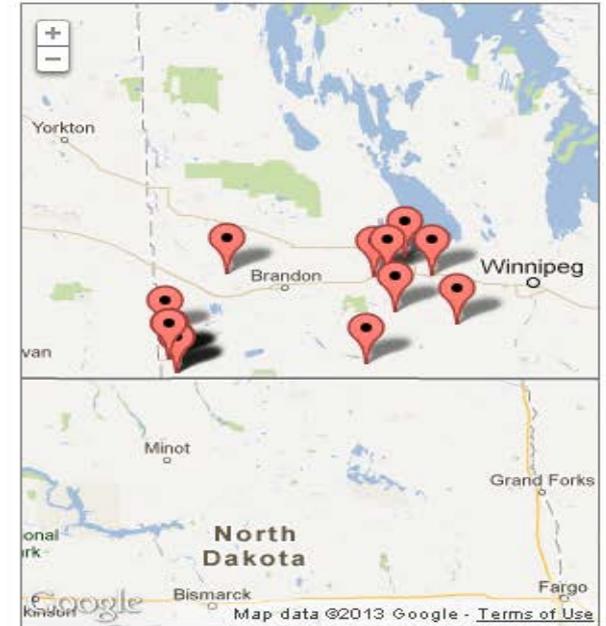
Livestock Shelter

Wildlife

Aesthetic Value

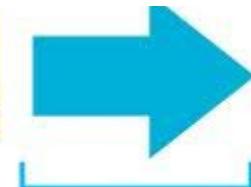
Virtual Shelterbelt Tour

Use the +/- buttons to get a closer look. Hold down the left mouse button while dragging up, down, left, or right to navigate around the map.



View all Virtual Shelterbelt Tours here.

<http://prairieshelterbelts.ca/>



Knowledge Transfer



Findings & implications

- Who are BPs?
 - Location, location, location
 - Subgroups of BPs
 - Herd size
 - Land owner
 - Role in supply chain
 - BP knowledge high of SBs
- Keep
 - Stop removal, change from cost to benefits
 - Maintain
 - Ag-forestry, Clear costs
 - Expand
 - Ag-forestry, clear cost for longer term benefits
 - New
 - Ag-forestry, clear cost for longer term benefits

References

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Thank you

