

**Tree Planting and Conservation Delivery Organizations, Programs and
Projects Across the Prairie Provinces**

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1.0 INTRODUCTION

With the announcement of the “Government of Canada Action Plan 2000 on Climate Change” (Action Plan 2000), the federal government invested \$500 million over five years for measures to reduce greenhouse gas emissions and promote carbon sequestration.

As part of Action Plan 2000, a forestry component is included that focuses on methods to sequester carbon. Natural Resources Canada/Canadian Forest Service has responded to the climate change issue by initiating the “Feasibility Assessment of Afforestation for Carbon Sequestration” (FAACS). The purpose of FAACS is to assess (planning, designing, and evaluating) the feasibility of a large-scale national afforestation program.

A future afforestation program will be important because of the recognition of trees to sequester carbon. Native prairie however will not be considered for planting or conversion as this ecosystem type is endangered. Knowledge of past and present programs will be beneficial to help understand and identify what a potential large-scale program will involve.

The objectives of this study are to i) identify and assess past and present tree planting and other conservation delivery programs on non-crown lands across the provinces of Manitoba, Saskatchewan, and Alberta; ii) identify possible partnership arrangements for the FAACS initiative and; iii) provide recommendations on the feasibility of a large-scale Prairie-centred afforestation program.

In this report, the following chapters review literature of afforestation, describe the study methods, identify results, and summarize key findings.

2.0 BACKGROUND and LITERATURE REVIEW

There is no known extensive review of tree planting and conservation programs across the Prairie provinces. Such a review would provide important background information in the assessment of the feasibility of a national afforestation study. Provincially, few studies were identified, and these were limited to summarized knowledge of activities, location and contacts (e.g., Critical Wildlife Habitat Program 1997; Land Stewardship Centre of Canada 2002).

A detailed historical study was undertaken on farm forestry and tree culture development for non-forested regions of Manitoba (Ellis et al. 1945). It provided possibilities and limitations to tree production considering soil conditions and the landscape for various activities including woodlot development and improvement, shelterbelt establishment, afforestation, and forest product marketing.

Recently, some relevant studies have focused on forest program development on private lands. McKinney and Rounds (1990) gathered landowner information in Manitoba for establishment of forest management programs or reforestation of their lands. Major reasons for wanting to manage woodlots were for shelter of residence, wildlife habitat, soil and water conservation, and recreation; and only 40% felt they had enough information to effectively manage their woodlot. They also found that education and information were in greatest demand, and that the provincial government, possibly in combination with the federal government or private organizations, should be responsible for programs. Similarly, Rounds et al. (1995) identified that resident shelter, soil and water conservation, and wildlife habitat were the most common responses for woodlot management and planting in the Prairies. Again, information and education received the strongest support for a woodlot management program.

Previous afforestation programs can also provide important information from experience. In Ontario, lessons from the Woodlands Improvement Act Program were that afforestation costs need to be very low for landowner participation and that technical services need to be strong and continuous (Puttock 2002). This program facilitated afforestation on privately owned sub-marginal agricultural lands and planted 213 million trees. Other common elements for successful afforestation were noted as good public support and involvement, well managed, delivered through a variety of mechanisms (public agencies, private sector), available nursery quantities and species at low cost, and funding for follow-up plantation treatment.

3.0 METHODS

The search for suitable tree planting and conservation programs initially involved recommendations from the Manitoba FACCS Working Group (Appendix 1) and the Agriculture and Agri-Food Canada – Prairie Farm Rehabilitation Administration (AAFC-PFRA) Shelterbelt Centre. Through their participation, a network of potential programs was identified. Contacts were established with government, environmental organizations, industry, and contractors. While search focus was on relevant tree planting programs, information obtained from sources that appeared to be strongly connected to the study were also included (i.e., tree planting projects; nurseries; agricultural programs).

To gather consistent information on the programs, a survey was developed and reviewed by members of the FAACS Working Group. The survey consisted of 25 questions that addressed program objectives, participation levels, costs, incentives, successes, and weaknesses (Appendix 2). The survey was administered by e-mail with one exception where mail was used¹. Responses to the survey were received via e-mail, fax, mail, and by personal interview.

¹ Mail was used to administer the survey for Dave's Tree Planting Service.

The programs were separated among the three Prairie provinces. Nurseries were grouped under one heading. Information provided on the programs were based on the responses provided from the surveys.

In order to identify and understand tree planting capacity and community trends, secondary information was also gathered by the survey. When analyzing those views and opinions, frequencies of responses were used where possible to determine percentages. Only questions that received responses were included in the analysis (i.e., a question left blank, which could have received a response of Yes or No, was not regarded as a No response).

4.0 RESULTS

4.1 Organizations, programs and projects

Of possible 149 responses (i.e., programs, projects, and organizations), 55 surveys (37%) were returned. One hundred and thirty-two organizations across the Prairies received the survey and 45 of them responded (34%). Of the 55 surveys returned, 43 were programs, five were projects and seven were organizations (e.g., nursery).

The study contains 25 responses from Manitoba, 15 from Saskatchewan and 15 from Alberta, including five nurseries that completed the survey. One survey was rejected as the program planted only on crown land.¹ All but five programs/projects are currently active, three in Manitoba (i.e., Canada Manitoba Agreement on Agricultural Sustainability Program; Southwest Manitoba Field Shelterbelt Service; Wildlife Corridor Project) and two in Saskatchewan (i.e., Greencover Program; Wildlife Shelterbelt Program). Appendix 3 contains all organizations and their related programs/projects that received the survey. Appendix 4 includes organizations with program descriptions that did not return the survey for the study. Contacts from the study are included in Appendix 5.

From the survey responses, information is bolded in the following categories: ORGANIZATION, PROGRAM, INVOLVEMENT, OBJECTIVES, PROJECTS, IMPLEMENTATION, AMOUNT PLANTED, STOCK MORTALITY, SERVICES, EQUIPMENT, FUNDING PARTNERS, COSTS, STOCK SUPPLIER, PRODUCTION, PROGRAM DEMAND, PARTNERSHIPS, INCENTIVES, STRENGTHS, NEEDED IMPROVEMENTS, and WEAKNESSES.

¹ Manitoba Conservation (Trees for Canada-Boy Scouts of Canada)

4.2 Manitoba based organizations, programs and projects surveyed

Below are the responses received from Manitoba.

4.2.1 **ORGANIZATION:** Agriculture and Agri-Food Canada – Prairie Farm Rehabilitation Administration and Manitoba Agriculture

PROGRAM: *Southwest Manitoba Field Shelterbelt Service*

INVOLVEMENT: tree planting services, tree planting promotion/coordination, federal funding agency, provincial funding agency, farm producer group, nursery, forest industry, wildlife habitat, and farmer funding

OBJECTIVES: a program under the Canada-Manitoba Soil Conservation Agreement; designed to plant and maintain field shelterbelts in areas most prone to soil erosion

PROJECTS: approximately 258 landowner and nine community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs between five to 10 years (1990 to 1995)

AMOUNT PLANTED: approximately 517 miles of trees and shrubs have been planted

STOCK MORTALITY: average stock mortality experienced in the first year was between 10 to 30%

SERVICES: services provided included site preparation, design and flag site, order trees, plant trees, replant trees, chemical and mechanical maintenance, and administration

EQUIPMENT: accessible equipment owned included tractor (two), mechanical tree planter (two), cultivator (three), sprayer (six), truck and trailer (four), and mulch applicator (two)

FUNDING PARTNERS: federal government (40%), landowners (33%), and provincial government (27%)

COSTS: approximate costs to plant and maintain one mile of trees and shrubs was \$1,200, included three years of maintenance

STOCK SUPPLIER: Prairie Farm Rehabilitation Administration (PFRA); Pineland Forest Nursery for Shilo Farms Project

PARTNERSHIPS: federal government, provincial government, and landowner

INCENTIVES: government support, reduce soil erosion, and farm/town beautification

STRENGTHS: a support program, and community representation on governing committee

WEAKNESSES: low soil moisture for plantings; travel distances for crews; weed growth; chemical spray damage from adjacent crop spraying (Round-up and broad leaf weed control chemicals) accounted for about 50% loss of the shelterbelts; the local tree storage building was not refrigerated which resulted in deterioration of seedling condition if not planted within 7 to 10 days; deer were fond of ash plantings and shrubs, particularly choke cherry

4.2.2 ORGANIZATION: Alonsa Conservation District

PROGRAM: *Conservation District – Multiple Programs*

INVOLVEMENT: tree planting promotion/coordination

PROJECTS: approximately 20 landowner and five community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

AMOUNT PLANTED: approximately 30 miles of trees and shrubs have been planted over the last 10 years; three miles are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 and 30%

SERVICES: services provided includes site preparation, design and flag site, order trees, plant trees, replant trees, mechanical and mulch maintenance, and administration

EQUIPMENT: accessible equipment owned includes truck and trailer; equipment borrowed/leased includes tractor (two), mechanical tree planter, rotivator, and sprayer

FUNDING PARTNERS: provincial government (50%), crown corporation (40%), ratepayers (10%), and federal government (PFRA trees)

COSTS: approximate costs to plant and maintain one mile of trees and shrubs varies between zero to \$2,000

STOCK SUPPLIER: Jefferies Nurseries and PFRA

DEMAND: current landowner/community demand for the program is medium

PARTNERSHIPS: PFRA, Manitoba Hydro, rural municipalities, and Manitoba Government

INCENTIVES: supply trees and planting costs

NEEDED IMPROVEMENTS: need to provide follow-up care to planted trees

WEAKNESSES: need to convince partners that planting is just stage one of a long-term commitment

4.2.3 ORGANIZATION: Cooks Creek Conservation District

PROGRAM: *Tree Planting Program*

INVOLVEMENT: tree planting promotion/coordination

OBJECTIVES: project coordination, and transportation of seedlings for local cemeteries

PROJECTS: approximately four community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for less than five years

AMOUNT PLANTED: approximately 400 trees and shrubs have been planted

STOCK MORTALITY: average stock mortality experienced in the first year is less than 10%

SERVICES: services provided prior to 2001 included order trees and administration

FUNDING PARTNERS: volunteers (100%)

STOCK SUPPLIER: PFRA

DEMAND: current landowner/community demand for the program is low

PARTNERSHIPS: PFRA and Local Cemetery Committee
INCENTIVES: addresses local community interests and needs
NEEDED IMPROVEMENTS: external funding and promotion

4.2.4 ORGANIZATION: Dave's Tree Planting Service

INVOLVEMENT: tree planting services, tree planting promotion/coordination, federal funding agency, provincial funding agency, and wildlife habitat

OBJECTIVES: tree planting, orchard design, site preparation, and plastic mulch application

PROJECTS: approximately 50 landowner and two community projects have been delivered

IMPLEMENTED: program has been planting trees and shrubs between five to 10 years

AMOUNT PLANTED: approximately 80 miles of trees and shrubs have been planted; eight miles are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is less than 10%

SERVICES: services provided prior to 2001 included site preparation, design and flag site, plant trees, and mulch maintenance; since 2002, the same services have been provided including grow trees, order trees, and administration

EQUIPMENT: accessible equipment owned includes tractor, mechanical tree planter, rotivator, sprayer, truck and trailer, and mulch applicator; equipment borrowed/leased includes tractor

FUNDING PARTNERS: landowners (80%), federal government (10%), provincial government (5%), and external funding partners

COSTS: approximate costs to plant and maintain one mile of trees and shrubs is \$1,500

STOCK SUPPLIER: PFRA

DEMAND: current landowner/community demand for the program is high

PARTNERSHIPS: PFRA, conservation districts, and Manitoba Hydro

INCENTIVES: long term sustainable protection of the environment

STRENGTHS: plantations can sustain landowners economically

NEEDED IMPROVEMENTS: develop demonstration projects

WEAKNESSES: amount of time spent to promote afforestation and to plan landscapes

4.2.5 ORGANIZATION: Delta Waterfowl Foundation

PROGRAM: *Adopt A Pothole Program*

INVOLVEMENT: tame forages

OBJECTIVES: paid leases that included wetlands and both native and converted uplands that run for 10 years

PROJECTS: approximately 140 landowner projects have been delivered

DEMAND: current landowner/community demand for the program is medium

PARTNERSHIPS: North American Waterfowl Management Plan, individual duck hunters across North America, and Illinois Department of Natural Resources

INCENTIVES: paid landowners \$27/acre/year for cultivated land converted to grass as well as \$7/acre/year for native upland

STRENGTHS: cash incentives; good reputation with the community

WEAKNESSES: cash limiting

4.2.6 ORGANIZATION: Friends of Bruce Park

PROGRAM: *Tree Planting Program*

INVOLVEMENT: wildlife habitat

OBJECTIVES: improve habitat along Truro Creek in the City of Winnipeg

PROJECTS: approximately 10 community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs between five to 10 years

AMOUNT PLANTED: approximately 100 trees and shrubs have been planted

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%

SERVICES: services provided prior to 2001 included site preparation, design and flag site, order trees, plant trees, mechanical and mulch maintenance, and administration

FUNDING PARTNERS: provincial government (95%), and volunteers (5%)

STOCK SUPPLIER: Jefferies Nurseries and Aubin Nursery

DEMAND: current landowner/community demand for the program is low

PARTNERSHIPS: City of Winnipeg (Parks), and Province of Manitoba (Education, Training, and Sustainable Development)

INCENTIVES: distress at the condition of the parkland along the creek; desire to improve habitat

WEAKNESSES: lack of continuity in supervision, and lack of participation by the City of Winnipeg

4.2.7 ORGANIZATION: Intermountain Conservation District

PROGRAM: *Community Tree/Streambank Stabilization Program*

INVOLVEMENT: tree planting services, tree planting promotion/coordination, nursery, and wildlife habitat

OBJECTIVES: plastic mulch application; demonstration plots for berry-producing trees and shrubs; supply trees to local improvement/beautification projects (no longer performed)

PROJECTS: approximately 13 landowner and 10 community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for less than five years

AMOUNT PLANTED: approximately 2,500 trees and shrubs have been planted; 50 are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 and 30%

SERVICES: services provided includes grow trees, plant trees; chemical, mechanical and mulch maintenance; and administration

EQUIPMENT: accessible equipment owned includes sprayer, truck and trailer, and mulch applicator; equipment borrowed/leased includes tractor, mechanical tree planter, and rotivator

FUNDING PARTNERS: provincial government, federal government, and crown corporation

COSTS: approximate costs to do streambank plantings and maintain plantations is 20 to 30 man-hours per year

STOCK SUPPLIER: Intermountain Conservation District, PFRA, and a Saskatoon Nursery

DEMAND: current landowner/community demand for the program is low

PARTNERSHIPS: PFRA

INCENTIVES: projects are cost-shared between organizations and landowner

STRENGTHS: cost-shared program as well as majority of labor supplied

WEAKNESSES: duplication of services (PFRA has a successful shelterbelt program)

4.2.8 **ORGANIZATION:** Lake of the Prairies Conservation District

PROGRAM: *Shelterbelt/Tree Planting Program*

INVOLVEMENT: tree planting promotion/coordination, provincial funding agency, and wildlife habitat

OBJECTIVES: conservation of water, soil, fish, wildlife, and forestry practices on a landscape scale

PROJECTS: approximately three landowner and one community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for less than five years

AMOUNT PLANTED: approximately 250 trees and shrubs have been planted; 125 are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is less than 10%

SERVICES: services provided includes site preparation, order trees, plant trees, mechanical and mulch maintenance, and administration

EQUIPMENT: accessible equipment owned includes mechanical tree planter, sprayer, and truck; equipment borrowed/leased includes tractor, mechanical tree planter, and mulch applicator

FUNDING PARTNERS: crown corporation (55%), federal government (20%), provincial government (10%), landowners (10%), and ratepayers (5%)

STOCK SUPPLIER: Skinner's Nursery and Luba's Tree Farm

DEMAND: current landowner/community demand for the program is medium

PARTNERSHIPS: Manitoba Hydro

STRENGTHS: increased awareness for landowners and communities towards the benefits of shelterbelts and wildlife habitat

WEAKNESSES: limited funding

4.2.9 ORGANIZATION: Manitoba Agriculture and Food

PROGRAM: *Canada Manitoba Agreement on Agricultural Sustainability Program*

INVOLVEMENT: federal and provincial funding agency

OBJECTIVES: encouraged the adoption of environmentally sustainable practices in agriculture from 1993 to 1997.

PROJECTS: approximately 2,000 projects have been delivered to producer groups

PARTNERSHIPS: Ducks Unlimited, Manitoba Habitat Heritage Corporation (MHHC), PFRA, commodity organizations (Flax Council, Canola Council), conservation districts, farmers, and researchers

STRENGTHS: ability to demonstrate agricultural practices

4.2.10 ORGANIZATION: Manitoba Agriculture and Food

PROGRAM: *Covering New Ground Program*

INVOLVEMENT: provincial funding agency

OBJECTIVES: provides funding and technical assistance to producer groups and commodity organizations to carry out sustainable agriculture projects that include sustainable forage management, sustainable crop management, and integrated pest management

PROJECTS: approximately 1,200 projects have been delivered to producer groups

DEMAND: current landowner/community demand for the program is high

PARTNERSHIPS: Ducks Unlimited, MHHC, PFRA, Manitoba Conservation, commodity organizations (Flax Council, Canola Council), conservation districts, and farmers

INCENTIVES: producer groups that received funding from the program offered incentives (<\$2,000 over the past five years) to farmers for a particular sustainable agriculture practice

STRENGTHS: use of good farming practices by demonstration and investigation projects; projects are usually specific to a certain area of Manitoba in terms of soil type and topography

4.2.11 ORGANIZATION: Manitoba Forestry Association

PROGRAM: *Seedling Program*

INVOLVEMENT: tree planting promotion/coordination

OBJECTIVES: provide seedlings to landowners in the province for the purposes of general woodlot management, nursery stock, and Christmas trees

IMPLEMENTATION: program has been selling trees and shrubs for less than five years

AMOUNT PLANTED: approximately 300,000 seedlings have been sold; 120,000 are currently being sold per year

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%

FUNDING PARTNERS: landowners (100%)

STOCK SUPPLIER: Pineland Forest Nursery

DEMAND: current landowner/community demand for the program is high

PARTNERSHIPS: Pineland Forest Nursery

INCENTIVES: technical support through the Manitoba Forestry Association's Woodlot Program

STRENGTHS: good reputation; well promoted, and technical services received from the Manitoba Forestry Association's Woodlot Program

NEEDED IMPROVEMENTS: increased advertising, and better method for stock distribution to be more centralized

4.2.12 ORGANIZATION: Manitoba Forestry Association

PROGRAM: *Woodlot Program*

INVOLVEMENT: tree planting promotion/coordination, and extension services

OBJECTIVES: provide information to landowners on tree planting including techniques, suppliers, and benefits

PROJECTS: approximately 700 landowner and 10 community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

AMOUNT PLANTED: approximately 3,000,000 trees and shrubs have been planted over the last 10 years

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%

SERVICES: services provided since 1992 include design and flag site, order trees, and administration

FUNDING PARTNERS: landowners (100%)

STOCK SUPPLIER: PFRA and Pineland Forest Nursery (through the Manitoba Forestry Association's Seedling Program)

DEMAND: current landowner/community demand for the program is high

PARTNERSHIPS: landowner and provincial government

STRENGTHS: provide information to landowners for informed decision making

4.2.13 ORGANIZATION: Manitoba Habitat Heritage Corporation

PROGRAM: *Wildlife Corridor Project*

INVOLVEMENT: tree planting promotion/coordination

OBJECTIVES: bridge the gap between landowner interest in traditional single row shelterbelts and the Canadian Forest Service's interest in block plantations by establishing a minimum three row plantation

PROJECTS: approximately 167 landowner projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for less than five years (1993 to 1995); MHC is currently planting trees on a smaller scale due to the elimination of major funding partners

AMOUNT PLANTED: approximately 642,200 trees and shrubs have been planted; 45,000 are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%

SERVICES: services provided prior to 2001 included design and flag site, order trees, plant trees, replant trees, chemical and mechanical maintenance, and

administration; since 2002, services include design and flag site, order trees, mulch maintenance, and administration

EQUIPMENT: equipment is supplied by conservation districts

FUNDING PARTNERS: federal government (69%), provincial government (16%), landowners (6%), Wildlife Habitat Canada (4%), conservation districts (4%), and ratepayers (1%)

COSTS: approximate costs to plant and maintain one mile of trees and shrubs was \$953, including maintenance in year two and three

STOCK SUPPLIER: PFRA, Jefferies Nurseries, and Aubin Nursery

DEMAND: current landowner/community demand for the program is low

PARTNERSHIPS: Agro Woodlot Program, Tree Plan Canada, Wildlife Habitat Canada, Federal-Provincial Agricultural Agreements, conservation districts, and the Southwest Field Shelterbelt Service

INCENTIVES: Federal-Provincial Agriculture Agreements funded approximately \$500 per mile for single row shelterbelts and an additional \$100 per mile to promote wildlife corridors over three years

STRENGTHS: flexible by allowing landowners to plant as many rows as they wanted; a full service program from design to maintenance; added incentives for establishing a wildlife corridor

NEEDED IMPROVEMENTS: funding

WEAKNESSES: federal budget cuts in 1995

4.2.14 **ORGANIZATION:** Manitoba Hydro

PROGRAM: *Forest Enhancement Program*

INVOLVEMENT: tree planting services, tree planting promotion/coordination, farm producer groups, nursery, forest industry, and wildlife habitat

OBJECTIVES: community focused tree planting and forest education for Manitoba

PROJECTS: approximately 400 community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs between five to 10 years

STOCK MORTALITY: average stock mortality experienced in the first year is less than 10%

SERVICES: services provided includes project delivery, and administration

EQUIPMENT: equipment is provided by the communities (in kind)

FUNDING PARTNERS: Crown corporation (nearly 100%), provincial government, industry, and external funding partners

COSTS: costs to plant and maintain one mile of trees and shrubs is project specific

STOCK SUPPLIER: communities access stock from provincial nurseries

DEMAND: current landowner/community demand for the program is high

PARTNERSHIPS: conservation districts and MHHC

INCENTIVES: annual funding (\$4,000 for small projects, \$25,000 for large projects)

STRENGTHS: ease of access and universality

NEEDED IMPROVEMENTS: identifying community needs; watershed education and protection

4.2.15 **ORGANIZATION:** Manitoba Model Forest

INVOLVEMENT: non government organization funding agency

OBJECTIVES: provided funding to schools, communities and reserves for tree planting programs; provided technical expertise, supplied trees, and aided communities with other planting programs

PROJECTS: approximately 10 community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs between five to 10 years

AMOUNT PLANTED: approximately 5,000 trees and shrubs have been planted

SERVICES: services provided prior to 2001 included site preparation, order trees, plant trees, mechanical maintenance, and administration

FUNDING PARTNERS: federal government (50%), external funding partners (25%), and other sources (25%)

STOCK SUPPLIER: Pineland Forest Nursery, PFRA, and private nurseries

DEMAND: current landowner/community demand for the program is medium

PARTNERSHIPS: Manitoba Hydro, Tembec, Canadian Forest Service, local schools and communities

INCENTIVES: money, organization, and experience

STRENGTHS: funding incentives and promotion

NEEDED IMPROVEMENTS: greater funding available

WEAKNESSES: lack of adequate funding and staff to promote tree planting

4.2.16 **ORGANIZATION:** Tiger Hills Conservation District

PROGRAM: *Community Tree Program*

INVOLVEMENT: tree planting promotion/coordination

OBJECTIVES: planted a small orchard; gave away fruit trees at local fairs

PROJECTS: approximately 40 landowner and one community projects have been delivered

DEMAND: current landowner/community demand for the program is medium

PARTNERSHIPS: Manitoba Hydro and PFRA

STRENGTHS: offer value added opportunities through fruit growth and U-pick operations; goodwill development

4.2.17 **ORGANIZATION:** Tree Canada Foundation

PROGRAM: *Tree Planting Programs*

INVOLVEMENT: tree planting promotion/coordination, federal funding agency (partial), and corporate funding

OBJECTIVES: national program to facilitate planting and care of trees in urban and rural areas; major programs include Green Streets, Greening School Grounds, and Corporate Programs (i.e., Trans Canada Pipelines, IKEA, Home Hardware)

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

AMOUNT PLANTED: approximately 78 million trees and shrubs have been planted (Canada)
STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%
SERVICES: services provided includes design and flag site, order trees, facilitate planting of trees, and administration
FUNDING PARTNERS: landowners (50%), industry (33%), and federal government (17%)
STOCK SUPPLIER: Pineland Forest Nursery and commercial nurseries
DEMAND: current landowner/community demand for the program is high
PARTNERSHIPS: corporate partnerships
INCENTIVES: carbon credits, and up to 50% of actual planting costs covered
STRENGTHS: strong financial support, well promoted program, experience, and technical services
WEAKNESSES: insufficient corporate and federal government partnerships

4.2.18 **ORGANIZATION:** Turtle Mountain Conservation District

PROGRAM: *Shelterbelt Program*

INVOLVEMENT: tree planting services, and wildlife habitat

OBJECTIVES: reduce wind erosion on open fields, provide wind breaks near yard sites, promote soil conservation, and improve wildlife habitat

PROJECTS: approximately 250 landowner and 15 community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

AMOUNT PLANTED: approximately 250 miles of trees and shrubs have been planted; 20 miles are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%

SERVICES: services provided prior to 2001 included site preparation, design and flag site, order trees, plant trees, replant trees; chemical, mechanical, and mulch maintenance, and administration; since 2002, the same services have been provided excluding site preparation and chemical maintenance

EQUIPMENT: accessible equipment owned includes tractor (two), mechanical tree planter, rotivator (two), and truck and trailer (two); equipment borrowed/leased includes mulch applicator

FUNDING PARTNERS: provincial government (56%), landowners (25%), ratepayers (19%), and federal government (trees in kind)

COSTS: approximate costs to plant and maintain one mile of trees and shrubs is \$1,500

STOCK SUPPLIER: PFRA

DEMAND: current landowner/community demand for the program is low

PARTNERSHIPS: PFRA, MHHC, and Southwest Shelterbelt Centre

INCENTIVES: free trees, and the district subsidizes the cost of planting trees

STRENGTHS: many miles of shelterbelts planted in the 1970's and 80's raised the profile of the importance of shelterbelts

NEEDED IMPROVEMENTS: raise awareness of the importance of shelterbelts, and help landowners properly plan shelterbelts

WEAKNESSES: use of large farm equipment has nearly eliminated field shelterbelt plantings in the district

4.2.19 **ORGANIZATION:** Turtle River Watershed Conservation District

PROGRAM: *Plastic Mulch Program*

INVOLVEMENT: wildlife habitat

OBJECTIVES: provide plastic mulch for shelterbelts

PROJECTS: approximately 50 landowner and three community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

AMOUNT PLANTED: approximately 50 miles of trees and shrubs have been planted over the last 10 years; half to one mile is currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is less than 10%

SERVICES: services provided includes order trees and mulch maintenance

EQUIPMENT: accessible equipment owned includes tractor, sprayer, truck and trailer, and mulch applicator

FUNDING PARTNERS: provincial government (75%), and landowners and ratepayers (25%)

COSTS: approximate costs to plant and maintain one mile of trees and shrubs is \$390

STOCK SUPPLIER: PFRA

DEMAND: current landowner/community demand for the program is low

STRENGTHS: trees have a good chance for survival

NEEDED IMPROVEMENTS: make the program free to landowners

WEAKNESSES: landowner attitudes

4.2.20 **ORGANIZATION:** Upper Assiniboine River Conservation District

PROGRAM: *Shelterbelt Program*

INVOLVEMENT: tree planting services, tree planting promotion/coordination, farm producer group, provincial funding agency, and municipal/provincial partnership agency

OBJECTIVES: assist landowners with the establishment of shelterbelts

PROJECTS: approximately 57 landowner and eight community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs between five to 10 years

AMOUNT PLANTED: approximately 32 miles of trees and shrubs have been planted; 23 miles are planned to be planted in 2003

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%

SERVICES: services provided includes design and flag site, order trees, plant trees, replant trees, mulch maintenance, and administration

EQUIPMENT: accessible equipment borrowed/leased includes tractor, mechanical tree planter (four), truck (two) and trailer, and mulch applicator
FUNDING PARTNERS: provincial government (37.5%), federal government (35%), municipalities (12.5%), landowners (10%), and external funding partners (5%)
STOCK SUPPLIER: PFRA, Skinners Nursery, and Plantland
DEMAND: current landowner/community demand for the program is high
PARTNERSHIPS: PFRA, MHHC, and Manitoba Forestry Association
INCENTIVES: assistance with shelterbelt planning and planting
STRENGTHS: through direct spending and partnership programs the district provides labour and equipment to assist with shelterbelt planting

4.2.21 **ORGANIZATION:** West Souris River Conservation District

PROGRAM: *Shelterbelt Program*

INVOLVEMENT: tree planting services, tree planting promotion/coordination, farm producer group, and wildlife habitat

OBJECTIVES: water, soil, and wildlife resource management

PROJECTS: approximately 120 landowner and two community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs between five to 10 years

AMOUNT PLANTED: approximately 100 miles of trees and shrubs have been planted; eight miles are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%

SERVICES: services provided prior to 2001 included design and flag site, order trees, plant trees, replant trees, mechanical and mulch maintenance, and administration; since 2002, the same services have been provided excluding mechanical maintenance

EQUIPMENT: accessible equipment owned includes tractor (two), mechanical tree planter, rotivator, sprayer, and truck (three) and trailer; equipment borrowed/leased includes mulch applicator

COSTS: approximate costs to plant and maintain one mile of trees and shrubs is \$1,000

STOCK SUPPLIER: PFRA

DEMAND: current landowner/community demand for the program is medium

PARTNERSHIPS: PFRA, rural municipalities, Province of Manitoba, and MHHC Agro Woodlot Program

INCENTIVES: the district covers greater than half of the mechanical costs for maintenance

STRENGTHS: low cost inputs for landowner, and maintained weed control

WEAKNESSES: weather (drought, excessive rain fall) has affected tree growth

4.2.22 **ORGANIZATION:** Whitemud Conservation District

PROGRAM: *Shelterbelt Program*

INVOLVEMENT: tree planting services, tree planting promotion/coordination, and wildlife habitat

OBJECTIVES: field shelterbelts, wildlife plantings, and community plantings

PROJECTS: approximately 500 landowner and 50 community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

AMOUNT PLANTED: approximately 250 miles of trees and shrubs have been planted over the last 10 years; 20 miles are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is less than 10%

SERVICES: services provided between 1992 and 2001 include site preparation, design and flag site, order trees, plant trees, replant trees, chemical and mechanical maintenance, and administration; since 2002, the same services have been provided with the addition of mulch maintenance

EQUIPMENT: accessible equipment owned includes tractor (three), mechanical tree planter (two), rotivator (two), sprayer (two), truck and trailer (two), and mulch applicator

FUNDING PARTNERS: provincial government (75%), landowners (15%), and federal government (10%)

COSTS: approximate costs to plant and maintain one mile of trees and shrubs is \$2,000

STOCK SUPPLIER: PFRA

DEMAND: current landowner/community demand for the program is medium

PARTNERSHIPS: PFRA

INCENTIVES: availability of trees and service; trees are now limited

NEEDED IMPROVEMENTS: greater appreciation for the land and the environment

WEAKNESSES: changing priorities of the landowner

4.3 Saskatchewan based organizations, programs and projects surveyed

Below are the responses received from Saskatchewan.

4.3.1 **ORGANIZATION:** Agriculture and Agri-Food Canada – Prairie Farm Rehabilitation Administration

PROGRAM: *Greencover Program*

OBJECTIVES: encourage the planting of trees on agricultural land for a variety of purposes; the shelterbelt component of the program is not yet fully defined and will be developed in 2003 with program details available later this summer; \$10 million nationally is dedicated to the shelterbelt component over five years (2003 to 2008)

SERVICES: program may include establishment assistance, technical assistance, and research as a federal funding agency

PARTNERSHIPS: provinces and non-government organization's

4.3.2 **ORGANIZATION:** Agriculture and Agri-Food Canada – Prairie Farm Rehabilitation Administration

PROGRAM: *Rural Community Forest Tree Planting Project*

INVOLVEMENT: tree planting promotion/coordination, nursery, and wildlife habitat

OBJECTIVES: wildlife habitat, fruit for area residents, education, and town beautification; planting must be two acres in size (minimum) and land must be community owned; community must be under 5,000 people and be responsible for the maintenance

PROJECTS: approximately 20 community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs between five to 10 years

AMOUNT PLANTED: approximately 50 acres of trees and shrubs have been planted

STOCK MORTALITY: average stock mortality experienced in the first year is less than 10%

SERVICES: services provided includes design and flag site, grow trees, order trees, plant trees (contribute), mulch maintenance, and administration

EQUIPMENT: accessible equipment owned includes mechanical tree planters (several) and mulch applicators

FUNDING PARTNERS: ratepayers (50%), external funding partners (30%), federal government (10%), and provincial government (10%)

COSTS: approximate costs to plant and maintain one mile of trees and shrubs is \$1,200

STOCK SUPPLIER: several nurseries in the Prairie provinces

PRODUCTION: maximum annual stock production is 1,500 seedlings/project

PARTNERSHIPS: Fish and Wildlife Development Fund, PFRA, Manitoba Hydro, local businesses and communities, Tree Plan Canada, and Saskatchewan Environment and Resource Management

STRENGTHS: community based, wildlife benefits, available fruit for residents, and town beautification

NEEDED IMPROVEMENTS: increased funding, a local tree planting/maintenance service, and increased promotion of project

WEAKNESSES: lack of time and funds to promote and organize projects

4.3.3 **ORGANIZATION:** Agriculture and Agri-Food Canada – Prairie Farm Rehabilitation Administration

PROGRAM: *Shelterbelt Program*

INVOLVEMENT: tree planting promotion/coordination, nursery, and federal funding agency (in-kind)

OBJECTIVES: promotion of tree plantation for environmental value and all agroforestry benefits; plantation planning and design, technical support, and supply seedlings of particular value for shelterbelt establishment on the Prairies

PROJECTS: approximately 2,400 landowner and 20 community projects have been delivered; approximately 93,200 landowner and 5,730 community projects have been supplied

IMPLEMENTATION: program has been planting trees and shrubs for less than five years

AMOUNT PLANTED: approximately 40 kilometres of trees and shrubs have been planted over the last 10 years

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 and 30%

SERVICES: services provided in 1992 included design and flag site, grow trees, order trees, plant trees, chemical and mulch maintenance, and administration; since 2002, services include design site, grow trees, order trees, and administration

EQUIPMENT: accessible equipment owned includes tractor (two), mechanical tree planter (five), rotivator, sprayer, truck and trailer, and mulch applicator (five); equipment borrowed/leased includes truck and trailer, and mulch applicator (20)

FUNDING PARTNERS: landowners (75%), and federal government (25%)

COSTS: approximate costs to plant and maintain one mile of trees and shrubs is between \$1,000 to \$1,100

STOCK SUPPLIER: PFRA, Alberta Nurseries, and Lincoln Oakes (Bismark, ND)

PRODUCTION: maximum annual stock production is 12,000,000 (seedlings, cuttings, rooted cuttings)

DEMAND: current landowner/community demand for the program is high

PARTNERSHIPS: soil conservation associations, provincial agriculture departments, provincial natural resources departments, 4-H clubs, Junior Forest Rangers, First Nations, watershed groups, conservation districts, MHHC, Alberta Association of Agricultural Fieldmen, Save Our Soils (1992), Irrigation Districts, Agricultural Service Boards (AB), Agricultural Development Districts (SK), and industry groups

INCENTIVES: no-cost seedlings, planning assistance, technical support, and limited planting assistance

STRENGTHS: free stock, technical support, accessibility, and few other similar programs

NEEDED IMPROVEMENTS: greater accessibility, lower eligibility requirements, greater supply of materials, more involvement with community and industry groups, and better funding for cooperative departments and agencies

WEAKNESSES: competing landowner priorities regarding economic value derived from land base

4.3.4 **ORGANIZATION:** Agriculture and Agri-Food Canada – Prairie Farm Rehabilitation Administration

PROGRAM: *Shelterbelt Enhancement Program*

INVOLVEMENT: federal funding agency (in kind), tree planting promotion/coordination, wildlife habitat, and nursery

OBJECTIVES: encourage the planting of approximately 8,000 km of incremental shelterbelts in the Prairie provinces and to sequester 0.3 MT CO₂; provide

shelterbelt stock, plastic mulch, and access to mulch applicators to qualifying applicants

PROJECTS: approximately 225 landowner projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for less than five years

AMOUNT PLANTED: approximately 540 kilometres of trees and shrubs have been planted in year one of program; approximately 1,800 kilometres per year will be planted in the remainder of the five year program

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%

SERVICES: services provided since 2002 includes grow trees, order trees, and administration

EQUIPMENT: accessible equipment owned includes mulch applicator (60); equipment borrowed/leased includes tractor (two), mechanical tree planter (five), rotivator, sprayer, truck and trailer (two), and mulch applicator (five)

FUNDING PARTNERS: landowner (65%), and federal government (35%)

COSTS: approximate costs to plant and maintain one mile of trees and shrubs is \$1,450

STOCK SUPPLIER: PFRA

PRODUCTION: maximum annual stock production is 12,000,000 (seedlings, cuttings, rooted cuttings)

DEMAND: current landowner/community demand for the program is high

PARTNERSHIPS: PFRA District Offices and Soil Conservationists, provincial agricultural departments, provincial natural resources departments, 4-H clubs, watershed groups, conservation districts, MHC, Alberta Association of Agricultural Fieldmen, Agricultural Service Boards, Agricultural Development Districts, and industry groups

INCENTIVES: no-cost seedlings, plastic mulch, and access to mulch applicators and technical support

STRENGTHS: cost mitigation of shelterbelt establishment and weed control; connection to the PFRA Shelterbelt Centre, information on the benefits of shelterbelts, free stock and plastic mulch, and access to mulch applicators

NEEDED IMPROVEMENTS: larger budget to purchase more material, demand is greater than supply

WEAKNESSES: coordination of potential partnering groups; logistic of operating prairie wide program

4.3.5 **ORGANIZATION:** Agriculture and Agri-Food Canada – Prairie Farm Rehabilitation Administration

PROGRAM: *Wildlife Habitat Tree Planting Program* (component of the AAFC-PFRA Shelterbelt Program)

INVOLVEMENT: tree planting promotion/coordination, nursery, and wildlife habitat

OBJECTIVES: promote the value of plantations for wildlife, plantation planning and design, technical support, and supply seedlings of particular value for wildlife projects

PROJECTS: approximately 500 landowner and 50 community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for less than five years

AMOUNT PLANTED: approximately 195 kilometres of trees and shrubs have been planted over the last 10 years

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 and 30%

SERVICES: services provided in 1992 and between 1994 to 1996 included design, grow trees, order trees, plant trees, mulch maintenance, and administration; since 2002, the same services have been provided excluding plant trees and mulch maintenance

EQUIPMENT: accessible equipment owned includes mechanical tree planter, and truck and trailer; equipment borrowed/leased includes tractor, mechanical tree planter (three), rotivator, sprayer, truck and trailer, and mulch applicator (three)

FUNDING PARTNERS: landowners (75%), and federal government (25%)

COSTS: approximate costs to plant and maintain one mile of trees and shrubs is between \$1,000 to \$1,100

STOCK SUPPLIER: PFRA, Alberta Nurseries, and Lincoln Oakes (Bismark, ND)

PRODUCTION: maximum annual stock production is 1,000,000 (seedlings, cuttings, rooted cuttings)

DEMAND: current landowner/community demand for the program is medium

PARTNERSHIPS: soil conservation associations, provincial wildlife departments, provincial natural resources departments, provincial and local wildlife groups, wildlife conservation organizations, First Nations, watershed groups, conservation districts, Canada-Saskatchewan Green Plan (1993 to 1997), MHHC, Alberta Association of Agricultural Fieldmen, Ducks Unlimited, Pheasants Forever, Save Our Soils (SK, 1992), Rafferty-Alameda Wildlife Mitigation Lands program, Eastern Irrigation District, and Partners in Habitat Development Program

INCENTIVES: no-cost seedlings, planning assistance, technical support, and limited planting assistance

STRENGTHS: free stock, technical support, accessibility, and few other similar programs

NEEDED IMPROVEMENTS: greater accessibility, lower eligibility requirements, greater supply of materials, more involvement with community and local conservation groups, and better funding for cooperative departments and agencies

WEAKNESSES: competing landowner priorities regarding economic value derived from land base

4.3.6 **ORGANIZATION:** Agriculture and Agri-Food Canada – Prairie Farm Rehabilitation Administration and Saskatchewan Agriculture

PROGRAM: *Wildlife Shelterbelt Program* (component of Save Our Soils Program)

INVOLVEMENT: joint federal-provincial incentive program, tree planting promotion/coordination, and wildlife habitat

OBJECTIVES: part of a three year \$18 million program under the Canadian-Saskatchewan Agreement on Soil Conservation; designed to benefit both agriculture and wildlife by addressing issues such as soil erosion, low soil moisture, and declining upland game bird populations; offered technical assistance and incentives through the Wildlife Branch of the provincial environment department

PROJECTS: approximately 30 landowner projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for less than five years (1990 to 1992)

AMOUNT PLANTED: approximately 41 miles of fieldbelts and 54 acres of block plantings were planted

STOCK MORTALITY: average stock mortality experienced in the first year was greater than 30%

SERVICES: services provided included design and flag site, order trees, and administration

EQUIPMENT: accessible equipment borrowed/leased included mechanical tree planter (85)

FUNDING PARTNERS: federal government (30%), provincial government (30%), landowners (20%), and ratepayers (10%)

STOCK SUPPLIER: PFRA

DEMAND: landowner/community demand for the program was medium

PARTNERSHIPS: provincial wildlife departments, provincial agriculture development funding agency, provincial agriculture department, PFRA, agriculture development district boards and technicians, provincial wildlife federation and chapters, and rural municipalities

INCENTIVES: \$150 per mile for establishment, \$80 per year per mile for maintenance, free tree seedlings, free technical support, and free on-site assistance

STRENGTHS: establishment and maintenance costs were offset by the program, technical services were offered, and good program promotion (media, partners)

NEEDED IMPROVEMENTS: planting and maintenance services would need to be offered to ensure plantings establishment and survival; better coordination amongst available conservation programs to provide efficiencies and reduce confusion regarding program objectives and eligibility

WEAKNESSES: on-going maintenance; a program completely driven by up-front incentives where funding became eliminated over time leaving the technical assistance activities to decline after the program ended

4.3.7 **ORGANIZATION:** Help International

PROGRAM: *Souris River and Farm Protection Program*

INVOLVEMENT: tree planting services, tree planting promotion/coordination, farm producer group, nursery, forest industry, wildlife habitat, and environmental curriculum

OBJECTIVES: educate prairie residents to develop world class helping strategies in environmental protection; encourage farmers to move their cultivation back 15 metres from the upper banks of the Souris River and Long Creek; plant (35 indigenous species) and protect river and stream margins, provide wildlife habitat and create wildlife corridors; establish a secondary industry for landowners (e.g., berry harvesting; medicinal extracts) from river margin treeing; deliver the program to additional watersheds in the province with support; establish wildlife block plantings

PROJECTS: approximately 70 landowner and 12 community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for less than five years

AMOUNT PLANTED: approximately 220,000 trees and shrubs have been planted; 130,000 are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%

SERVICES: services provided includes site preparation, design and flag site, grow trees, order trees, plant trees, replant trees, mechanical and mulch maintenance, and administration

EQUIPMENT: accessible equipment owned includes cultivator, truck and trailer (two); equipment borrowed/leased includes tractor (two), mechanical tree planter (three), rotivator (two), and mulch applicator (three)

FUNDING PARTNERS: landowners (35%), federal government (20%), crown corporation (10%), industry (10%), private fundraising and volunteers (10%), external funding partners (9%), provincial government (5%), and ratepayers (1%)

COSTS: approximate costs to plant and maintain one kilometre of trees and shrubs is \$1,000 based on three mulched rows of trees with grass planted along river margins; agroforestry block plantings could be carried out for less

STOCK SUPPLIER: PFRA and Shand Greenhouse

PRODUCTION: maximum annual stock production is 60,000 trees through an extension nursery

DEMAND: current landowner/community demand for the program is high

PARTNERSHIPS: PFRA, Shand Greenhouse, Pheasants Forever, Knights of Columbus, Saskatchewan Environment, schools, rural municipalities, Ecoaction, Toronto Dominion Friends of the Environment, and Canadian Adaptation and Rural Development Saskatchewan-Agricultural Environmental Stewardship Initiative

INCENTIVES: all possible types of plantations allowed under the program; many forms of assistance offered including advice, training, logistical, and labor

STRENGTHS: assistance, absence of end use restrictions and caveats, pro-farmer tone of the program, and low to zero maintenance tree program

NEEDED IMPROVEMENTS: additional research for lower maintenance systems, controlling weed growth at planted site, and lack of specialized equipment

WEAKNESSES: the program has been well over subscribed and HELP is turning away requests and is downgrading its advocacy as it does not wish to promote a program by not having the funds to deliver

4.3.8 **ORGANIZATION:** Nature Saskatchewan

PROGRAM: *The Living by Water Project*

INVOLVEMENT: shoreline restoration and education

OBJECTIVES: work towards healthy human and wildlife habitat along the shorelines of Canada

PROJECTS: delivered 20 community projects

DEMAND: current landowner/community demand for the program is high

PARTNERSHIPS: Department of Fisheries and Oceans, Winnipeg Naturalists, and Saskatchewan Network of Watershed Stewards

INCENTIVES: educational workshops and material

STRENGTHS: no-charge educational program and workshops

NEEDED IMPROVEMENTS: increase awareness of program

WEAKNESSES: one organization working with two provinces

4.3.9 **ORGANIZATION:** Saskatchewan Environment

PROGRAM: *Rafferty-Alameda Wildlife Mitigation Lands Project*

OBJECTIVES: unit for unit replacement of wildlife habitats which were lost as a result of the development of the Rafferty and Alameda Dams

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years (1988 to 1996 for Rafferty, and 1999 to 2002 for Alameda); three years of maintenance and inter-seeding with native cultivar grasses of woodland plantings remain

AMOUNT PLANTED: approximately 3,600 acres of cultivated land at Rafferty and 6,600 acres at Alameda have been converted to wildlife habitat on the ratio of 25% woodland plantings and 75% grassland plantings

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%

SERVICES: services provided for Alameda included site selection and administration

EQUIPMENT: accessible equipment owned includes tractor (nine), cultivator, sprayer, air seeder, and mechanical tree planter (two)

STOCK SUPPLIER: PFRA and Shand Greenhouse

4.3.10 **ORGANIZATION:** Saskatchewan Environment

PROGRAM: *Walker Poplar Tree Program*

INVOLVEMENT: provincial funding agency and nursery

OBJECTIVES: spring planting of hybrid poplar

PROJECTS: approximately 23 landowner projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for less than five years

AMOUNT PLANTED: approximately 50,000 trees and shrubs have been planted
STOCK MORTALITY: average stock mortality experienced in the first year is greater than 30%

SERVICES: services provided since 2002 includes site preparation, grow trees, order trees, plant trees; chemical, mechanical, and mulch maintenance, and administration

FUNDING PARTNERS: provincial government (100%) for materials; landowners (100%) for establishment and maintenance

STOCK SUPPLIER: Prince Albert Tree Nursery

PRODUCTION: maximum annual stock production is 100,000

DEMAND: current landowner/community demand for the program is high

PARTNERSHIPS: none

INCENTIVES: the plant material is supplied at no cost

STRENGTHS: no cost plant material; trees grow quickly

WEAKNESSES: not enough plant material available

4.3.11 **ORGANIZATION:** Saskatchewan Environment and SaskPower

PROGRAM: *Saskatchewan Forest Carbon Sequestration Project*

INVOLVEMENT: tree planting services, tree planting promotion/coordination, and carbon reserve creation

OBJECTIVES: first sequestration project to be reviewed and approved in Canada by Greenhouse Gas Emission Reduction Trading Pilot; involves the establishment of 3,300 hectares of white spruce plantation on older non-regenerating cutovers and the forest protection of 206,000 hectares of forest carbon reserves

IMPLEMENTATION: program has been planting trees and shrubs for less than five years

AMOUNT PLANTED: approximately five million trees and shrubs have been planted

STOCK MORTALITY: average stock mortality experienced in the first year is less than 10%

SERVICES: services provided includes site preparation, grow trees, plant trees, and administration

EQUIPMENT: no equipment owned as work is contracted to private companies

FUNDING PARTNERS: crown corporation (100%)

COSTS: approximate costs to plant and maintain trees and shrubs is \$1.10 per tree

STOCK SUPPLIER: Pacific Regeneration Technologies Prince Albert Nursery

PARTNERSHIPS: Saskatchewan Environment and SaskPower

INCENTIVES: restoration of forest lands for Saskatchewan Environment, and carbon credits for SaskPower

STRENGTHS: high interest for landowners to become involved

4.3.12 **ORGANIZATION:** Saskatchewan Watershed Authority

PROGRAM: *Prairie Stewardship Program*

INVOLVEMENT: farm producer group, and wildlife habitat

OBJECTIVES: encourage landowners to conserve and manage native grasslands and riparian areas; landowners can participate via verbal agreement to 1) maintain and protect these areas to the best of their ability, 2) notify the Saskatchewan Watershed Authority (SWA) of any planned land use change that might impact these areas and, 3) notify SWA of any intent to sell or transfer ownership of these areas under the agreement; some landowners may qualify to receive assistance for demonstration projects that use management practices to improve or maintain the condition of their land; landowners participating in demonstration projects sign a 10-year written agreement

PROJECTS: approximately 400 landowner projects have been delivered

DEMAND: current landowner/community demand for the program is high

PARTNERSHIPS: federal and provincial funding agencies, non-government organizations, and non-profit organizations

INCENTIVES: generally 50:50 contribution for seed, fencing, and water development

STRENGTHS: a win-win situation for prairie enhancement and for the producer

WEAKNESSES: unable to achieve targeted number of demonstration projects in the southwest which may have been caused by low landowner interest as a result of drought conditions

4.3.13 **ORGANIZATION:** Tree Canada Foundation

PROGRAM: *Tree Planting Programs*

INVOLVEMENT: tree planting promotion/coordination, non-government organizations

OBJECTIVES: provide education, technical assistance, resources, and financial support through partnerships to plant and care for trees in urban and rural environments to help reduce the harmful effects of carbon dioxide emissions

PROJECTS: approximately 50 to 60 community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs between five to 10 years

AMOUNT PLANTED: approximately 15,000 trees and shrubs have been planted (Saskatchewan)

STOCK MORTALITY: average stock (non-seedling) mortality experienced in the first year is less than 10%

SERVICES: services provided prior to 2001 included design and flag site, order trees, plant trees, mulch maintenance, and administration; since 2002, the same services have been provided excluding mulch maintenance

EQUIPMENT: equipment is borrowed/leased as required

FUNDING PARTNERS: industry (90%), federal government (5%), and external funding partners (5%)

STOCK SUPPLIER: Jefferies Nurseries, Lakeshore Tree Farms, Johns Nursery, Zosel Tree Farms, Bron & Sons (B.C.), and Bylands Nurseries (B.C.)

DEMAND: current landowner/community demand for the program is high

PARTNERSHIPS: varied by project from schools, industry, communities etc.

INCENTIVES: provide the sponsor and tree stock

STRENGTHS: provide advice and free trees

WEAKNESSES: funding shortage

4.4 Alberta based organizations and programs surveyed

Below are the responses received from Alberta.

4.4.1 **ORGANIZATION:** Alberta Conservation Association

PROGRAM: *Buck for Wildlife Program* - Central Region

INVOLVEMENT: tree planting promotion/coordination, and wildlife habitat

OBJECTIVES: provide trees and shrubs to private landowners to encourage plantings for wildlife habitat (multi-row shelterbelts)

PROJECTS: approximately 200 landowner projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

AMOUNT PLANTED: approximately 3,000 trees and shrubs are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%

SERVICES: services provided since 1992 includes design and flag site, order trees, and administration

EQUIPMENT: accessible equipment owned includes tractor, and truck and trailer; equipment borrowed/leased includes mechanical tree planter (two), and rotivator

FUNDING PARTNERS: federal government

STOCK SUPPLIER: PFRA

DEMAND: current landowner/community demand for the program is medium

PARTNERSHIPS: conservation organizations

INCENTIVES: free trees

STRENGTHS: creation of wildlife habitat and a healthy landscape

WEAKNESSES: lack of being able to provide certain tree species; trees are no longer free for the landowner

4.4.2 **ORGANIZATION:** Alberta Conservation Association

PROGRAM: *Shelterbelt Program (Buck for Wildlife)* – Prairie Region

INVOLVEMENT: tree planting promotion/coordination, and wildlife habitat

OBJECTIVES: promote the planting of shelterbelts on private land, and to increase woody areas on crown owned wildlife properties to increase the availability of pheasant habitat

PROJECTS: approximately 30 landowner projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs between five to 10 years

AMOUNT PLANTED: approximately 60,000 trees and shrubs have been planted over the last 10 years

STOCK MORTALITY: average stock mortality experienced in the first year is greater than 30%

SERVICES: services provided prior to 2001 included site preparation, design and flag site, order trees, plant trees; chemical, mechanical and mulch maintenance, and administration

EQUIPMENT: accessible equipment owned includes sprayer and truck and trailer; equipment borrowed/leased includes tractor, mechanical tree planter, rotivator, and mulch applicator

FUNDING PARTNERS: landowners (50%), provincial government (40%), and federal government (10%)

COSTS: approximate costs to plant and maintain one mile of trees and shrubs are greater than \$1,000

STOCK SUPPLIER: PFRA and Alberta Government

PARTNERSHIPS: Alberta Fish and Game Association, and Alberta Fish and Wildlife Division

INCENTIVES: free trees and shrubs to landowners

STRENGTHS: idea of increasing wildlife habitat base

WEAKNESSES: high failure rates, continual maintenance commitment, and no measurable benefit

4.4.3 **ORGANIZATION:** Alberta Sustainable Resource Development

PROGRAM: *Junior Forest Wardens*

INVOLVEMENT: tree planting promotion/coordination, and wildlife habitat

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

STOCK MORTALITY: stock mortality experienced in the first year varies

SERVICES: services provided since 1992 includes order trees, plant trees, and replant trees

EQUIPMENT: accessible equipment borrowed/leased includes truck and trailer

FUNDING PARTNERS: industry (50%), federal government (25%), and external funding partners (25%)

STOCK SUPPLIER: Water Valley Nursery, Pine Ridge Nursery, and PFRA

DEMAND: current landowner/community demand for the program is high

PARTNERSHIPS: private/industry donations

INCENTIVES: community service

4.4.4 **ORGANIZATION:** County of Camrose

PROGRAM: *Shelterbelt Program*

INVOLVEMENT: tree planting services, tree planting promotion/coordination, and wildlife habitat

OBJECTIVES: promote the effective use of shelterbelts for wildlife, soil and water conservation, and aesthetics; ensure that trees have the opportunity to survive; provide advice on tree care

PROJECTS: approximately 500 landowner and five community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

AMOUNT PLANTED: approximately 50,000 trees and shrubs have been planted over the last 10 years; 5,000 are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%

SERVICES: services provided include order trees, plant trees, and administration

EQUIPMENT: accessible equipment owned includes mechanical tree planter (two), and sprayer (two)

FUNDING PARTNERS: provincial government (60%), landowners (25%), and federal government (15%)

STOCK SUPPLIER: private nurseries and PFRA

DEMAND: current landowner/community demand for the program is medium

PARTNERSHIPS: PFRA, and Alberta Environmentally Sustainable Agriculture

INCENTIVES: free trees

STRENGTHS: personal touch, available advice, and low cost rates

4.4.5 **ORGANIZATION:** County of Paintearth

PROGRAM: *Shelterbelt Program*

INVOLVEMENT: county

OBJECTIVES: increase the number of shelterbelts, reduce the risk of soil erosion, snow trapping, increase soil moisture, and increase wildlife habitat

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

AMOUNT PLANTED: approximately 26,000 trees are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%

SERVICES: services provided since 1992 include plant trees, mulch maintenance, and administration

EQUIPMENT: accessible equipment owned includes tractor, mechanical tree planter, and truck and trailer; equipment borrowed/leased includes mulch applicator

FUNDING PARTNERS: County (100%) for greater than 200 trees otherwise landowner covers planting costs

COSTS: approximate costs to plant one mile of trees is \$80

STOCK SUPPLIER: PFRA, and Alberta Nurseries

DEMAND: current landowner/community demand for the program is low

PARTNERSHIPS: PFRA, and previously Alberta Nurseries

INCENTIVES: tree planting is free for those who plant more than 200 trees; equipment and two laborers provided; County pays 100% of the tree shipping costs

STRENGTHS: program is offered at no cost

NEEDED IMPROVEMENTS: increased awareness of mulch application to reduce shelterbelt maintenance

4.4.6 ORGANIZATION: County of Stettler

PROGRAM: *Shelterbelt Program*

INVOLVEMENT: tree planting services, and tree planting promotion/coordination

OBJECTIVES: cooperation with PFRA

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

AMOUNT PLANTED: approximately 150,000 trees and shrubs have been planted over the last 10 years; 6,000 are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%

SERVICES: services provided includes order trees, plant trees, mulch maintenance, and administration

EQUIPMENT: accessible equipment owned includes tractor, mechanical tree planter, sprayer, truck and trailer, and mulch applicator; equipment borrowed/leased includes tractor, mechanical tree planter, sprayer (three), and truck and trailer (two)

FUNDING PARTNERS: federal government (85%), landowners (12%), and ratepayers (3%)

COSTS: approximate costs to plant one mile of trees and shrubs is \$70

STOCK SUPPLIER: PFRA

DEMAND: current landowner/community demand for the program is low

PARTNERSHIPS: PFRA, Agriculture Service Board, and landowners

INCENTIVES: minimal cost planting, and equipment and staff assistance

STRENGTHS: an essentially free program

WEAKNESSES: limited variety selection for drought, and few rewards or incentives for positive environmental management

4.4.7 ORGANIZATION: County of Two Hills

PROGRAM: *Shelterbelt Program*

INVOLVEMENT: tree planting promotion/coordination

OBJECTIVES: assist producers in ordering, planting and applying plastic mulch

PROJECTS: approximately 100 landowner projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

AMOUNT PLANTED: approximately 30 miles of trees and shrubs have been planted over the last 10 years; three miles are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is greater than 30%

SERVICES: services provided since 1992 include order trees, plant trees, replant trees, mulch maintenance (increased since 2002), and administration

EQUIPMENT: accessible equipment owned includes mechanical tree planter, truck and trailer, and mulch applicator; equipment borrowed/leased includes tractor

FUNDING PARTNERS: landowners (100%)

STOCK SUPPLIER: Alberta Nurseries and PFRA

DEMAND: current landowner/community demand for the program is low

PARTNERSHIPS: PFRA
STRENGTHS: free service

4.4.8 **ORGANIZATION:** Ducks Unlimited Canada

PROGRAM: *Ducks and Trees Program*

INVOLVEMENT: tree planting promotion/coordination, and wildlife habitat

OBJECTIVES: centred at awareness of land opportunities for forest management in agricultural regions of central Alberta

PROJECTS: approximately six landowner projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for less than five years

DEMAND: current landowner/community demand for the program is low

PARTNERSHIPS: industrial and government specific joint ventures on as needed basis

INCENTIVES: marketing programs to broader audience; incorporating existing and new conservation programs into the forest framework

STRENGTHS: community based, broad regional appeal, and reputable national conservation company with proactive programs

NEEDED IMPROVEMENTS: heightened awareness with respect to forest loss and associated components (wetlands, riparian areas, linkages to ground water etc.)

4.4.9 **ORGANIZATION:** Leduc County

PROGRAM: *Shelterbelt Program*

INVOLVEMENT: tree planting promotion/coordination

OBJECTIVES: assist facilitation of PFRA Program through distribution, advertisement, workshops, and demonstration sites

PROJECTS: deliver landowner projects

AMOUNT PLANTED: annual tree distribution in 2002 was 34,500

DEMAND: current landowner/community demand for the program is medium

PARTNERSHIPS: PFRA and local landowners

INCENTIVES: no charge for trees, and mulch applicator use

STRENGTHS: prairie raised hardy stock; promotion of program

WEAKNESSES: weather (drought; little to no snow cover)

4.4.10 **ORGANIZATION:** Municipal District of Pincher Creek

PROGRAM: *Shelterbelt Program*

INVOLVEMENT: municipal agricultural services

PROJECTS: approximately 250 landowner projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

SERVICES: services provided between 1992 to 2001 included plant trees and administration; since 2002, services include administration

EQUIPMENT: accessible equipment owned includes mechanical tree planter, sprayer (six), and truck (three) and trailer

FUNDING PARTNERS: landowners (90%), federal government (8%), ratepayers (2%), and possible external funding partners

STOCK SUPPLIER: PFRA and Alberta Nurseries

DEMAND: current landowner/community demand for the program is medium

PARTNERSHIPS: federal and municipal

STRENGTHS: allow landowners access to planting information

WEAKNESSES: time constraints, and lack of financial resources

4.4.11 ORGANIZATION: Municipal District of Rocky View

PROGRAM: *Shelterbelt Program*

INVOLVEMENT: tree planting services, and tree planting promotion/coordination

OBJECTIVES: provide a means of offering shelterbelt trees to farms to foster soil conservation, woodlot development, wildlife habitat plantings and farm esthetics

PROJECTS: approximately 400 landowner and two community projects have been delivered

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

AMOUNT PLANTED: approximately 75,000 trees and shrubs are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 to 30%

SERVICES: services provided between 1992 to 2001 included order trees, planting advice, plant trees, and administration; since 2002, services include order trees

EQUIPMENT: accessible equipment owned includes mechanical tree planter (six); equipment borrowed/leased includes mulch applicator

FUNDING PARTNERS: landowners (70%), federal government (20%), and municipal government (10%)

STOCK SUPPLIER: PFRA

DEMAND: current landowner/community demand for the program is high

PARTNERSHIPS: municipal and PFRA

INCENTIVES: low costs of trees, good information, and local administration from municipality

STRENGTHS: ease of use (on-line ordering if desired), inexpensive, handy, and local

4.4.12 ORGANIZATION: Red Deer County

PROGRAM: *Municipal Program*

INVOLVEMENT: tree planting services, and tree planting promotion/coordination

OBJECTIVES: provide information and distribution

PROJECTS: approximately one landowner project delivered per year

IMPLEMENTATION: program has been planting trees and shrubs for less than five years

AMOUNT PLANTED: approximately 17,000 trees and shrubs are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is between 10 and 30%
SERVICES: services provided prior to 2001 included tree planting, replanting, and administration
EQUIPMENT: accessible equipment owned includes mechanical tree planter, truck and trailer, and mulch applicator
FUNDING PARTNERS: county (60%), landowners (20%), and ratepayers (20%)
STOCK SUPPLIER: Alberta Nurseries and PFRA
DEMAND: current landowner/community demand for the program is medium
PARTNERSHIPS: Alberta Nurseries and PFRA
INCENTIVES: Alberta Nurseries wholesale prices; PFRA free trees
STRENGTHS: aesthetic and environmental benefits from trees, and free trees from PFRA
WEAKNESSES: mechanical planter problems, and inexperienced seasonal staff

4.4.13 **ORGANIZATION:** Strathcona County

PROGRAM: *Shelterbelt Program*

INVOLVEMENT: municipal government

OBJECTIVES: distribute trees ordered by residents in the municipality; tree planter rental

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

EQUIPMENT: accessible equipment owned includes mechanical tree planter

DEMAND: current landowner/community demand for the program is medium

4.4.14 **ORGANIZATION:** Sturgeon County

PROGRAM: *Shelterbelt Program*

PROJECTS: approximately 40 landowner and five community projects have been delivered

EQUIPMENT: accessible equipment owned includes mechanical tree planter

DEMAND: current landowner/community demand for the program is medium

PARTNERSHIPS: none

INCENTIVES: none

NEEDED IMPROVEMENTS: increased advertisement

WEAKNESSES: government no longer supplies free trees, and the number of trees ordered have been reduced since privatization

4.5 Manitoba nurseries surveyed

Below are the responses from the nurseries that completed the survey in Manitoba.

4.5.1 **ORGANIZATION:** Jefferies Nurseries Ltd.

INVOLVEMENT: nursery

OBJECTIVES: grow, store, and deliver nursery stock for conservation, landscape, and forestry plantings

PROJECTS: approximately 50 community projects have been delivered
IMPLEMENTATION: program has been producing/planting trees and shrubs for more than 10 years
AMOUNT PLANTED: approximately 20 miles of trees and shrubs have been planted over the last 10 years
STOCK MORTALITY: average stock mortality experienced in the first year is less than 10%
SERVICES: services provided between 1992 to 2001 included site preparation, design and flag site, grow trees, plant trees; chemical, mechanical and mulch maintenance, and administration; services provided since 2002 includes grow trees and plant trees
EQUIPMENT: accessible equipment owned includes tractor (two), mechanical tree planter (three), rotivator (three), sprayer (two), truck and trailer (three), and mulch applicator
FUNDING PARTNERS: provincial government, landowners, and conservation districts
COSTS: costs to plant and maintain one mile of trees and shrubs is variable depending on size and spacing
STOCK SUPPLIER: Jefferies Nurseries
PRODUCTION: maximum annual stock production is 100,000 units
DEMAND: current landowner/community demand for the program is medium
PARTNERSHIPS: Manitoba Highways, MHHC, and Manitoba Hydro
STRENGTHS: plantings provide a windbreak
WEAKNESSES: can not compete with free trees from PFRA

4.5.2 **ORGANIZATION:** Pineland Forest Nursery

INVOLVEMENT: nursery
OBJECTIVES: special operating agency of the Manitoba Government, producing seedlings for reforestation programs in Manitoba, northwestern Ontario, Alberta, Saskatchewan, and Minnesota; primary clients are forestry companies and provincial governments; produce seedlings for the Manitoba Forestry Association to supply private landowners
IMPLEMENTATION: program has been producing trees and shrubs for more than 10 years
AMOUNT PLANTED: approximately 150 million trees and shrubs have been produced over the last 10 years; 14 to 18 million are currently being produced per year
STOCK MORTALITY: average stock mortality experienced in the first year is less than 10%
SERVICES: services provided include grow trees
EQUIPMENT: accessible equipment owned includes tractor (12), mechanical tree planter (five), rotivator, sprayer (two), truck (two) and trailer, and mulch applicator
FUNDING PARTNERS: provincial government (50%), and industry (50%)
STOCK SUPPLIER: Pineland Forest Nursery

PRODUCTION: maximum annual stock production is 20 million container stock and 10 million bareroot stock

DEMAND: current landowner/community demand for the program is low

PARTNERSHIPS: Manitoba Forestry Association, and Swan River town nursery

STRENGTHS: the Manitoba Forestry Association has played a key role in getting the general public involved in purchasing and planting Pineland seedlings

4.6 Saskatchewan nurseries surveyed

Below are the responses from the nurseries that completed the survey in Saskatchewan.

4.6.1 **ORGANIZATION:** Agriculture and Agri-Food Canada – Prairie Farm Rehabilitation Administration Shelterbelt Centre Tree Nursery

INVOLVEMENT: nursery

OBJECTIVES: grow prairie-hardy bare root and shrub seedlings for distribution through AAFC-PFRA shelterbelt programs; seedlings are provided to bona fide farmers and public institutions for conservation purposes

SERVICES: services provided include grow trees

PRODUCTION: maximum annual stock production is 12 million seedlings

DEMAND: current landowner/community demand for the program is medium

STRENGTHS: free of charge seedlings; addresses needs of prairie residents

NEEDED IMPROVEMENTS: additional incentives could be provided; program eligibility criteria could be modified to better fit today's rural demographics

WEAKNESSES: occasional crop failures or poor crops of certain species; seed supply of certain species; prairie-adapted seed sources; frost and drought

4.6.2 **ORGANIZATION:** SaskPower Shand Greenhouse

INVOLVEMENT: nursery, and tree planting promotion/coordination

OBJECTIVES: provide materials (trees, shrubs, forbs, native grasses) for environmental/conservation plantings

PROJECTS: approximately 3,000 landowner and 1,000 community projects have been delivered

IMPLEMENTATION: program has been producing trees and shrubs for more than 10 years

AMOUNT PLANTED: approximately 3,000,000 trees and shrubs have been planted over the last 10 years; 470,000 are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is greater than 30%

SERVICES: services provided since 1992 include grow trees and order trees

EQUIPMENT: accessible equipment owned includes tractor, mechanical tree planter, rotivator, sprayer, and truck and trailer; equipment borrowed/leased includes mulch applicator

FUNDING PARTNERS: ratepayers (100%)

PRODUCTION: maximum annual stock production is 500,000 units

DEMAND: current landowner/community demand for the program is medium

PARTNERSHIPS: PFRA, government agencies, and previously Tremendous
STRENGTHS: plant materials are diverse and free of charge
WEAKNESSES: perceived competition with nursery trades; trade-off in funding resources for other environmental initiatives

4.7 Alberta nurseries surveyed

Below is the response from the nursery that completed the survey in Alberta.

4.7.1 ORGANIZATION: Alberta Nurseries and Seeds Ltd.

PROGRAM: *Alberta Shelterbelt Program*

INVOLVEMENT: nursery, tree planting services, tree planting promotion/coordination, and reclamation consulting/planting

OBJECTIVES: provide seedlings as part of the Alberta Shelterbelt Program for prairie soil conservation and windbreaks

IMPLEMENTATION: program has been planting trees and shrubs for more than 10 years

AMOUNT PLANTED: approximately five million trees and shrubs have been planted over the last 10 years; 500,000 are currently being planted per year

STOCK MORTALITY: average stock mortality experienced in the first year is less than 10%

SERVICES: services provided between 1992 to 2001 included site preparation, design and flag site, grow trees, order trees, and plant trees; since 2002, services include grow trees, order trees, and plant trees

EQUIPMENT: accessible equipment owned includes tractor (six), mechanical tree planter (four), rotivator (two), sprayer (two), and truck and trailer (two)

FUNDING PARTNERS: landowners (100%)

STOCK SUPPLIER: Alberta Nurseries, PFRA, and Lawyer Nurseries (Montana, USA)

PRODUCTION: maximum annual stock production is 2 million trees

DEMAND: current landowner/community demand for the program is high

PARTNERSHIPS: Alberta counties and municipalities (>70); previous five year relationship with PFRA to promote and distribute seedlings in Alberta

STRENGTHS: low costs, good stock selection, available quantities, and high quality

WEAKNESSES: drought

4.8 Views and opinions

Some questions (i.e., 8, 10, 11, 19, 20,21, and 24) from the survey examined the views and opinions regarding tree planting capacity and the possibility for a large-scale afforestation program in the Prairies. The questions looked at program increases, landowner interest, land clearing, land conversion demand, community trends, and success of a program. Results from those questions are included below.

4.8.1 Program increase

Question 8: If funding incentives were available to landowners and communities for afforestation, would your program increase its annual planting capacity beyond its current level?

Results indicated that 28 respondents (87.5%) would increase their programs annual tree planting capacity beyond its current level providing funding incentives were available to landowners and communities for afforestation; four decided an increase would not occur. Table 1 identifies respondents that would increase their program planting capacity.

From those who indicated that their tree planting capacity would increase, the following reasons were given:

- demand for planting would increase
- funds and tree stock are currently limited
- planting projects need to meet long-term horizons (50 years +)
- funding decreases landowner expenses and creates a response
- greater variety of stock is accessible through funding
- funding may reduce maintenance costs for the program
- it is often difficult for small communities to fund projects
- if landowners and communities maintain high interest level
- for soil and water conservation, not a forestry service (fibre)
- if landowners purchase stock
- nursery fields are available for growing additional stock

Responses of those who indicated an increase would not occur included:

- additional equipment would be required to increase the program
- planting is a low priority, securement of existing critical habitat is priority
- manpower restraints
- designated annual budget for program

Table 1. Respondents who would increase planting capacity for their program if funding incentives were available to landowners and communities for afforestation.

Respondent
Manitoba
Alonsa Conservation District
Cooks Creek Conservation District
Dave's Tree Planting Service
Jefferies Nurseries Ltd.
Lake of the Prairies Conservation District
Manitoba Forestry Association*
Manitoba Habitat Heritage Corporation
Manitoba Model Forest
Pineland Forest Nursery
Turtle Mountain Conservation District
Turtle River Watershed Conservation District
Upper Assiniboine River Conservation District
West Souris River Conservation District
Whitemud Conservation District
Saskatchewan
Agriculture and Agri-Food Canada – Prairie Farm Rehabilitation Administration*
Help International
Saskatchewan Environment*
SaskPower Shand Greenhouse
Tree Canada Foundation
Alberta
Alberta Nurseries and Seeds Ltd.
County of Camrose
County of Paintearth
County of Stettler
Municipal District of Pincher Creek

*Manitoba Forestry Association (Seedling Program; Woodlot Program); Agriculture and Agri-Food Canada-Prairie Farm Rehabilitation Administration (Rural Community Forest Tree Planting Project; Shelterbelt Program; Shelterbelt Enhancement Program; Wildlife Habitat Tree Planting Program); Saskatchewan Environment (Walker Poplar Tree Program)

4.8.2 Landowner interest

Question 10: Based on your agency's experience, please indicate the approximate percentage of landowner interest for the following plantation types (i.e., row shelterbelt, farmyard shelter, wildlife habitat, intensive livestock, stream restoration, block plantation, agroforestry, and community project)?

Based on frequency of highest percentage, results indicated that prior to 2001, landowners across the Prairie provinces were most interested in farmyard shelters (30%). Since 2002, interest in plantation type remains unchanged and has increased to 43.1%. Single and multiple row shelterbelts were the second most desired plantation type with 22.9% prior to 2001; since 2002, interest decreased to 15.5%. Interest in other plantations since 2002 included 12.9% for wildlife habitat, 9.5% for streambank restoration and community project, 4.3% for block plantation, 3.4% for intensive livestock, and 1.7% for agroforestry.

Question 11: From the previous question, why do you think that the current (since 2002) top priority plantation type(s) is/are of high priority?

Reasons for farmyard shelter as the top priority plantation type since 2002 included:

- weather protection (wind)
- snow trap
- direct benefit
- aesthetics
- modifying environment for energy savings
- home and yardsite shelter
- replacement of older trees
- less focus on field shelters due to large equipment and minimum tillage
- program availability

Reasons for row shelterbelts as the top priority plantation type since 2002 included:

- easy to maintain and plant
- soil erosion from wind
- replacement of old and dying shelterbelts due to drought
- agricultural community (i.e., exposed land)
- snow trap
- increase in acreages
- agronomic and environmental benefits

Reasons for other plantations included:

- increase in productivity and profitability (agroforestry)
- better promotion and bioengineering (streambank restoration)
- increase in farming efficiency; reservoir construction (wildlife habitat)
- urban expansion (wildlife habitat)

- loss of wildlife habitat from cultivation (wildlife habitat)
- increase in habitat preservation (wildlife habitat)
- increase in siltation in drains (streambank restoration)
- aesthetics and odor reduction (intensive livestock)
- environmental and aesthetic benefits (community project)
- environmental benefits (wildlife habitat)
- water quality issues (streambank restoration)
- greater non-farming landowner client base (wildlife habitat)
- alternative crops (agroforestry/block plantation)
- year to year demand fluctuation

4.8.3 Land clearing

Question 19: Are farmers in your area clearing land for agriculture? If yes, how many acres do you think are being converted annually?

Results showed that 74.4% of the respondents indicated that farmers in their area were clearing land for agriculture. By using the land conversion ratios provided by respondents (percentages were determined and averaged), it was determined that approximately 1.5% of land annually was being cleared in the Prairie provinces. Provincially, approximately 1.8% in Manitoba and 0.7% in Alberta are being cleared annually.

Responses to this question included:

- approximately 1% of the boreal transition zone based on satellite imagery and change detection is being lost annually in Alberta
- clearing amounts are likely related to the price of cereal grains
- losing both wetlands and native uplands; net loss of habitat and increase in farmland
- generally all clearing done in previous generation

4.8.4 Land conversion demand

Question 20: How much landowner demand do you think exists for converting "marginal" farmland and/or cropland to trees and shrubs (i.e., high, medium, low, or none)? If low, what incentives would be required to increase interest?

Across the prairies, respondents thought that the landowner demand for converting "marginal" farmland and/or cropland to trees and shrubs was low. Based on frequency, the following percentages were calculated where low was 72.9%, high 12.5%, medium 10.4%, and none 4.2%. In Alberta, the low demand percentage increased to 86.7% as compared to 72.7% in Manitoba and 54.5% in Saskatchewan.

To increase landowner interest for conversion of “marginal” farmland and/or cropland to trees and shrubs, the following incentives were thought to be required:

- demonstrations and education
- proof of market
- suitable stock availability
- realistic costs of production
- subsidy to remove land from current production
- planting and maintenance subsidy
- new innovations for irrigation systems
- technical assistance
- economic value to plantation (equal or better than current landuse)
- tax benefit
- permanent cover payment (pasture loss)

4.8.5 Community trends

Question 21: What are the trends in the agricultural community that may affect the demand for afforestation for the prairies?

Respondent's indicated that the current concerns of the agricultural community are low crop prices, drought, and the environment. The following trends were identified as affecting the demand for afforestation:

- increased conservation tillage technologies (zero till precision)
- larger land base per farmer
- depopulation
- drought (affecting both cereal crop and tree growth)
- larger equipment (trees become obstacles)
- demand for pasture and hayland
- maximization of the number of acres farmed
- government regulations; taxes
- lack of knowledge of potential future markets
- increasing environmental awareness (climate change; soil and water conservation; wildlife habitat; carbon credits)
- low farm market prices
- aesthetic concerns
- markets for trees are being developed
- interest in landowner diversification (value of trees vs agriculture commodities)
- demand for fruit producing trees and shrubs
- greater land ownership by non-farmers

4.8.6 Success of a program

Question 24: Rank the reason(s) for success of a tree planting or conservation program (i.e., incentives, delivery services, support by producer groups, local extension services, flexibility, other)?

Based on frequency of top priority, 42.5% of respondents thought that incentives were the most important reason for success of a tree planting or conservation program. Local extension services were second with 16.3%. Provincially, incentives were also the most important reason (i.e., Alberta 46.2%, Saskatchewan 41.7%, and Manitoba 40.9%). Other common reasons included delivery services (11.6%) and flexibility (8.1%). Since several respondents did not rank the reasons, frequency of all occurrences identified that incentives were selected most frequently (21.2%), followed by delivery services (19.6%) and local extension services (17.9%).

4.8.7 Future FAACS partnerships

Possible partnership arrangements for the Feasibility Assessment of Afforestation for Carbon Sequestration initiative were determined. Table 2 identifies 39 respondents who are interested in future involvement in developing this program for the FAACS initiative.

Table 2. Respondents who are interested in future involvement with the FAACS initiative.

Respondent
Manitoba
Alonsa Conservation District
Cooks Creek Conservation District
Dave's Tree Planting Service
Richard Filteau
Delta Waterfowl Foundation*
Friends of Bruce Park
Intermountain Conservation District
Jefferies Nurseries
Lake of the Prairies Conservation District
Manitoba Agriculture and Food
Manitoba Forestry Association**
Manitoba Habitat Heritage Corporation
Manitoba Hydro
Manitoba Model Forest
Pineland Forest Nursery
Tiger Hills Conservation District
Tree Canada Foundation
Turtle River Watershed Conservation District*
Upper Assiniboine River Conservation District
West Souris River Conservation District
Whitemud Watershed Conservation District
Saskatchewan
Agriculture and Agri-Food Canada-Prairie Farm Rehabilitation Administration**
Help International
Nature Saskatchewan
Saskatchewan Environment**
Saskatchewan Environment and SaskPower
SaskPower Shand Greenhouse
Tree Canada Foundation
Alberta
Alberta Nurseries and Seeds Ltd.
County of Camrose
County of Stettler
Ducks Unlimited Canada
Municipal District of Pincher Creek
Municipal District of Rocky View
Red Deer County
Sturgeon County

* Unsure

**Manitoba Forestry Association (Seedling Program; Woodlot Program); Agriculture and Agri-Food Canada-Prairie Farm Rehabilitation Administration (Shelterbelt Program, Wildlife Habitat Tree Planting Program, and the Shelterbelt Enhancement Program); Saskatchewan Environment (Walker Poplar Tree Program)

5.0 SUMMARY

Fifty-four surveys were used for this study. The majority of surveys received were from programs. Most programs were involved in either tree planting services or tree planting promotion/coordination. Agricultural programs were involved with government funding and farm producer groups (e.g., Covering New Ground Program; Prairie Stewardship Program). The programs had a variety of objectives from erosion control and woodlot management to conservation, education and sustainability. Carbon sequestration was the focus for the Shelterbelt Enhancement Program and the Saskatchewan Forest Carbon Sequestration Project. The latter was the first carbon sequestration project to be approved in Canada.

Few of the surveyed programs are non-operative (e.g., Southwest Manitoba Field Shelterbelt Service). The majority of programs have planted five years or more and an average approximation of trees planted annually by program (excluding nurseries) is 38,000. The majority also indicated that the average stock mortality experienced in the first year is between 10 to 30%. Better success was achieved (<10%) by the Rural Community Forest Project. Their first demonstration project using plastic mulch resulted in tree survival at nearly 100%.

Most programs provided a range of services. Since 2002, some programs have included additional services (e.g., mulch maintenance) while others have been removed. Planting services were identified as being most frequently removed followed by chemical, mechanical, and mulch maintenance services. Other services removed included site preparation, replanting and administration.

A moderate supply of tree planting equipment was identified as being assessable. Programs generally owned equipment or it would be able to be borrowed or leased as required. Equipment for some programs was provided through in kind support at the community level (e.g., Forest Enhancement Program), by the landowner (e.g., Manitoba Woodlot Program) or by conservation districts (e.g., Wildlife Corridor Project). It was noted that usually a planting project required no more than one of each equipment type found in the survey. However, a large planting program like the Southwest Manitoba Field Shelterbelt Service needed increased equipment numbers (i.e., two tractors, two mechanical tree planters, three cultivator, several sprayers, and two mulch applicators).

Approximate costs to plant and maintain one mile of trees and shrubs was \$1,000. This cost was consistent among programs except for the Shelterbelt Programs in the Counties of Paintearth and Stettler where costs were appreciably lower. Some identified that costs were project specific; \$1.10 per tree was the average cost for the Saskatchewan Forest Carbon Sequestration Project. Some programs included maintenance in year two and three in their

cost (e.g., Southwest Manitoba Field Shelterbelt Service; Wildlife Corridor Project).

The Agriculture and Agri-Food Canada – Prairie Farm Rehabilitation Administration (AAFC-PFRA) Shelterbelt Centre was most commonly used for supplying tree and shrub stock for planting programs. Alberta Nurseries, Pineland Forest Nursery, and Jefferies Nurseries were used less frequently. Several other nurseries were recognized for providing stock including nurseries in British Columbia and the United States. Five nurseries identified their maximum annual stock production. Pineland Forest Nursery had the highest possible production with 20 million container stock and 10 million bareroot stock. Their involvement at the community and general public level was limited as their focus was on reforestation. The AAFC-PFRA Shelterbelt Centre had a historical maximum production of 12 million seedlings, cuttings, and rooted cuttings. A maximum of two million seedlings was possible for Alberta Nurseries, 500,000 for SaskPower Shand Greenhouse, and 100,000 for Jefferies Nurseries.

Incentives that existed for the tree planting programs were from none to all costs covered. The Shelterbelt Program for the County of Paintearth was offered at no cost for landowners that planted greater than 200 trees. Similarly, the Multiple Programs for Alonsa Conservation District supplied trees and planting costs. Cost sharing between the program and landowner also occurred. For the Turtle Mountain Conservation District Shelterbelt Program, landowners were responsible for approximately one quarter of the planting costs. Common incentives offered were trees at no cost (e.g., AAFC-PFRA Shelterbelt Enhancement Program; Leduc County Shelterbelt Program; Walker Poplar Tree Program) and assistance in the forms of technical support and labor. Other incentives included carbon credits (e.g., Tree Planting Programs for Tree Canada Foundation), and financial support (e.g., Forest Enhancement Program). Landowner/community demand for programs, excluding nurseries, was comparable among choices of high, medium, and low. Demand tended to increase with incentives.

Agricultural programs offered mainly financial incentives. The Prairie Stewardship Program generally provided half the funding for seed, fencing, and water development. For the Adopt a Pothole Program, landowners were paid for land conversion from cultivated to grass as well as for conservation of native upland. Landowner/community demand for programs was medium to high.

Strengths of tree planting programs that have attracted landowners and communities included financial support, technical services, accessibility, universality, free stock/mulch, environmental benefits, promotion, reputation, and community based. The Covering New Ground Program identified that demonstrations are an attractive aspect of their agricultural program. Tree nursery strengths were free/low cost seedlings, diverse and high quality stock, and available quantities.

Several factors were recognized as compromising program success. They included insufficient funding, drought, maintenance, lack of or inexperienced staff, competing landowner priorities, cost of trees, limited stock variety, and coordination of partnering groups. Weather conditions (i.e., drought; frost), seed supply, and funding were recognized as limiting nursery success. Other than funding, program improvements needed were greater supply of materials, greater community involvement, better advertisement, on-going maintenance, increased awareness, and lower eligibility requirements.

With funding incentives provided to landowners and communities, 28 respondents acknowledged an increase in tree planting capacity beyond current levels would occur. As a plantation type, farmyard shelters had the greatest interest from landowners; row shelterbelts were second most desired. Greater than 74% felt that farmers were clearing land for agriculture, and the demand for land conversion to trees and shrubs was low. Proof of a market, tax benefits, and stock availability were thought to increase interest. For a program to be successful, incentives were regarded as the top priority.

The responses were mixed towards the future of afforestation. Many landowners were still interested in removing trees, trying to increase the amount of cultivated acres. Conservation tillage technologies (i.e., zero tillage) decrease the dependency on living windbreaks for soil erosion. Large operators would likely not want to use quality farmland to plant trees due to intensive agriculture initiatives. Even marginal land has some value (i.e., pasture). Small farms are continually being lost and depopulation reduces the demand for farmyard shelterbelts. Farm equipment is also increasing in size and trees are seen as obstacles and a source for weeds. Conversely, others indicated that landowners are looking to diversify their operation. The depressed grain prices may force marginal lands into tree plantations. Proof of a guaranteed return needs to be shown which is currently lacking (i.e., value of trees vs agriculture commodities). While some indicated that a demand exists for fruit producing trees and shrubs, the attitude is that it is positive to plant trees (i.e., carbon credits; climate change; water quality; wildlife).

Thirty-nine respondents were interested in future involvement in the development of the Feasibility Assessment of Afforestation for Carbon Sequestration initiative.

6.0 RECOMMENDATIONS

The following are recommendations for a future Prairie-centred afforestation program based on survey responses.

1. Coordination of partnering groups should occur for the program. Involvement with government, conservation agencies/organizations, industry groups, communities, and landowners would allow for valuable input and potential tremendous program support. A community-based program was identified as being important.
2. Increase landowner and community awareness of the environmental and social benefits of afforestation through education, promotion, and demonstrations. Environmental benefits included carbon sequestration, water quality, wildlife habitat, and soil conservation; aesthetics and recreation were social benefits. Economic benefits of afforestation should also be considered as it could provide a source of income for the participant. The program could be promoted through workshops and advertisement by all partners.
3. Willing proponents (i.e., conservation agencies/organizations) should be considered to deliver the program. Those that currently deliver tree planting programs have experience, possible staff, and many have accessible planting equipment. Funding should be provided to conservation agencies and organizations for program delivery.
4. Existing nurseries that are interested in increasing production should be considered to grow the stock. Expertise would be beneficial in ensuring that quality stock would be available. Stock accessibility and supply were identified as currently being limited. These would both increase with appropriate and well-distributed nursery participation across the Prairies. Incentives to nurseries should be considered to increase stock production.
5. Landowner and community eligibility requirements should be low. As some programs had requirements with acreage size and the amount of trees ordered, an afforestation program should be flexible in terms of requirements. As large-scale land conversion is the intention, the program should also be universal in terms of plantation type, and consider small-scale plantations, as any plantation will sequester carbon.
6. Landowner production costs and possible returns as well as proof of market (e.g., fibre; wood; fruit) should be identified. The information should be available to provide the landowner with knowledge to make an informed decision for establishing a plantation. Landowner costs need to be low for a successful program in terms of involvement.

7. Incentives, equal to or better than the current land use, should be provided to landowners for long-term land commitment (e.g., tax structure). The incentives should be flexible, as property commitment is important for program success.
8. The program should offer a variety of low to no-cost prairie-adapted species. No-cost stock was identified as an incentive for many programs. Prairie-adapted seed sources should be identified. Stock variety should be available to suit landowner interests, and appropriate stock quantities with high quality should be available.
9. Technical assistance should be made available for participants in the program. Planning and advice are considered program strengths.
10. Mulch maintenance should be made available for plantation development. Planting demonstrations using mulch have increased tree/shrub survival rates.
11. Maintenance services should be provided to ensure plantings are properly established and survive to maturity. As drought was addressed as a concern in the Prairies, new innovations in irrigation systems should be compatible with plantings.
12. On-site monitoring (future surveys of plantations) could occur to determine program success. The monitoring process would identify issues or problems that need to be addressed.
13. End use restrictions placed on the plantations should be limited. It was discovered that the majority of afforestation would be because of the economic potential of forest products, carbon sequestration can only be considered a by-product of afforestation.
14. Program funding should be balanced over time. A program completely driven by up-front incentives will not leave a lasting mark on the landscape. It was recognized that as funding decreases over time, services offered by the program may decrease as well.
15. A tree planting program should consider protecting existing stands of wildlife habitat. The expense associated with establishing trees is greater than protecting an intact treed landscape. As well, securement of existing critical wildlife habitat is priority for some planting programs.
16. A tree planting program should ensure that it would not plant on native prairie. Native prairie is an endangered ecosystem and further loss needs to be reduced.

7.0 REFERENCES

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Appendix 1. Manitoba FAACS Working Group.

Name	Organization
Sheldon Anderson	Conservation Districts Program
Dianne Beaven	Manitoba Forestry Association
Ken Broughton	Louisiana Pacific Canada Ltd.
Dan Bullock	Manitoba Conservation
Brendan Carruthers	Manitoba Hydro
John Dojack	Manitoba Conservation
John Doornbos	Canadian Forest Service
Gord Falk	Manitoba Conservation
Jerry Fontaine	Treaty #1
Ken Fosty	Manitoba Forestry Association
Vince Keenan	Tembec
Glen Pinnell	Manitoba Forestry Association
Patricia Pohrebniuk	Manitoba Forestry Association
Dave Rannard	Manitoba Forestry Association
Trevor Stanley	Pineland Forest Nursery
Shane Tornblom	Manitoba Habitat Heritage Corporation
Mike Waldram	Manitoba Model Forest
Allan Webb	Woodlot Association of Manitoba
Adam Wellstead	Canadian Forest Service
Bryan Yusishen	Manitoba Agriculture and Food

Appendix 2. Tree planting and conservation program survey.

Program Background

1. Describe your involvement in tree planting, agricultural and/or conservation program delivery. (place an x where appropriate)

Response: Tree Planting Services Farm Producer Group
 Tree Planting Promotion/Coordination Nursery
 Federal Funding Agency Forest Industry
 Provincial Funding Agency Wildlife Habitat
 Other (please specify)

2. Briefly, provide a description of your program (i.e., complete name and objectives).

Response:

3. Approximately, how many projects have been delivered for your program?

Response: Landowner Community

If your program does not include a tree planting or tree growing component (e.g., agricultural forage program), please proceed to question 16.

4. How long has your program been planting trees and shrubs?

Response: <5 years 5 to 10 years >10 years

5. Approximately, how many trees and shrubs (or miles, hectares, acres, etc.) have been planted by your program?

Response: for the last 10 years and, currently per year.

6. What is the average stock mortality experienced by your program in the first year?

Response: <10 % 10 to 30 % >30 %

Range of Services

7. In the following table, identify which services were/are provided by your program? (place an x where appropriate)

Planting Activity		1992 to 2001	Since 2002
Site Preparation			
Design and Flag Site			
Grow Trees			
Order Trees			
Plant Trees			
Replant Trees			
Maintenance	Chemical		
	Mechanical		
	Mulch		
Administration			

Appendix 2. *Continued.*

Tree Planting Capacity

8. If funding incentives were available to landowners and communities for afforestation, would your program increase its annual tree planting capacity beyond its current level? Please explain.

Response:

9. From the following table, how much tree planting equipment can your program access? Please itemize.

Planting Equipment	Number of Pieces Owned	Number of Pieces Borrowed/Leased
Tractor		
Mechanical Tree Planter		
Rotivator		
Sprayer		
Truck and Trailer to move planting equipment		
Mulch Applicator		

Tree Planting Priorities and Trends

10. Based on your agency's experience, please indicate the approximate percentage of landowner interest for the following plantation types.

Plantation Type	1992 to 2001	Since 2002
Single Row Shelterbelt		
Farmyard Shelter		
Wildlife Habitat		
Intensive Livestock		
Streambank Restoration		
Block Plantation		
Agroforestry		
Community Project		
Total	100 %	100 %

11. From the previous question, why do you think that the current (since 2002) top priority plantation type(s) is/are of high priority?

Response:

Tree Planting Costs

12. In the following table, approximately, what percentage do partners contribute to planting costs for your program?

Partners	Percentage
Federal Government	
Province Government	
Crown Corporation	
Industry	
Landowners	
Ratepayers	
External Funding Partners	
Other	

13. Approximately, what are your costs to plant and maintain one mile (or other measure used by program) of trees and shrubs?

Response:

Supply

14. Which nurseries supply or supplied tree and shrub stock for your program?

Response:

15. If the program or operation grows its own trees and shrubs, what is the maximum annual stock production?

Response:

Subsequent Questions

16. What is the current landowner/community demand for your program?

Response: _____High _____Medium _____Low

17. What are/were the partnerships that exist(ed) with your program?

Response:

18. What are/were the incentives that exist(ed) for your program?

Response:

19. Are farmers in your area clearing land for agriculture?

Response: _____Yes _____No

If yes, how many acres (or other measure used by the program) do you think are being converted annually?

Response: _____acres per _____ (e.g., 5 acres per 10,000 acres)

Appendix 2. *Concluded.*

20. How much landowner demand do you think exists for converting “marginal” farmland and/or cropland to trees and shrubs?

Response: _____High _____Medium _____Low _____None

If low, what incentives would be required to increase interest?

Response:

21. What are the trends in the agricultural community that may affect the demand for afforestation for the prairies? (i.e., landowner issues, attitudes, etc.)

Response:

22. What are/were the strengths and positive attributes of your program that attract(ed) landowners and communities to use it, and how can your program be improved?

Response:

23. What, if anything, has compromised your program from being able to meet any of its objectives?

Response:

24. Please rank the reason(s) for success of a tree planting or conservation program.

Response: _____Incentives _____Local Extension Services

 _____Delivery Services _____Flexibility

 _____Support by Producer Groups _____Other (please specify)

25. As previously mentioned in the cover letter, the Feasibility Assessment of Afforestation for Carbon Sequestration (FAACS) initiative is designed to collect information and make recommendations regarding afforestation. Would you be interested in future involvement in developing this program for the FAACS initiative?

Response:

Any additional comments with reference to this study are welcomed. These may include further information on your program/operation, personal views, experiences, etc.

Comments:

Appendix 3. Organizations and their related programs/projects that received the survey by province.

Organization	Survey Returned	Program/Project	Survey Returned
Manitoba			
Agriculture and Agri-Food Canada – Prairie Farm Rehabilitation Administration and Manitoba Agriculture	Yes	Southwest Manitoba Field Shelterbelt Service	Yes
Alonsa Conservation District	Yes	Conservation District-Multiple Programs	Yes
Cooks Creek Conservation District	Yes	Tree Planting Program	Yes
Dave's Tree Planting Service	Yes		
Delta Waterfowl Foundation	Yes	Adopt a Pothole Program	Yes
Ducks Unlimited Canada	No	Conservation Cover Program	No
Environment Canada	No	EcoAction Program	No
Friends of Bruce Park	Yes	Tree Planting Program	Yes
Intermountain Conservation District	Yes	Community Tree/Streambank Stabilization Program	Yes
Jefferies Nurseries Ltd.	Yes		
Kelsey Conservation District	No	Shelterbelt Program	No
Lake of the Prairies Conservation District	Yes	Shelterbelt/Tree Planting Program	Yes
Little Saskatchewan Conservation District	No	Tree Planting Program	No
Manitoba Agriculture and Food	Yes	Canada Manitoba Agreement on Agricultural Sustainability Program	Yes
		Central Agriculture and Conservation Association	No
		Covering New Ground Program	Yes
Manitoba Conservation	Yes	Trees for Canada-Boy Scouts of Canada	Yes
Manitoba Forestry Association	Yes	Seedling Program	Yes
		Woodlot Program	Yes
Manitoba Habitat Heritage Corporation	Yes	Wildlife Corridor Project	Yes
Manitoba Highways	No	TransCanada Shelterbelt Program	No
Manitoba Hydro	Yes	Forest Enhancement Program	Yes

Appendix 3. *Continued.*

Organization	Survey Returned	Program/Project	Survey Returned
Manitoba in Bloom	No		
Manitoba Model Forest	Yes		
Pembina Valley Conservation District	No	Shelterbelt Program	No
Pilot Mound Community	No	Tree Planting Program	No
Pineland Forest Nursery	Yes		
Threshold Agroforestry Corporation	No		
Tiger Hills Conservation District	Yes	Community Tree Program	Yes
Tree Canada Foundation	Yes	Tree Planting Programs	Yes
Turtle Mountain Conservation District	Yes	Shelterbelt Program	Yes
Turtle River Watershed Conservation District	Yes	Plastic Mulch Program	Yes
Upper Assiniboine River Conservation District	Yes	Shelterbelt Program	Yes
West Souris River Conservation District	Yes	Shelterbelt Program	Yes
Whitemud Conservation District	Yes	Shelterbelt Program	Yes
Winnipeg Public Works	No	Reforestation Program	No
Saskatchewan			
Agriculture and Agri-Food Canada - Prairie Farm Rehabilitation Administration	Yes	Greencover Program	Yes
		Permanent Cover Program	No
		Rural Community Forest Tree Planting Project	Yes
		Shelterbelt Program	Yes
		Shelterbelt Enhancement Program	Yes
		Wildlife Habitat Tree Planting Program	Yes
Agriculture and Agri-Food Canada - Prairie Farm Rehabilitation Administration and Saskatchewan Agriculture	Yes	Wildlife Shelterbelt Program	Yes
Agriculture and Agri-Food Canada - Prairie Farm Rehabilitation Administration Shelterbelt Centre Tree Nursery	Yes		

Appendix 3. *Continued.*

Organization	Survey Returned	Program/Project	Survey Returned
City of North Battleford	No	Environmental Club Spring Tree Planting Program	No
City of Weyburn	No	Annual Planting Program	No
		Natural Trail and Parkway Planting Program	No
		Shelterbelt Program	No
Ducks Unlimited Canada	No	Conserve and Win	No
Help International	Yes	Souris River and Farm Protection Program	Yes
Meewasin Valley Authority	No	Memorial Forest Program	No
		Plant a Tree Program	No
Nature Saskatchewan	Yes	The Living by Water Project	Yes
Partners for the Saskatchewan River Basin	No	Girl Guide Tree Distribution Program	No
Saskatchewan Agriculture, Food and Rural Revitalization	No	Conservation Cover Program	No
Saskatchewan Environment	Yes	Rafferty-Alameda Wildlife Mitigation Lands Project	Yes
		Walker Poplar Tree Program	Yes
Saskatchewan Environment and SaskPower	Yes	Saskatchewan Forest Carbon Sequestration Project	Yes
Saskatchewan Watershed Authority	Yes	Prairie Stewardship Program	Yes
SaskPower Shand Greenhouse	Yes		
Tree Canada Foundation	Yes	Tree Planting Programs	Yes
Treemendous	No	Treemendous Planting Programs	No
Wakamow Valley Authority	No	Forestry Week Planting Program	No
		Funeral Chapel Tree Planting Program	No
Wascana Regional Authority	No	Tree Planting Program	No
Alberta			
Agriculture and Food Council of Alberta	No	Community Riparian Program	No
Alberta Agriculture, Food and Rural Development	No	Alberta Environmentally Sustainable Agriculture Program	No

Appendix 3. *Continued.*

Organization	Survey Returned	Program/Project	Survey Returned
Alberta Conservation Association	Yes	Buck for Wildlife Program-Central Region	Yes
		Shelterbelt Program (Buck for Wildlife)-Prairie Region	Yes
Alberta Environmental Farm Plan	No	Environmental Farm Plan	No
Alberta Nurseries and Seeds Ltd.	Yes	Alberta Shelterbelt Program	Yes
Alberta Pacific Forest Industries	No	Poplar Farming Program	No
Alberta Sustainable Resource Development	Yes	Junior Forest Wardens	Yes
		Natural Recovery Program – (a component of the Alberta Riparian Habitat Management Program – “Cows and Fish”)	No
Counties of Athabasca, Barrhead, Beaver, Birch Hills, Brazeau, Cardston, Clearwater, Cypress, Flagstaff, Forty Mile, Grande Prairie, Kneehill, Lac Ste. Anne, Lacombe, Lakeland, Lamont, Lethbridge, Minburn, Mountain View, Newell, Northern Sunrise, Parkland, Ponoka, Saddle Hills, Smoky Lake, Starland, St. Paul, Thorhild, Vermilion River, Vulcan, Warner, Westlock, Wetaskiwin, Wheatland, Woodlands, and Yellowhead; Municipal Districts of Acadia, Big Lakes, Bighorn, Bonnyville, Clear Hills, Fairview, Foothills, Greenview, Lesser Slave River, Northern Lights, Peace, Provost, Ranchland, Smoky River, Spirit River, Taber, Wainwright, and Willow Creek; Special Areas Consort, Hanna, and Oyen; Specialized Municipality of Mackenzie; and Nations Kainai and Siksika	No	Shelterbelt Programs	No
County of Camrose	Yes	Shelterbelt Program	Yes
County of Paintearth	Yes	Shelterbelt Program	Yes

Appendix 3. *Concluded.*

Organization	Survey Returned	Program/Project	Survey Returned
County of Stettler	Yes	Shelterbelt Program	Yes
County of Two Hills	Yes	Shelterbelt Program	Yes
Ducks Unlimited Canada	Yes	Ducks and Trees Program	Yes
Eastern Irrigation District	No	Partners in Habitat Development Program	No
Edmonton Community Services	No	Naturalization Program	No
Leduc County	Yes	Shelterbelt Program	Yes
Municipal District of Pincher Creek	Yes	Shelterbelt Program	Yes
Municipal District of Rocky View	Yes	Shelterbelt Program	Yes
Red Deer County	Yes	Municipal Program	Yes
Strathcona County	Yes	Shelterbelt Program	Yes
Sturgeon County	Yes	Shelterbelt Program	Yes
Tree Canada Foundation	No	Tree Planting Programs	No
Woodlot Association of Alberta	No	Woodlot Extension Pilot Program	No

Appendix 4. Organizations with program descriptions that did not return the survey by province.

Organization	Program	Description
Manitoba		
Ducks Unlimited Canada	Conservation Cover Program	A program in theory; components of this program have been incorporated into the Greencover Initiative which is a national initiative to promote sustainable land use and expand the area of perennial forages and trees by up to 1.6 million hectares over five years
Environment Canada	EcoAction Program	A program that provides financial support to community groups for projects that have measurable, positive impacts on the environment; encourages projects that protect, rehabilitate or enhance the natural environment
Kelsey Conservation District	Shelterbelt Program	Provide assistance to establish and maintain shelterbelts
Little Saskatchewan Conservation District	Tree Planting Program	Provide assistance to establish and maintain plantings
Manitoba Agriculture and Food	Central Agriculture and Conservation Association	Deliver soil and water conservation programs to local farmers; included Canada Manitoba Agreement on Agricultural Sustainability, Green Plan and most recently Covering New Ground
Manitoba Highways	TransCanada Shelterbelt Program	Tree planting between Winnipeg and Portage la Prairie
Manitoba in Bloom		Promote beautification of communities, and work with communities in planting projects
Pembina Valley Conservation District	Shelterbelt Program	Tree planting and maintenance services; promotes the establishment for farm benefits and reduced wind and snow impacts
Pilot Mound Community		A program where the community grows the trees which become relocated to needed locations
Threshold Agroforestry Corporation		Established in 2000; supplies hybrid poplar cuttings to landowners interested in block plantations for timber production, riparian use, or shelterbelts; production of up to one million fast growing cuttings annually

Appendix 4. *Continued.*

Organization	Program	Description
Winnipeg Public Works	Reforestation Program	A program to plant trees where requested if suitable, and where trees have been removed; includes residential and regional boulevard, and park plantings; objective is to keep the urban forest maintained at its existing size
Saskatchewan		
Agriculture and Agri-Food Canada-Prairie Farm Rehabilitation Administration (PFRA)	Permanent Cover Program	Was offered in the Prairie provinces to convert marginal cultivated lands to permanent cover; landowners received a one-time payment to commit eligible lands to perennial cover under a land use agreement of either 10 or 21 years; economic uses could be made of the land to take hay or pasture cows
City of North Battleford	Environmental Club Spring tree Planting Program	An annual tree plant (~2,000 trees/yr) where high school and elementary students plant together; seedlings (native species) are supplied by SaskPower Shand Greenhouse; the city provides two years of maintenance for the trees
City of Weyburn	Annual Planting Program	60 to 120 trees planted annually
	Natural Trail and Parkway Planting Program	No information provided
	Shelterbelt Program	No information provided
Ducks Unlimited Canada	Conserve and Win	An incentive program to have farmers plant winter wheat
Meewasin Valley Authority	Memorial Forest Program	A program to help create new forest habitat where the cycle of life can continue for generations to come
	Plant a Tree Program	With donations, trees are planted in recognition of people, for special occasions and as gifts
Partners for the Saskatchewan River Basin	Girl Guide Tree Distribution Program	From 1998 to 2000, Girl Guide Groups located within the Saskatchewan River Basin planted seedlings and established a two-year maintenance program to increase tree survival rates; 18,750 seedlings planted

Appendix 4. *Continued.*

Organization	Program	Description
Saskatchewan Agriculture, Food and Rural Revitalization	Conservation Cover Program	A four year initiative of the Government of Saskatchewan that will contribute to the cost of converting crop land to perennial cover
Treemendous	Treemendous Planting Programs	Dedicated to promoting the benefits of trees in the maintenance, enhancement and restoration of the environment; plantings include community project, commercial or industrial property, and wildlife habitat; 1.75 million seedlings were planted since 1992
Wakamow Valley Authority	Forestry Week Planting Program	Work with PFRA to have school groups plant trees
	Funeral Chapel Tree Planting Program	Development of a memorial forest through mechanical planting
Wascana Regional Authority	Tree Planting Program	Tree and shrub plantings for replacements and new projects; in 2003, a ceremonial tree planting on Earth Day
Alberta		
Agriculture and Food Council of Alberta	Community Riparian Program	Encourages community based approaches to improve awareness and management of riparian areas; works with locally based partnerships of landowners, industry groups, non-government organizations, and municipalities
Alberta Agriculture, Food and Rural Development	Alberta Environmentally Sustainable Agriculture Program	The program targets agriculture, education, soil, water, waste management and riparian areas; provides information farmers, ranchers and food processors to help reduce the impact of agriculture on soil, water and biodiversity
Alberta Environmental Farm Plan	Environmental Farm Plan	A new program to promote the awareness of the strides being made by producers and provides the tools for making further changes toward a sustainable environment; a component of the program is dedicated to woodlots, bush, and shelterbelts

Appendix 4. *Continued.*

Organization	Program	Description
Alberta Pacific Forest Industries	Poplar Farming Program	Fast-growing poplar trees are established on private lands through leasing within an average 200 kilometre radius of the mill; harvesting will occur in 18 to 25 years and wood volumes will be in the range of 275 to 350 cubic metres per hectare; responsibilities of Alberta Pacific include site preparation, planting, maintenance, and management of the poplar farm
Alberta Sustainable Resource Development	Natural Recovery Program (a component of the Alberta Riparian Habitat Management Program – “Cows and Fish”)	A program that uses the succession of native species to re-establish disturbed creeks; Cows and Fish focuses on riparian awareness for producers and communities to better understand how grazing improvements can improve landscape health and productivity
Counties of Athabasca, Barrhead, Beaver, Birch Hills, Brazeau, Cardston, Clearwater, Cypress, Flagstaff, Forty Mile, Grande Prairie, Kneehill, Lac Ste. Anne, Lacombe, Lakeland, Lamont, Lethbridge, Minburn, Mountain View, Newell, Northern Sunrise, Parkland, Ponoka, Saddle Hills, Smoky Lake, Starland, St. Paul, Thorhild, Vermilion River, Vulcan, Warner, Westlock, Wetaskiwin, Wheatland, Woodlands, and Yellowhead; Municipal Districts of Acadia, Big Lakes, Bighorn, Bonnyville, Clear Hills, Fairview,	Shelterbelt Programs	A municipal program under the Agricultural Service Board Act; some municipalities simply help facilitate the PFRA Shelterbelt Program which may constitute their contribution to shelterbelts

Appendix 4. *Concluded.*

Organization	Program	Description
Foothills, Greenview, Lesser Slave River, Northern Lights, Peace, Provost, Ranchland, Smoky River, Spirit River, Taber, Wainwright, and Willow Creek; Special Areas Consort, Hanna, and Oyen; Specialized Municipality of Mackenzie; and Nations Kainai and Siksika		
Eastern Irrigation District	Partners in Habitat Development Program	Initiated to assist landowners to develop wildlife habitat within the cultivated regions of southern Alberta; assists farmers with shelterbelt plantings, fencing out existing habitat areas and protecting and enhancing riparian and wetland habitat
Edmonton Community Services	Naturalization Program	Established in 1994; 710,000 trees planted
Tree Canada Foundation	Tree Planting Programs	Provides education, technical assistance, resources and financial support through partnerships to encourage planting and caring for trees in urban and rural environments in an effort to help reduce carbon dioxide emissions
Woodlot Association of Alberta	Woodlot Extension Pilot Program	A program to promote awareness of the benefits of shelterbelts, tree plantations and woodlot management on private lands; a cooperative effort of PFRA, Alberta Agriculture, Food and Rural Development and the forest industry

Appendix 5. Contacts established during the study by province.

Organization	Program	Contact	Address
Manitoba			
Agriculture and Agri-Food Canada-Prairie Farm Rehabilitation Administration and Manitoba Agriculture	Southwest Manitoba Field Shelterbelt Service	Dick Filteau	Box 566 Melita, MB R0M 1L0 Tel: (204)522-8772 Email: rfilteau@mts.net
		Michael Herbert	Box 189 Pearson, MB R0M 1S0 Tel: (204)686-2306
Alonsa Conservation District	Conservation District – Multiple Programs	Harry Harris	Box 33 Alonsa, MB R0H 0A0 Tel: (204)767-2101 Email: alonsacd@mts.net
Association of Manitoba Municipalities		Joe Masi	Portage la Prairie, MB Tel: (204)857-8666
Cooks Creek Conservation District	Tree Planting Program	Brad Sitarz	Box 100 Unit 1-1070 Oakwood Rd. Oakbank, MB R0E 1J0 Tel: (204)444-3652 Email: cccd@mts.net
Dave's Tree Planting Service		Dave Yakimishen	Box 154 Gilbert Plains, MB R0L 0X0 Tel: (204)548-2350
Delta Waterfowl Foundation	Adopt A Pothole Program	Jim Fisher	Box 1 Rural Route 1, Portage la Prairie, MB R1N 3A1 Tel: (204)239-1900 Email: jfisher@deltawaterfowl.org
Ducks Unlimited Canada	Conservation Cover Program	Brian Gray	Box 1160 Stonewall, MB R0C 2Z0 Tel: (204)467-3000 Email: b_gray@ducks.ca
		Lauralou Cicierski	Box 1160 Stonewall, MB R0C 2Z0 Tel: (204)467-3252 Email: l_cicierski@ducks.ca

Appendix 5. *Continued.*

Organization	Program	Contact	Address
Environment Canada	EcoAction Program	Gord Yelland	150-123 Main St. Winnipeg, MB R3C 4W2 Tel: (204)983-8597 Email: gord.yelland@ec.gc.ca
Friends of Bruce Park	Tree Planting Program	Cynthia Cohlmeier	83 Douglas Park Rd. Winnipeg, MB R3J 1Z3 Tel: (204)943-1394 Email: cynthia@cohlarch.ca
Intermountain Conservation District	Community Tree/Streambank Stabilization Program	Sherry Hohn	Box 328 Ethelbert, MB R0L 0T0 Tel: (204)742-3764 Email: imcd@mb.sympatico.ca
Jefferies Nurseries Ltd.		Wilbert Ronald	Box 402 Portage la Prairie, MB R1A 3B7 Tel: (888)857-5288 Email: jeffnurs@escape.ca
Kelsey Conservation District	Shelterbelt Program	Shawn Sexsmith	Box 1860 The Pas, MB R9A 1L6 Tel: (204)623-3353 Email: kcd@cancom.net
Keystone Agriculture Producers		Yvonne Rideout	1-1313 Border Winnipeg, MB Tel: (204)697-1140 Email: kap@kap.mb.ca
La Salle Redboine Conservation District		David Huck	Box 220, 109 Broadway St Holland, MB R0G 0X0 Tel: (204)526-2578 Email: mail@lasalledredboine.com
Lake of the Prairies Conservation District	Shelterbelt/Tree Planting Program	Jason Tomski	Box 31 Building 211 Ingliis, MB R0J 0X0 Tel: (204)564-2388 Email: lpcd@mb.sympatico.ca

Appendix 5. *Continued.*

Organization	Program	Contact	Address
Little Saskatchewan Conservation District	Tree Planting Program	Myles Kopytko	Box 209, 21 Delap St. Oak River, MB R0K 1T0 Tel: (204)566-2270 Email: lsrccd@mb.sympatico.ca
Louisiana Pacific Canada Ltd.		Ken Broughton	Box 998 Swan River, MB R0L 1Z0 Tel: (204)734-7728 Email: Ken.Broughton@LPCorp.com
Manitoba Agriculture and Food		David Hay	Box 100 Shoal Lake, MB R0J 1Z0 Tel: (204)759-4050 Email: Dhay@agr.gov.mb.ca
	Canada Manitoba Agreement on Agricultural Sustainability Program; Covering New Ground Program	Kim Wolfe	Soils and Crop Branch, Box 1149 Carman, MB R0G 0J0 Tel: (204)745-5666 Email: kwolfe@gov.mb.ca
		Leloni Scott	536 Stephen St. Morden, MB R6M 1T7 Tel: (204)822-5461 Email: lescott@gov.mb.ca
	Central Agriculture and Conservation Association	Shawn Cabak	25 Tupper N. Portage la Prairie, MB R1N 3K1 Tel: (204)239-3353 Email: scabak@gov.mb.ca
Manitoba Cattle Producers Association		Wanda Mcfayden	222-530 Century St. Winnipeg, MB R3H 0Y4 Tel: (204)772-4542 Email: mcpa@escape.ca
Manitoba Conservation		John Dojack	200 Saulteaux Cr. Winnipeg, MB Tel: (204)945-8092 Email: jdojack@gov.mb.ca

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Organization	Program	Contact	Address
Manitoba Conservation		Dan Bullock	200 Saulteaux Cr. Winnipeg, MB Tel: (204)945-5618 Email: dbulloch@gov.mb.ca
		Dan Chranowski	Western Region 1129 Queens Ave. Brandon, MB R7A 1L9 Tel: (204)726-6450 Email: dchranowsk@gov.mb.ca
	Trees for Canada-Boy Scouts of Canada	Pete Borowski	Box 640, 201-4 Ave. S. Swan River, MB R0L 1Z0 Tel: (204)734-3429 Email: pborowski@gov.mb.ca
		Nestor Ewacha	Box 2019 Steinbach, MB R0A 2A0 Tel: (204)346-6117 Email: newacha@gov.mb.ca
		Tim Swanson	Lac du Bonnet, MB Tel: (204)346-6116
Manitoba Conservation District Association		Wayne Hildebrand	Box 38, 48 Dennis St. W. Gladstone, MB R0J 0T0 Tel: (204)385-6622 Email: whildebran@gov.mb.ca
		Tracie Orisko	308 River Ave. W. Dauphin, MB R7N 0J9 Tel: (204)638-9799 Email: mcda@mts.net
Manitoba Forestry Association	Seedling Program	Patricia Pohrebniuk	900 Corydon Ave. Winnipeg, MB R3M 0Y4 Tel: (204)453-3182 Email: ppohrebniuk@mts.net
	Woodlot Program	Ken Fosty	900 Corydon Ave. Winnipeg, MB R3M 0Y4 Tel: (204)453-3182 Email: kfosty@mts.net

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Organization	Program	Contact	Address
Manitoba Forestry Association		Dianne Beaven	900 Corydon Ave. Winnipeg, MB R3M 0Y4 Tel: (204)453-3182 Email: djbeaven@mts.net
		Glen Pinnell	Tel: (204)275-0284 Email: glenpinnell@hotmail.com
Manitoba Habitat Heritage Corporation	Wildlife Corridor Project	Shane Tornblom	Brandon, MB Tel: (204)729-3503 Email: stornblo@mhhc.mb.ca
Manitoba Highways	TransCanada Shelterbelt Program	Don Findlay Curtis Huff	Winnipeg, MB Tel: (204)856-6000 Email: chuff@gov.mb.ca
Manitoba Hydro	Forest Enhancement Program	Brendan Carruthers	Box 815, 820 Taylor Ave. Winnipeg, MB R3C 2P4 Tel: (204)474-4934 Email: bcarruthers@hydro.mb.ca
Manitoba in Bloom		Ken Ivy	Box 429 Virden, MB R0M 2C0 Tel: (204)748-3105 Email: manitobainbloom@hotmail.com
Manitoba Model Forest		Bev Dube	Box 6500 Pine Falls, MB R0E 1M0 Tel: (204)367-5232 Email: bdube@mb.sympatico.ca
		Mike Waldram	Box 6000 Pine Falls, MB Tel: (204)785-2941 Email: mikewald@mb.sympatico.ca
Manitoba Rural Adaptation Council		Mya Sellgren	802-294 Portage Ave. Winnipeg, MB R3C 0B9 Tel: (204)982-4793 Email: msellgren@mrac.ca

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Organization	Program	Contact	Address
Manitoba Rural Development		Ross Bingham	6 Flr 800 Portage Ave. Winnipeg, MB R3G 0N4 Tel: (204)945-2157 Email: rbingham@gov.mb.ca
Manitoba Wildlife Federation Habitat Foundation		Ray Rybuck	70 Stevenson Rd. Winnipeg, MB R3H 0W7 Tel: (204)633-5967 Email: mwf@mts.net
Mid Assiniboine River Conservation District		Kim Poppel	Box 12, 517-2 Ave. Alexander, MB Tel: (204)752-2163 Email: marcda@mts.net
Nature Conservancy of Canada		Aimee Pittet Gene Fortney	200-611 Corydon Ave. Winnipeg, MB R3L 0P3 Tel: (204)942-4845 Email: aimee.pittet@natureconservancy.ca
Pembina Valley Conservation District	Shelterbelt Program	Cliff Greenfield	Box 659, 261 Main St. Manitou, MB R0G 1G0 Tel: (204)242-3267 Email: pvcd@cici.mb.ca
Pilot Mound Community	Tree Planting Program	Janet Boyd	Box 39 Pilot Mound, MB R0G 1P0 Tel: (204)825-2587 Email: vlgpm@mb.sympatico.ca
Pineland Forest Nursery		Trevor Stanley Dave Flight	Box 45 Hadashville, MB R0E 0X0 Tel: (204)426-5235 Email: tstanley@gov.mb.ca
Seine-Rat River Conservation District		Sheldon Stott	Box 339, 94 Principale St. LaBroquerie, MB R0A 0W0 Tel: (204)424-5845 Email: srrcd@mts.net

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Organization	Program	Contact	Address
Tembec Forest Resource Management		Vince Keenan	Box 10 Pine Falls, MB R0E 1M0 Tel: (204)367-5224 Email: vince.keenan@tembec.com
Threshold Agroforestry Corporation		Tam McEwen	41 Wilkinson Cr. Portage la Prairie, MB R1N 1A5 Tel: (204)857-9111 Email: tammcewen@shaw.ca
Tiger Hills Conservation District	Community Tree Program	Rich Davis	Box 160, 122-2 St. N. Baldur, MB R0K 0B0 Tel: (204)535-2139 Email: rich.thcd@mts.net
Travel Manitoba		Colette Fontaine	155 Carlton St. Winnipeg, MB Tel: (204)945-4045 Email: cfontaine@gov.mb.ca
		Jan Collins	155 Carlton St. Winnipeg, MB Tel: (204)945-2297
Tree Canada Foundation	Tree Planting Programs	John Hreno	Winnipeg, MB Tel: (204)452-3765 Email: jhreno@mts.net
Turtle Mountain Conservation District	Shelterbelt Program	Sheldon Kowalchuk	Box 508 Deloraine, MB R0M 0M0 Tel: (204)747-2530 Email: s.kowalchuk@tmcd.ca
Turtle River Watershed Conservation District	Plastic Mulch Program	Darren Nicklin	Box 449, 630 Central Ave. Ste Rose du Lac, MB R0L 1S0 Tel: (204)447-2139 Email: d_nicklin@mb.aibn.com
Upper Assiniboine Conservation District	Shelterbelt Program	Derek Clarke	Box 223 Miniota, MB R0M 1M0 Tel: (204)567-3554 Email: uarcd@escape.ca

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Organization	Program	Contact	Address
Viburnum Trees		Mike Allen	Winnipeg, MB Tel: (204)831-8086 Email: viburnumtrees@shaw.ca
West Souris River Conservation District	Shelterbelt Program	Glen Campbell	Box 339, Reston, MB R0M 1X0 Tel: (204)877-3020 Email: glen.wsrcd@rfnw.com
Whitemud Conservation District	Shelterbelt Program	Glen Nichols	Box 130 Neepawa, MB R0J 1H0 Tel: (204)476-5019 Email: whitemud@escape.ca
Winnipeg Public Works	Reforestation Program	Patty Slentz	Forestry Division, Winnipeg, MB Tel: (204)986-2006 Email: PSlentz@city.winnipeg.mb.ca
Saskatchewan			
Agriculture and Agri-Food Canada-Prairie Farm Rehabilitation Administration	Shelterbelt Enhancement Program	Bob Turnock	Shelterbelt Centre, Box 940 Indian Head, SK S0G 2K0 Tel: (306)695-5120 Email: turnockb@em.agr.ca
	Shelterbelt Program; Wildlife Habitat Tree Planting Program; Wildlife Shelterbelt Program; Tree Nursery	Bruce Hesselink	Shelterbelt Centre, Box 940 Indian Head, SK S0G 2K0 Tel: (306)695-5118 Email: hesselinkb@agr.gc.ca
	Greencover Program	John Sharpe	1800 Hamilton St. Regina, SK S4P 4L2 Tel: (306)780-7264 Email: sharpej@agr.gc.ca
	Rural Community Forest Tree Planting Project	Laura Poppy	Shelterbelt Centre, Box 940 Indian Head, SK S0G 2K0 Tel: (306)695-5119 Email: poppyla@agr.gc.ca

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Organization	Program	Contact	Address
Agriculture and Agri-Food Canada	Permanent Cover Program	Larry Lenton	1800 Hamilton St. Regina, SK S4P 4L2 Tel: (306)780-3258 Email: lentonl@agr.gc.ca
		Elaine Nagy	1800 Hamilton St. Regina, SK S4P 4L2 Tel: (306)780-3258 Email: nagyem@em.agr.ca
		Glen Shaw	1011-11 Innovation Blvd. Saskatoon, SK S7N 3H5 Tel: (306)975-4130 Email: shawga@agr.gc.ca
City of North Battleford Parks and Recreation	Environmental Club Spring Tree Planting Program	Keith Anderson	Box 460 North Battleford, SK S9A 2Y6 Tel: (306)445-1742 Email: kanderson@city.north-battleford.sk.ca
City of Weyburn Parks	Annual Planting Program; Natural Trail and Parkway Planting Program; Shelterbelt Program	Claude Morin	Box 370 Weyburn, SK S4H 2K6 Tel: (306)848-3290 Email: cmorin@city.weyburn.sk.ca
Ducks Unlimited Canada	Conserve and Win	Lee Moats	Box 4465 Regina, SK S4P 3W7 Tel: (306)569-0424 Email: l_moats@ducks.ca
Help International	Souris River and Farm Protection Program	Rodney Sidloski	Box 181 Weyburn, SK S4H 2J9 Tel: (306)842-2433 Email: help.inc.org@sk.sympatico.ca
Meewasin Valley Authority	Memorial Forest Program; Plant a Tree Program	Doug Porteous	402, 3 Ave. S. Saskatoon, SK S7K 3G5 Tel: (306)665-6887 Email: meewasin@sk.sympatico.ca
Nature Saskatchewan	The Living by Water Project	Kimberly Epp	206-1860 Lorne St. Regina, SK S4P 2L7 Tel: (306)780-9834 Email: shorelines@naturesask.com

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Organization	Program	Contact	Address
Partners for the Saskatchewan River Basin	Girl Guide Tree Distribution Program	Jo-Anne Richter Heather Dawes	402, 3 Ave. S. Saskatoon, SK S7K 3G5 Tel: (800)567-8007 Email: partners@saskriverbasin.ca
Saskatchewan Agriculture Food and Rural Revitalization	Conservation Cover Program	Lee Giroux Mark Folk	3085 Albert St. Regina, SK S4S 0B1 Tel: (306)787-0756 Email: lgiroux@agr.gov.sk.ca
Saskatchewan Environment		Al Willcocks	Forest Ecosystem Branch, 800 Central Ave. Box 3003 Prince Albert, SK S6V 6G1 Tel: (306)953-2486 Email: awillcocks@serm.gov.sk.ca
	Rafferty-Alameda Wildlife Mitigation Lands Project	Harvey Janke	Fish and Wildlife Branch, Rm 436, 3211 Albert St. Regina, SK S4S 5W6 Tel: (306)787-2332 Email: hjanke@serm.gov.sk.ca
	Saskatchewan Forest Carbon Sequestration Project	Ron Berezowsky	Forest Ecosystem Branch, 800 Central Ave. Box 3003 Prince Albert, SK S6V 6G1 Tel: (306)953-2587 Email: rberezowsky@serm.gov.sk.ca
	Walker Poplar Tree Program	Sheri O'Shaughnessy	112 Research Dr. Saskatoon, SK S7K 2H6 Tel: (306)933-7219
Saskatchewan Forest Association		Maria Grono	Prince Albert, SK Tel: (306)763-2189 Email: forestry@inet2000.com
Saskatchewan Forest Centre		Deb Weedon	5-598, 15 St. Prince Albert, SK S6V 1G2 Tel: (306)765-2840 Email: dweedon@saskforestcentre.ca
Saskatchewan Parks and Recreation Association		John Firnesz	210-3303 Hillside Regina, SK S4S 6W9 Tel: (306)780-9262

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Organization	Program	Contact	Address
Saskatchewan Stock Growers		Carrie Kimmel	Regina, SK Tel: (306)757-8523
	Prairie Conservation Action Plan	Karyn Scalise	Box 4752 Regina, SK S4P 3Y4 Tel: (306)352-0472 Email: pcap@sasktel.net
Saskatchewan Watershed Authority	Prairie Stewardship Program	Cari-Lyn Epp	101-2022 Cornwall St. Regina, SK S4P 2K5 Tel: (306)787-0782 Email: carilyn.epp@swa.ca
SaskPower		Oliver Bussler	2025 Victoria Ave. Regina, SK Tel: (306)566-3247 Email: obussler@saskpower.com
		Robert Steadwill	2025 Victoria Ave. Regina, SK Tel: (306)566-2877 Email: rsteadwill@saskpower.com
SaskPower Shand Greenhouse		Debbie Nielsen	Box 280 Estevan, SK S4A 2A3 Tel: (306)634-9771 Email: dnielsen@saskpower.com
Swift Current Creek Watersheds Stewards		Cher King	Box 1088 Swift Current, SK S9H 3X3 Tel: (306)778-5007 Email: sccws@canada.com
Tree Canada Foundation	Tree Planting Programs	Murray Little	1345 LaCroix Cr. Prince Albert, SK S6V 6R2 Tel: (306)764-0057 Email: m.little@sk.sympatico.ca
Treemendous	Treemendous Planting Programs	Alan Appleby	3079 Athol St Regina, SK S4S 1Y6 Tel: (306)586-3863 Email: alan@appleby.sk.ca
Wakamow Valley Authority	Forestry Week Planting Program; Funeral Chapel Tree Planting Program	Bob Wills	Box 1266 Moosejaw, SK S6H 4P9 Tel: (306)692-2717 Email: wakamow@sasktel.net

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Organization	Program	Contact	Address
Wascana Regional Authority	Tree Planting Program	D'Arcy Schenk	2900 Wascana Dr. Regina, SK S4P 3S7 Tel: (306)347-1838 Email: dschenk@wascana.sk.ca
Alberta			
Agriculture and Agri-Food Canada-Prairie Farm Rehabilitation Administration		Gary Bank	Rm 600, 138-4 Ave. S.E. Calgary, AB T2G 4Z6 Tel: (403)292-5649 Email: bankg@agr.gc.ca
Agriculture and Food Council of Alberta	Community Riparian Program	Judy Balombin	402, 1101-5 St. Nisku, AB T9E 7N3 Tel: (780)955-3714 Email: judy.balombin@agfoodcouncil.com
Alberta Agriculture, Food and Rural Development	Alberta Environmentally Sustainable Agriculture Program	Carol Bettac	206, 7000-113 St. Edmonton, AB T6H 5T6 Tel: (780)427-3885 Email: carol.bettac@gov.ab.ca
		Carrie Selin	206, 7000-113 St. Edmonton, AB T6H 5T6 Tel: (780)427-3587 Email: carrie.selin@gov.ab.ca
Alberta Cattle Commission		Gary Sargent	216, 6715-8 St. N.E. Calgary, AB T2E 7H7 Tel: (403)275-4400 Email: sargentg@cattle.ca
Alberta Conservation Association		Calvin Mcleod	Box 1720, 2 Flr 4919-51 St. Rocky Mountain House, AB T4T 1B4 Tel: (403)845-8247 Email: calvin.mcleod@gov.ab.ca
	Buck For Wildlife	Grant Nieman	404, 4911-51 St. Red Deer, AB T4N 6V4 Tel: (403)340-7686 Email: grant.nieman@gov.ab.ca

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Organization	Program	Contact	Address
Alberta Conservation Association		Lisanne Lewis	Box 40027 Baker Centre Postal Outlet Edmonton, AB T5J 4M9 Tel: (780)427-8151 Email: llewis@ab/conservation .com
	Shelterbelt Program (Buck for Wildlife)	Randy Lee	Lethbridge, AB Tel: (403)382-4361 Email: randy.lee@gov.ab.ca
Alberta Environmental Farm Plan	Environmental Farm Plan	Therese Tompkins	801-4445 Calgary Trail Edmonton, AB T6H 5R7 Tel: (780)436-2339 Email: tompkins@albertaefp.com
Alberta Fish and Game		Brad Fenson	Edmonton, AB Tel: (780)437-2342
Alberta Nurseries and Seeds Ltd.		Blair Perra	Box 446 Bowden, AB T0M 0K0 Tel: (403)224-3544 Email: dectool@telusplanet.net
Alberta Pacific Forest Industries	Poplar Farming Program	Allan Robertson	Box 8000 Boyle, AB T0A 0M0 Tel: (780)525-8357 Email: robertal@alpac.ca
Alberta Sustainable Resource Development	Natural Recovery Program (a component of the Alberta Riparian Habitat Management Program – “Cows and Fish”)	Barry Adams	Agricultural Centre 100, 5401-1 Ave. S. Lethbridge, AB T1J 4V6 Tel: (403)382-4299 Email: barry.adams@gov.ab.ca
	Junior Forest Wardens	Kevin Wirtanen	7 Flr, 9920-108 St. Edmonton, AB T5K 2M4 Tel: (780)422-9276 Email: kevin.wirtanen@gov.ab.ca

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Organization	Program	Contact	Address
Alberta Sustainable Resource Development		Murray Anderson	9915-108 St. Edmonton, AB T5K 2G8 Tel: (780)422-2587 Email: murray.anderson@gov.ab.ca
	Junior Forest Wardens	Peggy Dolen	Box 70028, 8660 Bearspaw Dam Rd. N.W. Calgary, AB T3B 5K3 Tel: (403)297-8850 Email: peggy.dolen@gov.ab.ca
Canadian Forest Service		Adam Wellstead	Northern Forestry Centre 5320-122 St. Edmonton, AB T6H 3S5 Tel: (780)435-7390 Email: awellste@nrcan.gc.ca
		Al Nanka	Northern Forestry Centre 5320-122 St. Edmonton, AB T6H 3S5 Tel: (780)435-7210 Email: ananka@nrcan.gc.ca
		John Doornbos	Northern Forestry Centre 5320-122 St. Edmonton, AB T6H 3S5 Tel: (780)435-7318 Email: doornbos@nrcan.gc.ca
County of Camrose	Shelterbelt Program	Dave Trautman	4728-41 St. Camrose, AB T4V 0Z6 Tel: (780)672-4765 Email: dtrautman@county.camrose.ab.ca
County of Paintearth	Shelterbelt Program	Jeff Cosens	Box 509 Castor, AB T0C 0X0 Email: jcosens@countypaintearth.ca
County of Stettler	Shelterbelt Program	Walt Saar	Box 1270, 6602-44 Ave. Stettler, AB T0C 2L0 Tel: (204)742-4441 Email: info@stettlercounty.ca

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Organization	Program	Contact	Address
County of Two Hills	Shelterbelt Program	Allan Ropchan	Box 490, Two Hills, AB T0B 4K0 Email: aropchan@thcounty.ab.ca
Cows and Fish	Alberta Riparian Habitat Management Program	Noreen Ambrose	2 Flr, YPM Place, 530-8 St. S. Lethbridge, AB T1J 2J8 Tel: (403)381-5538 Email: riparian@telusplanet.net
Ducks Unlimited Canada	Ducks and Trees Program	Brian Ilnicki	Box 1270, 5133-50 Ave. St. Paul, AB T0A 3A2 Tel: (780)645-4767 Email: b_ilnicki@ducks.ca
Eastern Irrigation District	Partners in Habitat Development Program	Rick Martin	Bag 8 Brooks, AB T1R 1B2 Tel: (403)362-1414 Email: wildlife@eidnet.org
Edmonton Community Services	Naturalization Program	John Helder	Box 2359 Edmonton, AB T5J 2R7 Tel: (780)496-6997 Email: john.helder@edmonton.ca
Land Stewardship Centre of Canada		Ernie Ewaschuk	17503-45 Ave. Edmonton, AB T6M 2N3 Tel: (780)483-1885 Email: ernie@landstewardship.org
Leduc County	Shelterbelt Program	Curtis Henkelmann	County Centre 101-1101, 5 St. Nisku, AB T9E 2X3 Tel: (780)955-4540 Email: curtis@leduc-county.com
Municipal District of Pincher Creek	Shelterbelt Program	Kelly Cooley	Box 279 Pincher Creek, AB T0K 1W0 Tel: (403)627-4151 Email: kcool@telusplanet.net
Municipal District of Rocky View	Shelterbelt Program	Tim Dietzler	911-32 Ave. N.E. Calgary, AB T2E 6X6 Tel: (403)230-1401 Email: tdietzler@gov.mdrockyview.ab.ca

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Organization	Program	Contact	Address
Red Deer County	Municipal Program	Cara Weber	4758-32 St. Red Deer, AB T4N 0M8 Tel: (403)350-2163 Email: cweber@reddeercounty.ab.ca
Strathcona County	Shelterbelt Program	Diana Wells	2001 Sherwood Dr. Sherwood Park, AB T8A 3W7 Tel: (780)417-7132
Sturgeon County	Shelterbelt Program	David Sidlick	9613-100 St. Morinville, AB T8R 1L9 Tel: (780)939-4321 Email: dsidlick@sturgeoncounty.ab.ca
Tree Canada Foundation	Tree Planting Programs	Ken Birkett	4-118 Railway St. W. Cochrane, AB P4C 2B5 Tel: (403)932-5061 Email: kenb@treesinc.ca
		Peter Murphy	16 Grosvenor Blvd. St Albert, AB T8N 1P1 Tel: (780)459-1176 Email: pmurphy@ualberta.ca
Woodlot Association of Alberta	Woodlot Extension Pilot Program	Toso Bozic	Edmonton, AB Tel: (780)415-2681 Email: toso.bozic@gov.ab.ca