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**FINDINGS OF THE AFFORESTATION  
SURVEY FOR LANDOWNERS IN  
EASTERN ONTARIO**

June 2003

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Prepared for:

**Eastern Ontario Model Forest**

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**H A R D Y  
S T E V E N S O N  
A N D A S S O C I A T E S**

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# Introduction

The Eastern Ontario Model Forest (EOMF) is currently undertaking an initiative aimed at determining interest and participation in afforestation activities in Ontario as part of a larger effort to meet Canada's commitment to the Kyoto protocol. This project, known as "*Feasibility Assessment of Afforestation for Carbon Sequestration*" (FAACS), is being funded by the Canadian Forest Service and is one of five pilots across Canada with the end goal of testing rural landowners' interest and potential participation in afforestation.

According to EOMF's workplan for FAACS, the primary goals of the project are:

- To test land owners' interest and potential participation in afforestation in Eastern Ontario;
- To produce the best afforestation scenarios and management options possible in order to provide meaningful information upon which informed policy decisions may be made;
- To produce and provide information on carbon sequestration and program delivery costs by developing potential afforestation scenarios for eastern Ontario;
- To share data and develop methodologies and other information with other provincial and national level initiatives.

As part of the first year of this two-year project, EOMF commissioned a telephone survey of rural landowners in Eastern Ontario to determine their interest in afforestation. This survey was intended to gauge interest in a potential program on tree planting for rural landowners, and to provide baseline information about current and anticipated future tree planting activities, and types and sizes of land holdings they owned.

Descriptions of respondents' current and anticipated future tree planting activities, types and sizes of land holdings they owned and interest in a potential program are provided in the following sections. In addition, statistically significant relationships between tree planting (past and future) and interest in the program are reported.<sup>1</sup>

The following sections are included in this report:<sup>2</sup>

Section 2: Overview of Findings - A summary of the key findings from each of the subsequent sections

Section 3: The Respondents – An overview of the respondents, their land, and their attitudes towards tree planting

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<sup>1</sup> If a relationship between two questions (e.g., occupation and the likelihood of planting trees in the future) is not reported, that means that no statistically significant relationship exists between those two questions.

<sup>2</sup> This report has a companion document that describes findings regarding rural land-owners from South-western and South-central Ontario.

Section 4: Past and Future Tree Planting Practices – A description of landowners’ past practices and expected future practices related to tree planting

Section 5: Tree Planting Program – A description of landowners’ potential interest in EOMF’s potential tree planting program, and factors related to that interest

Appendix A: Methodology – A description of the methodology used to design the survey, select the survey sample, and collect and analyze the data.

Appendix B: Survey Questions - A list of the questions asked via the telephone survey – these questions are referenced in the main text of the report.

# Overview of Findings

A total of **126** rural landowners in Eastern Ontario participated in this telephone survey. These landowners own a minimum of 10 acres of land.

Based on the results of the survey, we have identified the key findings listed below. These findings have been generalized to reflect the larger landowner population within Eastern Ontario based on our observations from this sample. The subsequent sections of this report provide the detailed results that support these findings.

## The Respondents

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### **Rural landowners in Eastern Ontario come from diverse occupational backgrounds**

Approximately 20% of respondents identified themselves as farmers, an additional 20% identified as skilled tradespeople, and over 35% as retired. They are experienced workers, with half of respondents reported having worked more than 20 years in their occupations, and having an average income of \$47,000 per year. Over two-thirds of the respondents indicated that at least half of their income comes from farming.

### **Much of the land owned is heavily treed**

The average total acreage for respondents was equal to 160 acres or 65 hectares. Almost 9 in 10 respondents reported having wooded land on their property, with an average of over 60 acres.<sup>3</sup>

### **Many landowners have owned their land for at least a generation**

Over half of respondents have owned their land for 19 years or longer, with the average length of ownership equal to 22 years. Conversely, 2% of respondents had purchased their land within the last 3 years.

### **Most landowners enjoy participating in activities for the benefit of others.**

Over 8 in 10 respondents somewhat or strongly agreed that they enjoy participating in activities that benefit their neighbours. Only 4% strongly disagreed with that statement.

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<sup>3</sup> The distribution of land-owners across counties or FSA areas was not available.

## Past and Future Planting Activities

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### **Landowners plant trees primarily to enjoy their property.**

When asked their reasons for planting trees within the past 12 years, an equal number of respondents identified aesthetics and providing a place for recreation and solitude as the most common reasons. The top reasons for planting within the next 5 years were identical, with the exception that aesthetics was chosen twice as often as recreation and solitude.

### **Most landowners do not plant trees when a considerable portion of their land is already covered in trees, or it is being used for other purposes.**

The most common reason for not planting in the past 12 years was that respondents already had enough land covered in trees. Similarly, almost half of respondents provided the same rationale for why they weren't planning to plant in the next 5 years. Another fifth of respondents reported that they had not planted trees when their land was being used for other purposes.

### **Landowners may plant trees in the future if they did not have enough time to plant in the past**

There was a statistically significant relationship between a likelihood of planting in the next 5 years and reasons for not planting trees in the past<sup>4</sup>. Specifically, 56% of those respondents who reported being somewhat likely to plant in the next 5 years also reported having other priorities or not having enough time to plant as a reason for not planting in the past. This finding suggests that they may plant in the future if they have the time.

### **Financial incentives are most popular / desirable for encouraging landowners to plant, while assistance with planting and other tasks are considerably less popular incentives**

Over half of respondents felt that (a) a reduction in property tax or (b) income tax would be very important in encouraging them to plant in the future. Nonetheless, only 20% of respondents who had planted in the past 12 years had received a grant or subsidy.

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<sup>4</sup> Chi-square and Phi are statistical tests used to determine the level of association (i.e., the strength of the relationship) between two variables, such as planting in the past and planting in the future. In this case the chi-square test [ $\chi^2$ ] produced a value of 34.41 and significance [p] of less or equal to 0.03, and a Phi test [ $\phi$ ] produced a value of 1.03 and  $p \leq 0.04$ .

Conversely, nearly half of respondents felt that assistance with site preparation and planting are not at all important as incentives. Furthermore, for those who had planted in the past, the types of incentives they were interested in were not statistically related to the amount of land that respondents owned, or the amount of idle land they had.

## **Interest in a Tree Planting Program**

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### **Most landowners with idle land are at least a little interested in participating in a program for planting trees**

In total, three-quarters of respondents with idle land expressed at least a little interest in a tree planting program. Almost one-quarter of those respondents were very interested in a program, while another one-third were moderately interested. Those who were not at all interested cited their main reason for not being interested as “enough of their land is covered in trees”.

### **Landowners who intend to plant in the near future are more likely to participate in a program than landowners who are unlikely to plant**

Many of the respondents who intended to plant in the future were also statistically likely to participate in a planting program<sup>5</sup>. Furthermore, 92% of respondents who were not at all interested in participating in a planting program were not at all likely to plant in the future.

### **Incentives appear to be important in encouraging participation in a program**

A minimum of 50% of respondents who were interested in a program reported that all incentives would be very important in encouraging them to participate. Financial incentives were identified as most important, with over three-quarters of those respondents choosing income tax credits and a reduction in property tax as very important incentives.

Furthermore, for those who were at least a little interested in a planting program, the types of incentives they felt were most useful were not statistically related to the amount of land that respondents owned, or the amount of idle land they had.

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<sup>5</sup>  $\chi^2 = 27.97$ ,  $p < 0.001$ , and  $\phi = 0.75$ ,  $p < 0.001$

## **Woodlot / forestry associations and Conservation Authorities are most trusted to deliver a planting program**

Of all the potential groups to deliver a planting program, respondents reported having the most confidence in woodlot / forestry associations and Conservation Authorities. Respondents had the least confidence in large industries as potential deliverers of the program.

## **A majority of landowners are unwilling to lease their land to others**

When asked whether they would be willing to lease their land for 20 years for use as a tree plantation that would be established, maintained and owned by someone else, almost 75% of respondents responded that they would not.

## **Landowners who are involved in community services are more interested in participating in a planting program than those who are less involved in their community**

There was a statistically significant relationship between attitudes towards community service, including participating in activities that benefit their neighbours and volunteering time for community services, and an interest in participating in a planting program<sup>6</sup>.

## **Implications and Follow-up**

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In short, these results paint a picture of landowners who come from diverse occupations with over one-third retired. Not surprisingly, given the high percentage of retirees, their incomes are on average about \$10,000 less than the rest of the province. They have owned their land for a long time, and it is heavily treed.

They are not active in tree planting, either now or likely to be in the future. They mostly do not plant because they already have areas covered with trees or because it is being used for other purposes. Those who have planted in the past have planted small acreages (e.g., 1-2 acres), and they plant mostly to enjoy their property. They are not likely to plant for economic reasons.

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<sup>6</sup>  $\phi = 0.83$ ,  $p \leq 0.03$



These findings suggest that future efforts at encouraging afforestation might focus on rural landowners with smaller proportions of wooded land, and examine their interest in planting. Another option would be to look at other types of land uses, such as commercial and industrial and gather baseline information about those landowners' interest in planting.

In contrast to their lack of interest in economic reasons for past planting, rural landowners want economic incentives, such as property tax credits, if they are to plant in the future. This was true whether they intended to plant on their own, or would be interested in planting through the proposed pilot program.

Those with idle land are at least a little interested in an organized planting program, and those who are already intending to plant also tend to be most interested in the proposed program. In addition, those who are most interested in the program were statistically related to those who were most involved with their community. This finding suggests that future efforts at afforestation should stress the link between contributing to the community and tree planting.

# The Respondents

Respondents to this survey were asked a series of questions about demographic characteristics, the amount and types of land they own, and their general views about owning land. Their responses are reported below.

## Profile of Respondents

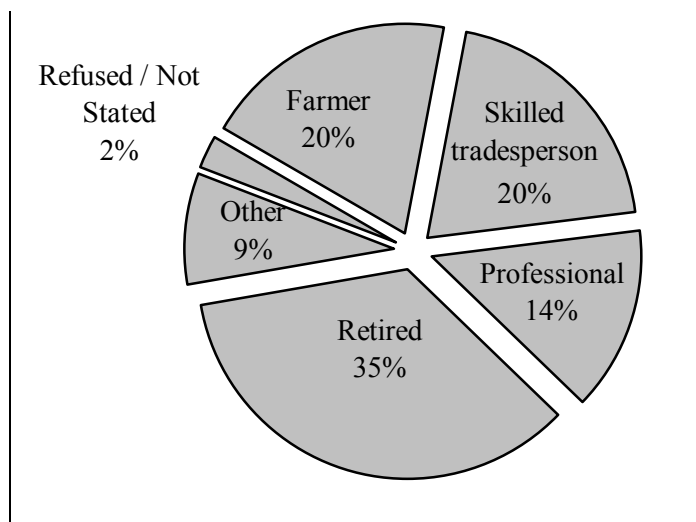
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A total of **126** respondents replied to the survey. They told interviewers about their occupation, the length of time in that occupation, as well as their average household income and age.

### Occupation (Questions 2G and 3G)

One-fifth of respondents reported that their occupation was farming (Figure 1). Another one-fifth answered that their occupation was as a skilled tradesperson. The greatest number of respondents, at 35%, reported that they were retired.

**Figure 1 - Occupation of Respondents**



In addition, to asking respondents about their occupation, they were asked about how long they have been in their occupation. The underlying rationale for this question was that some land owners may be in their second career which focuses on caring for the land/owning a rural property. Those owners may be more likely to plant trees than others.<sup>7</sup>

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<sup>7</sup> No such statistically significant relationship was found between how long respondents had worked in their current occupation and past planting behavior, future intention to plant trees, or interest in the program.

Respondents have extensive experience in their occupations. Over one-third have been in their occupation for more than 20 years, including 9 respondents with over 40 years of work experience. An additional 14% have spent between 10 and 19 years in their occupation (Table 1).

**Table 1 – Numbers of Years in Occupation**

Length of Time	% of Respondents
Less than 10 years	12%
10-19	14
20-29	16
30-39	13
40+	7
Refused / Don't Know / Not Stated	37
	<b>n = 126</b>

### Household Income (Questions 4G and 5G)

Overall, respondents reported an average household income of over \$47,000 (Table 2). Over two-thirds of the respondents obtained little if any of their income from farming activities. On the other hand, over 13% of respondents reported that all or most of their income is derived from the land they own, and an additional 11% of respondents reported that about half is derived from the land.

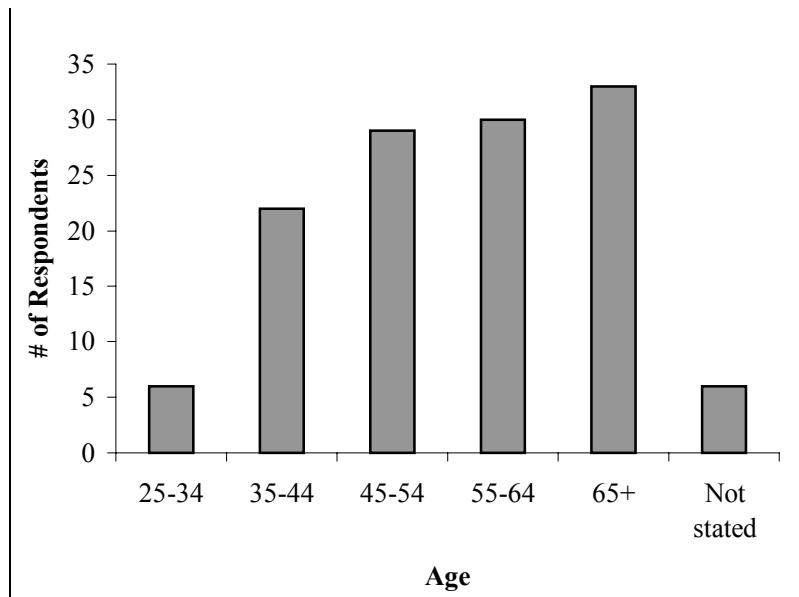
**Table 2 – Household Income**

Income	% of Respondents
Under \$10,000	4%
Under \$20,000	7
Under \$30,000	11
Under \$40,000	11
Under \$50,000	13
Under \$60,000	7
Under \$70,000	6
Under \$80,000	2
Under \$90,000	2
Under \$100,000	4
Under \$150,000	4
Refused/ Don't Know/ Not Stated	29
	<b>n = 126</b>

## Age of Respondents (Question 1G)

On average, respondents in Eastern Ontario were 57 years old, with the largest proportion (33%) being over 65 years old. The smallest proportion of respondents (6%) was between the ages of 25 and 34 (Figure 2).

**Figure 2 - Age of Respondents**



## Profile of Land Ownership

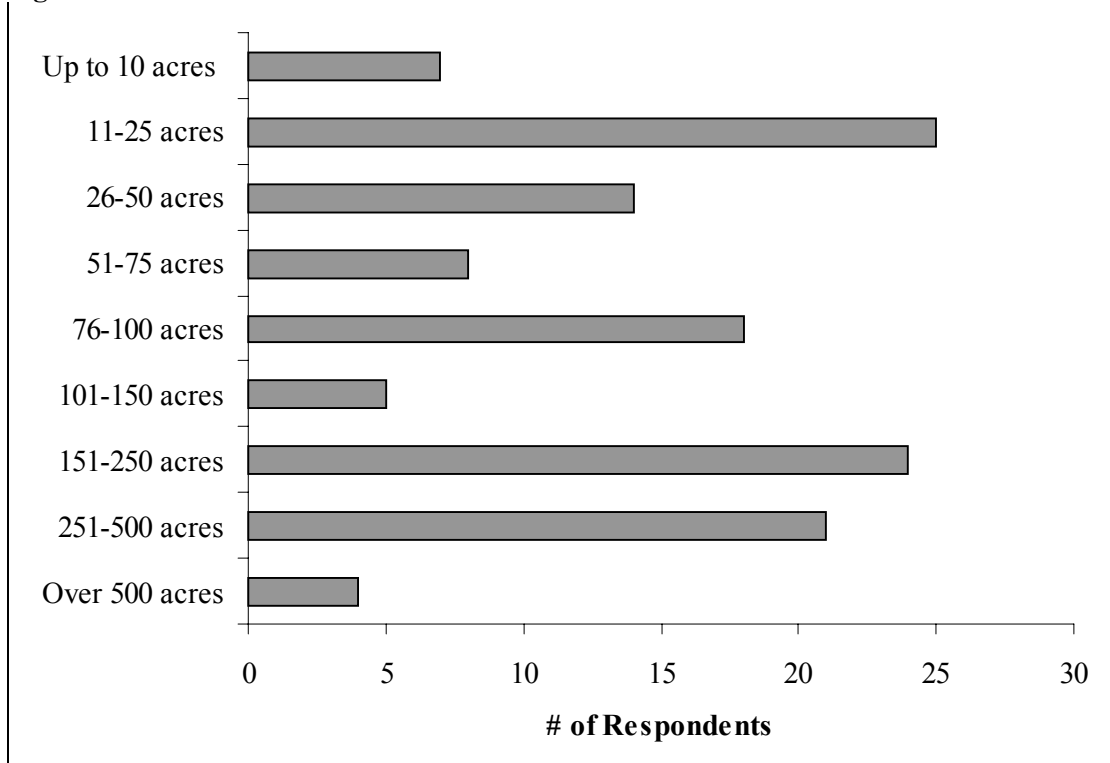
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In addition to questions about demographic characteristics, respondents answered several questions about how much land they own and what they do with that land.

### Amount of Land Owned (Question 6S)

Respondents indicated the size of land they owned (Figure 3). All respondents of this survey owned, as a minimum, more than 10 acres of rural land. On average, respondents owned almost 160 acres, with the largest proportion (25%) owning between 11 and 25 acres (Figure 3). Furthermore, nearly one-quarter of respondents owned between 151 and 250 acres, and another one-fifth owned between 251 and 500 acres.

**Figure 3 - Numbers of Acres of Land Owned**



**Length of Time Owned (Question 5S)**

Respondents indicated in what year they started owning the land. On average, respondents have owned their land for 22 years (Table 3).

**Table 3 - Number of years owned land**

Length of Time Owned	% of Respondents
Less than 3 years	2%
4-8	16
9-13	13
14-18	17
19-23	11
24-33	17
34-43	13
More than 44	9.0
Don't Know/ Not Stated	2
	<b>n = 126</b>
<b>Average length of ownership</b>	<b>22 years</b>

## Amount of Land in Various Uses (Questions 2L to 6L)

All 126 respondents were asked about the types of land uses on their property – wooded, farm fields, open for grazing / pasture, idle land, and areas with water (Table 4). Almost nine in ten respondents reported having land covered with woodlots. Of those respondents, the average numbers of acres of wooded land was over 60 acres.

One-third of respondents with woodlots produced products or provided services from the trees, with the most common product being firewood (n = 26). Respondents also reported producing lumber (n = 13), maple syrup (n = 8), and fruits and nuts (n = 3).

**Table 4 - Types and Amounts of Land Owned by Respondents in Different Land Uses**

Type of Land Use	% of Respondents With Type of Land Use	Average Acreage	Range of Acreage
Blocks of trees	86%	64 acres	1-800 acres
Farm	53	110	2-1550
Pasture/grazing	44	48	1-600
Idle land	37	27	1-160
Wetlands, streams, or aquatic areas	53	13	1-130
	<b>n = 126</b>		

Over half of respondents reported having farmed land within their property, with the average farmed land equal to over 110 acres. Of those 67 respondents, one-third described their operation as a beef farm. Over four in ten respondents indicated that they had land left open as pasture or grazing land. On average, respondents with open pasture or grazing land reported having almost 50 acres as pasture or grazing land.

Almost four in ten respondents reported having land left open as idle land, with an average area of over 25 acres. Finally, over half of respondents reported having wetlands, streams, or other aquatic areas on their land. The average amount of land owned in this form was equal to over 10 acres.

## Productivity of Land (Question 1L)

Respondents were asked to report on the productivity of their farmland (Table 5). They rated the land in terms of good or high productivity (Class 1 or 2 farmland), medium productivity (Class 3 or 4 farmland), and low productivity (Class 5 or higher farmland).

Almost seven in ten respondents reported owning some land that they would classify as good or high productivity; the average amount of acres of good or high productivity land

that these respondents reported was 110 acres. Just over half of respondents reported using medium or low productivity land for crops.

**Table 5 - Productivity of land used for crops**

Productivity Level	% of Respondents	Average Acreage
Good or high productivity	70%	110 acres
Medium productivity	57	39
Poor or low productivity	59	49
<b>n = 126</b>		

## Attitudes and Behaviours (Question 1A)

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In addition to providing information about the amounts and types of land they owned, respondents answered a series of questions regarding their attitudes and behaviours for planting trees on their land (Table 6). Respondents were asked to indicate their level of agreement or disagreement to 19 statements about why they might plant trees. The subject matter of the statements includes such ideas as planting trees for environmental reasons, for participating in outdoor activities, and as an investment. Similar research in Michigan showed that these types of reasons for owning land are important to land owners (Erickson, et. al 2002)

Also included in these 19 statements were general questions about their civic-mindedness, since this variable is often related to people's participation in environmental decision making and environmental protection programs (Dahl, 1961). Finally, two statements related specifically to their views about carbon sequestering.

Based on the average responses, rated on a 4 point scale (where 1 equals strongly disagree and 4 equals strongly agree), respondents were most interested in the aesthetic and environmental benefits of planting trees. Survey participants' mean responses to six of the seven statements on environmental and aesthetic aspects of land-ownership were all above 3, suggesting that they somewhat to strongly agreed with the statements (Table 6). The overall average for these seven items was 3.3, suggesting that respondents agreed to strongly-agreed with environmental and aesthetic reasons to own land.

Respondents also indicated they enjoyed participating in activities that benefit their neighbours (mean = 3.2 out of 4). However, participants somewhat disagreed that they would be better motivated to plant trees if they were recognized and praised by their neighbours (mean = 1.7 out of 4). They also somewhat disagreed with selling their property to developers (mean = 1.5 out of 4).

**Table 6 – Level of Agreement with Reasons for Planting Trees**

<b>Attitudinal and Behavioural Statements</b>	<b>Average Level of Agreement*</b>
<b>Aesthetic / Environment</b>	
It is important to plant trees that are native to my area	3.7
Woodlots are peaceful places for solitary walks and personal reflection	3.6
My property is important as a place for my heirs	3.6
Planting trees is a good way for me to encourage desirable wildlife on my property	3.4
Planting trees allows me to participate in outdoor activities such as cross-country skiing or hiking on my property	3.1
Planting trees enhances the spiritual value of my land	3.1
Planting trees on my property helps me to better enjoy the view from my house	2.8
<b>Funding</b>	
If other people, companies or organizations received funding to plant trees, I would expect to receive funding too	3.4
<b>Water Quality</b>	
Planting trees helps me to improve water quality on my property	3.3
<b>Community Service</b>	
I enjoy participating in activities that benefit my neighbours	3.2
I am interested in volunteering my time for community services.	2.7
I would be better motivated to plant trees on my land if I were recognized and praised by my neighbours.	1.7
<b>Enhancement of Property Value</b>	
Planting trees enhances my property value	2.8
<b>Investment</b>	
Planting trees offers a retirement savings plan for the future	2.7
I would sell all or part of my land to a housing developer for the right price	1.5
<b>Hunting / Trapping</b>	
Planting trees improves my land for hunting or trapping.	2.7
<b>Carbon Sequestration</b>	
Reducing the effects of climate change and global warming is a key reason for why I would plant trees on my property.	2.6
Selling carbon credits is an important reason to plant trees.	2.4
<b>Fast-Growing Species</b>	
I prefer planting species of trees that are naturally fast-growing.	2.3

\* Scale: 1 = strongly disagree and 4 = strongly agree



## Past and Future Tree Planting Practices

In addition to asking respondents about their attitudes towards planting trees, respondents answered questions about tree planting practices on their lands. They responded to questions regarding both past practices and anticipated future activities. These responses are described below.

### Planting During the Past 12 Years (Question 7L and 10Lb)

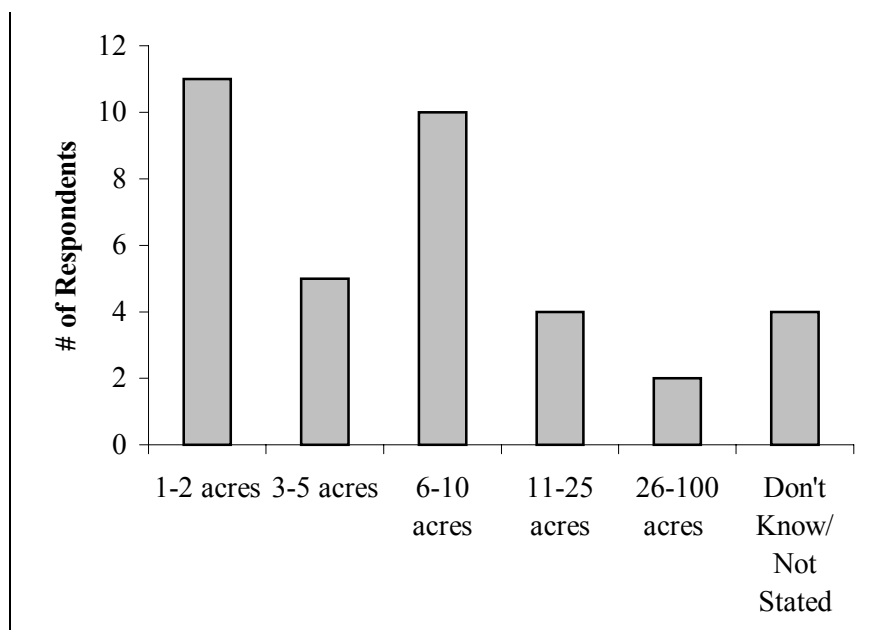
Respondents were asked whether, during the past 12 years, they had planted blocks of trees on areas that had been bare of forest cover before 1990. Nearly one-third of all respondents (n = 36) reported that they had planted trees in the last 12 years. Of those who planted, almost 80% (n = 28) reported paying out of pocket.

Furthermore, for those who had *not* planted in the past, the types of incentives or supports they thought were important were not statistically related to the numbers of acres of idle land they had available.

### Number of Acres Planted in the Past 12 Years (Question 9L)

Of the 36 respondents who had planted trees in the past 12 years, the average number of acres planted during that period was equal to just over 9 acres (Figure 4), with the greatest number of respondents planting 2 or fewer acres.

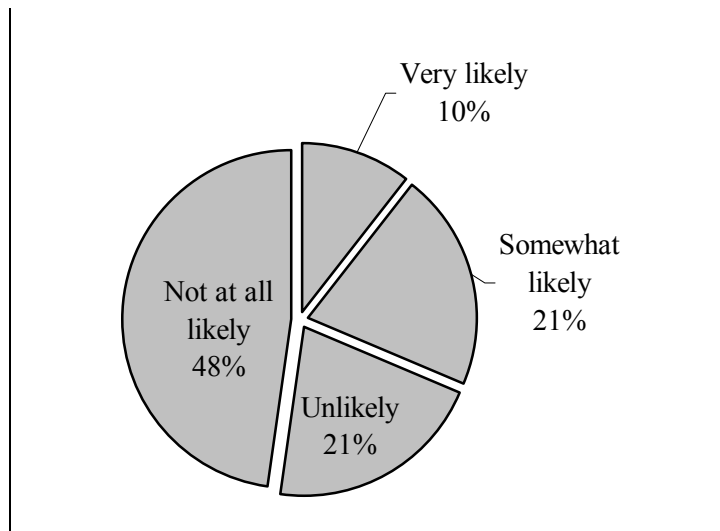
Figure 4 - Number of Acres Planted in Past 12 Years



### Planting in the Next 5 Years (Question 1F)

In addition to asking survey participants about their past planting, the interviewers asked them whether they intended to plant in the future. This question was directed at those respondents with land left open. Of these 48 respondents with land left open, almost half (n = 23) indicated they were not at all likely to plant in the next five years (Figure 5). Based on the responses to 7L (planting during the past 12 years), this finding suggests that respondents who have idle land are less likely to plant in the next five years than they have in the past.

**Figure 5 - Likelihood of Planting Trees in Next 5 Years**



To be consistent with other surveys being conducted, only those who had land that they classified as idle were asked about their future intentions to plant. It may be that land owners without idle land but with other land covers, such as sparse woods, or farmland, are more likely to plant. The responses of these landowners were not captured here.

### Number of Acres Intending to Plant (Question 4F)

The 15 respondents who were intending to plant within the next 5 years reported 4.3 acres as the average number of acres they intended to plant.

## Reasons for Planting (Questions 10L and 5F)

Those survey participants who had planted trees in the past 12 years (n = 36) or intended to plant in the future (n = 15) were asked about why they planted or intended to plant (Table 7).

For those who had planted in the past (n = 36), the most common reasons for planting were to improve the aesthetics of their property and to offer a place for recreation and solitude, with almost 2 in 10 respondents indicating these responses. Slightly less common responses were planting to provide shelterbelts / wind protection and for commercial wood supply. Fourteen percent of respondents mentioned each of these as important reasons for planting.

**Table 7 – Reasons for Planting Trees in the Past and the Future**

Reasons for Planting	% of Respondents	
	During Past 12 Years	Within Next 5 Years
Aesthetics	19%	40%
Offers a place for recreation and solitude	19	20
Conservation and wildlife habitat	14	13
Commercial wood supply	14	-
Improve water and soil quality	11	-
Shelterbelts (wind protection)	8	7
Firewood	6	-
Christmas trees	3	7
Recreation	3	-
Reduce rate of climate change / global warming	-	7
Sugar bush / maple syrup	-	-
	<b>n = 36</b>	<b>n = 15</b>

Although the top two reasons for planting within the next 5 years were the same as those for planting in the past, 4 of 10 respondents who were planning to plant mentioned aesthetics as a reason to do so, while 2 in 10 mentioned planting to offer a place for recreation and solitude.

These results suggest that landowners within Eastern Ontario are predominantly interested in planting for the enjoyment of their property, rather than for environmental or production reasons.

## Reasons for Not Planting (Question 8L and 2F)

The 89 respondents who had not planted trees were asked to identify the reasons why (Table 8). For those who had not planted in the last 12 years, the most common response to this question was that their land was already covered with trees (over 1/3 of respondents), followed by the response that the land was already being used for other purposes (almost 1/4 of respondents). A third common reason for not planting in the past was that it takes too much time/ effort (approximately 1/5 of respondents).

For those who did not intend to plant in the future, the most common reason for not planting were that their land was already covered with trees (over 4 in 10 respondents), followed by that their land was already being used for other purposes (approximately 1/5 of respondents).

**Table 8 – Reasons for Not Planting Trees in the Past and the Future**

Reasons for Not Planting	% of Respondents	
	During Past 12 Years	Within Next 5 Years
Enough of my land is already covered in trees	36%	42%
Land was being used for other purposes	24	21
Too much time or effort to plant/other priorities	21	12
Not enough space/ right kinds of soil productivity	8	12
Too much time or effort to care for	3	9
Planting trees is too costly / no funding to plant	2	6
Not sure which types of trees would be best	2	3
Not sure how to select best place to plant	1	-
Don't Know/ Not Stated	2	-
	<b>n = 89</b>	<b>n = 33</b>

## Incentives to Encourage Planting (Question 3F)

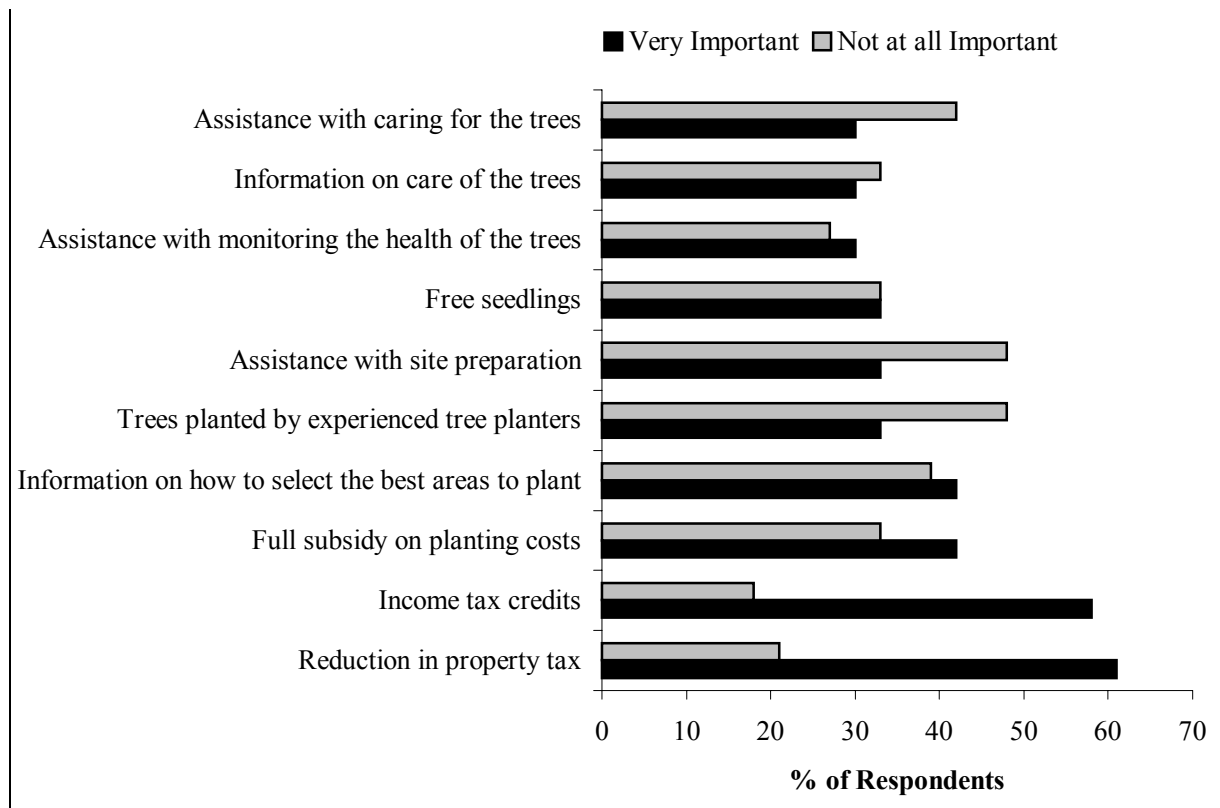
Given that a large proportion of the sample indicated they were not likely to plant trees in the future, another question asked those respondents (n = 33) what types of incentives might encourage them to plant trees.

In contrast to their attitudes towards planting trees, which focused around environmental and aesthetic reasons, land owners were most interested in the financial incentives that

might be provided (Figure 6). Over six in ten respondents indicated that a reduction in property tax would be very important in encouraging planting, and nearly six in ten indicated likewise for income tax credits. Over 4 in 10 would like to see subsidies on planting costs as well as information on how to select the best areas to plant.

Conversely, almost 5 in 10 respondents identified assistance with planting and with site preparation as incentives that were not at all important in encouraging them to plant. With the exception of the financial incentives, at least one-quarter of respondents felt that all of the incentives were not at all important.

**Figure 6 -Importance of Incentives to Encourage Future Planting**



## Tree Planting Program

As described above, a major purpose of this telephone survey was to better understand whether rural landowners would be interested in participating in a tree planting program specifically geared to them. The last section of this report describes their interest in such a program.

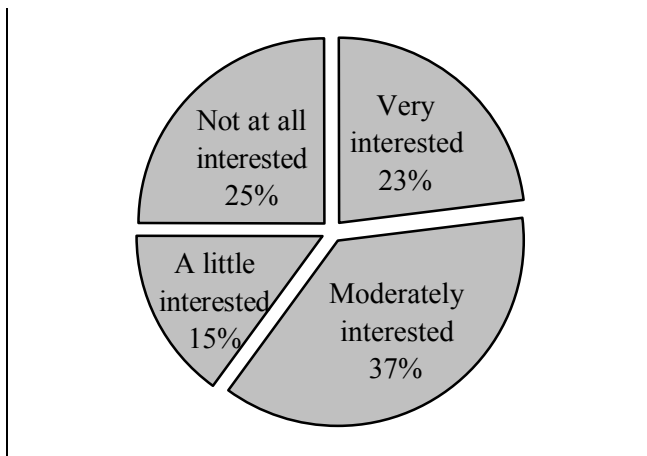
### Interest in a Tree Planting Program (Question 1P)

Respondents who had land left open (n = 48) were asked whether they would be interested in participating in a tree planting program. This program was described as follows:

*The purpose of the program would be to help reduce the effects of climate change by promoting tree planting on private property across Canada. By planting trees on rural land, such a program would help to achieve Canada's targets to reduce greenhouse gas emissions as part of the Kyoto Protocol. At the same time, the program would aim to meet the objectives of landowners.*

Survey participants were first asked their level of interest in a potential tree planting program. As shown in Figure 7, almost one-quarter of respondents (n = 11) were very interested in such a program, and over 1/3 (n = 18) were moderately interested. However, another 1/4 (n = 12) were not at all interested.

**Figure 7 - Interest in a Tree Planting Program**



These findings are consistent with the results of the question asking respondents whether they would be more inclined to plant trees if they discovered that the net profit of planting trees was equal to the net profit of agricultural crops (question 8P). Nearly two-thirds of respondents (n = 126) reported being inclined to plant trees.

## Reasons for Not Participating in Tree Planting Program (Question 4P)

Respondents who reported that they were not at all interested in participating in this pilot program (n = 12) were asked to explain why. The most common response, provided by over half of respondents, was that enough of their land was already covered in trees (Table 9).

**Table 9 – Reasons to Not Participate In the Pilot Program**

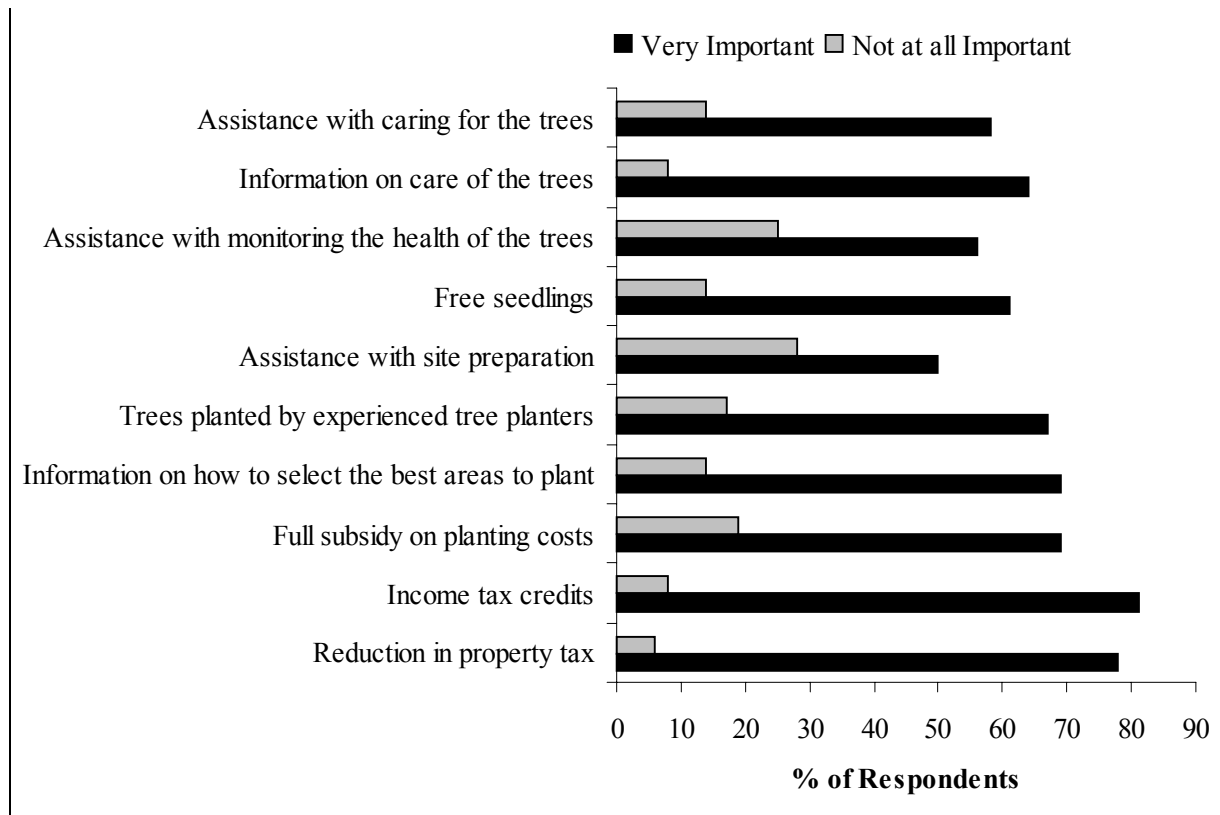
Reasons	# of Respondents
Enough of my land is already covered in trees	58%
Land was being used for other purposes	25
Too much time or effort to care for	17
Not enough space/ right kinds of soil productivity	8
Don't Know/ Not Stated	8
	<b>n = 12</b>

## Incentives to Encourage Participation in Tree Planting Program (Question 2P)

Those respondents who were at least a little interested in a tree planting program (n = 36) were asked about incentives that would encourage their participation in the program (Figure 8). Over three-quarters of respondents wanted reduced property taxes and / or income tax credits to entice their participation. Over two-thirds also mentioned full subsidy on planting costs, free seedlings, and information on how to select the best areas to plant as very important incentives to encourage their participation. Yet, when we examined the relationship between whether those who were at least a little interested in a tree planting program had received a subsidy and the types of incentives that were important, these relationships were found to be independent of each other.

These percentages are higher than those observed for incentives to encourage future planting, suggesting that landowners value incentives more for participating in an organized program than for planting of their own volition. In addition, approximately one-quarter of respondents felt that assistance with site preparation or having trees planted by experienced planters were not at all important. Moreover, when we examined the relationships between the types of incentives they thought were important if they were planting trees on their own, and types of incentives important as part of a tree planting program, no statistically significant relationships were found. This suggests that people view incentives to plant on their own as independent of incentives they want as part of an organized tree planting program.

**Figure 8 - Importance of Incentives to Encourage Participation in Tree Planting Program**



**Number of Acres to Plant as Part of Program (Question 3P)**

Those respondents who had idle or open land and were at least a little interested in an organized tree planting program (n = 36) were asked how many acres of land at various levels of productivity they would consider planting (Table 10). Approximately one-quarter of those respondents indicated that they would consider planting an average of 6 acres on good productivity land, and over half would consider planting an average of 6 acres on medium productivity land.

**Table 10 - Productivity of Land Available for Planting as Part of a Pilot Program**

Productivity Level	% of Respondents	Average Acreage	Range of Acreage
Good or high productivity	25%	6.0 acres	1-100 acres
Medium productivity	53	6.0	1-100
Poor or low productivity	25	2.3	1-400
<b>n = 36</b>			

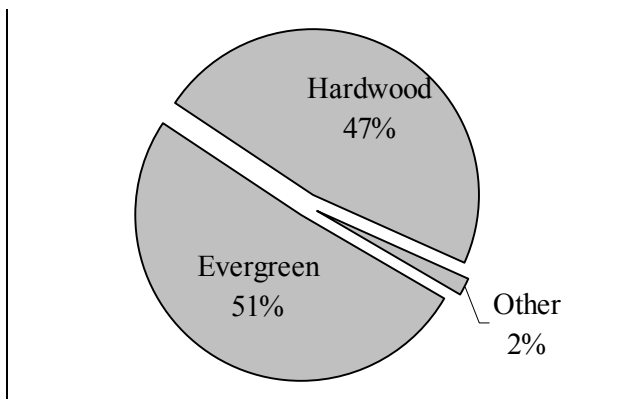


As mentioned above, respondents have on average 27 acres of idle land. Combining the findings regarding amount of idle land and the amount available for planting as part of the program suggests that, on average, survey participants are interested in planting less than one-quarter of their idle land. Perhaps respondents are interested in leaving their land idle or not covering it fully with trees. Indeed, extensive research has shown that many people prefer savannah-like landscapes that are sparsely covered with trees to dense woodlots (Kaplan and Kaplan, 1989; Kaplan et.al, 1998).

### Preference for Planting Tree Species as Part of Program (Question 6P)

When asked about preference for planting certain species of trees (Question 6P), over 7 in 10 respondents (n = 126) indicated that they did have a preference. Those respondents with a preference were almost evenly split between hardwoods and evergreens (Figure 9). Other responses provided for this question include: *softwood, white pine or red pine, fruit trees, Christmas trees, white ash, conifers, and spruce*.

**Figure 9 - Preference for Species of Tree to Plant**



### Confidence in Organization to Deliver A Tree Planting Program (Question 5P)

Administration of this program may be more or less effective depending upon who operates the program. Respondents were asked their level of confidence in organizations that could potentially deliver the program. Woodlot owner associations and conservation authorities received respondents' highest mean scores of confidence, while all levels of government received medium levels of confidence, and industry received the lowest levels of confidence (Table 11).

**Table 11 - Confidence in Different Organizations to Deliver the Pilot Program**

<b>Organization</b>	<b>Average Level of Confidence*</b>
Woodlot or forestry associations	3.1
Conservation Authorities and other delivery agencies	3.1
Non-governmental organizations	3.0
Small private sector operations	2.7
Provincial Government or its agencies	2.5
Municipal Government or its agencies	2.5
Federal Government or its agencies	2.4
Large industries	2.0
	<b>n = 51</b>

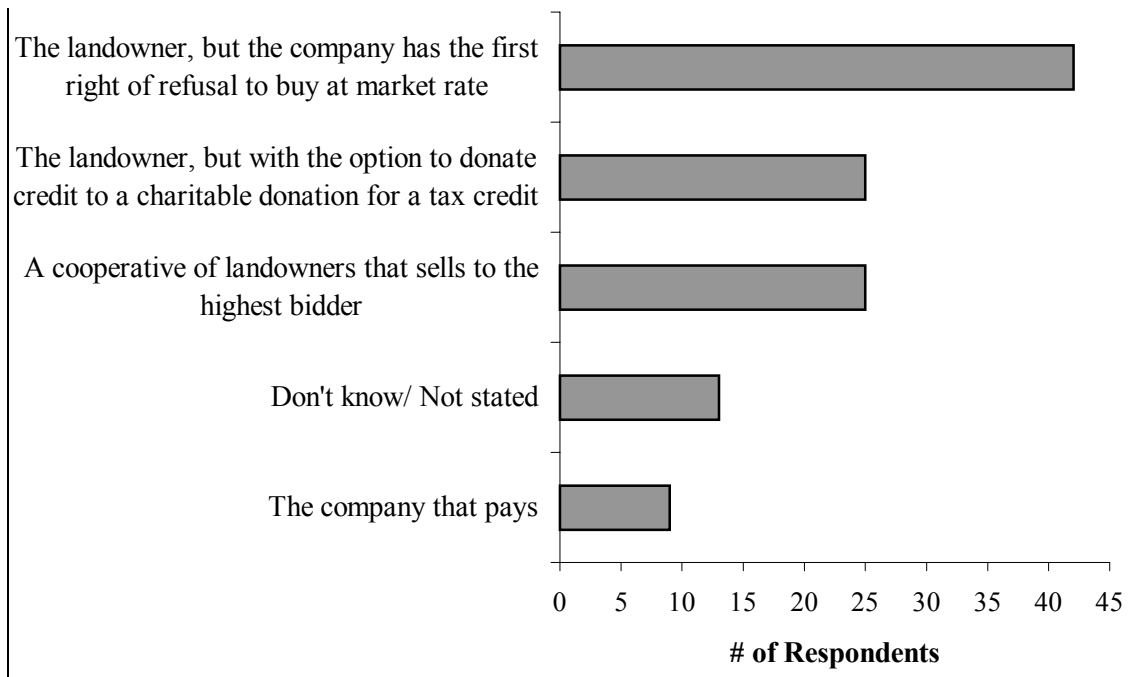
\* Scale: 1 = no confidence and 4 = a lot of confidence

### **Interest in Selling Carbon Credits (Question 7P)**

During the survey, interviewers explained that planted trees could be valuable as carbon credits that industries could use to meet their carbon reduction targets as part of the Kyoto protocol. Respondents were then asked several questions about these carbon credits. Nearly two-thirds of respondents reported being interested in selling carbon credits as part of an organized tree planting program (n = 114).

Respondents were also asked who should own the carbon credits if industries provide the funding to plant trees on private properties (Figure 10). A majority of respondents indicated that the landowner should own the credits, and either have the option to donate the credit to a charitable donation for a tax credit (37%), or the company should have the first right of refusal to buy the credits at market rate (22%). Another 22% felt that a cooperative of landowners should own the credits and sell them to the highest bidder.

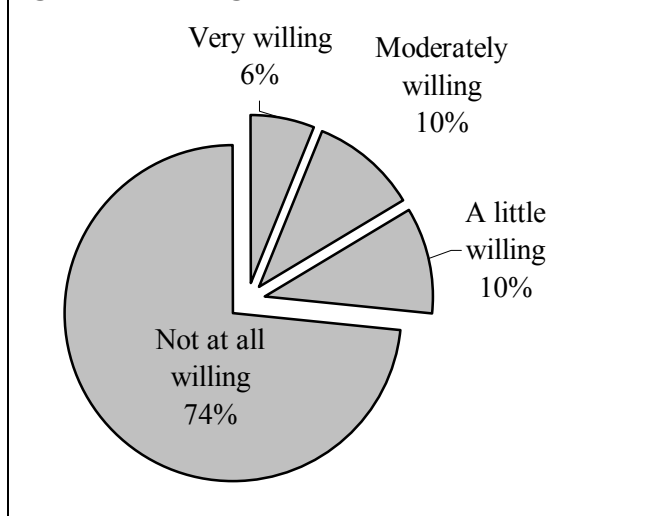
**Figure 10 - Interest in Selling Carbon Credits**



**Willingness to Lease Open or Idle Land for 20 Years (Question 9P)**

Another aspect of the economics of the program was whether survey respondents would be willing to lease their land over 20 years to grow trees. Nearly three-quarters of respondents indicated they were *not at all* willing to lease their land. (Figure 11)

**Figure 11 - Willingness to Lease Land for 20 Years**



Of those who were at least a little willing to lease their land (n=13), 3 respondents were interested in leasing an average of 21 acres of good or high productivity land for an average price per acre of \$69. Another 5 respondents were willing to lease an equal number of average acres of low productivity land for a considerably higher average price per acre of \$124 (Table 12).

**Table 12 – Average Price Per Acre and Average Acreage of Land Considered for Lease**

<b>Productivity Level</b>	<b># of Respondents</b>	<b>Average \$ per Acre</b>	<b>Average Acreage</b>
Good or high productivity	3	\$69 (\$1-400)	21 acres (20-23)
Medium productivity	1	\$38 (\$1-200)	1.5
Poor or low productivity	5	\$124 (\$75-500)	21 (4-40)
<b>n = 13</b>			

\* Range of responses shown in brackets

# Appendix A - Methodology

## Developing the purpose of the survey

The purpose of this survey was to gather information on rural land owners' interest and potential participation in a proposed tree planting or afforestation initiative.

## Developing the survey questions

EnviroNics Research Group ("EnviroNics") previously developed a survey instrument for a related survey of landowners across Canada. HAS used this survey as a basis for this study, and then identified questions specific to afforestation. CFS and EOMF prepared additional questions related to FAACS in order to identify more detailed information related to this program.

HSA worked with CFS and EOMF to revise the wording and ordering of the questions to ensure that the survey was clear and easy to understand. HSA also identified and calculated statistical tests to determine relationships among variables that focused on characteristics of the wood lots that participants' owned, land owners' interest in afforestation, and specifically an afforestation effort that would address carbon sequestering, as well as their motivations for owning land.

## Determining the survey sample

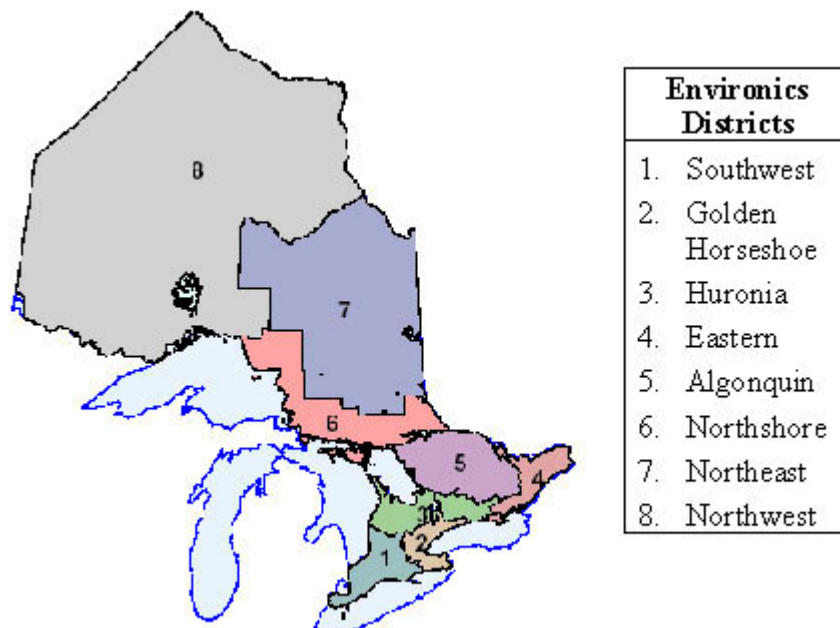
Two surveys were conducted for this project – one that covered land owners in eastern Ontario, and one for land owners in South-central and South western Ontario. (The results from South-central and South-western Ontario are available in a companion report). We used the following methodology to draw the survey sample:

1. Identify the boundaries of Eastern Ontario
2. Determine the counties within the survey area that have the potential for afforestation
3. Prepare a list of rural landowners within counties that have the potential for afforestation
4. Randomly choose landowners within these areas

These three steps are explained in detail below.

1. Identify the boundaries of Eastern Ontario

The basis for defining the boundaries of Eastern Ontario was the survey districts that Environics Research Group used in conducting a similar survey of landowners in 2000. These survey districts are shown in Figure 12. Using similar districts will allow some level of comparative analysis between the Environics survey results and the results of the surveys currently underway for the Canadian Forest Service and the Eastern Ontario Model Forest.



**Figure 12: Map of Environics Survey Districts**

For the purposes of this survey, we used the same districts for Eastern Ontario as those used by Environics, shown in Figure 12 as district 4.

2. Determine the counties within each survey area that have the potential for afforestation

We identified those counties that have the potential for afforestation by using a map prepared by the Ministry of Natural Resources in 2000 entitled “Afforestation Potential for Southern Ontario”. This map indicates areas with high potential for afforestation, such as abandoned fields or pastures, in red. Areas with low potential for afforestation, including croplands, are shown in yellow. It also shows other classes of land that have limited potential for afforestation, including areas that are already forested, wetlands, bedrock and sand, and developed lands

For the purposes of this survey, we defined counties with a high potential for afforestation as those with a minimum of one-quarter of the landmass identified as abandoned fields or pastures. The counties that met this criterion within eastern Ontario are listed below.

- Frontenac
- Glengarry
- Grenville
- Lanark
- Leeds
- Lennox-Addington
- Ottawa
- Prescott
- Renfrew
- Russell
- Stormont

3. Prepare a list of rural landowners within counties that have the potential for afforestation

Based on the information collected during the first two steps of this methodology, we proceeded to use entries from the phone directory to identify rural landowners within the appropriate counties listed above. We identified approximately 3000 potential survey respondents within Eastern Ontario.

4. Randomly choose landowners within these areas

Once the potential survey respondents were identified, we randomly chose a sample of 126 to survey. This number was chosen as it provided 95% confidence level.

### **Administering the survey**

Data was collected through the telephone, during an interview which lasted about 20 minutes. Approximately 350 respondents refused.

Before the survey was administered to all 126 participants, we conducted a “trial” with 5 participants. As a result of the pilot, we adjusted the questionnaire to delete or modify confusing questions.

## **Analysing the data**

Most questions on the survey asked respondents to reply to either yes-no questions, give numbers (e.g., numbers of acres), or react to statements to indicate their level of interest or degree of agreement. The emphasis of the analysis was to examine those who planted in the past, those who were most likely to plant in the future and those who were most interested in the potential pilot program.

The data were analyzed using the statistical software, Statistical Package for the Social Sciences. The majority of the analysis consisted of producing frequency distributions and calculating means and ranges for the responses. In some cases we also compared sub-groupings to see if there were differences across the groups. For example, we looked at whether those who had planted in the past were significantly related to those who intended to plant in the future. In examining those who were interested in tree planting or the carbon sequestering program, cross tabs and t-tests were also calculated. In cases where we examined the relationships between two questions (e.g., length of ownership and likelihood of planting), we have reported only those relationships which are statistically significant ( $p \leq .05$ ). Those relationships which are not statistically significant would not be presented in the description of the results.

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## Appendix B – Survey Questions

### Background

The telephone survey consisted of five major sections. First in the survey were questions regarding the property that respondents owned, such as numbers of acres and types of productivity of the land. Respondents were then asked several questions about their past planting practices, including how much land they had planted, and reasons for planting. In the third section of the telephone survey respondents were asked about their intentions to plant in the future. This section included questions about their future likelihood of planting, reasons for planting or not planting and incentives that might entice them to plant.

Another section of the survey asked respondents specifically about their interest in a pilot program that would encourage tree planting as a way to help Canada achieve its commitments to reducing global warming. Similar to the questions on intentions to plant in the future, this segment included questions about reasons for being or not interested in the program, as well as types and amounts of land that might be planted. This section also included questions regarding the economic aspects of trees as providers of carbon credits. Another section of the telephone survey asked respondents about their general reasons for owning their property and miscellaneous demographic questions, such as profession.

### The Questions

- 1S **Hello, my name is \_\_\_\_\_ and I am calling from Hardy Stevenson and Associates on behalf of the Canadian Forest Service. We are talking to landowners in Ontario regarding planting trees to reduce the effects of climate change. This survey will take approximately 20 minutes to complete. Our results will be used to help develop a planting program to benefit rural landowners and the country. Is this a good time to speak with you?**
- 01 - Yes  
02 - No (ASK IF ANOTHER TIME IS BETTER)
- 2S Do you or does someone in your household own rural land, that is, land outside a town or village?
- 01 - Yes  
02 - No TERMINATE INTERVIEW
- 3S Does this land consist of ten acres or more, or of 4 hectares or more?
- 01 - Yes  
02 - No TERMINATE INTERVIEW

4S a) Are you one of the people responsible for making the long-term management decisions regarding this land?

- 01 – Yes, own and manage day-to-day
- 02 – Yes, own but rent most/all of it
- 03 – No, don't make decisions

**For all the questions I'm about to ask you, please remember that we also want to know about what's happening on land that you own but rent out to someone else, even if you're not the person making the decisions about how the rented land is managed**

b) May I please speak with one of the people responsible for making the long-term management decisions on the land?

- 01 – Yes
- 02 – No
- 03 – No, decision-maker not at this number

c) Would you mind giving me his or her first name and telephone number?

- 01 – SPECIFY \_\_\_\_\_
- 02 – No

5S In what year did you first become the owner of your land? (If more than one land holding, ask about the **property that is over 10 acres or 4 hectares that the respondent has owned the longest**)

- 01 – SPECIFY ACTUAL YEAR \_\_\_\_\_

6S How many acres [hectares] in total of rural property do you own?

- 01 – SPECIFY \_\_\_\_\_ acres
- 02 – SPECIFY \_\_\_\_\_ hectares

1L If you were to rate the soil productivity of the land you own, in terms of its ability to produce crops that are traditionally grown in your area, how many acres [hectares] would be classified as ...

a) good or high productivity? (example, Class 1 or 2 farmland)

- 01 – none
- 02 – SPECIFY \_\_\_\_\_ acres
- 03 – SPECIFY \_\_\_\_\_ hectares
- 04 - SPECIFY \_\_\_\_\_ %

b) medium productivity (example, Class 3 or 4 farmland)

- 01 – none
- 02 – SPECIFY \_\_\_\_\_ acres
- 03 – SPECIFY \_\_\_\_\_ hectares
- 04 - SPECIFY \_\_\_\_\_ %

c) poor or low productivity (example, Class 5 or higher farmland)

- 01 – none
- 02 – SPECIFY \_\_\_\_\_ acres
- 03 – SPECIFY \_\_\_\_\_ hectares
- 04 - SPECIFY \_\_\_\_\_ %

2L a) Currently, is any of the land that you own or rent to others covered with woodlots or blocks of trees? [NOTE – includes sugar bushes and plantations that are not Christmas trees]

- 01 – Yes
- 02 – No land covered with blocks of trees?

b) Are the trees on your land used to produce / sell any products or provide any services?

- 01 - Yes
- 02 - No

c) What products or services do you provide?

- 01 - Maple syrup
- 02 - Firewood
- 03 - Lumber
- 04 - Fruit and nuts
- 05 - Medicines
- 06 - Crafts
- 07 - Tours
- 08 - Trails
- 09 - Education
- 98 - Other (specify) \_\_\_\_\_

d) How many acres [hectares] are covered with blocks of trees?

- 01 – SPECIFY \_\_\_\_\_ acres
- 02 – SPECIFY \_\_\_\_\_ hectares
- 03 - SPECIFY \_\_\_\_\_ percentage of land

- 3L a) Currently, is any of your land being farmed? 01 – Yes  
02 – No
- b) Which of the following commodity groups best describes the farm operation on your property?  
01 – beef  
02 – hogs, veal, mutton or lamb  
03 – dairy  
04 – grain (includes oil seed)  
05 – forage  
06 – horticulture  
VOLUNTEERED  
98 – Other SPECIFY \_\_\_\_\_  
07 – N/A, do not farm  
08 – land is rented out to someone else
- c) In total, how many acres [hectares] are used to produce commodities? [NOTE – Remember this includes Christmas trees and apple orchards]  
01 – SPECIFY \_\_\_\_\_ acres  
02 – SPECIFY \_\_\_\_\_ hectares  
03 - SPECIFY \_\_\_\_\_ percentage of land
- 4L a) Currently, is any of your land left open as pasture or grazing land? 01 – Yes  
02 – No
- b) How many acres [hectares] are left open as pasture or grazing land?  
01 – SPECIFY \_\_\_\_\_ acres  
02 – SPECIFY \_\_\_\_\_ hectares  
03 - SPECIFY \_\_\_\_\_ percentage of land
- 5L a) Not counting any wetland you might own, is any of your land left open as idle land? 01 – Yes  
02 – No
- b) Not counting wetlands, how many acres [hectares] of your land are left open as idle land?  
01 – SPECIFY \_\_\_\_\_ acres  
02 – SPECIFY \_\_\_\_\_ hectares  
03 - SPECIFY \_\_\_\_\_ percentage of land

- 6L a) Currently, are there any wetlands, streams, or other aquatic areas on your land? 01 – Yes  
02 – No
- b) How many acres [hectares] are wetlands, streams, or other aquatic areas? 01 – SPECIFY \_\_\_\_\_ acres  
02 – SPECIFY \_\_\_\_\_ hectares  
03 - SPECIFY \_\_\_\_\_ percentage of land
- 7L During the past 12 years, did you plant blocks of trees on areas that had been bare of forest cover before 1990? 01 – Yes  
02 – No
- 8L a) For what reasons did you NOT plant trees during the past 12 years? 01 - Too much time or effort to plant/ other priorities  
02 - Too much time or effort to care for  
03 - Not sure how to select best place to plant  
04 - Not sure which types of trees would be best  
05 - Enough of my land is already covered in trees  
06 - Not enough space/ right kinds of soil productivity  
07 - Planting trees is too costly / did not receive funding to plant  
08 - Land was being used for other purposes ... (SPECIFY the purpose)
- 9L How many acres [hectares] in total did you plant during the past 12 years? 01 – SPECIFY \_\_\_\_\_ acres  
02 – SPECIFY \_\_\_\_\_ hectares

10L a) Why did you plant these trees?

- 01 – Aesthetics – like the look of trees
- 02 – Christmas trees
- 03 – Commercial wood supply
- 04 – Conservation and wildlife habitat
- 05 – Firewood
- 06 – Improve water and soil quality
- 07 – Recreation
- 08 – Reduce rate of climate change / global warming
- 09 – Shelterbelts (wind protection)
- 10 – Sugar bush / maple syrup
- 11 - Offers a place for recreation and solitude
- 98 – Other SPECIFY \_\_\_\_\_

b) Did you receive a grant or subsidy to plant the trees or did you pay for them out of your own pocket?

- 01 – grant or subsidy
- 02 – paid out-of-pocket
- VOLUNTEERED
- 03 – combination
- 04 - don't know
- 98 – Other SPECIFY \_\_\_\_\_

**I'd now like to ask you a series of questions about FUTURE ACTIVITIES related to planting trees on your property. For these questions please keep in mind that trees take many years to grow and that you may not be able to use the planted land for other purposes for many years. However, these trees could be used to generate revenue in the future from the sale of wood and other commodities.**

1F Within the NEXT five years, how likely are you to plant blocks of trees on land that has been bare of trees since 1990 (based on the following scale: *not at all likely, unlikely, somewhat likely, very likely*)?

- 01 – Not at all likely
- 02 – Unlikely
- 03 - Somewhat likely
- 04 - Very likely

2F What is the main reason you are NOT likely to plant trees within the NEXT five years?

- 01 - Too much time or effort to plant/ other priorities
- 02 - Too much time or effort to care for
- 03 - Not sure how to select best place to plant
- 04 - Not sure which types of trees would be best
- 05 - Enough of my land is already covered in trees
- 06 - Not enough space/ right kinds of soil productivity
- 07 - Planting trees is too costly / did not receive funding to plant
- 08 - Land is being used for other purposes ... (SPECIFY the purpose \_\_\_\_\_)
- 98 - Other SPECIFY \_\_\_\_\_

3F I'm going to read a list of types of support or incentives that could be offered to you to plant trees on your property. For each support or incentive, please tell me whether it would be *not important*, *somewhat important*, or *very important* in encouraging you to plant.

- 01 - Free seedlings
- 02 - Full subsidy on planting costs
- 03 - Information on how to select the best areas to plant
- 04 - Trees planted by experienced tree planters
- 05 - Assistance with site preparation (for example, plowing)
- 06 - Information on care of the trees (weeding and thinning, protecting from insects, fire)
- 07 - Assistance with caring for the trees
- 08 - Reduction in property tax
- 09 - Income tax credits
- 10 - Assistance with monitoring the health of the trees
- VOLUNTEERED
- 98 - Other SPECIFY \_\_\_\_\_

4F Approximately how many acres [hectares] are you planning to plant within the NEXT five years?

- 01 – SPECIFY \_\_\_\_\_ acres
- 02 – SPECIFY \_\_\_\_\_ hectares
- VOLUNTEERED
- 03 – None

5F What is your main reason you are considering planting trees in this area within the NEXT five years?

- 01 – Aesthetics – like the look of trees
- 02 – Christmas trees
- 03 – Commercial wood supply
- 04 – Conservation and wildlife habitat
- 05 – Firewood
- 06 – Improve water and soil quality
- 07 – Recreation
- 08 – Reduce rate of climate change / global warming
- 09 – Shelterbelts (wind protection)
- 10 – Sugar bush / maple syrup
- 11 - Offers a place for recreation and solitude
- 98 – Other SPECIFY \_\_\_\_\_

**I'd like to ask you a series of questions concerning a potential program to promote tree planting on rural land. The purpose of the program would be to help reduce the effects of climate change by promoting tree planting on private property across Canada. As you are likely aware, greenhouse gases are a major contributor to climate change. As trees grow, they absorb some greenhouse gases from the atmosphere. By planting trees on rural land, such a program would help to achieve Canada's targets to reduce greenhouse gas emissions as part of the Kyoto Protocol. At the same time, the program would aim to meet the objectives of landowners.**

1P How interested would you be in participating in such a program (based on the following scale: *not at all interested, a little interested, moderately interested, very interested*)?

- 01 - Not at all interested
- 02 - A little interested
- 03 - Moderately interested
- 04 - Very interested



2P What types of support or incentives would encourage you to plant trees on your property as part of this program? For each response I'm going to read out, please indicate whether it would be *not important*, *somewhat important*, or *very important*?

- 01 - Free seedlings
- 02 - Full subsidy on planting costs
- 03 - Information on how to select the best areas to plant
- 04 - Trees planted by experienced tree planters
- 05 - Assistance with site preparation (for example, plowing)
- 06 - Information on care of the trees (weeding and thinning, protecting from insects, fire)
- 07 - Assistance with caring for the trees
- 08 - Reduction in property tax
- 09 - Income tax credits
- 10 - Assistance with monitoring the health of the trees
- VOLUNTEERED
- 98 – Other SPECIFY \_\_\_\_\_

**Earlier I asked you about the productivity of your land. I'd like you to think about the productivity of your open or idle land.**

3P As part of this program, how many acres [hectares] of trees would you consider planting on your open land that is ...  
a) high productivity?

- 01 – none
- 02 – SPECIFY \_\_\_\_\_ acres
- 03 – SPECIFY \_\_\_\_\_ hectares
- 04 - SPECIFY \_\_\_\_\_ %

b) medium productivity?

- 01 – none
- 02 – SPECIFY \_\_\_\_\_ acres
- 03 – SPECIFY \_\_\_\_\_ hectares
- 04 - SPECIFY \_\_\_\_\_ %

c) low productivity?

- 01 – none
- 02 – SPECIFY \_\_\_\_\_ acres
- 03 – SPECIFY \_\_\_\_\_ hectares
- 04 - SPECIFY \_\_\_\_\_ %

4P What are the reasons that you would not consider planting trees on your property as part of this proposed program?

- 01 - Too much time or effort to plant/ other priorities
- 02 - Too much time or effort to care for
- 03 - Not sure how to select best place to plant
- 04 - Not sure which types of trees would be best
- 05 - Enough of my land is already covered in trees
- 06 - Not enough space/ right kinds of soil productivity
- 07 - Planting trees is too costly / did not receive funding to plant
- 08 - Land is being used for other purposes ... (SPECIFY the purpose \_\_\_\_\_)
- 98 - Other SPECIFY \_\_\_\_\_

5P How much confidence do you have in the following organizations to deliver this pilot program? Please answer each question using the following scale: *No confidence, Not much confidence, Some confidence, A lot of confidence*

- 01 - Non-governmental organizations
- 02 - Woodlot or forestry associations
- 03 - Conservation Authorities and other delivery agencies
- 04 - Large industries
- 05 - Small private sector operations
- 06 - Provincial Government or its agencies
- 07 - Municipal Government or its agencies
- 08 - Federal Government or its agencies

6P a) If you were to plant trees on your property, would you have a preference for the type of trees to plant?

01 - yes

02 - no

b) What type of trees would you prefer to plant?

01 - Evergreens

02 - Hardwood

03 - Other SPECIFY \_\_\_\_\_

**As part of the Kyoto Protocol, companies must reduce their emissions of greenhouse gases. Companies can also buy credits from other organizations and even individuals that are helping to reduce greenhouse gases. Under the Kyoto Protocol, planted trees will be worth money as carbon credits for industries trying to meet their carbon reduction targets.**

7P a) If trees were planted on your property as part of this planting program, would you be interested in selling your carbon credits?

01 - yes

02 - no

**As part of this pilot program, industries might provide the funding to plant trees on private properties.**

b) If a company paid you to plant trees on your property, who should then own the carbon credits?

01 - The company that pays

02 - The landowner, but the company has the first right of refusal to buy at market rate

03 - A cooperative of landowners that sells to the highest bidder

04 - The landowner, but with the option to donate credit to a charitable donation for a tax credit

98 - Other (specify) \_\_\_\_\_

8P If, over time, you discovered that the net profit of planting trees was equal to the net profit of agricultural crops, which would you be more inclined to plant?

01 - crops

02 - trees

9P

a) How willing would you be to lease your open or idle land for 20 years, so that it could be used as a tree plantation where the trees themselves would be established, maintained and owned by someone other than yourself and then harvested at the end of the 20-year period?

- 01 - Not at all willing
- 02 - A little willing
- 03 - Moderately willing
- 04 - Very willing

b) What type of land would you be willing to lease as part of such a program?

- 01 - good productivity
- 02 - medium productivity
- 03 - low productivity

What is the MINIMUM amount of annual rent per acre [hectare] that you would require before you would consider leasing ...

c) Your high productivity land?

- 01 – SPECIFY \$ \_\_\_\_\_ per acre
- 02 – SPECIFY \$ \_\_\_\_\_ per hectare
- VOLUNTEERED
- 03 - None

d) Your medium productivity land?

- 01 – SPECIFY \$ \_\_\_\_\_ per acre
- 02 – SPECIFY \$ \_\_\_\_\_ per hectare
- VOLUNTEERED
- 03 - None

e) Your low productivity land?

- 01 – SPECIFY \$ \_\_\_\_\_ per acre
- 02 – SPECIFY \$ \_\_\_\_\_ per hectare
- VOLUNTEERED
- 03 - None

How many acres [hectares] in total, of your land would you consider leasing at this annual price for ...?

f) High productivity land

- 01 – SPECIFY \_\_\_\_\_ acres in total
- 02 – SPECIFY \_\_\_\_\_ hectares in total

g) Medium productivity land

01 – SPECIFY \_\_\_\_\_ acres in total  
02 – SPECIFY \_\_\_\_\_ hectares in total

h) Low productivity land

01 – SPECIFY \_\_\_\_\_ acres in total  
02 – SPECIFY \_\_\_\_\_ hectares in total

10P Which of the following is most likely to happen if, at the end of the 20 years, there was no possibility of extending the annual payments ...?

01 - you would likely harvest or clear the trees  
02 - you would not likely harvest or clear the trees

1A **I would now like to ask you some general questions about planting trees and owning wooded property. For each of following statements please tell me if you *strongly agree, somewhat agree, somewhat disagree or strongly disagree.***

- a) It is important to plant trees that are native to my area.
- b) My property is important as a place for my heirs.
- c) Planting trees does not enhance my property value.
- d) If other people, companies or organizations received funding to plant trees, I would expect to receive funding too.
- e) Planting trees on my property helps me to better enjoy the view from my house.
- f) Planting trees is a good way for me to encourage desirable wildlife on my property.
- g) Woodlots are peaceful places for solitary walks and personal reflection.
- h) Planting trees allows me to participate in outdoor activities such as cross-country skiing or hiking on my property.
- i) Selling carbon credits is an important reason to plant trees.
- j) Planting trees improves my land for hunting or trapping.
- k) Planting trees enhances the spiritual value of my land.
- l) Planting trees offers a retirement savings plan for the future.
- m) I have no preference for planting species of trees that are naturally fast-growing.
- n) Planting trees helps me to improve water quality on my property.
- o) Reducing the effects of climate change and global warming is not a key reason for why I would plant trees on my property.
- p) I have no interest in volunteering my time for community services.
- q) I enjoy participating in activities that benefit my neighbours.
- r) I would be better motivated to plant trees on my land if I were to be recognized and praised by my neighbours.
- s) I would sell all or part of my land to a housing developer for the right price.

**Finally, I'd like to ask you some questions about you and your household. Please be assured that all your responses will be kept entirely anonymous and absolutely confidential. Answering any or all of these questions is optional, but your assistance will greatly help us in understanding the results.**

- 1G What year were you born? 01 – SPECIFY \_\_\_\_\_
- 2G What is your present occupation? [IF MORE THAN ONE, the job that generates the most income] 01 – Farmer (e.g. someone whose gross annual farm receipts are \$7,000 or more)  
02 – Skilled tradesperson (e.g. welder, plumber, electrician)  
03 – Professional (e.g. teacher, engineer, lawyer)  
04 – Retired  
NOTE: if retired farmer, code as farmer  
98 – Other SPECIFY \_\_\_\_\_
- 3G For how many years have you had this occupation? 01 - number of years \_\_\_\_\_
- 4G a) For statistical purposes only, we need information about your income. Please stop me when you hear the category in which your household falls.  
01 – Under \$10,000  
02 - Under \$20,000  
03 – Under \$30,000  
04 – Under \$40,000  
05 – Under \$50,000  
06 – Under \$60,000  
07 – Under \$70,000  
08 – Under \$80,000  
09 – Under \$90,000  
10 – Under \$100,000  
11 – Between \$100,001 and \$150,000  
12 - Over \$150,000

b) Approximately, what proportion of your total household income is derived from the land or the farm that you own?

- 01 – all or most of it
- 02 – about half
- 03 – none or hardly any
- VOLUNTEERED
- 98 – Other SPECIFY \_\_\_\_\_

**The Canadian Forest Service is intending to conduct a follow-up survey with landowners who have expressed an interest in participating in a pilot planting program. The purpose of this survey would be to learn more about what landowners' needs and interests are regarding such a program.**

5G a) Would you be willing to take part in a follow-up mail survey on this topic?

- 01 – yes
- 02 – no

b) SPECIFY \_\_\_\_\_ NAME AND ADDRESS