

## LP Canada Limited

“True or False” from Questionnaire

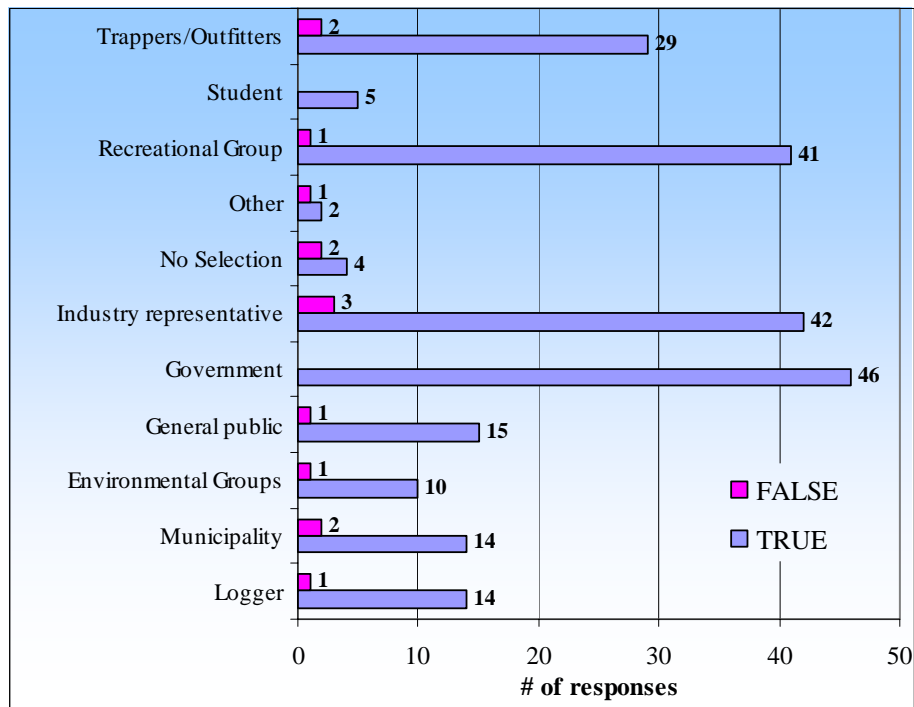
### “Forest companies are required to follow government guidelines when harvesting timber” (TRUE)

In Manitoba, the following guidelines, regulations and conditions must be adhered to by forest companies:

- The Forest Act and associated Forest Management License conditions
- Manitoba Environment Act
- The Lands Act (work permits)
- Ten Year Forest Management Plan Submission Guidelines
- Planning and Submission Requirements for Annual Operating Plans
- Timber Harvesting Practices for Forest Operations in Manitoba
- Consolidated Buffer Management Guidelines
- Manitoba Stream Crossing Guidelines
- Pre-harvest Surveys
- Protection of Softwood Understory in Mixedwood and Hardwood Forests
- Provincial Forest Regeneration Standards

222 correct answers (94.0%)

14 incorrect answers (6.0%)



## LP Canada Limited

“True or False” from Questionnaire

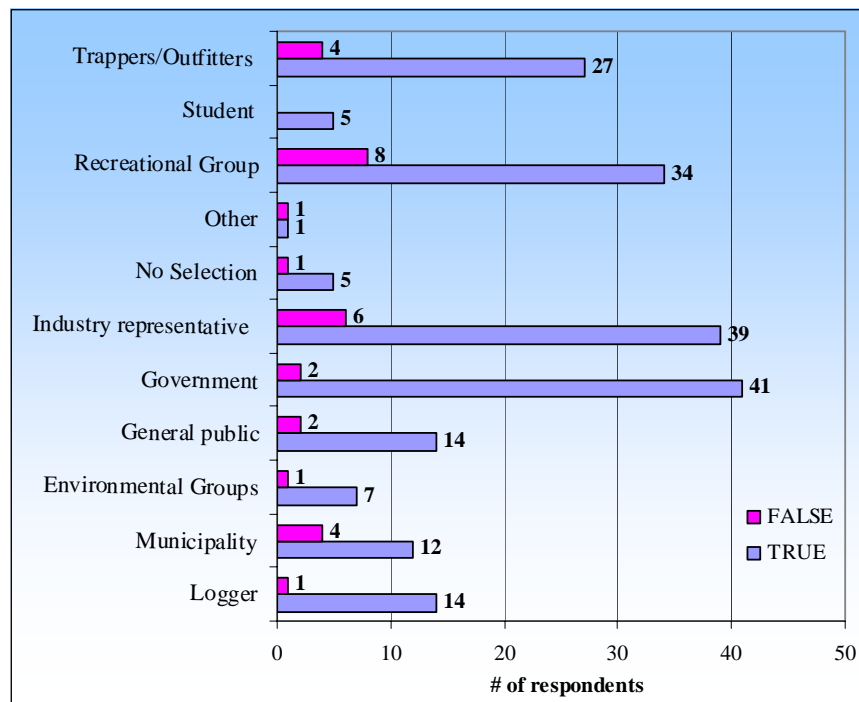
### “Insects such as caterpillars can cause severe damage to forests.” (TRUE)

Insects are capable of causing severe damage to forests. A current example of such damage is the mountain pine beetle infestation in British Columbia where approximately 2 million hectares was affected in 2002 and an additional estimated 4.2 million hectares in 2003. Classifying insect infestations as damaging, however, is only part of the story. While it is true that insects are capable of killing vast areas of forest, they are also an important part of a forest’s natural life cycle. Insects play a role in forest renewal by removing weaker, older, diseased trees and making room for a new forest.

In some instances, therefore, it may be wise to let insects do their thing. In other cases, when the impacts to other forest values justify it, it is prudent to manage insects. These impacts can include (but are not limited to) timber supply impacts, impacts on recreational areas, and the increased likelihood of wildfire. Insect management often consists of taking measures to stop infestations.

199 correct answers (86.9%)

30 incorrect answers (13.1%)



## LP Canada Limited

“True or False” from Questionnaire

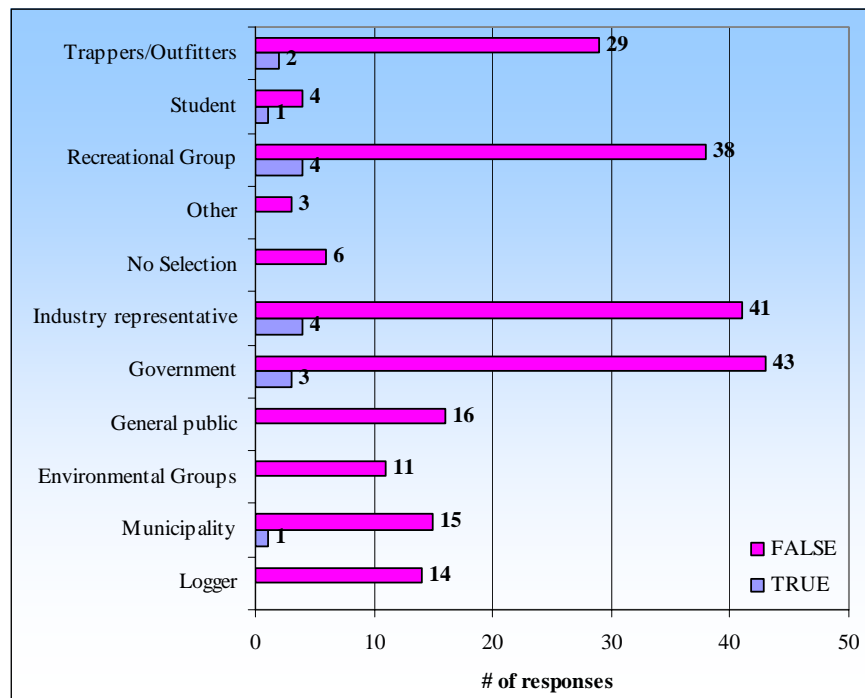
### “There are no old-growth trees in Manitoba.” (FALSE)

The term “old growth” is extremely difficult to define. Tree size is not the critical factor that determines old growth, nor is age. Old growth forests are sometimes defined based on composition (types of trees and vegetation, presence of lichens, etc.), structure (dead standing or fallen trees, wide variations in tree size and spacing, multiple canopy layers, etc.), or historical incidence of natural stand-replacement (insects or fire).

Regardless of the definition of old growth, it is important to maintain a component of older forests on the landscape to satisfy the habitat needs of other organisms and contribute to healthy levels of biological diversity across the landscape. No matter what definition of old growth is used, there are occurrences of this phenomenon across the landscape in Manitoba.

220 correct responses (93.6%)

15 incorrect responses (6.4%)

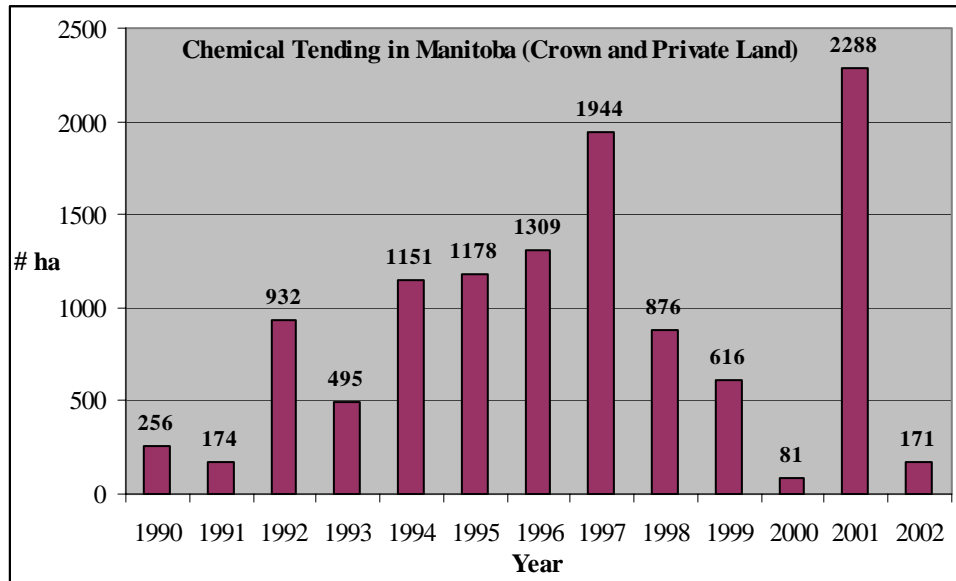


## LP Canada Limited

“True or False” from Questionnaire

### “Chemicals are commonly used to control weeds in Manitoba’s forests.” (TRUE)

Herbicides may be used to control undesirable vegetation on areas considered for planting or seeding on some sites. The application of herbicides for vegetation management (e.g. site preparation, stand release) is implemented through the Manitoba Forestry Branch.



Source: <http://nfdp.ccfm.org/detailed/reports/reports-e.htm#silviculture>

Glyphosate is the only registered chemical for aerial application in Manitoba. Glyphosate is a broad-spectrum herbicide sold under the trade name of Vision® for forestry application (Roundup® for agricultural and household application). When applied as directed (from label) to the foliage of actively growing brush and trees at the proper stage of growth, it will effectively reduce weed and brush competition from deciduous tree species.

LP applies glyphosate sparingly and uses back packs to control application and minimize effects on non target species & other forest attributes. Since 1996, LP has sprayed only 132 hectares of land.

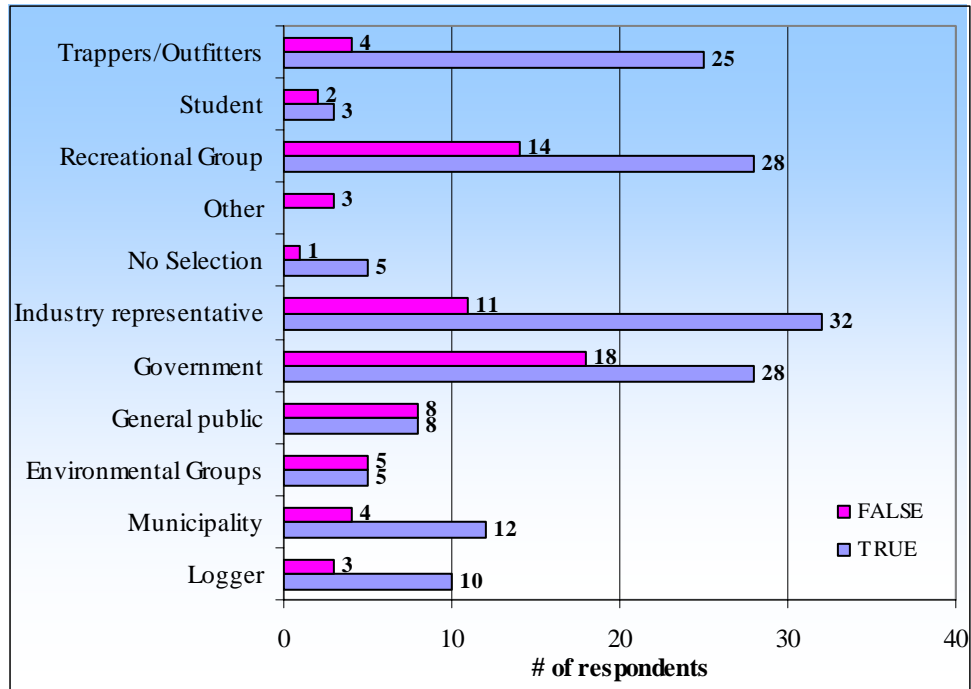
Further details on vegetation management using herbicides can be found on Manitoba Conservation’s website at: <http://www.gov.mb.ca/conservation/forestry/forest-renewal/techniques/fr16-vegmgmt.html>.

156 correct answers (31.9%)

73 incorrect answers (68.1%)

# LP Canada Limited

“True or False” from Questionnaire



## LP Canada Limited

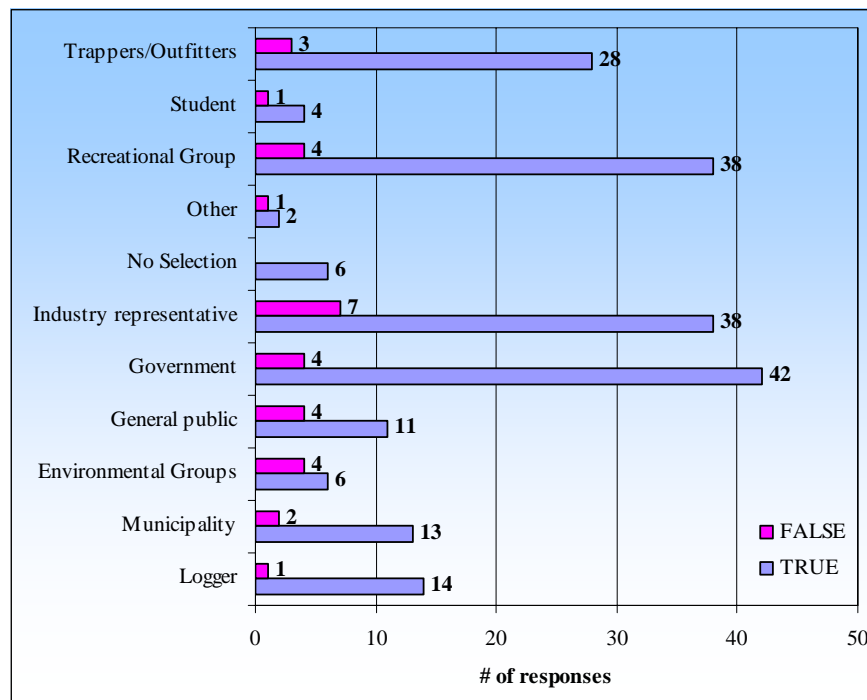
“True or False” from Questionnaire

**“Over time, there is a natural replacement of the kinds of trees in forests.”  
(TRUE)**

There are many natural forces that affect the life cycle of forests. These include fire, insect and disease infestations, and windthrow. These events tend to target older forests and result in their replacement with young vigorous forests. Depending on the nature of the event, the kinds of trees in the original forest may be replaced by different species. This is because different tree species are adapted to different conditions. One of the most important of these conditions is a tree’s tolerance of shade. Large scale stand-replacing events (a large catastrophic fire for example) are well suited to regenerate with a shade intolerant species like jack pine that grows best in full sunlight.

202 correct responses (86.7%)

31 incorrect responses (13.3%)



## **LP Canada Limited**

“True or False” from Questionnaire

**“Clear-cutting is the most common method of harvesting trees in Manitoba.”  
(TRUE)**

Clear-cutting is a term used to describe the cutting and removal of all trees, regardless of species and size, in one operation. Clear-cutting is the most common method of harvesting trees when the desired future forest consists of shade intolerant species that require full sunlight to grow. In most of Manitoba, aspen, jack pine, white birch and spruce are the predominant tree species. Of these, aspen, white birch and jack pine are shade intolerant, and white and black spruce are of intermediate shade tolerance.

Clear-cutting is the most commonly applied system in Canada, as it is in most countries with temperate and boreal forests as it best mimics the natural catalyst for the regeneration of a forest, i.e. fire. The objective of clear-cutting is to create a new, even-aged stand that will be regenerated naturally or through planting.

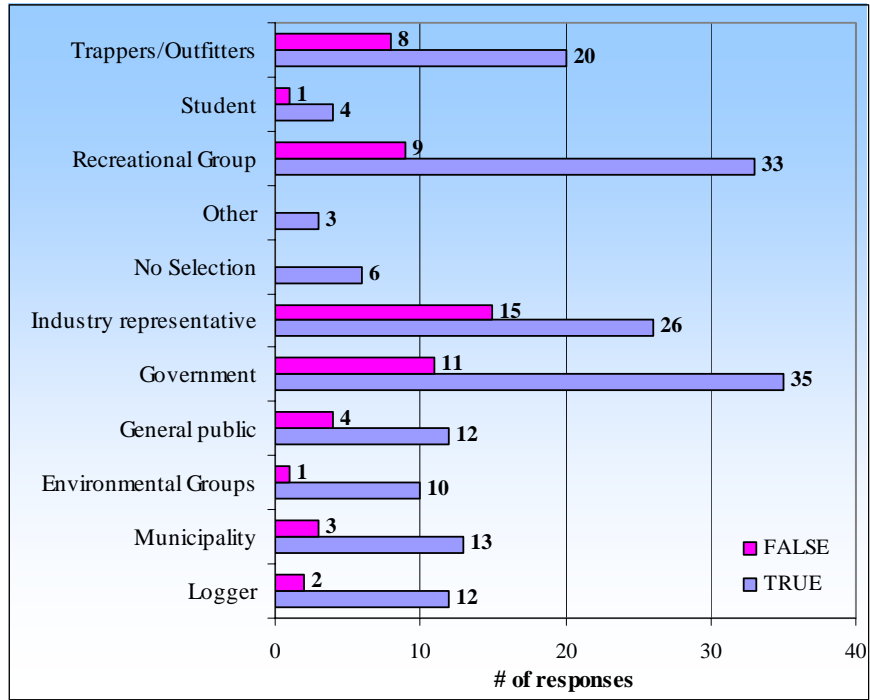
Clear-cutting practices have changed significantly over the years. Although clear-cutting is the most prevalent form of harvest in Manitoba, LP does not cut everything on a site. Current clear-cutting operations are being modified to better simulate natural conditions. There are standing live trees retained on cutovers both individually and in patches for wildlife habitat. In addition, young understory white spruce trees are protected during harvesting operations. Large coarse woody debris is left on the ground and intact treed buffer zones are left along water bodies and special features. These practices help to better emulate the conditions that would exist after natural disturbances such as fire or blowdown.

174 correct answers (76.3%)

54 incorrect answers (23.7%)

# LP Canada Limited

“True or False” from Questionnaire

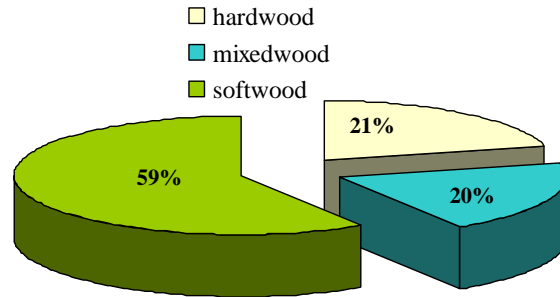


## LP Canada Limited

“True or False” from Questionnaire

**“Manitoba has more softwoods (trees with needles) than hardwoods (trees with leaves).”  
(TRUE)**

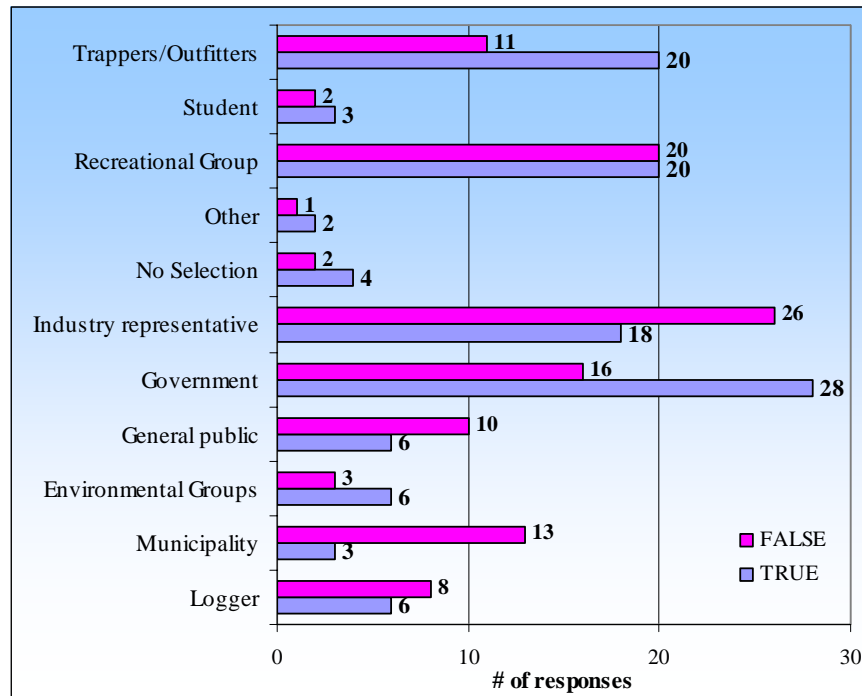
Manitoba’s forests are composed primarily of boreal species with 59% being softwood (Figure ---).



More than 2.6 million cubic metres of softwoods and 1.3 million cubic metres of hardwoods are currently allocated via Forest Management Licence (FML) agreements with forest products companies or through quotas to small forestry companies and individuals. There are approximately 3.0 million cubic metres of unallocated productive softwoods and hardwoods, but much of that wood is in remote, inaccessible areas.

116 correct responses (50.9%)

112 incorrect responses (49.1%)

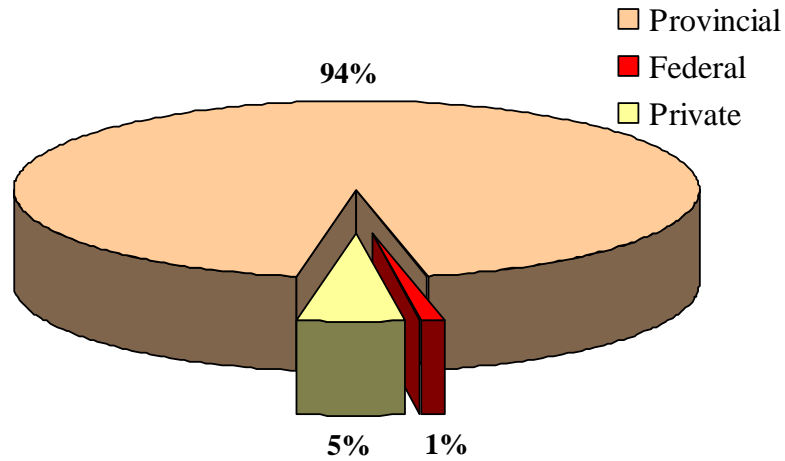


**LP Canada Limited**

“True or False” from Questionnaire

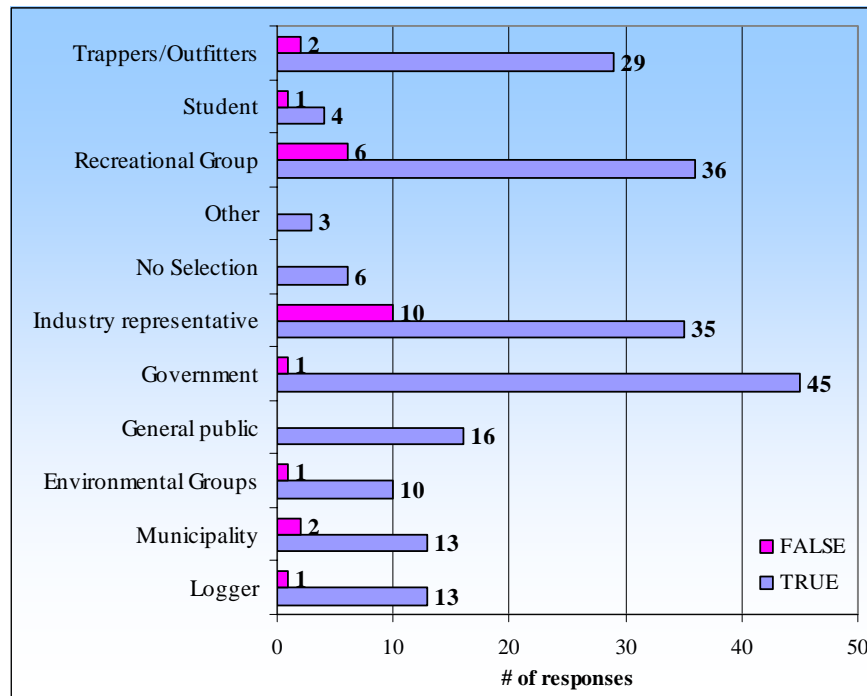
**”Most of Manitoba’s forested land is owned by the provincial government.”  
(TRUE)**

Manitoba’s forests are primarily provincially owned (Figure ---).



210 correct answers (89.7%)

24 incorrect answers (10.3%)



## LP Canada Limited

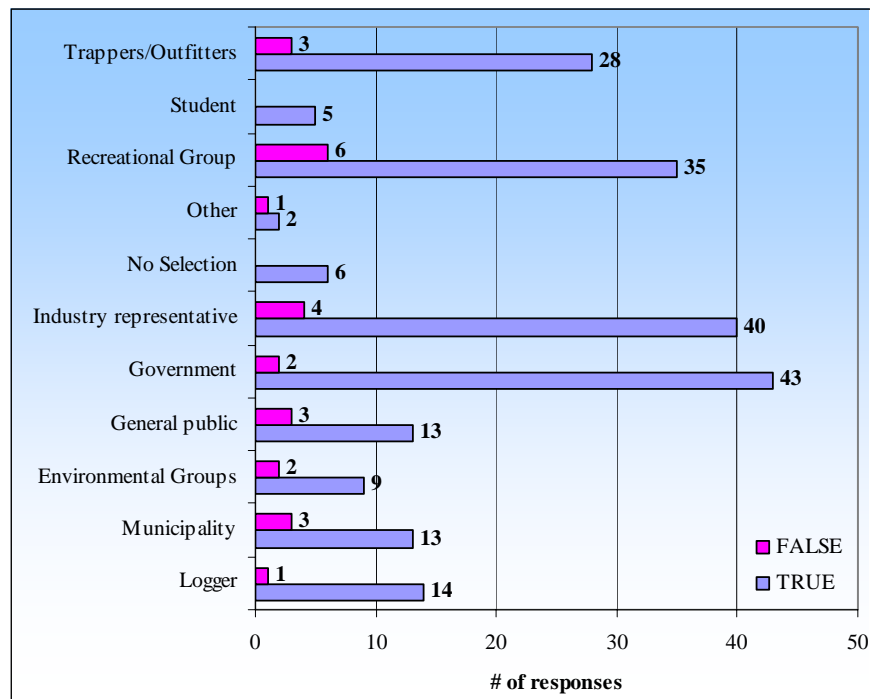
“True or False” from Questionnaire

### “Forest fires help jack pine open its cones and shed its seeds.” (TRUE)

Jack Pine is a tree species that has adapted to fire. Jack pine trees can bear serotinous cones that require high temperatures to open and release seeds, and non-serotinous cones (that will open when mature, even in the absence of high temperatures). The occurrence of lethal fires tends to favor jack pine trees with serotinous cones to the detriment of trees with non-serotinous cones. (Serotinous cones of jack pine trees killed by a fire can disperse seeds, thus ensuring stand regeneration, while previously dispersed seeds from non-serotinous cone-bearing trees will be destroyed by the same fire.)

208 correct responses (89.3%)

25 incorrect responses (10.7%)



## LP Canada Limited

“True or False” from Questionnaire

**“The seedlings planted after harvesting are usually hardwoods (trees with leaves).”  
(FALSE)**

Typically on Crown land in Manitoba, softwood (trees with needles) container stock seedlings (grown in containers in greenhouses) are planted to replace harvested softwood and mixedwood stands. For more information on forest renewal in Manitoba, you can check the Manitoba Conservation website at:

<http://www.gov.mb.ca/conservation/forestry/forest-renewal/techniques/fr5-treeplant-intro.html>

In addition to planting over 2 million softwood seedlings per year, LP also relies on the fantastic natural regeneration capabilities of hardwoods such as poplar (aspen), balsam poplar and white birch. On sites that were previously hardwood, these trees reproduce readily and therefore do not require planting.

Natural regeneration has several advantages over planting including:

- Good early root development
- Less disturbance to soil
- Low cost
- Less labour and equipment requirements
- No concerns over geographical origin of seed source

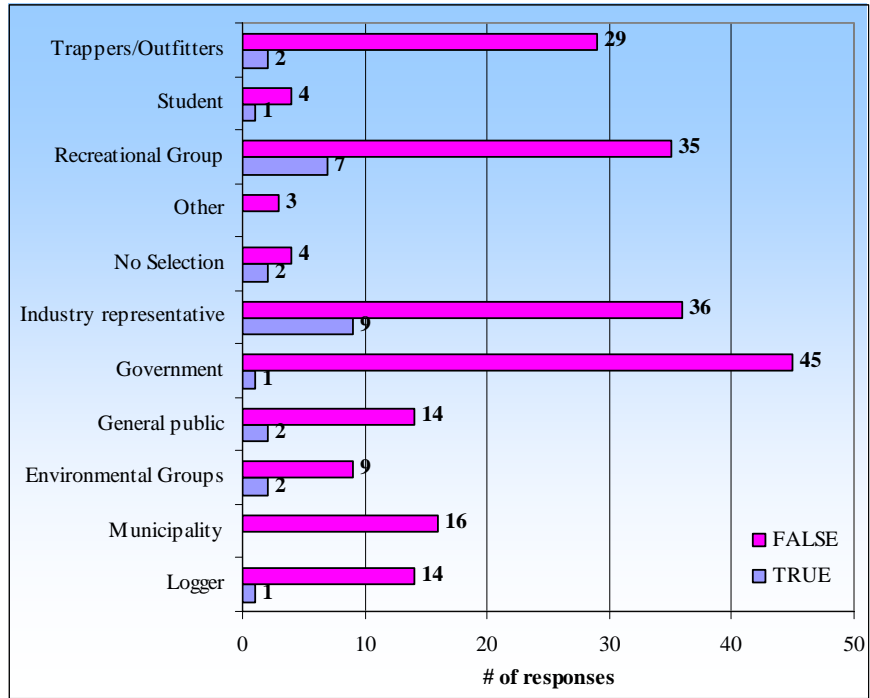
At the same time, there are disadvantages to natural regeneration including:

- Less control over initial spacing and stocking
- Lower commercial yields (generally)
- Possible delays in regeneration

209 correct responses (90.0%)

27 incorrect responses (10%)

**LP Canada Limited**  
“True or False” from Questionnaire



## LP Canada Limited

“True or False” from Questionnaire

**“All areas where trees are harvested must be planted in order for the forest to return.”  
(FALSE)**

In Manitoba, forest renewal and its associated activities are determined prior to harvest with a pre-harvest site inspection. The soil type present, understory vegetation and existing competition are all examined to determine the best course of action. Some sites may be left to regenerate naturally from existing seed and/or sucker growth. In most cases, an attempt is made to ensure that the post-harvest stand is similar to the pre-harvest stand. Often, to accomplish this, site preparation and planting of trees is necessary. For more detailed information about required stocking levels (trees per hectare), and other regeneration standards, please see Manitoba Conservation’s website at:

<http://www.gov.mb.ca/conservation/forestry/forest-renewal/fr2-standards.html>

190 correct responses (81.6%)

43 incorrect responses (18.4%)

