



# The Prairie Arborist

*The Official Publication of the ISA Prairie Chapter Issue 1, 2014*



*Picture submitted by Gerard Fournier*



Bonnie Fermanuik

## Thoughts from the President

February is drawing to a close and everyone seems to be gearing up for another busy season.

Seasonal pruning, summer planting plans and if we are lucky, a summer holiday plan.

Each year brings new challenges; late spring, too much or too little rain, wind and finding quality staff that are interesting in work to make this a better for the future.

These are some of the things that make our jobs interesting. We don't always see immediate results. We are planning and working so our children and grandchildren enjoy the benefits. Too all of you out there who work hard at your professions thanks for making this a better place.

The ISA board and its member committees have been busy trying to plan the year's events.

First and foremost, I would like to announce that Keith Anderson has agreed to take on the position of Executive Director. Keith has been long time member of the Chapter as well as the editor of the newsletter, past president and board member. Keith has recently retired from the City of North Battleford and now ready for a part time job (that's right part time) so leave a message or an email and when he is in the office he will get back to you. We hope to have the new office, manned and up and running by the middle of March.

Welcome aboard Keith.

**The Chapter is putting on the finishing touches on getting some TRAQ seminars going in the chapter.**

June in Edmonton

Winnipeg - TBA

Registrations forms will be out shortly. Register early because there is limited enrollment and classes will be cancelled unless we have at least 15 paid participants at least 1 month prior to the event. If you are interested leave your email the office and we will send the details.

Plan to attend the Tree Climbing Championships in Saskatoon this August and the conference in late October, also in Saskatoon. The local committee has been working hard to plan 2 very exciting events.

*Remember*

*Three simple rules of life:*

*If you don't go after what you want, you'll never have it.*

*If you don't ask, the answer will always be no.*

*If you don't step Forward, you will always be in the same place.*

*Author unknown*

### Letter to the Prairie Chapter Members - from the Treasurer

The ISA Prairie Chapter as some of you know is sorting out its finances. During the last Annual General Meeting in Edmonton the membership voted in favour of a Chapter membership fee of \$125 starting in 2015.

Reasoning for increase was to provide a more reliable revenue stream to pay for the increased costs of running the chapter and the need to pay our office staff a more equitable wage.

The 2013 annual conference was a success and will allow the Chapter to reinvest in a GIC to replace the one cashed in last year.

We would like to thank all the Sponsors, for the overwhelming and generous support this year.

Thank you all for supporting the ISA prairie chapter and lets make the Chapter and conference even better in 2014.

**Jean-Mathieu Daoust  
Secretary Treasurer 2014**



Saskatoon

## **2014 ISA Prairie Chapter Conference**

Planning is well underway for the 2014 ISA Prairie Chapter Conference.

The conference will be held at Credit Union Place, Saskatoon SK, on Monday October 27 and Tuesday October 28.

### **The theme of the conference is The Roots of Success.**

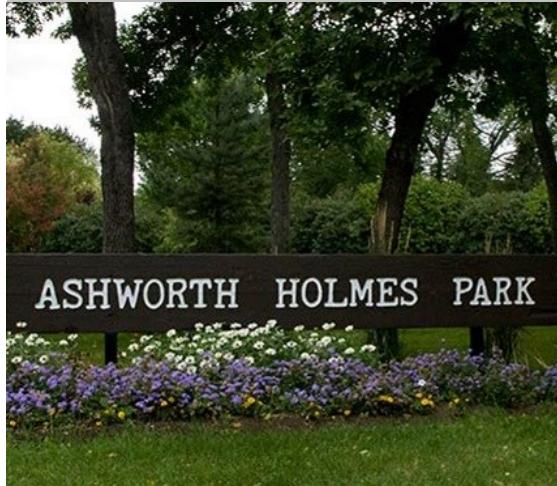
The program's key theme areas are:

- Tree Roots – healthy trees and soil in the urban community
- Successful business – train the trainer, hands-on workshops for the arborist
- Urban forestry challenges – discussion forum
- Designing space for trees – success can be achieved when landscape architects, designers, utility specialists and arborists collaborate.
- The ISA Prairie Chapter Conference presents keynote speaker:  
**James Urban,**

## **2014 ISA Prairie Chapter TCC**

**The 2014 Tree Climbing Competition will be held in Saskatoon, SK August 23 & 24  
Ashworth Holmes Park**

*Submitted by Terri Smith –Saskatoon*



These Saskatoon Images are from the Web



## **Certification News and Upcoming Exams**

There are two options available for candidates to sit for their certification exams: paper-based exams offered by a chapter or affiliated organization, or computer-based exams administered at a [Pearson VUE testing facility](#).

### **SELECTING A DATE AND LOCATION FOR A COMPUTER-BASED EXAM**

If you choose to test at a [Pearson VUE testing facility](#), you determine your own test date and location. You must first submit your application to ISA and receive approval before contacting Pearson VUE to schedule your exam at one of their testing centers.

### **SELECTING A DATE AND LOCATION FOR A PAPER-BASED EXAM**

If you plan to take a paper-based exam, you must choose a date and location that is offered by a Chapter or Affiliated Organization.

Please [view the calendar for a list of exam dates and locations](#) scheduled over the coming months. After choosing a location, you must complete an application in order to enroll in the exam.

### **Chapter Exam Dates**

**ISA Certified, Utility and Municipal Arborist Exam** scheduled for March 22, 2014 at the offices of Arbor-Tech Utility Services Ltd. at 111 Kennedy Drive, Turner Valley, Alberta. Check in at 8:30am, exam 9:00 am - 12:30pm.

**Applications must be received 12 business days prior to the exam date.**

The next Certified Arborist Exam is May 3, 2014 at Olds College, Olds Alberta. Check in at 7:30 am and the exam is 8:00am to 11:30am.

### **Need more info?**

**Contact Gordon White Certification Liaison. Contact info on P.19**

Most trees and shrubs in cities or communities are planted to provide beauty or shade. These are two excellent reasons for their use. Woody plants also serve many other purposes, and it often is helpful to consider these other functions when selecting a tree or shrub for the landscape. The benefits of trees can be grouped into social, communal, environmental, and economic categories.



### Social Benefits

We like trees around us because they make life more pleasant. Most of us respond to the presence of trees beyond simply observing their beauty. We feel serene, peaceful, restful, and tranquil in a grove of trees. We are "at home" there. Hospital patients have been shown to recover from surgery more quickly when their hospital room offered a view of trees. The strong ties between people and trees are most evident in the resistance of community residents to removing trees to widen streets. Or we note the heroic efforts of individuals and organizations to save particularly large or historic trees in a community.

The stature, strength, and endurance of trees give them a cathedral-like quality. Because of their potential for long life, trees frequently are planted as living memorials. We often become personally attached to trees that we or those we love have planted.

### Communal Benefits

Even though trees may be private property, their size often makes them part of the community as well. Because trees occupy considerable space, planning is required if both you and your neighbors are to benefit. With proper selection and maintenance, trees can enhance and function on one property without infringing on the rights and privileges of neighbors.

City trees often serve several architectural and engineering functions. They provide privacy, emphasize views, or screen out objectionable views. They reduce glare and reflection. They direct pedestrian traffic. They provide background to and soften, complement, or enhance architecture.



### Environmental Benefits

Trees alter the environment in which we live by moderating climate, improving air quality, conserving water, and harboring wildlife. Climate control is obtained by moderating the effects of sun, wind, and rain. Radiant energy from the sun is absorbed or deflected by leaves on deciduous trees in the summer and is only filtered by branches of deciduous trees in winter. We are cooler when we stand in the shade of trees and are not exposed to direct sunlight. In winter, we value the sun's radiant energy. Therefore, we should plant only small or deciduous trees on the south side of homes.

Wind speed and direction can be affected by trees. The more compact the foliage on the tree or group of trees, the greater the influence of the windbreak. The downward fall of rain, sleet, and hail is initially absorbed or deflected by trees, which provides some protection for people, pets, and buildings. Trees intercept water, store some of it, and reduce storm runoff and the possibility of flooding.

Dew and frost are less common under trees because less radiant energy is released from the soil in those areas at night.

Temperature in the vicinity of trees is cooler than that away from trees. The larger the tree, the greater the cooling. By using trees in the cities, we are able to moderate the heat-island effect caused by pavement and buildings in commercial areas.

Air quality can be improved through the use of trees, shrubs, and turf. Leaves filter the air we breathe by removing dust and other particulates. Rain then washes the pollutants to the ground. Leaves absorb carbon dioxide from the air to form carbohydrates that are used in the plant's structure and function. In this process, leaves also absorb other air pollutants—such as ozone, carbon monoxide, and sulfur dioxide—and give off oxygen.

By planting trees and shrubs, we return to a more natural, less artificial environment. Birds and other wildlife are attracted to the area. The natural cycles of plant growth, reproduction, and decomposition are again present, both above and below ground. Natural harmony is restored to the urban environment.

### Economic Benefits

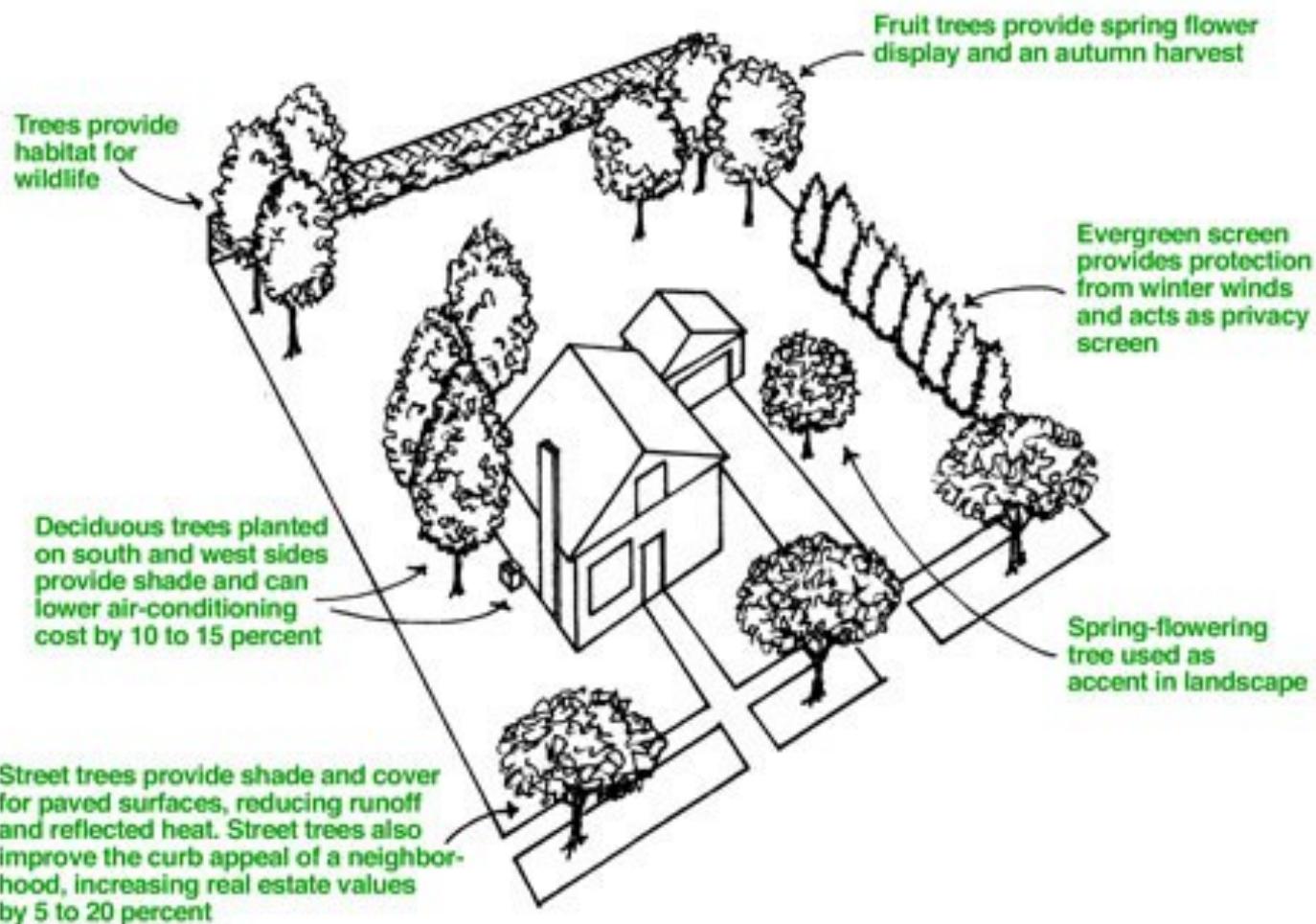
## Benefits of Trees

Individual trees and shrubs have value, but the variability of species, size, condition, and function makes determining their economic value difficult. The economic benefits of trees can be both direct and indirect. Direct economic benefits are usually associated with energy costs. Air-conditioning costs are lower in a tree-shaded home. Heating costs are reduced when a home has a wind-break. Trees increase in value from the time they are planted until they mature. Trees are a wise investment of funds because landscaped homes are more valuable than nonlandscaped homes. The savings in energy costs

facilities must be built to control storm water in the region. To the individual, these savings are small, but to the community, reductions in these expenses are often in the thousands of dollars.

### Trees Require an Investment

Trees provide numerous aesthetic and economic benefits but also incur some costs. You need to be aware that an investment is required for your trees to provide



and the increase in property value directly benefit each home owner.

The indirect economic benefits of trees are even greater. These benefits are available to the community or region. Lowered electricity bills are paid by customers when power companies are able to use less water in their cooling towers, build fewer new facilities to meet peak demands, use reduced amounts of fossil fuel in their furnaces, and use fewer measures to control air pollution. Communities also can save money if fewer

the benefits that you desire. The biggest cost of trees and shrubs occurs when they are purchased and planted. Initial care almost always includes some watering. Leaf, branch, and whole tree removal and disposal can be expensive.

To function well in the landscape, trees require maintenance. Much can be done by the informed home owner. Corrective pruning and mulching gives trees a good start. Shade trees, however, quickly grow to a size that

(Continued on page 7)



## 2 Year Protection Against Emerald Ash Borer

- TreeAzin® is injected biennially (every 2 years)
- TreeAzin translocates quickly (within 48 hrs)
- TreeAzin is not a neonicotinoid
- TreeAzin has low toxicity to humans
- Leaves from treated trees can be composted and pose minimal risk to aquatic and terrestrial decomposers of leaf tissue

**“**We are averaging over 20 trees per man day across all the major cities we are injecting in Ontario and Quebec. We are limited only by the proximity (density) of the trees not by the uptake. Uptake is very good. In fact, in Toronto we are having to re-fill canisters in the field with two of the 3 L EcoJect® units despite having Technicians equipped with 250 filled canister each to start the day.

Gavin Dawson  
TruGreen Canada - 2013



**BioForest**  
TECHNOLOGIES INC.

BioForest Technologies Inc. 1.888.236.7378 info@bioforest.ca www.BioForest.ca

(Continued from page 5)

may require the services of a professional arborist. Arborists have the knowledge and equipment needed to prune, spray, fertilize, and otherwise maintain a large tree. Your garden center owner, university extension agent, community forester, or consulting arborist can answer questions about tree maintenance, suggest treatments, or recommend qualified arborists.

### The PHC Alternative

Maintaining mature landscapes is a complicated undertaking. You may wish to consider a professional plant health care (PHC) maintenance program that is now available from many landscape care companies. The program is designed to maintain plant vigor and initially should include inspections to detect and treat any existing problems that could be damaging or fatal. Thereafter, regular inspections and preventive maintenance help ensure plant health and beauty. Refer to our [plant health care brochure](#) for more information.

E-mail inquiries: [isa@isa-arbor.com](mailto:isa@isa-arbor.com)

(c) 1998, 2004 International Society of Arboriculture.

UPDATED JULY 2005

## TREE VALUES

This brochure is a home owner's guide to planning for, evaluating, and reducing possible financial losses on trees, specimen shrubs, and evergreens.

### What Are Your Trees Worth?

Almost everyone knows that trees and other living plants are valuable. They beautify our surroundings, purify our air, act as sound barriers, manufacture precious oxygen, and help us save energy through their cooling shade in summer and their wind reduction in winter.

Many people don't realize, however, that plants have a dollar value of their own that can be measured by competent plant appraisers.

If your trees or shrubs are damaged or destroyed, you may be able to recapture your loss through an insurance claim or as a deduction from your federal income tax.

### Some Practical Advice

Here is some practical advice that may help you find out what your trees and plants are worth (a process known as valuation).

### Planning for Highest Value

A professional in the tree, nursery, or landscape industry can help you plan, develop, install, and care for all of your trees and plants so that each of them will be worth more to you.

### How Your Trees and Shrubs Are Valuated

Seek the advice of professionals in this industry who have developed a set of guidelines for the valuation. Such guidelines have been widely adopted in the field and are recognized by insurance companies, the courts, and, in some cases, the Internal Revenue Service (IRS).

(Continued on page 8)

## Need a Stump Crew ?

We are a dedicated  
Stump Grinding Service for  
Tree Professionals in Calgary

### Our Machines

- All self propelled and turf friendly
- 25hp Narrow access grinder (25" wide)
  - 35hp Residential grinder (35" wide)
- 85hp High production 4x4 grinder (35" wide)



**Stump  
SOLUTION**

Russell Smella  
Owner / Operator  
Cert #: PR 4868A

403.830.3459

[info@stumpsolution.com](mailto:info@stumpsolution.com)  
[www.stumpsolution.com](http://www.stumpsolution.com)

(Continued from page 7)

### What to Do If You Suffer Loss or Damage to Your Landscape Plants

A casualty loss is defined by the IRS as "... a loss resulting from an identifiable event of sudden, unexpected, or unusual nature." This definition can include such events as vehicular accidents, storms, floods, lightning, vandalism, or even air and soil pollution.

If you suffer damage to trees or landscaping from any type of casualty, first consult your home owner's insurance policy to determine the amount and kind of coverage. Contact the insurance company to have an appraisal made by a competent tree and landscape professional who is experienced in plant appraisal. Have the appraisal made right after your loss or damage.

The tree and landscape appraiser accomplishes many things for you. The professional can see things you might miss, help correct damage, and prescribe remedies you may be able to do yourself. The appraiser will establish the amount of your loss in financial terms, including the cost of removing debris and making repairs as well as replacements. All of these steps are wise investments and well worth the cost you may incur for the inspection.

### Four Factors in Professional Valuation of Trees and Other Plants

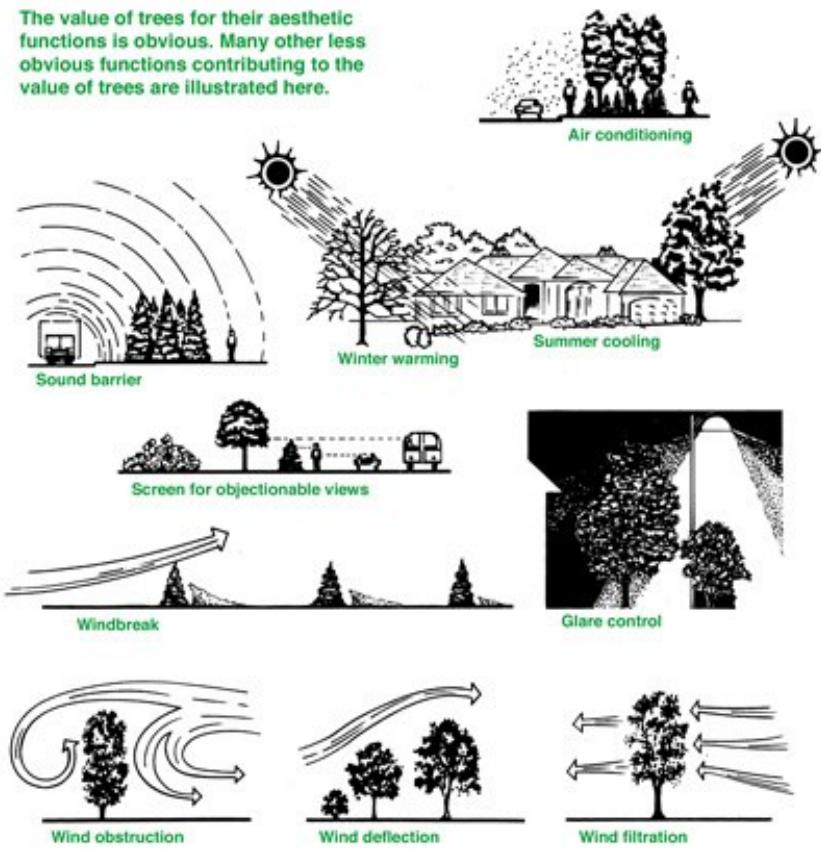
**Size.** Sometimes the size and age of a tree are such that it cannot be replaced. Trees that are too large to be replaced should be assessed by professionals who use a specialized appraisal formula.

**Species or classification.** Trees that are hardy, durable, highly adaptable, and free from objectionable characteristics are most valuable. They require less maintenance; they have sturdy, well-shaped branches, and pleasing foliage. Tree values vary according to your region, the "hardiness" zone, and even state and local conditions. If you are not familiar with these variables, be sure your advice comes from a competent source.

**Condition.** The professional will also consider the condition of the plant. Obviously, a healthy, well-maintained plant has a higher value. Roots, trunk, branches, and buds need to be inspected

**Location.** Functional considerations are important. A tree in your yard may be worth more than one growing in the woods. A tree standing alone often has a higher value than one in a group. A tree near your house or one that is a focal point in your landscape tends to have more value. The site, placement, and contribution of a tree to the overall landscape help determine the overall value of the plant attributable to location.

**The value of trees for their aesthetic functions is obvious. Many other less obvious functions contributing to the value of trees are illustrated here.**



All of these factors can be measured in dollars and cents. They can determine the value of a tree, specimen shrubs, or evergreens, whether for insurance purposes, court testimony in lawsuits, or tax deductions.

### Checklist

These steps should be taken before and after any casualty loss to your trees and landscape. Taking them can improve

(Continued on page 9)

(Continued from page 8)

the value of your investment in nature's green, growing gifts and prevent financial loss should they be damaged or destroyed.

- Plan your landscaping for both beauty and functional value.
- Protect and preserve to maintain value.
- Take pictures of trees and other landscape plants now while they are healthy and vigorous. Pictures make "before and after" comparisons easier and expedite the processing of insurance claims or deductions for losses on federal tax forms.
- Check your insurance. In most cases, the amount of an allowable claim for any one tree or shrub is a maximum of \$500.
- For insurance, legal, and income tax purposes, keep accurate records of your landscape and real estate appraisals on any losses.
- Consult your local Plant Health Care professional at every stage in the life cycle of your landscape (planning, planting, care) and to make sure you do not suffer needless financial loss when a casualty strikes.

E-mail inquiries: [isa@isa-arbor.com](mailto:isa@isa-arbor.com)

(c) 1998, 2004 International Society of Arboriculture.

UPDATED JULY 2005

VISIT US IN MILWAUKEE WISCONSIN  
AUGUST 2-6, 2014



**ISA Annual International Conference and Trade Show 2014**

Hosted by:



**2014 ISA ANNUAL INTERNATIONAL CONFERENCE AND TRADE SHOW**  
[Wisconsin Center](#)  
Milwaukee, Wisconsin, US  
August 2-6, 2014



## Advertisement for Division Manager

**ArborCare Tree Service Ltd.** is seeking an experienced, talented, and motivated operations manager to join their team as Division Manager.

ArborCare has been diligently serving clients in Western Canada since 1983 and is expanding its operations to better serve their clients.

This is a ground floor opportunity to join a rapidly expanding entrepreneurial company with its sights set high. If you are an experienced operations manager, looking for the right career opportunity – this is it.

While our immediate need is in the Edmonton, Alberta, area, candidates in the Calgary market are encouraged to apply for a similar growth opportunity.

### Primary responsibilities

- ⇒ Accountable for financial results of assigned division
- ⇒ Work with General Manager and President on the senior management team
- ⇒ Develop and execute operational and production plans
- ⇒ Develop and manage key external relationships
- ⇒ Lead and develop a team of 5-7 managers and supervisors

### Qualifications

- ⇒ Secondary education from an accredited College or University in the green industry (forestry, agriculture, environmental, or similar)
- ⇒ 10 years progressive work experience (forestry, agriculture, environmental, utility or similar service-oriented business)
- ⇒ 5 years experience managing manager/supervisor-level staff
- ⇒ Previous experience with P&L accountability
- ⇒ Previous experience in sales, marketing, or business development would be an asset

### Skills

- ⇒ Ability to develop and lead people and teams
- ⇒ Ability to creatively problem solve and adapt to change
- ⇒ Ability to produce superior results through others
- ⇒ Superior written and verbal communication skills

Please send your resume cover letter in confidence to:  
[codie.anderson@arborcare.com](mailto:codie.anderson@arborcare.com)



## Thank You Arboriculture Canada Training & Education Ltd.

Announcing the 2014 Arboriculture Canada Training & Education Ltd. "Spirit of the Competition" Prize Package for the ISA Prairie Chapter 2014 Tree Climbing Championship (TCC) event. This "Spirit of the Competition" prize kit is presented to the person who wins the vote of the TCC chairperson, judges and technicians for having the best sportsmanlike attitude and behavior throughout the duration of the competition!

### Each prize package includes:

- STIHL Hard Hat System
- \$100 gift certificate from Vermeer
- 150 ft piece of Velocity from Samson
- Gift Certificate for one free Arboriculture Canada Training & Education Ltd. -2-Day Training Module
- \$100 gift certificate from Buckingham Manufacturing
- Marvin Pruner Head, Marvin Saw Head, Saw Blade and a Freddy t-shirt.

Sponsored by:



## Product Descriptions

### STIHL Hard Hat System

STIHL has developed a comprehensive line of protective apparel for those who work with chain saws and power tools. Combined with the exemplary features found on all STIHL machines, STIHL's safety apparel provides the ultimate protection

### Vermeer \$100.00 Gift Certificate

The leading equipment supplier for professional arborists, recreational tree climbers and rescue personnel.

### Samson 150 ft Velocity Climbing Line

A new premium double braid light weight climbing line. Samson's proprietary sure grip technology gives velocity a fully broken in feel right out of the bag.

### Free Arboriculture Canada - 2-Day Training Module

The Arboriculture Canada Modules focus on a specific subject for two full days, offering in-depth training within each specific field of study.

### \$100 gift Certificate from Buckingham Manufacturing

To be redeemed on Buckingham products.

### Marvin Pruner Head, Marvin Saw Head, Saw Blade and a Freddy t-shirt.

# 1 pruner in the Professional Arborist Industry. These pruners will cut limbs up to 1 ¼" in diameter with ease. The slim design permits access to many areas not reached by more bulky pruners. All parts are replaceable. Limited lifetime guarantee.  
[www.pruner.com](http://www.pruner.com)

**The total value of this Prize Kit is approximately \$1,000**

From the Government of Canada Natural Resources Canada website

The boreal zone is the broad, circumpolar vegetation zone of the northern latitudes and one of the world's largest and most important biogeoclimatic areas.

Because forests dominate the boreal landscape, the zone is often referred to as the boreal forest in North America or the taiga in Russia. Mainly covered with cold-hardy pine, spruce, larch, poplar, fir and birch forests, the boreal zone also contains lakes, rivers and wetlands. It features naturally treeless areas as well, including alpine areas on mountains, heathlands in areas near the coasts and grasslands in drier areas.

In Canada the boreal zone stretches across the country's north, from Yukon and northern British Columbia in the west to Newfoundland and Labrador in the east. About 30% of the world's boreal zone lies within

Canada.

## The boreal zone and its forests: A snapshot

The boreal zone, and the forests within it, have long been central to Canada's natural environment, history, culture and economy.

With its extensive forests, Canada's boreal zone provides habitat for diverse wildlife. This includes half of Canada's 300 [bird species](#) and a wide range of mammals, insects, fungi and micro-organisms.

The boreal zone supplies many [ecosystem goods and services](#). It acts as a reservoir for maintaining biological and genetic diversity. It stores carbon, purifies air and water, and helps regulate regional and global climates. It also provides food and renewable raw materials for human use.

More than 2.5 million people live in Canada's boreal zone. Many of the rural and remote [communities](#) there rely heavily on the forests for jobs and economic stability. Canada's Aboriginal peoples still look to the forests for

(Continued on page 14)

1-877-268-8733



**ARBORICULTURE**  
CANADA TRAINING & EDUCATION LTD

[arborcanada.com](http://arborcanada.com)



**Specialized training, education and qualification programs.**

### Prairie Provinces - Spring, 2014 Schedule

- Hazard & Danger Tree Cutting & Falling  
March 25 & 26 (Edmonton)
- Chainsaw Safety & Cutting Techniques  
Apr. 29 (Edmonton), May 1 & July 14 (Calgary)
- Tree Pruning - Apr. 30 (Edmonton), May 2 (Calgary)
- Tree Biology & Care - Apr. 15 & 16 (Taber)
- Tree Climbing, Fall Protection & Work Positioning -  
May 20 & 21 (Calgary), May 8 & 9 (Saskatoon)
- Technical Tree Falling & Cutting  
May 22 & 23 (Calgary)
- Tree Appraisal Qualification  
May 26 - 28 (Red Deer)



**Have Fun - Learn Faster - Retain More**





## Branch vs. Trunk Wood

1. It is not known whether branch wood is weaker than trunk wood. Branches break in storms from either a downward force, twisting, or an upward force. They appear to be especially susceptible to breakage from the unaccustomed upward or twisting force than from wood weakness. Folks that study this are not clear on which is most common. What is clear is that when a branch is twisted or pushed up in the wind it can break easily. This occurs because compression wood under the branch of conifers is not strong in tension. Wood under the branch is placed in tension and breaks fairly easily when the branch is pushed up. Tension wood on top of a hardwood branch is not strong in compression so wood on top splits and fails when a branch is pushed up.



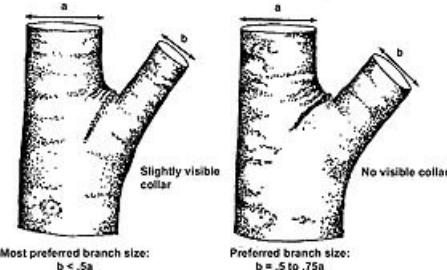
2. Branches can fail by pulling out of their sockets (left photo). This represents a weakness in the branch union, not a weakness in the wood.
  3. Branches, especially those along the lower trunk, can progressively bend under their own weight and fail (right photo).
- Summer branch drop is a phenomena known to occur on certain trees soon after a rain following an ex-



tended dry period. There are theories as to the cause of this failure. Cracks may develop along the rays and perhaps in other locations in the wood as it dries during the drought. As the tree re-hydrates after it rains, the wood becomes very heavy and can not be supported by the wood because it now contains cracks.

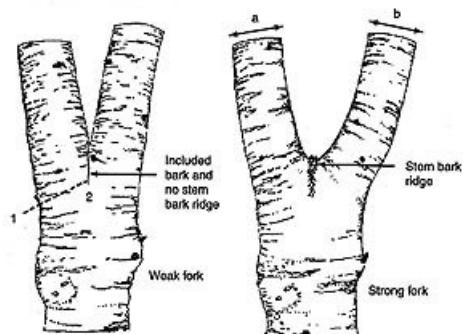
### Junctions as failure points

The points where two stems join or where a branch and trunk join can become weak under certain circumstances. The union is typically strong when the branch is small compared to the trunk. The union is weaker when stems are close to the same size. The union is weak if there is another large [branch close-by](#). Bark inclusions make the union extremely weak (**See: [inclusions](#)**).



Unions are strong because branches are small compared to the trunk. [See inside the branch union](#).

Two codominant stems



Unions are weak because stems are about the same size. The union on

the left has a bark inclusion and is the weakest of these four examples.

## Branch unions dissected

Unions on branches that remain small compared to the trunk develop overlapping wood collars (collars do not form on codominant stems). The result is a strong connection between the branch and the trunk. The photo on the right shows a union where trunk wood was entirely decayed away. The ridges of wood are the annual branch collars that formed around last year's trunk wood. There are about 11 collars clearly visible with several older collars decayed away and missing. I often use the analogy of a lag screw inserted into a piece of wood to illustrate branch connections. In this analogy the branch is the lag, the collars are the threads of the lag, and the trunk is the piece of wood. Just as it is difficult to pull a lag out of a piece of wood without unscrewing it, it is difficult to pull a branch from a trunk that is small compared to the trunk. Note that there are no collars present in the union below; that is the reason it pulled out of the trunk. Unions with [bark inclusions](#) fail in this pattern.



Dissected union.

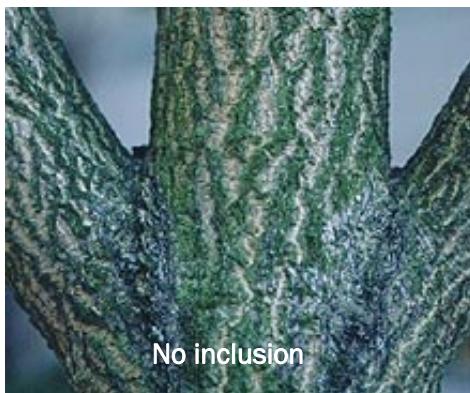
## Bark inclusions

Bark inclusions can result in cracked trunks and broken trees. There are three examples of inclu-

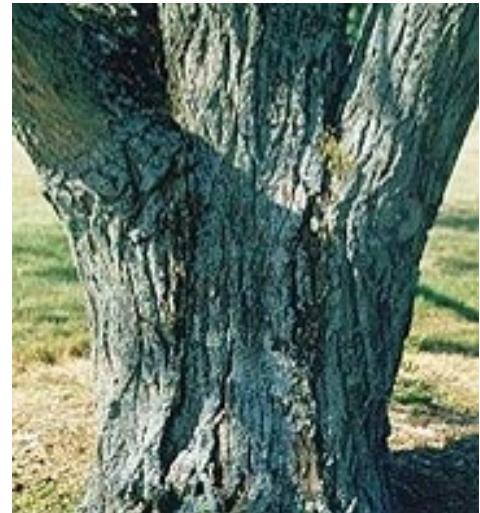


Dissected union.

sions below. The photo with no inclusion is shown for comparison. Branches with no inclusions are bet-



No inclusion



ter attached to the trunk than branches with inclusions. Drastic measures such as cabling and bracing can be taken to help hold trees with these defects together (See: [cabling and bracing details](#)). Pruning is often combined with cabling and bracing to minimize risk of tree failure.

*Illustrations, PowerPoints or photos by Edward F. Gilman, Professor, Environmental Horticulture Department, IFAS, University of Florida."*

<http://hort.ifas.ufl.edu/woody>



*(Continued from page 11)*

their livelihood and their cultural and spiritual sustenance. Boreal forests, lakes and rivers also offer unique and abundant recreational opportunities.

Although the forest industry is the mainstay of many boreal communities, only 0.2% of Canada's boreal forests are harvested each year. This percentage is small, but it is economically important for Canada, making up roughly half of the country's annual timber harvest.

Non-timber forest products from the boreal, including herbs, conifer boughs and berries, are an increasingly important contributor to local and national economies. These products make up one of Canada's fastest-growing forest export areas.

The boreal zone is further crucial to Canada's economy because of its mineral and energy resources, the hydroelectric potential of its rivers and the many options it offers for recreation and tourism.

## Facts about Canada's boreal zone and forests

- Canada contains about 30% of the world's boreal zone.
- More than 2.5 million people—1 in 13 Canadians—live in Canada's boreal zone.
- The forests and other wooded lands in the boreal zone make up almost one-third of Canada's land mass.

Close to three-quarters of Canada's forest and other woodlands are in the boreal zone.

## Managing Canada's boreal forests

Canada has a vital interest in managing its forests sustainably. Many conservation measures are used in Canada's boreal forests, including integrated land-use planning, environmentally sound forest management, and species and habitat recovery. These measures are supported by provincial and federal laws, regulations



## Career Your ~~Job~~ Starts Here!

Davey Tree is seeking experienced Arborists, Plant Health Care Technicians and Sales Arborists.

We are the largest employee-owned company in the green industry, and Canada's trusted source for complete plant health care. Our roots extend back to 1880, and we have branches from Ontario to British Columbia.

Visit [davetree.ca/careers](http://davetree.ca/careers) or call 800.465.6367 to learn more.

- Excellent training
- Career advancement opportunity
- Diverse jobs in diverse locations
- Safety as a Value Culture



*Proven Solutions for a Growing World*  
[davetree.ca](http://davetree.ca) • 800.465.6367

"Trunk injection is safe to use around children, pets, beneficial insects, birds and our environment". Grant

We at Grants Plants have developed a Plant Health Care program ( PHC ) for Lethbridge trees over the last 18 years, saving homeowners money.

We accomplish tasks at the optimum time for each pest and the host plant. We understand that the Lethbridge urban forest is a built environment and requires more diligent maintenance than other cities that are natural stands, just like our pets, cars and homes our trees need maintenance. Our free inspections are done by a Certified Tree Risk Assessor.

We at Grants Plants were the 1<sup>st</sup> company in Lethbridge to climb on rope and reduce our footprint by eliminating the bucket truck.

We also only use organic products in our Deep Root Fertilizer reducing the salts accumulated in our soils, and further more we have almost eliminated our off target chemical by utilizing Biological pest controls. This includes the introduction of Dutch trig in 2007, Bug Barrier , BTK and Microbial antagonists.

Our most recent introduction of a Health Canada approved trunk injection product comes from a tree seed extract and is formulated to last 2 years in the treated tree. A great feature of this is that the product moves back into the tree in the fall pushed by the leaf coloration process eliminating foliar contamination. The damage done to the tree in terms of area exposure is less than cutting off a 2" branch. Using this registered system with a caring, qualified professional now controls many wood boring and scale insects that we could not have before. Saving the customer's tree and potentially thousands in removal and replacement costs.

Over the years Grants Plants has supported many worthy local organizations like Children's Wish Foundation, Big Brothers & Big Sisters, Plant it Green Legacy, Community garden groups, Adopt a Park and many more.

In 2013 we were the recipients of the Lethbridge Chamber of Commerce and the Business Development Bank's Business of the Year award for "ENVIRONMENTAL CONNECTION".

Call soon, product supply is limited.

Grant



Is pleased to now offer contract  
**TRUNK INJECTIONS**  
to Tree Service Providers &  
Municipalities in Western Canada



Grant K. Colling, Licensed Applicator  
**(403) 327-9109**  
**grantsplants@telus.net**

## YOUR LOCAL SPECIALIST

Growing a wide selection of hardy shade trees as liners and larger street tree sizes



P.O. Box 402, Portage la Prairie, MB. R1N 3B7  
Phone: 1-888-857-5288 Fax: (204) 857-2877  
[www.jeffriesnurseries.com](http://www.jeffriesnurseries.com)

(Continued from page 14)

and guidelines.

Companies that harvest on public land (93% of Canada's forests are publicly owned) are legally required to ensure that harvested areas are regenerated, so that new trees become established and biodiversity and other ecosystem goods and services are maintained.

Parks and other protected areas are another key part of conservation in the boreal zone. Protected areas conserve representative landscapes across the country and help safeguard their biodiversity. They also provide important information for scientific research. Millions of Canadians turn to parks and other protected areas for recreation, from hiking and camping to paddling and wildlife viewing.

### Defining the boreal

Two boreal terms are often confused: the “boreal zone” and the “boreal forest.”

The **boreal zone** is the broad circumpolar vegetation zone of the high northern latitudes. Although mainly covered with trees, the boreal zone is more than just forest. It contains lakes, rivers and wetlands, as well as naturally treeless terrain such as alpine areas, heathlands in regions where the climate is influenced by the ocean, and grasslands in drier areas.

The **boreal forest** (singular) is a colloquial term. It is often used to refer to the overall forested area within the boreal zone, and sometimes to refer to the boreal zone itself because forests dominate this landscape. This term is used inconsistently and can lead to confusion.

**Boreal forests** (plural) is the preferred term for the forested areas within the boreal zone. Boreal forests are

made up of cold-hardy trees, many of them coniferous (such as pine, spruce, larch and fir) and some deciduous (such as poplar and birch).

### North America's boreal zone

In North America the boreal zone covers roughly 627 million hectares, over half of which (362 million hectares) is forest and other wooded land. Canada contains most of the boreal zone, 552 million hectares, including 307 million hectares of forests and other wooded land.

### Circumpolar zone

The world's boreal zone is often called “circumpolar” because it circles the northern hemisphere, forming a ring around the North Pole. Lying just south of the Arctic Circle, the boreal zone covers almost 1.9 billion hectares—more than 14% of the Earth's land cover—and represents about one-third of the globe's forested area.

The world's boreal zone spans a number of countries. Although accurate scientific calculations aren't available yet, the estimated distribution is roughly as follows:

- Russia is home to 60% of the circumpolar boreal zone. This area contains the vast majority of the country's forests.
- About 29% of the circumpolar boreal zone lies within Canada. This area includes 21% of the world's boreal forests and other wooded land.
- Scandinavian countries contain just over 4% of the world's boreal zone. After decades of intensive logging and plantation forestry, the Scandinavian boreal forests are now intensively managed secondary forests.
- The United States contains nearly 4% of the world's boreal zone, all of it in Alaska.

The rest of the circumpolar boreal zone lies within the borders of China, Kazakhstan, Mongolia, Iceland, Greenland and the French islands of Saint Pierre and Miquelon.

### Circumpolar mapping project

Scientists with the Canadian Forest Service of Natural Resources Canada are part of an international team developing a vegetation map of the circumpolar boreal zone. The [Circum-Boreal Vegetation Map project](#) will establish an important baseline against which to measure changes in the world's boreal landscapes.



# Protect Your Trees from Dutch Elm Disease



Arbotect is the only scientifically proven fungicide that provides multiple years protection from Dutch Elm Disease.

## NOW AVAILABLE

with full support from BioForest & Rainbow Treecare



## Tree Healthcare Workshops

- Learn the science of protecting elm trees
- How to market & sell tree healthcare
- Hands on Macro-Infusion training

Call BioForest today for workshop information and registration - seating is limited

Offer Expires June 1st, 2014

**Buy 3 cases of Arbotect and Get  
FREE Macro-Infusion injection system**

BioForest Technologies Inc. 1.888.236.7378 [www.bioforest.ca](http://www.bioforest.ca)





## Roots, Shoots and Suckers

A mechanic was removing a cylinder head from the motor of a Harley Davidson motorcycle when he spotted a well-known heart surgeon in his shop. The surgeon was there, waiting for the service manager to come and take a look at his bike.

The mechanic shouted across the garage, "Hey, Doc, can I ask you a question?"

The surgeon a bit surprised, walked over to the mechanic working on the motorcycle.

The mechanic straightened up, wiped his hands on a rag and asked, "So Doc, look at this engine. I open its heart, take the valves out, fix 'em, put 'em back in, and when I finish, it works just like new."

So how come I get such a small salary and you get the really big bucks, when you and I are doing basically the same work?"

The surgeon paused, smiled and leaned over, and whispered to the mechanic...

"Try doing it with the engine running."



A man and his wife walked into a dentist's office. The man said to the dentist, "Doctor, I'm in one heck of a big hurry! I have two buddies sitting out in my car waiting for us to go play golf.

So forget about the anesthetic and just pull the tooth and be done with it-- I don't have time to wait for the anesthetic to work!

The dentist thought to himself, "My goodness--this sure is a very brave man, asking me to pull his tooth without using anything to kill the pain."

So the dentist asked him, "Which tooth is it, sir?"

The man turned to his wife and said, "Open your mouth, Honey, and show the doctor which tooth hurts."

---

A tree never hits an automobile except in self defense.

**ISA Prairie Chapter Executive****PRESIDENT****Bonnie Fermanuik**

City of Edmonton

Edmonton, AB

780-496-4960

bonnie.fermanuik@edmonton.ca

**VICE PRESIDENT****Kevin Cassells**

Davey Tree

Kevin.Cassells@davey.com

780-699-2365

**SECRETARY TREASURER****Jean-Mathieu Daoust****Tree Frog Tree Care Inc.**

Calgary, AB

403-474-3764

**EXECUTIVE SECRETARY—Office business is currently conducted by volunteers, please be patient.**

Phone 1-866-550-7464

Fax 1-866-651-8423

office@isaprairie.com

**CERTIFICATION LIAISON****Gordon White**

Phone 403-899-5682

gwhite@okotoks.ca

**Provincial Directors****ALBERTA****Mimi Cole**

Rocky Mountain House, AB

403-844-3571

cole\_mimi@hotmail.com

**SASKATCHEWAN****Kelvin Kelly**

Lone Pine Arbor Service

Saskatoon, Sask.

306.361.6658

thekellys@sasktel.net

**MANITOBA****Matt Vinet**

Winnipeg, MB

204-471-8640

mvinet@greendrop.com

**Director at Large****Matt Davis**

Adair Tree Care

Ph 403.686.6030

Matt@adairtreecare.com

**Editor****Keith Anderson**

Box 757

North Battleford, SK S9A 2Y9

306-445-2679

k.v.anderson@hotmail.com

**ISA Prairie Chapter Office****Office business is currently conducted by volunteers, please be patient****Box 73 Site 19 RR#2 Strathmore, AB T1P 1K5****Phone 1-866-550-7464****Fax 1-866-651-8423****office@isaprairie.com****www.isaprairie.com****Advertising Information**

	<b>Member</b>		<b>Non Member</b>	
	Colour	B/W	Colour	B/W
<b>Full Page</b>	475	225	575	275
<b>Half Page</b>	250	125	290	150
<b>1/3 Page</b>	165	140	190	165
<b>1/4 page</b>	125	115	150	130
<b>Bus card</b>	75	55	85	65

(10% discount for ads in all 4 newsletters)

**Newsletter submission deadlines****Issue Dates:**      **Submission Deadline**

July	June 15
October	September 15
December	November 15
March	February 15

*The Prairie Arborist is published four times per year and is the official publication of the International Society of Arboriculture—Prairie Chapter.*

*Submit articles, ads, letters and written requests to:*

- **Keith Anderson**  
*Editor, The Prairie Arborist  
Box 757  
North Battleford, Sask. S9A 2Y9  
Phone: 1(306) 445-2679(h)  
e-mail: k.v.anderson@hotmail.com*

*The statements and opinions expressed herein are those of the individual authors and do not necessarily represent the view of the Prairie Chapter, ISA, or its executives.*

*As well, the advertisements do not constitute an endorsement of the advertiser's products or services.*





Contract, Tender, Hourly & Unit Pricing  
Licensed, Insured & Bonded. BC Worksafe.  
ISNetworld. COR Safety.

## TREE SERVICE LTD. COMMERCIAL RESIDENTIAL UTILITY

**ArborCare is Western Canada's Leading Tree Service**

**Company With Over 30 Years in Business.**

**CONGRATULATIONS TO OUR 2013  
NEWEST CERTIFIED ARBORISTS!**

### Utility

It was a record year for our Utility team, Josh Spitzig and Jorrie Villaneuva achieving their UTT certifications, with Bernabe Beringuela getting his UTW after the spring session. Andy Sabandal will be joining them shortly with his UTW, after submitting his hours to the IVMAA.

### Calgary

This year we had three of our Arborists earn their ISA certifications! Congratulations to Sarah Coulson, Wayne Fleury, and Lito Ricoperto who join our team of ISA certified arborists.

### Edmonton

In our Edmonton branch for 2013, we had two of our arborists obtain their ISA certifications; Congratulations to Scott Fowler and Dylan McKenzie!

### British Columbia

It's been a great season for our BC team, with both Greg Tipman and Troy Aleck achieving their Certified Utility Arborist certificates (CUA!) Another congratulations to Greg Evans who received his Appentive Utility Arborist (AUA) certifications this year as well!

**Did you know? CUA's can work Canada Wide! It's a Red Seal program allowing these arborists to work in every province for Utility work!**

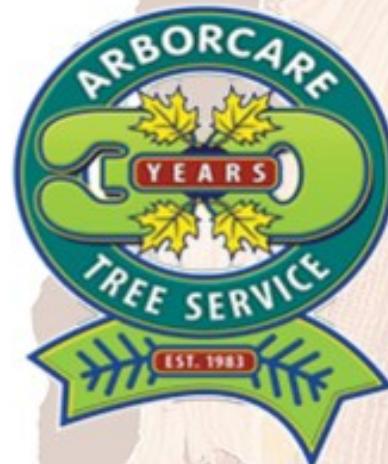
### Join Our Team of Professionals!

Year Round Work, Winter Contract Pruning  
Fleet of NEW Trucks, Chippers and Equipment  
COR Safety Certificate, Partners in Safety Program  
Office Administration and Inside Sales Team  
Professional Shop, Team of Certified Mechanics  
Environmentally Safe Products

Send all replies in confidence to Troy Miller

Please mail resumes to: [careers@arborcare.com](mailto:careers@arborcare.com)

Fax: 403-272-1536



**ArborCare is the exclusive full service dealer of J.P. Carlton Tree Equipment in Alberta and Saskatchewan.**

J.P. Carlton equipment is second to none in quality and performance. Contact Chris Gamache at 403-273-6378 for more information on obtaining Carlton equipment.



**Proudly Serving Western Canada AB, SK, BC, MB.**

**[www.ArborCare.com](http://www.ArborCare.com) 1-800-645-6533**

