



The Prairie Arborist

The Official Publication of the ISA Prairie Chapter Issue 1 2018





Get to know your Prairie Chapter Board

Well..., You all know me as Mimi, a nickname I've had since ? - being the youngest of 6 kids, you get stuck with these monikers.

Mimi Cole President

I moved to Canada in 1978, to go to college and have been here ever since - yup, I'm a Yankee (actually, both nations own me).

I have lived in all three of the western provinces but as Paul Brandt sings "I'm Alberta bound", probably till the day I die. Rocky Mountain House and area has been home for the last 28 years, a place I moved to and felt connected to almost from the beginning.

As a kid, I wanted to be a teacher or a nurse (funny, seeing as I couldn't stand looking at a cut!) so arboriculture came in a round-about way. I was hired by the town of Rocky Mountain House for the summer and part of the job entailed pesticide application - something I knew nothing about.

There were a few questions in my mind about the safety aspects, as presented by my co-worker but it wasn't until a brochure from Olds College caught my eye, advertising a tutorial/exam. I signed up, realized my concerns had been valid and looked for other training options, to complement the job. I was now doing quasi full-time (winters were spent making ice at the arena).

So while working, I signed up for, and completed the Prairie Horticulture Certificate, a wonderful program fostered by several great institutions. This got me involved with the I.S.A. and looking to work more relevantly in arboriculture. Several years later I took the job of arborist with the City of Lacombe...beautiful elms!!

I loved working in a bucket truck, hated the 1 1/2 hr. drive each way - my commitment to the community I live in is strong. So, back to Rocky...started my own little company to fulfill my passion for trees and working at the West Fraser LVL plant to pay the bills.

Thanks to all of you for your dedication in the field - each one of you is a titan, and you have my unshakable admiration.

Please keep on keeping on, for these trees need championing. And thank you for allowing me to share this with you.

M.J. "Mimi" Cole

Save the Date

The Spring Certification Exam

Is at Olds College Saturday, April 21

Room 1027 in the Land Science Building

ISA Certified Arborist, Utility Specialist, Municipal Specialist and Certified Tree Worker Written Exam

<http://www.isa-arbor.com/Portals/0/Assets/PDF/Certification-Applications/cert-Application-Certified-Arborist.pdf>

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Government of Alberta





Arborists will soon be required to be licensed in the town of Oakville.

If you are an arborist or own a tree or arboricultural company, you will be required to obtain a license starting in 2018.

At Council's direction on May 1, 2017, staff has prepared licensing regulations for arborists in Oakville.

A staff report to CSC on March 26 will present updated certification requirements and possible training opportunities for tree companies along with a licensing by-law.

What has happened so far?

In June and October 2017, town staff consulted with stakeholders and the public through open house meetings to discuss various topics relating to an arborist licensing by-law such as safety, regulations and enforcement. Visual display slides from the open house with key facts identified by staff are available for view with the public comments included.

Staff presented a report and draft by-law to Community Services Committee on January 22, 2018. The committee requested staff to report back on training possibili-

ties. A report is expected to be presented back to committee in April 2018.

Background

In conjunction with the newly implemented Tree Protection By-Law, the licensing of arborists will provide added protection to the town's urban forest and consumers.

Licensing will be similar to the licensing of existing private industries such as landscapers, pool contractors, HVAC installers and fence installers. Annual licensing of certified arborists, arboricultural companies and tree companies will help protect and enhance the town's urban forest and tree canopy and promote increased accountability of tree removal.

What is an arborist?

There are several types of services and service providers that may perform tree care within the Town of Oakville. In order to preserve the health of the current tree canopy and ensure that trees are not removed without cause there will be a requirement for arborists to obtain a license to provide their services within Oakville.

Licensing classes for arborists

There are three classes proposed that will capture the nature for the work done by arborists and their respective companies.

Know your insects



Photo is from the NET and credited to Peter Benz Landscaping

The classes are as follows:

Class A: Arborist

"Arborist" means a person trained and knowledgeable in all aspects of arboriculture and satisfies at least one of the following requirements:

Certified by the Ministry of Advanced Education and Skills Development or the International Society of Arboriculture

Currently accepted as a consulting arborist with the American Society of Consulting Arborists

Registered Professional Forester (APF) as defined in the Professional Foresters Act, 2000, S.O. 2000, c. 18.

Class B: Arboriculture Company

"Arboriculture Company" means a company with knowledge of all aspects of arboriculture and has staff holding valid certifications in the following areas:

Arborist

Certified Tree Worker

Certified Chainsaw Operator

An Arboriculture Company is able to assess health and structure of tree and conduct tree maintenance work.

Class C: Tree Company

"Tree Company" means a company capable of removing, pruning, root pruning, cabling (bracing and propping), fertilizing, planting, stumping or transplanting a tree but not able to assess the health of a tree.

A Tree Company must have staff holding valid certifications in the following areas:

Certified Tree Worker

Certified Chainsaw Operator

Once an Arborist license is issued there will be no further requirement to apply for additional licensing such as a landscaping license.

Class D: Landscaping/Tree Company

"Landscaping/Tree Company" means a company that undertakes or is engaged in the business of managing lawns/yards including but not limited to; installing sprinkler systems, building retaining walls, constructing patios, digging irrigation and drainage channels, paving or sealing paved driveway surfaces, installing stone, brick or concrete landscapes, planting shrubs, laying sod/grass, erecting fences, seasonal mowing/seeding/thatching/aeration/fertilization/raking, and snow ploughing/snow removal/anti-ice application and that is capable of removing, pruning, root pruning, cabling (bracing and propping) fertilizing, planting, stumping, transplanting a tree but not able to assess the health of a tree. A Landscaping/Tree Company must have staff holding valid certifications in the following areas:

- a) Certified Tree Worker
- b) Certified Chainsaw Operator



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This story is from the internet.

By RUSSELL MCLENDON

April 28, 2017, 7 a.m.

Just in case you're not at a computer, you can read this here but the complete and original article can be found on the Mother Nature Network:

<https://www.mnn.com/earth-matters/wilderness-resources/blogs/facts-about-trees>

It's hard to overstate the importance of trees. Their debut more than 300 million years ago was a turning point for Earth, helping transform its surface into a bustling utopia for land animals. Trees have fed, housed and otherwise nurtured countless creatures over time — including our own arboreal ancestors.

Modern humans rarely live in trees, but that doesn't mean we can live without them. About 3 trillion trees currently exist, enriching habitats from old-growth forests to city streets. Yet despite our deep-rooted reliance on trees, we tend to take them for granted. People clear millions of forested acres every year, often for short-term rewards despite long-term risks like desertification, wildlife declines and climate change.

Science is helping us learn to use trees' resources more sustainably, and to protect vulnerable forests more effectively, but we still have a long way to go.

Earth now has 46 percent fewer trees than it did 12,000 years ago, when agriculture was in its infancy. Yet despite all the deforestation since then, humans still can't shake an instinctive fondness for trees. Their mere presence has been shown to make us calmer, happier and more creative, and often boosts our appraisal of property value. Trees hold deep symbolism in many religions,

and cultures around the planet have long appreciated what a walk in the woods can do.

We still periodically pause to honor trees, with ancient holidays like Tu Bishvat as well as newer tributes like Arbor Day, the International Day of Forests or World Environment Day. In hopes of helping that spirit linger longer throughout the year, here are a few lesser-known facts about these gentle, generous giants:

1. Earth has more than 60,000 known tree species.

Until recently, there was no thorough global census of tree species. But in April 2017, the results of a "huge scientific effort" were published in the *Journal of Sustainable Forestry*, along with a searchable online archive called GlobalTreeSearch.

The scientists behind this effort compiled data from museums, botanical gardens, agricultural centers and other sources, and concluded there are 60,065 tree species currently known to science. These range from *Abarema abbottii*, a vulnerable limestone-bound tree found only in the Dominican Republic, to *Zygodophyllum kaschgaricum*, a rare and poorly understood tree native to China and Kyrgyzstan.

Next up for this area of research is the Global Tree Assessment, which aims to assess the conservation status of all of the world's tree species by 2020.

2. More than half of all tree species exist only in a single country.

Aside from quantifying the biodiversity of trees, the 2017 census also highlights the need for details about where and how those 60,065 different species live. Nearly 58 percent of all tree species are single-country endemics, the study found, meaning each one naturally occurs only within the borders of a single nation.

Brazil, Colombia and Indonesia have the highest totals for endemic tree species, which makes sense given the overall biodiversity found in their native forests. "The countries with the most country-endemic tree species reflect broader plant diversity trends (Brazil, Australia, China) or islands where isolation has resulted in speciation (Madagascar, Papua New Guinea, Indonesia)," the study's authors write.

3. Trees didn't exist for the first 90 percent of Earth's history.

Earth is 4.5 billion years old, and plants may have colonized land as recently as 470 million years ago, most likely mosses and liverworts without deep roots. Vascular plants followed about 420 million years ago, but even for tens of millions of years after that, no plants grew more than about 3 feet (1 meter) off the ground.

4. Before trees, Earth was home to fungi that grew 26 feet tall.

From about 420 million to 370 million years ago, a mysterious genus of creatures named *Prototaxites* grew large trunks up to 3 feet (1 meter) wide and 26 feet (8 meters) in height. Scientists have long debated whether these were some kind of weird ancient trees, but a 2007 study concluded they were fungi, not plants.

"A 6-meter fungus would be odd enough in the modern world, but at least we are used to trees quite a bit bigger," study author and paleobotanist C. Kevin Boyce told *New Scientist* in 2007. "Plants at that time were a few feet tall, invertebrate animals were small, and there were no terrestrial vertebrates. This fossil would have been all the more striking in such a diminutive landscape."

5. The first known tree was a leaf-

(Continued on page 7)

less, fern-like plant from New York.

Several kinds of plants have evolved a tree form, or "arborescence," in the past 300 million years or so. It's a tricky step in plant evolution, requiring innovations like sturdy trunks to stay upright and strong vascular systems to pump up water and nutrients from the soil. The extra sunlight is worth it, though, prompting trees to evolve multiple times in history, a phenomenon called convergent evolution.

The earliest known tree is Wattieza, identified from 385 million-year-old fossils found in what's now New York. Part of a prehistoric plant family thought to be ancestors of ferns, it stood 26 feet (8 meters) tall and formed the first known forests. It may have lacked leaves, instead growing frond-like branches with "branchlets" resembling a bottlebrush (see illustration). It wasn't closely related to tree ferns, but did share their method



A rendering of Prototaxites as it may have looked 400 million years ago. (Image: Mary Parrish/NMNH/University of Chicago)

of reproducing by spores, not seeds.

6. Scientists thought this dinosaur-era tree went extinct 150 million years ago – but then it was found



growing wild in Australia.

Wollemia nobilis still exists in a few rainforest hideouts, but it's critically endangered. (Photo: Wikimedia Commons) During the Jurassic Period, a genus of cone-bearing evergreen trees now named Wollemia lived on the supercontinent Gondwana. These ancient trees were long known only from the fossil record, and were thought to have been extinct for 150 million years – until 1994, when a few survivors of one species were found living in a temperate rainforest at Australia's Wollemia National Park. That species, Wollemia nobilis, is often described as a living fossil. Only about 80 mature trees are left, plus some 300 seedlings and juveniles, and the species is listed as critically endangered by the International Union for Conservation of Nature. While Wollemia nobilis is the last of its genus, there are also still other middle Mesozoic trees alive to-

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Songbirds provide valuable pest control for many trees. (Photo: Sander Meertins Photography/Shutterstock)

day. Ginkgo biloba, aka the ginkgo tree, dates back about 200 million years and has been called "the most ancient living tree."

7. Some trees emit chemicals that attract enemies of their enemies.

Trees may look passive and helpless, but they're savvier than they seem. Not only can they produce chemicals to combat leaf-eating insects, for instance, but some also send airborne chemical signals to each other, apparently warning nearby trees to prepare for an insect attack. Research has shown that a wide range of trees and other plants become more resistant to insects after receiving these signals.

Trees' airborne signals can even convey information outside the plant kingdom. Some have been shown to attract predators and parasites that kill the insects, essentially letting an embattled tree call for backup. Research has mainly focused on chemicals that attract other arthropods, but as a 2013 study found, apple trees under attack by caterpillars release chemicals that attract caterpillar-eating birds.

8. Trees in a forest can 'talk' and share nutrients through an underground internet built by soil fungi.

Like most plants, trees have symbiotic relationships with mycorrhizal fungi that live on their roots. The fungi help trees absorb more water and nutrients from the soil, and trees repay the favor by sharing sugars from photosynthesis. But as a growing field of research shows, this mycorrhizal network also works on a much larger scale — sort of like an underground internet that connects entire forests.

The fungi link each tree to others nearby, forming a huge, forest-scale platform for communication and resource sharing. As University of British Columbia ecol-

ogist Suzanne Simard has found, these networks include older, larger hub trees (or "mother trees") that may be connected to hundreds of younger trees around them. "We have found that mother trees will send their excess carbon through the mycorrhizal network to the understory seedlings," Simard explained in a 2016 TED Talk, "and we've associated this with increased seedling survival by four times."

And, as Simard recently told CNN, mother trees may even help forests adapt to human-induced climate change, thanks to their "memory" of slower natural changes in past decades or centuries. "They've lived for a long time and they've lived through many fluctuations in climate. They curate that memory in the DNA," she said. "The DNA is encoded and has adapted through mutations to this environment. So that genetic code carries the code for variable climates coming up."

9. Most tree roots stay in the top 18 inches of soil, but they can also grow above ground or dive a few hundred feet deep.

Holding up a tree is a tall order, but it's often achieved by surprisingly shallow roots. Most trees don't have a taproot, and most tree roots lie in the top 18 inches of soil, where growing conditions tend to be best. More than half of a tree's roots usually grow in the top 6 inches of soil, but that lack of depth is offset by lateral growth: The root system of a mature oak, for example, can be hundreds of miles in length.

Still, tree roots vary widely based on species, soil and climate. Bald cypress grows along rivers and swamps, and some of its roots form exposed "knees" that supply air to underwater roots like a snorkel. Similar breathing tubes, called pneumatophores, are also found in the stilt roots of some mangrove trees, along with other adaptations like the ability to filter up to 90 percent of salt out of seawater.

On the other hand, some trees do extend remarkably deep underground. Certain types are more prone to grow a taproot — including hickory, oak, pine and walnut — especially in sandy, well-drained soils. Trees have been known to go more than 20 feet (6 meters) below the surface under ideal conditions, and a wild fig at South Africa's Echo Caves has reportedly reached a record root depth of 400 feet.

10. A large oak tree can consume about 100 gallons of water per day, and a giant sequoia can drink up to 500 gallons daily.

Many mature trees require a huge amount of water, which may be bad for drought-stricken orchards but is often good for people in general. Thirsty trees can limit

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The Angel Oak, a roughly 400-year-old southern live oak on Johns Island, South Carolina, produces an impressive 17,200 square feet of shade (1,600 square meters) under its iconic gnarled branches. (Photo: Mike Ver Sprill/Shutterstock)

flooding from heavy rain, especially in low-lying areas like river plains. By helping the ground absorb more water, and by holding soil together with their roots, trees can reduce the risk of erosion and property damage from flash floods.

A single mature oak, for example, is able to transpire more than 40,000 gallons of water in a year — meaning that's how much flows from its roots to its leaves, which release water as vapor back into the air. The rate of transpiration varies during the year, but 40,000 gallons averages out to 109 gallons per day. Larger trees move even more water: A giant sequoia, whose trunk may be 300 tall, can transpire 500 gallons a day. And since trees emit water vapor, large forests also help make it rain.

As a bonus, trees have a knack for soaking up soil pollutants, too. One sugar maple can remove 60 milligrams of cadmium, 140 mg of chromium and 5,200 mg of lead from the soil per year, and studies have shown farm runoff contains up to 88 percent less nitrate and 76 percent less phosphorus after flowing through a forest.

11. Trees help us breathe — and not just by producing oxygen.

About half of all oxygen in the air comes from phytoplankton, but trees are a major source, too. Still, their relevance for humans' oxygen intake is a bit hazy. Various sources suggest a mature, leafy tree produces enough oxygen for two to 10 people per year, but others have countered with significantly lower estimates. Yet even without the oxygen, trees clearly offer plenty of other benefits, from food, medicine and raw materials to shade, windbreaks and flood control. And, as

MNN's Matt Hickman reported in 2016, city trees are "one of the most cost-effective methods of curbing urban air pollution levels and combating the urban heat island effect." That's a big deal, since more than 3 million people die worldwide each year from illnesses linked to air pollution. In the U.S. alone, pollution removal by urban trees is estimated to save 850 lives per year and \$6.8 billion in total health care costs.

There's also another notable way trees can indirectly save lives by breathing. They take in carbon dioxide, a natural part of the atmosphere that's now at dangerously high levels due to the burning of fossil fuels. Excess CO2 drives life-threatening climate change by trapping heat on Earth, but trees — especially old-growth forests — provide a valuable check on our CO2 emissions.

12. Adding one tree to an open pasture can increase its bird biodiversity from almost zero species to as high as 80.

Native trees create vital habitat for a variety of wildlife, from ubiquitous urban squirrels and songbirds to less obvious animals like bats, bees, owls, woodpeckers, flying squirrels and fireflies. Some of these guests offer direct perks for people — such as by pollinating our plants, or eating pests like mosquitoes and mice — while others bring subtler benefits just by adding to local biodiversity.

To help quantify this effect, researchers from Stanford University recently developed a way to estimate biodiversity based on tree cover. They recorded 67,737 observations of 908 plant and animal species over a 10-year period, then plotted those data against Google Earth images of tree cover. As they reported in a 2016 study, four of the six species groups — understory plants, non-flying mammals, bats and birds — saw a sig-



Trees provide food, housing and other benefits for a wide range of songbirds, like this family of black-naped blue flycatchers nesting in fork between two branches. (Photo: Super Prin/Shutterstock)

(Continued on page 10)

(Continued from page 9)

nificant biodiversity boost in areas with more tree cover. They found that adding a single tree to a pasture, for example, could raise the number of bird species from near zero to 80. After this initial spike, adding trees continued to correlate with more species, but less quickly. As a stand of trees approached 100 percent coverage within a certain area, endangered and at-risk species like wildcats and deep-forest birds began to appear, the researchers report.

13. Trees can lower stress, raise property values and fight crime

It's human nature to like trees. Just looking at them can make us feel happier, less stressed and more creative. This may

be partly due to biophilia, or our innate affinity for nature, but there are also other forces at work. When humans are exposed to chemicals released by trees known as phytoncides, for example, re-



Methuselah, a bristlecone pine, has been living in this spot for 4,848 years.

search has shown results such as reduced blood pressure, reduced

anxiety, increased pain threshold and even increased expression of anti-cancer proteins. Considering that, maybe it's little wonder trees have been shown to raise our evaluations of real estate.

According to the U.S. Forest Service, landscaping with healthy, mature trees adds an average of 10 percent to a property's value. Research also shows urban trees are correlated with lower crime rates, including things from graffiti, vandalism and littering to domestic violence.

14. This tree has been alive since woolly mammoths still existed.

One of the most fascinating things about trees is how long some can live. Clonal colonies are known to endure for tens of

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thousands of years – Utah's Pando aspen grove dates back 80,000 years – but many individual trees also stand their ground for centuries or millennia at a time.

North America's bristlecone pines are especially long-lived, and one in California that's 4,848 years old (pictured above) was considered the planet's oldest individual tree until 2013, when researchers announced they'd found another bristlecone that sprouted 5,062 years ago. (The last woolly mammoths, for comparison, died about 4,000 years ago.)



Google Image <http://www.wallpaperbetter.com/other-wallpaper/autumn-leaf-acorn-water-ground-193297>

in its ecosystem. Dead wood has huge value for a forest, creating a slow, steady source of nitrogen as well as microhabitats for all kinds of animals. As much as 40 percent of woodland wildlife depends on dead

The nuts of oak trees are hugely popular with wildlife. In the U.S., acorns represent a major food source for more than 100 vertebrate species, and all that attention means most acorns never get to germinate. But oak trees have boom and bust cycles, possibly as an adaptation to help them outfox the acorn-eating animals.

During an acorn boom, known as a mast year, a single large oak can drop as many as 10,000 nuts. And while most of those may end up as a meal for birds

To intelligent primates who are lucky to have 100 birthdays, the idea of a brainless plant living for 60 human lifetimes evokes a unique kind of respect. Yet even when a tree does finally die, it still plays a key role

trees, from fungi, lichens and mosses to insects, amphibians and birds.

and mammals, every so often a lucky acorn gets started on a journey that will carry it hundreds of feet into the sky and a century into the future.

15. A large oak tree can drop 10,000 acorns in one year.



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MICHAEL D'ESTRIES May 11, 2017, 11:44 a.m.

Just in case you're not at a computer, you can read this here but the complete and original article can be found on the Mother Nature Network:

<https://www.mnn.com/earth-matters/wilderness-resources/blogs/great-tree-migration-under-way-warming-climate>

Last summer, the popular podcast series RadioLab aired an episode that caused listeners' jaws to drop. Titled "Tree to Shining Tree," the half-hour program explored the incredible relationship between trees and the below-ground organisms they depend on to survive.

While we won't spoil some of the more incredible revelations regarding this hidden symbiosis, the takeaway is rather startling: Beneath our feet, an intelligent, multi-layered network of fungi, bacteria and other micro-organisms, collectively known as the soil microbiome, is actively influencing the leafy life we see above.

In a new study published in the journal Nature Ecology and Evolution, researchers at the University of Tennessee say these soil organisms play a critical role in influencing a naturally occurring phenomenon known as "tree migration." While many of us likely instantly picture trees sprouting legs, pulling up roots and running away, the concept actually involves the movement of tree populations in geographical space over time.

Largely, these migrations are influenced by environmental changes. With climate change heating up regions all around the world, some species of trees are traveling north to escape the heat at average rates of 62 miles a century.

In the United States, the migration is already well underway. A 2010 U.S. Forest Service study found that 70 percent of tree species are already showing tree range migration, with maple, beech and birch potentially gone entirely in the Northeast by 2100.

"One general expectation is that tree ranges will gradually move toward higher elevations as mountain habitats get hotter," lead researcher Michael Van Nuland told Science Daily. "It is easy to see the evidence with photographs that compare current and historical tree lines on mountainsides around the world. Most document that tree lines have ascended in the past century."

Get out on the (soil) highway

During their research, Van Nuland and his team discovered that the relationship between trees and soil organisms includes a migration contingency plan. To ensure that their above-ground partners can migrate successfully, these invisible biotic communities create "soil highways" to guide young trees in their move towards cooler conditions.

To prove their theory, the team collected soil from beneath a common cottonwood species at both the lower elevation it currently sits and the higher elevation it's expected to migrate to in the future due to climate change.

They then planted a number of cottonwood saplings in the soil samples and monitored their growth. As expected, trees placed in the soil near the bottom of the mountain thrived, while those in soil from the higher altitude did not. The opposite occurred for trees found at higher elevations.

"This indicates that we need to work with the trees near the bottom of the mountain, because they are the ones that will feel the most stress from warming temperatures," Van Nuland said. "So we have to figure out a way to coax them to move up."

The team concludes that the research could help scientists one day create bacteria or fungi designed to help certain species migrate at a faster rate relative to climate change.

"These results suggest that variable plant-soil biotic interactions may influence the migration and fragmentation of tree species, and that models incorporating soil parameters will more accurately predict future species distributions," they added.



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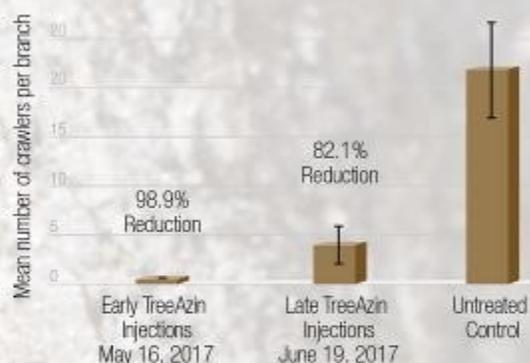
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Time to Prepare for European Elm Scale Treatments

The best time to treat with TreeAzin® for European elm scale (EES) is mid-May before female scales start producing eggs. Treat immediately post-bloom at a dose rate of 3ml/cm DBH.

TreeAzin's Effect Against EES Crawlers*



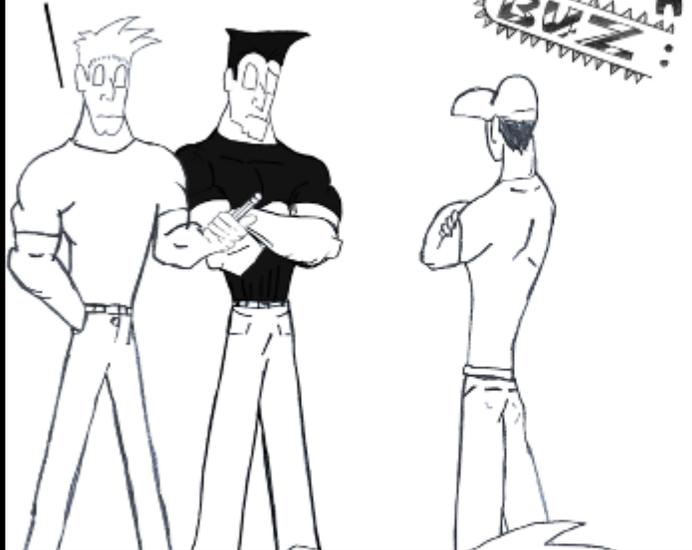
Contact BioForest at info@bioforest.ca, 1.888.236.7378 or visit Bioforest.ca to start your treatment program today.



*Trial in collaboration with the City of Lethbridge, Alberta. Photo: Joseph Berger, Bugwood.org



So we've noticed Dougie's been acting very strangely since the conference.



Yeah...Buzz'n I are kinda worried. We wanna know what your take is on this, Kurt.



Are you guys kidding me? It's been nothing but "Len" this and "Len" that.

He's even started dressing like him. I think it's time for an intervention!



It might be a little late for an intervention...

MY GOD, HIS HAIR!!

Yeah...remind you of anyone we know?



FIN

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MS 261 C-M CHAIN SAW

QUALITY AT WORK

The **MS 261 C-M** is equipped with STIHL's revolutionary M-Tronic™ system. STIHL M-Tronic™ is a fully electronic engine management system that automatically regulates the ignition timing and the fuel supply. This system ensures optimal engine performance, constant maximum speed and excellent acceleration. Thanks to STIHL M-Tronic's ability to electronically distinguish between a cold or warm start, there is now only one start position on the Master Control Lever™, ensuring that fuel flows in the exact amount required. So you don't have to worry about what operational mode your chain saw is in – with this superior technology you can power up to full speed right away. When you turn off the machine, the Master Control Lever™ automatically jumps back into the operating position thanks to the stop button function. This results in a particularly simple start after a short break from work.

- High performance engine that combines a cylinder with four-channel technology and a stratified scavenging system
- Saves up to 20% of fuel and reduces emissions by up to 50%
- Long-life air filtration system with air routing and HD2 filter element
- Professional anti-vibration system allows the user to save their strength and work longer
- Smooth, even starting with the STIHL ElastoStart™ handle and decompression valve
- Side-mounted chain tensioning screw removes the need for contact with the sharp saw chain
- Tool-less fuel cap to open and close the tank cap quickly and easily



MS 261 C-M

Displacement	50.2 cc
Power Output	3.0 kW
Weight*	4.9 kg/10.8 lb



*Excluding fuel, guide bar and saw chain.

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