

Arborescence

THE OFFICIAL PUBLICATION OF THE MINNESOTA SOCIETY OF ARBORICULTURE

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SPRING 2013



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**Want to Contribute
to Arborescence?**

MSA is looking for a few good people. Okay, not just a few. But if you are passionate about this industry and want to share that enthusiasm, we are looking for the following: writers, committee members and photo's. Please contact Heidi Van Schooten.

Arborescence

THE OFFICIAL PUBLICATION OF THE MINNESOTA SOCIETY OF ARBORICULTURE

President's Message

Jacob Ryg,
MSA President

"Life is what happens when you're busy making other plans" is a John Lennon phrase that is on my mind a lot lately. Working day to day and year to year – you slowly start to realize things like – some of those kindergarteners you talked to on Arbor Day 2004 are now driving cars and installing that old toilet on top of that dead / topped tree didn't look so good after all. It's satisfying to see that Kentucky Coffeetree that everyone in the office joked about being a "stick" now reaching 10" in diameter & 20' tall and having a respectable canopy. This is one of the reasons we have professionals in arboriculture – to help with the future urban forest and doing it properly – and it seems we'll always have "those people" that choose the way of the toilet.

I read today that Minnesota has over 9,000 fewer city / county employees than ten years ago you're your quality of life affected? Where does that figure fit into MSA and our membership? Do you value what you get from MSA? Do you think the MSA & International Society of Arboriculture (ISA) makes a difference for how you operate your business or your workplace? From my perspective, I believe we have strength in numbers (and personalities) and even if you're unable to speak your mind, we need to hear from you via letter, email, at our events or on Facebook. We're a group of volunteers that wish to take a strong stance for arboriculture in Minnesota. Please help us find the people like you that want to give back and serve our industry for the betterment of Arboriculture. With the holiday season coming and going it's time to ramp up into 2013 and please make it one of your goals to become or encourage a safer workplace for your employees and a better urban forest for our customers.

As always – I'd love to hear feedback and suggestions. jryg@rochestermn.gov or 507-328-2515

Newly Certified by ISA

Certified Arborists as of March 2013

Marcy Bean
Jonathan Bratt
Matthew Dosser
Richard Dysterheft
Mitchell Govro
Eric Hegna
Joshua Jobes

Tyler Kuske
Karl Miller
Zachary Moulton
Levi Ortmann
Jason Polley
Douglas Yetzer

Welcome New Members!

New members as of March 2013

Paul Ahlen, Rochester, MN
 Ben Bangert, City of Albert Lea, Albert Lea, MN
 Stephanie Belsha, Deuco Inc, Waukesha, WI
 John Boeder, Little Falls, MN
 Benjamin Bradford, Crows Nest Tree Svc, New London, MN
 Jeff Carroll, St. Paul, MN
 Joshua Dumler, Little Falls, MN
 Jonathan Allen Feldman, Cannon River Tree Care LLC., Nerstrand, MN
 Nicholas Fogle, Warner's Outdoor Solutions, St. Paul, MN
 Nick Fox, Wright Tree Service, Mankato, MN
 Christopher Gehrke, Greener Image Tree Service Excelsior, MN
 Charles Gill, Asplundh Tree, Circle Pines, MN
 Kimberly Goplen, Kaufman Enterprises, Inc, Eagan, MN
 Kevin Grohs, Norwood, MN
 Joseph Grossman, City of Albert Lea, Albert Lea, MN
 Timothy Hanson, Wright Tree Service Inc, Mankato, MN
 Jeffery Harris, Wright Tree Service Inc, Cottage Grove, MN
 Jonathan Heaton, Bartlett Tree Experts, Plymouth, MN
 Donna Herman, No-Stress Gardening
 Shawn Howard, Buffalo, MN
 Seth Huber, Davey Tree Expert Company, Minnetonka, MN

Ben Isder, B&M Tree Service, Pierz, MN
 Samuel James Jensch, Maier Tree and Lawn, Rochester, MN
 Sean Kopka, Bloomington, MN
 Theodore Lenneman, St. Michael, MN
 Mark Madsen, Bloomington, MN
 William Merth, St. Paul, MN
 John Olsen, Hugo Tree, Hugo, MN
 Jeff Petska, St. Louis Park, MN
 Donald Picker, Asia Tree Preservation Limited (Hong Kong), Kowloon, Hong Kong
 Darwin Phillips, Davey Tree, Mankato, MN
 Robert Raymond, Davey Tree, Eden Prairie, MN
 David Ryan, Tree ReLeaf, Green Lake, WI
 Don Roppolo, Pleasant Prairie, WI
 Ashley Steevens, Mankato, MN
 Joseph Sterbenz, Tree's Inc, Necedah, WI
 Eric Swanson, St Paul, MN
 Matthew Throngood, S&S Tree and Landscaping, Hudson, WI
 Connor Walsh, Minneapolis, MN
 Susan Wiegrefe, Mabel, MN
 R. Scott Wright, Wrightwood LLC, St. Paul, MN

ISA Update

Jim Vaughan,

Council of Representatives (COR) – MSA representative

2012 proved to be a good year for ISA and I hope for you too. Here are some of the latest and greatest highlights from ISA:

ISA or MSA 2013 membership:

If you haven't signed up for your ISA or MSA 2013 membership, please do so within the next month. Remember you can sign up for the MSA membership at the same time when you sign up for the ISA membership – one stop shopping! Again, ISA dues will increase \$5 for 2013 membership.

ISA Board nominations for 2013:

Recently 3 Council of Representative members (COR) were nominated for the 2013 ISA Board. These seats will fill 3 out of the 15 board member slots that, as per the ISA by-laws. As you may recall, the Board of Directors shall be composed of fifteen (15), full voting Directors. The fifteen (15) voting Board of Directors shall include: eight (8) Director positions filled by direct ISA membership elections; five (5) Director positions filled by election of the Council of Component Representatives; and, a President/Chair of the Board (President/Chair) and a President/Chair-Elect elected by the Board of Directors from the current Directors. If you are

interested in serving on the Board, please contact me...any ISA member can be nominated to the Board.

Partnership with ACTrees:

The ISA recently signed a Memorandum of Understanding (MOU) with ACTrees. The mission of ACTrees is to support grassroots, citizen-based nonprofit organizations that are dedicated to urban and community tree planting, care, conservation, and education. ACTrees has over 200 grassroots member organizations and partner organizations in 44 states and Canada and engages volunteers to take action to improve the environment. ACTrees has planted over 15 million trees with the help of over 5 million volunteers since being founded in 1993. (Visit <http://actrees.org/> for more information)

Annual Conference:

The 2013 ISA annual conference will be held in Toronto, Canada, August 3-7, 2013, as part of the ISA mission to expand its international membership and culture; this will be the second time within three years that the conference will be held in a country outside the United States.

As always if you have any ideas or thoughts you'd like conveyed to the ISA, please contact me.



ISA Certification

By Gail Nozal,
Certification Chair

ISA Launching Tree Risk Assessment Qualification (TRAQ) in late Spring 2013.

You may be aware that ISA will be launching a new qualifications program. This new qualification is structured as an event where participants learn in a class that is facilitated by an approved instructor. To recertify participants will need to retake the course and assessment after 5 years to re-earn the qualification. This differs a certification based on participants learn on their own through experience, take an exam and recertify every 3 years based on CEUs collected.

No events are currently scheduled. ISA Chapters will begin hosting events in late Spring 2013. MSA is looking at the program, stay tuned for future updates. Additional information can be found at www.isa-arbor.com or emailing ISA at cert@isa-arbor.com

Looking for ISA CEUs for Recertification?

MSA assigns hundreds of preapproved CEUs every year. In addition to local events there are many more CEU opportunities online as well as through ISA print publications. Visit the Maintaining Your Certification section on the ISA website for more information about where to find CEUs. www.isa-arbor.com

CEU Reminder

Don't miss out on your CEU opportunities. All meeting sponsors follow the ISA CEU protocol by making the CEU Sign in Sheets available right after the session. You will not be allowed to sign in after the sheets have been removed.



American Elm Champion Tree

Is Your Employer Doing In-House Training?

Don't miss out on the CEU opportunity. A meeting sponsor can submit an outline to the MSA Chair of Certification 30 days prior to your event. You can email outlines to gail@sstree.com for approval in advance.

Report from ISA Certification Liaison Meeting in October 2012

As a requirement of our chapter memorandum of understanding I attended the annual Certification Liaison Meeting in Champaign, IL in October. The committee discusses policy concerns that often times are forwarded to the Certification Board for consideration. The items of discussion on the table this year included; CEU Coding and Standardization; Exam Administration and Computer Based Testing, Logo Misuse, TRAQ and suggestions regarding changes to the Certified Tree Worker credential.

I volunteered to sit on a committee to look further into CEU Sheet Processing and the Certified Tree Worker Program. Typically a subcommittee works on recommendations that are sent to the Certification Board during the year or presented in the fall at the next Liaison meeting. Numbers of exams continue to be down across the country but the percentage of those taking the exam online is growing. At this time the exam will continue to be administered as it has been for both the written and computer based tests. Lastly at the close of each years meeting the committee elects a Chair and Vice Chair for the next two years.

If you have additional questions about CEU's feel free to contact Gail Nozal, MSA Certification Chair, gail@sstree.com

A big thanks to Jay Maier and Rod Rodman for volunteering to take on the role of Treasure and Secretary for another 2 year term!

MSA Winter Picnic Images



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Prevents Pine Wilt Disease 	Controls Hemlock Woolly Adelgids 	Achieves Growth Reduction Treated Untreated	Boosts Tree Health Before Treatment Two Weeks After Treatment

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2013 Minnesota Tree Climbing Championship

This year's event will be held at Hidden Falls Park, 1313 Hidden Falls Drive, Saint Paul, MN. The event will be held on Saturday, May 18th and Sunday, May 19th. The preliminary events will run on Saturday from 8am-4pm with event winners and qualifiers for the Master's Challenge event to be announced at a post event gathering. The Master's Challenge event will be held on Sunday, from 10am-2pm. The male and female champions from this event will qualify to compete in the International Tree Climbing Championships being held in Toronto, Ontario, August 3rd-4th, 2013. This is a great family event with activities for children from 10-2 on Saturday May 18th!

We are currently seeking sponsors, participants, technicians and volunteers for this event. If you or your company are interested in this event, please contact Lynn Welles at lynn@northeasttree.net or 612-910-8280.

2013 ArborMaster Climbing Kit Prize Package

The (insert chapter name) is pleased to announce the 2013 ArborMaster Climbing Kit Prize Package for the Tree Climbing Champion (TCC), held in conjunction with the chapter's 2013 Tree Climbing Championship (TCC) event.

This climbing kit is being offered to each chapter champion (both man and woman, if applicable)! The package is intended to help equip the chapter representative(s) for the International Tree Climbing Championship (ITCC) Competition.

Each prize package includes:

- Petzel Vertex Helmet with Professional Hearing Protection, Eye Protection and Climbing Gloves provided by Husqvarna
- 150' ArborMaster® Climbing Line with eye splice from Samson
- Silky Sugoï 360mm Saw
- Buckingham \$50 Gift Certificate
- OREGON® POWERsharp® Precision Saw Chain Sharpening System
- ArborMaster® Rope Friction Saver by Buckingham
- 50% savings for an ArborMaster® 2-Day or 3-Day Hands-On Training Module

Sponsored by:





2013 Minnesota Chapter Tree Climbing Championship

(Qualifying event for the ISA TCC)

Saturday and Sunday, May 18 and 19th, 2013
Hidden Falls Park
1313 Hidden Falls Drive
Saint Paul, MN



The Minnesota Society of Arboriculture Tree Climbing Championship welcomes professional tree climbers of all skill levels.



Winners will be eligible to compete at the ISA Tree Climbing Championship in Toronto, Ontario, Canada



Men's and Women's division.

Pre-registration and fee payment is required:

MSA Member: \$75

Non-member: \$115 (fee includes MSA membership, required for competition)

For further information contact:

George Welles, Northeast Tree, Inc. @ e-mail) George@northeasttree.net, ph) 612-910-8274

Lynn Welles, Northeast Tree, Inc. @ e-mail) Lynn@northeasttree.net, ph) 612-910-8280 or

Northeast Tree, Inc. @ e-mail) sales@northeasttree.net, ph) 612-789-9255



Mission Statement of the Tree Climbing Championship Committee:

To promote proper and innovative arboricultural climbing techniques and equipment through friendly competition and fun educational activities.



**Minnesota
TREE CLIMBING
CHAMPIONSHIP**
Participant Registration Form



Contestant Name: _____

Home Address: _____

City: State: Zip: _____

Residency or employment verified: _____

Phone: day () _____ evening () _____

E-Mail: _____

Employer: _____

Employer address: _____

City: State: Zip: _____

Member: Yes _____ No _____ (Participant must be a member of MSA)

Number of years climbing: _____

Have you competed in a TCC before? _____ If yes how many times? _____

T-shirt size (circle one): S M L XL XXL

Registration: Make checks payable to **Minnesota Society of Arboriculture**

Member of MSA: \$75

Non-member: \$115 (fee includes cost of MSA membership)

Send completed form and waiver to

George/Lynn Welles
MSA TCC Committee
c/o Northeast Tree, Inc.
2527 Jackson St NE
Minneapolis, MN 55418-3625

Questions? Contact George Welles @ 612-910-8274 or george@northeasttree.net; or Lynn Welles @ 612-910-8280 or lynn@northeasttree.net.

NEW THIS YEAR AT THE TCC - Open Ascent Event

Sponsored by: DMM, New England Ropes and Teufelberger.

The Open Ascent Event is an exhibition open to all registered MNTCC competitors. The Event will take place immediately following the preliminary events on Saturday, May 18th 2013.

Presented in an exciting head-to-head format, participants will ascend 15m (~50') using an ascent system of their choosing. Points will be awarded based on management of slack, backups/redundancies, speed, changeover to descent, and other considerations. This is an open division so anything goes (except free-climbing, of course!). Body Thrust? Foot Lock? Rope Walkers? Hybrid systems? Go for it!

Taylor Hamel will host this Event and award prizes to the top finishers based on the judging criteria. More information will be given to participants on the day of the Event.

Remember: The Open Ascent Event is all about showcasing different ascending systems in a fun and relaxed exhibition! Space is limited to 8 climbers. A sign-up sheet will be available on the day of the MNTCC.

MSA Strategic Planning

By Katie Himanga

MSA members met March 11 in Rosemount to do strategic planning. After looking at the current situation and thinking about the future, participants identified four top strategic goals.

Goal: Strong MSA. To accomplish this MSA will hire a someone part-time who knows arboriculture and is a good communicator. MSA will put systems in place for financial and data management, and write job descriptions for paid and volunteer leaders. The Executive Committee will make a plan for pruning things that are outdated or ineffective. MSA wants to capture its history; the stories of our older, experienced members.

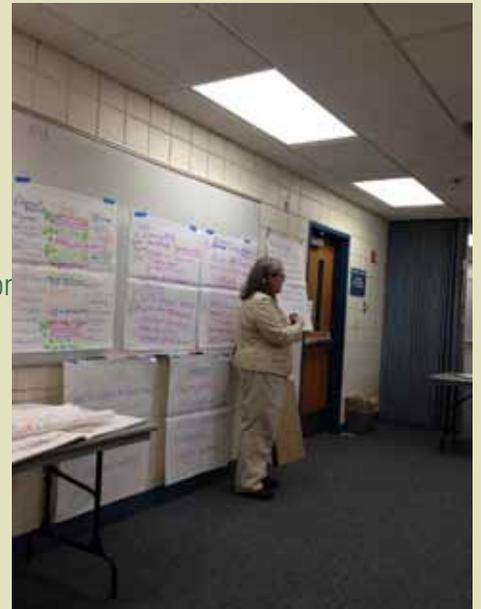
Goal: 100% student membership. Ryan Gustafson will take the lead and work with arboriculture instructors to get all students signed up for membership. MSA will try to introduce members to students by offering to provide a classroom speaker, attend a job fair, or host an event. Student members get free automatic membership. The executive committee is looking at offering scholarships.

Goal: Increased media exposure. The person hired by MSA will access more ISA resources for use in Minnesota, make better use of social media and control the message of MSA. They will promote good arboriculture and correct bad information posted by others. This person will need to be good at communicating the value of MSA membership.

Goal: Professionalism. MSA will do more networking with related green industries. It will continue to access good information and get it to members, especially information about ANSI standards.

In addition to setting these four goals, the group listed values of the organization and its vision. Values are networking, educating ourselves, professionalism, credentials, and volunteer involvement. The vision is for well cared for trees, educated public, appreciation of urban forests, healthy people and a state free of chainsaw cowboys.

For more information about MSA strategic planning, contact president Jacob Ryg at jryg@rochesterminn.gov.



Soil Compaction Influences Plant Performance

By Dr. James Calkins

Research Information Director, MNLA Foundation

Compacted soils influence landscape plant performance and should be of concern to all segments of the green industry.

Regardless of the cause, soil compaction tends to have a negative effect on plant growth and performance. In general, research has indicated that plant growth is impeded when bulk densities are greater than 1.4-1.6 g/cm³ for fine textured soils and 1.75 g/cm³ for coarse textured soils. When soils are compacted bulk density increases, soil aggregates are degraded, soil pore space and water and air infiltration are reduced, hydraulic conductivity (water movement through the soil) is reduced. Negative effects on root growth and soil microorganisms are also frequently observed and anaerobic conditions, nutrient deficiencies, and plant water deficits tend to be more common for compacted soils compared to non-compacted soils.



Figure 1. Unfortunately, soil compaction is common in disturbed landscapes; compaction should be prevented whenever possible and should be alleviated in areas where it has already occurred to avoid compaction-related effects on plant performance.

A study published in the journal *Arboriculture & Urban Forestry* earlier this year investigated the effects of soil compaction on the growth (height, caliper, leaf area, leaf dry weight, and stem dry weight) of eight maple tree cultivars commonly planted in designed landscapes; three cultivars of freeman maple (*Acer × freemanii*; 'Celzam'/Celebration®, 'Morgan,' and 'October Brilliance') and five cultivars of red maple (*Acer rubrum*; 'Bowhall,' 'Fairview Flame,' 'Frank's Red'/Red Sunset®, 'Magnificent Magenta'/Burgundy Belle®, and 'October Glory'). Freeman maple is a naturally-occurring hybrid between red and silver maple (*Acer saccharinum*). Trees planted into and grown in compacted soils (1.59 g/cm³) were compared to trees grown in non-compacted soils (mean bulk densities of 1.59 and 1.42 g/cm³, respectively).

The effects of compaction on a variety of soil characteristics were measured including bulk density, air-filled pore space, saturated hydraulic conductivity, water content and water content at the permanent wilting point (the water content of a soil when plants are no longer able to pull water from the soil and wilt and fail to recover when placed in a humid environment). The morphology of root systems of a limited number of trees grown in compacted and non-compacted soils were also subjectively analyzed. In an attempt to determine whether fertilization with nitrogen during production might influence establishment and growth of trees planted into compacted soils, half of the trees in each treatment combination (cultivar/compaction-level) were fertilized with a low or production-standard level of nitrogen (25 and 100 mg/liter) for 13 weeks prior to the start of the study.

Primary findings:

- Bulk densities were in the range expected to influence plant performance and did not change significantly during the 3-year study period.
- Air-filled pore space was significantly lower for the compacted soil compared to the non-compacted soil (4-5% and 11%, respectively).
- Although there was considerable variation, hydraulic conductivity was higher in non-compacted soil and was reduced by an average of 98% for the compacted soil compared to the non-compacted soil.
- Soil water content at the permanent wilting point was lower and available water levels were higher for non-compacted soils compared to compacted soils.
- Average caliper growth was 83% higher during the first year of the study and 22% higher during the second year of the study for trees grown in non-compacted soil compared to compacted soil; the average difference in caliper growth was reduced to 6% and was no longer significant during the third and final year of the study; there were significant differences in caliper growth among cultivars each year; height measurements varied by cultivar each year, but were not significantly influenced by any of the experimental factors.
- Although fertilization with a standard nitrogen regime prior to the start of the study (prior to planting in the field) tended to increase leaf dry weight and area compared to a lower rate of fertilization, no subsequent differences in height and

caliper growth or stem dry weight were observed.

- Although growth was reduced somewhat on compacted soils ‘Celzam’ (Celebration®) Freeman maple outperformed the other seven cultivars included in the study and ‘Fairview Flame’ red maple was also a good performer; the authors indicated both of these cultivars would be good selections for clay and compacted soils; ‘Bowhall’ red maple exhibited the slowest growth, but appeared to be unaffected by the level of compaction in the study.

Although the research focused primarily on top growth, differences in root growth and morphology were also observed. Excavated root systems of trees planted in compacted soil seemed to have produced more roots close to the soil surface while root growth was more evenly distributed within the soil profile for trees grown in non-compacted soil.

These findings further document the detrimental effects of compacted soils and the importance of preventing soil compaction and justify efforts to mitigate compaction in areas where compaction has already occurred. The results also provide cultivar-specific information regarding the effects of soil compaction on several popular maple cultivars that may be helpful when selecting cultivars for specific sites.

Those interested in more specifics and detail about this study and the reported findings should consult the published results.

Citation: Fair, B.A., J.D. Metzger, and J. Vent. 2012. Response of Eight Maple Cultivars (*Acer* spp.) to Soil Compaction and Effects of Two Rates of Pre-plant Nitrogen on Tree Establishment and Aboveground Growth. *Arboriculture & Urban Forestry* 38(2):64-74.

To comment on this month’s research update, suggest research topics of interest, or pass along a piece of research-based information that might be of interest to your industry colleagues, please email us at Research@MNLA.biz.

Featured Tree Series

By Dr. Todd P. West

Associate Professor of Horticulture, Woody Plant Improvement Program Director, Dept. of Plant Sciences, North Dakota State University, Fargo, ND

Royal Splendor® Norway Spruce - *Picea abies* ‘Noel’

Superior seedling selection of Norway Spruce growing in the NDSU Dale E. Herman Research Arboretum since 1981. It is characterized by a narrower, upsweeping branch angle than typical for the species. This results in a denser, more compact growth habit. It also has a richer, brighter, emerald-green needle color. Most importantly, Royal Splendor® is essentially devoid of drooping, pendulous tertiary branchlets which typify this species when trees reach a height of 25 to 30’. As this occurs, most Norway Spruce decline substantially in aesthetic value in the landscape. Royal Splendor® grew to 40’ tall at 30 years of age with striking, nearly perfect, narrowly-pyramidal Christmas tree form. Has shown good deer browsing resistance. An elegant specimen tree for landscapes. Propagated by side grafting. USDA hardiness zone 3.

<http://ndsuresearchfoundation.org/rfm44>





MSA
PO BOX 26151
ST. LOUIS PARK, MN 55426

Important Dates

Visit www.msa-live.org to learn more.

Arbor Day!
April 26, 2013

Tree Climbing Championship
May 18-19, 2013
Hidden Falls Park, St. Paul, MN

ISA 88th Annual Conference
August 3-7, 2013
Toronto, Ontario, Canada

Minnesota Tree Care Conference
October, 2013
MN Landscape Arboretum

TCI EXPO
November 14-16, 2013
Charlotte, NC

EXAM DATE	LOCATION
04.12.2013	St. Louis Park
06.28.2013	Cottage Grove