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care of a tree for life.



OUT ON A LIMB

SUMMER 2020, VOLUME 40, ISSUE 2



A Look Back in Your Association's History. See article & photos on page 7.

A GREAT TRIP TO HONG KONG

By: *Graham Herbst, Community Forester Specialist, University of Nebraska-Lincoln*

Hong Kong (HK) is an amazing place. From the moment I stepped off the plane, bewildered and jetlagged from 26 hours of planes and airports, it was one surprise after the next. The food, the people, and of course the trees all gave me much to think about and contributed to an amazing experience over my nine-day stay. The International Federation of Landscape Architects were launching their first International Urban Forestry Conference (IUFC) in Hong Kong and, thanks to generous sponsorship from the Nebraska Arborists Association, I was able to attend the conference while taking some time to see how arboriculture functions in one of Asia's most unique cities.

The IUFC brought in speakers from many countries to discuss how landscape architecture was shaping their futures and addressing urban challenges like population density, air quality and economic development. Day two of the conference was more specifically dedicated to arboriculture and I particularly enjoyed Dr. Duncan Slater discussing his research on branch attachment which builds on and modifies Dr. Alex Shigo's descriptions. Dr. Slater noticed that if you look closely at a branch union beneath the bark, you'll see twisting grain rather than a continuation of concentric ring structure. His work on the subject focusses on the strength that this irregular grain pattern provides in an important location of the tree. His publication and findings will be an important step in furthering tree risk management and are already refining my thinking on the subject.



Graham touring the 10,000 Buddha Monastery

Before my trip, I barely knew Don Picker, a Minnesota native living in HK for 30 years, but he's a good friend now and helped me explore Hong Kong to the fullest with the time I had. John Ball had introduced Don and I to sort out details of my trip to Hong Kong.

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Camphor Tree root structure



Camphor Tree on the edge of Kowloon Park

A QUARTERLY UPDATE OF THE NEBRASKA ARBORISTS ASSOCIATION

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SUBMIT ARTICLES:

If you have anything you'd like to submit for inclusion in the Quarterly Update, please contact Jim Keepers at jlkeepers45@gmail.com or (402) 332-0715 or (402) 618-8837.

Submission deadlines for the NAA 2020 quarterly newsletters:

3rd Quarter - September 1, 2020
4th Quarter - November 1, 2020

Photo contributions throughout
courtesy of Jim Keepers.

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FROM THE PRESIDENT

By: Jeff Grewe, NAA President



Who would have imagined that our refusal to work behind a desk under fluorescent lighting would serve us well during a pandemic where the safest place to be is the outdoors? Working in the green industry has its advantages, especially now - and while there is plenty to complain about with confusing and ever-changing regulations - we can be grateful that we are still able to work (in the great outdoors) while some of our friends and family may be laid off or furloughed.

What I am hearing from our community is that this pandemic has affected us all in big ways - albeit differently for everyone. Some of us are busier than ever, some of us struggle to find consistency, and with schools and daycare shut down some of us struggle with our new home life. One thing is true for all of us: there are no definitive answers, and there is no crystal ball. For some, fear and uncertainty is omnipresent. Now more than ever, we need to have the courage to reach out for support and ask for what we need. Now is the time to also be generous with our time and knowledge. Now more than ever is the time to find a mentor, be a mentor, and connect with others. Lend an ear or lend a hand however you can.

During these times of uncertainty, it's easy to focus on all that we don't have. Not enough workers, not enough time, not enough money, not enough opportunities, not enough toilet paper. What you DO have is an amazing network of individuals in this association whose hearts belong to trees and with decades of wisdom and experience to share with you. Reach out and grab it! Look for opportunities and silver linings. Like trees, let's bend so we don't break.

I am inspired by our industry's persistence, ingenuity and willingness to band together as "tree people" to get through this time. No matter what, the trees are here to stay, and so will be our spirits and our livelihoods.

All the best - Jeff Grewe, President Nebraska Arborist Association

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Don is the founder of the Institute for Arboricultural Studies (<https://www.ias.hk/>) based in Hong Kong, which has begun offering educational events to promote and improve the arboricultural industry in Asia. I was fortunate to be the first speaker for the new IASHK educational web series and presented on expanded site preparation for tree plantings in street medians. The 60 attendees from 7 different countries were a testament to the international connections that make Hong Kong an important hub of activity for Southeast Asians and people worldwide.



Victoria Peak, Hong Kong

A little Hong Kong history: After two intense naval battles with Britain, Hong Kong was ceded to the British in 1898 in a 99-year lease. Since the return of Hong Kong to Chinese control in 1997, the city has been governed under a “one country, two systems” policy that acknowledges overall rule by China alongside the local democratic system formed during Hong Kong’s time as a British colony. Disputes over whether this agreement has been honored by China have triggered massive protests which began in June of 2019.

The first aspect of Hong Kong that struck me was the topography. The island is very steep, with roads running along the contours and steep staircases connecting foot traffic from one road to the next. Massive stone retaining walls hold the slope in place throughout the city and many hillsides are also covered in concrete with small cutouts for the trees and shrubs growing there. With over 10 feet of annual precipitation, slope stabilization is critical, so there were many trees tagged and numbered as slope infrastructure to be regularly monitored.

In spite of all the concrete and buildings, green space is abundant throughout the island and provides a sharp contrast to the 315 buildings that measure over 450 feet tall. Hong Kong has over 17,000 people (roughly the population of La Vista) per square mile. This makes for extraordinary density that brings a tax base to public spaces that is unheard of here in the land of urban sprawl. Every park has some combination of aviaries, greenhouses, cafes, museums, fish ponds, playgrounds and more, all immaculately maintained and well-used by Hongkongers day and night. Seeing public spaces well-used and full of amenities brought a smile to my face every time.



Banyan Tree in Kowloon Park

Hong Kong’s subtropical climate produces amazing tree canopy cover that must be a real challenge to manage and care for. Huge banyan trees (*Ficus macrocarpa*) and other species) are epiphytes that germinate in the crevices of the stone walls throughout the city, creating an important component of the city’s green infrastructure. Many species of ficus produce aerial roots from their branches which grow down the face of the wall and root into the wall itself. These roots are produced in response to the tree’s need for better stability and the city will sometimes cut out parts of the sidewalk to accommodate these roots. These trees are also closely monitored and managed due to the stability issues and risk they present to people, structures and the historically important walls themselves. There are about 250 of these trees throughout HK Island. The following web site has more detail on Hong Kong trees. <https://www.greening.gov.hk/treeregister/map/treeIndex.aspx>



Can you spot the one-eyed Tree Monster on this trunk?

There are plenty of trees not growing on stone walls as well. Camphor tree (*Cinnamomum camphor*) is an important shade tree species found throughout the city. Beautiful mottled bark and strong compartmentalization of decay combine for a great set of aesthetic, environmental and management traits for an urban tree. While most of the landscape is filled with what I know as office plants (ficus, rubber plant, Norfolk Island pine, etc.), I did come across a planted stand of baldcypress in Hong Kong Park that reminded me of home.

Although Hong Kong has only been practicing modern arboriculture as we know it for a few decades, they have embraced these practices and have begun to develop strong organizations to support the industry, including the Institute of Arboricultural Studies and a Hong Kong chapter of ISA.

Hong Kong is a beautiful and truly international city. My thoughts are with the people of Hong Kong as they struggle to preserve their democratic legacy and values. I want to enthusiastically thank the Nebraska Arborist Association, ArborSystems Inc. and Arbor One Tree Service for their generous sponsorship of my trip. It is truly an honor to have your support!

ARBORIST SPOTLIGHT

By: Kathi Schildt, NAA Executive Director

Jim Keepers was born December 11, 1945, in Baltimore, MD, the youngest of three brothers. He grew up in the outskirts of Baltimore. After high school, he joined the Navy. After basic training in Illinois, he was sent to photo school in Florida and then on to the Navy photo lab in Norfolk, VA for his first assignment. It so happened that in 1967, that was also where his future wife Trish was stationed as a Navy Wave in the Norfolk Naval Air Station Photo Lab. The following year they were married and have recently celebrated their 51st wedding anniversary.

Jim spent six years in the Navy before transferring to the Air Force. In 1974, they had their only child, son Jeff. During his service time, Jim was stationed at numerous bases statewide with his family, from the east coast to the west coast, as well the midwest and Europe. Without family along, he had assignments to Thailand and Florida, each for a year. Temporary assignments took him to Southeast Asia, Africa, Europe, England and though out the United States. He directed the only photo crew present when General Schwarzkopf was knighted by the Queen of England. Jim went to Navy and Air Force schools for his photo, motion picture, and combat camera



Jim and Trish Navy Photo



Fun shot Jim cutting Sycamore Tree.

training which prepared him for his job of documenting joint worldwide military operations and contingencies. He was assigned to NKP, Thailand as a combat motion picture & still cameraman and support of the Joint Causality Resolution Center looking for remains of lost crewmembers during the Viet Nam War. He got his BA after 12 years of enlisted service and became a commissioned Combat Camera Air Force Officer. In between assignments, he went on to earn his master's degree. He was Detachment Command of the Audiovisual unit at Wright-Patterson AFB and Squadron Combat Camera Operations Officer in direct support to United States Central Command. He deployed for 365 days in support of Desert Shield and Desert Storm. He retired from United States Strategic, Offutt AFB with the rank of Major on the 1st of April (April fool's Day) 1995, after 30 years of military service.

After military retirement, he pursued horticulture studies at Metro Community College and started his landscaping business, Finders Keepers Gardening. He changed his company's name to Finders Keepers Landscaping and became a Certified NE Arborist in the year 2000. He has been an active Douglas-Sarpy Extension Master Gardener for over 20 years. Jim is chairperson of the Gretna Arbor Society (Gretna Tree Board) which promotes trees within the city of Gretna through education, tree give-away; and planting some 30 trees annually.

After 20 years in Omaha, Jim and Trish's son and family relocated to Dallas, TX for employment. Their two grandchildren are now 10 and 14 years old, so Dallas is a destination for Jim and Trish.

The Keepers reside on a small acreage in Gretna, where Jim has planted several hundred trees over the past 14 years. They share their home with their golden retriever – Sadie Sue.

In addition to his Combat Camera military service, Jim holds degrees in Landscape Design, Nursery Management and Floral Design, a BA in Criminal Justice and a Master's in Business Administration. Jim is Chairperson of Gretna Arbor Society (Tree Board), past Chairperson of the Douglas/Sarpy County Master Gardener Council, passed board member of NE Professional



Official Air Force Military Photo



Kevin, Jim & Trish receiving NAA Lifetime Achievement Award

UPCOMING EVENTS

[CANCELED] Great Plains Field Day Events

Carol Joy Holling in Ashland, NE
Wednesday & Thursday, August 12 – 13, 2020

Arborist School

Tree ID, Evaluation & Selection, Planting & Establishment Seminar

VFW Hall & Wayne Park in Waverly, NE
Thursday & Friday, September 10 – 11, 2020

Pruning, Climbing & Safety Seminar

Carol Joy Holling in Ashland, NE
Thursday & Friday, October 15 – 16, 2020

Plant Health & Tree Biology Seminar

Carol Joy Holling in Ashland, NE
Thursday & Friday, November 12 – 13, 2020



NAA Certified Arborist Photo.

Lawn Care Association (NPLCA).

Over the past 20 years as a Certified Arborist with the Nebraska Arborist Association, Jim has held multiple positions on the board including the position of President, Secretary and Treasurer.

Since 2003, Jim has been the chairperson of the NAA Winter Conference and the NE Great Plains Conference NAA Conference Committee. He worked directly with Kathi Schildt when she came on board in 2004 as NAA Membership Services Administrator and now our present NAA Executive Director.

Jim feels his major contribution to the NAA is his work on the NAA quarterly newsletter. As the coordinator of the newsletter, he has seen the newsletter change from a black and white publication to a full color issue with an up-to-date banner and color pictures assembled and printed now in the NAA office.

Jim thank you for all you have done in service to your country, and to this association and for being a friend to so many. It was an honor to present you with the 2019 Arborist of the Year award as well as the Lifetime achievement award at the 2019 NE Great Plains Conference... no one could be more deserving.



Jim exams his sunflower garden



INTERIM NSA EXECUTIVE DIRECTOR

By: Jim Keepers, Maturing NAA Newsletter Coordinator

I can hear some of you say, “why should I be interested in who is now the Interim Executive Director for the Nebraska Statewide Arboretum (NSA)” when you read the title of this article. Normally I would agree with you, but when our association is able to obtain some of the most experienced NSA tree instructors/educators in the state for our training events

for free, or at a minimal speaker fee, I feel it is worthwhile knowing who is in charge.

The new Interim Executive Director of the Nebraska Statewide Arboretum is Hana Pinneo. She is a 2012 graduate of UNL, and for the past three years, has served as Conservation Education Coordinator for the Nebraska Forest Service. She has had the opportunity to travel throughout the state to learn more about each community where the NSA has made an impact though their grant programs. Several our NAA members have stepped forward to assist their local community in the installation of NSA sponsored projects.



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Hana is working closely with Christina Hoyt, the outgoing NSA Executive Director, over the coming weeks to make her transition smooth and successful. Hana’s main goal is keeping her staff safe and keeping the NSA a strong and viable organization. Her door is always open, and she wants everyone to feel free to reach out via phone or email anytime. Her phone number is 402-472-2945 and her email address hpinneo2@unl.edu. She looks forward to connecting with all of you.

I want to leave you with closing remarks from Hana, “Thank you for your continued support of NSA, and stay healthy.”



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A LOOK BACK IN YOUR ASSOCIATION'S HISTORY

By: *Jim Keepers, NAA Newsletter Coordinator*

June 22, 2007 marked a very dark and bleak day for Nebraskans. That was the day Jim Kluck of Schuyler, Nebraska was killed in a Colorado truck accident. Jim was only 55 years of age and a Certified Nebraska Arborist and Nebraska Certified Nurseryman.

I was able to attend the Mass of Christian Burial at St Augustine's Catholic Church in Schuyler and burial at the Schuyler Cemetery. I will never forget that day because the church was packed with both Arborists, Landscapers, Nurserymen, and local residents who had a love of gardening. Jim had a special connection to his Catholic faith and the Catholic Church honored his devotion by having three different Catholic Priests officiated the funeral mass. The burial site was also packed with individuals who wanted to say goodbye to Jim.

Now you might ask why Jim had such a great impact on so many individuals throughout the state of Nebraska. As I stated before, he was an Arborist, Nurseryman, Landscaper and owner and operator of Dublin Nursery located in Schuyler, Nebraska. His nursery, established in 1979, was incredibly unique because he grew his trees and shrubs in gravel beds and then planted throughout 100 communities across the state of Nebraska. To this day, Jim's nursery was the only one of its type to have gravel beds. If Jim had the tree, and he did have many unusual trees, he was willing to go anywhere throughout the state just to plant one tree no matter the weather conditions or the time of the year.



Jim Kluck explaining the development of fibrous roots



Jim removing tree from gravel bed

Jim planted numerous trees and shrubs in parks, schoolyards, on courthouse grounds, along roadways, and other public places. He was instrumental in establishing the Railside Green Arboretum in Schuyler in the late 1980s and that site bears his name today.

Jim dedicated his life to his Catholic faith, his community, and the Nebraska Statewide Arboretum (NSA). He was on the NSA Executive Board for a number of years and always attended the Nebraska Arborists Association (NAA) winter conferences. He was the first Nebraskan to be both a Certified Nebraska Arborist and Nebraska Certified Nurseryman.

On October 21, 1989, Jim's dream grew from an abandoned dusty railbed into a beautiful official NSA Arboretum site, the Railside Arboretum, and it was named in memorial of Jim after his passing.

Jim always operated in the background and never wanted to be in the spotlight. He was always looking for unusual trees and shrubs to grow in his gravel beds. Jim received the Nebraska Statewide Arboretum (NSA) most prestigious honor, the Johnny Appleseed Award.

I don't know if we will ever find anyone in the future like Jim Kluck, who dedicated his life to the proper growing and planting of trees and have a 100% success planting rate. I must say I was incredibly pleased to have known Jim and had the opportunity to see his gravel bed method in operation. Individuals like Jim are why our Arborists Association has grown over the years and contains some very skilled and well-trained Arborists. There will only be one Jim Kluck!

Information for this article was taken from the "Jim Kluck had a Hand in Trees Across State", by Susan Szalewski, World-Herald Staff Writer and the Nebraska Statewide Arboretum



Schuyler NSA Arboritium dedicated to Jim Kluck

DEPARTURE OF A SENIOR NAA CHARTER MEMBER

By: *Jim Keepers, Maturing Certified NE Arborist*

Your Nebraska Arborists Association (NAA) was formed back in 1977 when 29 forward-looking Arborists from Omaha and Lincoln came together to form your association. These individuals set the foundation for your association and have forever more been referred to as the “NAA’s 29 Charter Members”.

I am sad to report to you the passing of one of our senior NAA Charter Members, Richard (Dick) O. Toy, who at the age of 89, died at Lakeside Hospital on Thursday the 12th of March 2020. Dick was the owner of Toy Service located in Waterloo, Nebraska.



Dick with his wife Arlene



Dick in the Marines

I had the opportunity to conduct a personal interview with Arborist Dick Toy back in January of 2012. I was researching the 29 NAA Charter Members for a dinner your association was having in honor of these members on the evening of the 6th of February at the Lied Lodge in Nebraska City, Nebraska. It was an interesting and enlightening experience to sit down with Dick and relive his experience as a Nebraska Arborist over some 50 years in the career field. The following article is based on that interview.

Richard O. (Dick) Toy was born and raised in Valley, Nebraska. At the time of our interview he wouldn't give me his date of birth but told me he was over 75 years of age. He was very proud to be one of the 29 NAA Charter Members who formed the Nebraska Arborists Association (NAA) back in 1977. He still had his 1st Class Omaha Arborist License but considered himself a semiretired Arborist. He never held an official NAA board position but was very active in the association.

He attended Valley Nebraska County Grade and High School. He joined the United States Marines in 1948 and was discharged in 1952. He was proud of his military service but didn't speak much about his time in the service. After his service time, he attended body and trade school in Omaha. His entrance in the Arborist career field happened in a very unusual way. When he was working at an Omaha gas station at 76th & Dodge St., Arborist Larry Torpy, Sr. told him about a big tree job at Offutt AFB and he needed help, so Dick decided to quit his job and become an Arborist, “whatever that was”. He gained his experience from Larry.

His Arborist experience now becomes a little cloudy. Dick and his brother Don worked together doing tree work from 1954 to 1955 but they split up and he started his own Arborist company in 1955. While running his own business, he also worked on a nine man line clearance crew for the local telephone company. He worked closely with Omaha City Forester Chuck Warren and Orville Hatcher and he received his 1st Class Omaha Arborist License from Chuck.

NAA records don't reflect when Dick was awarded his NAA Arborist Certification, but to NAA Arborist John Housley, anyone who had a City of Omaha 1st Class License was awarded the NAA Arborist Certification. He did remember helping Arborist Terry Hughes get started in the Arborist trade. He told me a story he still remembers to this day of helping Terry Hughes clean up brush. While they were hauling it away, they lost the load at the corner of 72nd and Western Streets. They had no chippers in those days, so they dumped all the brush and tree waste in any open ravines they could find. Dick remained close friends with Terry and his wife Gayle Hughes until his passing.

During the interview, we talked about what it was like to be a climber in those early days. Dick told me climbers were more daring and there were no buckets or lifts to allow them to work in the trees. Also, the safety requirements when it came to securing themselves in the tree were very limited. In addition, large (big) chain saws were used in the trees, and this made the work very dangerous. Dick bought his first lift in 1967. His first tree spade was bought in 1971 and it was a 66-inch spade. He believed it was the first one in Omaha and it could have been the first one in use in the state of Nebraska.



Dick receiving his NAA Arborist of the Year from NAA President Robert Smith

He worked closely with Ray Enfield, John Housley and Terry Hughes over the years. Dick told me in the 60s and 70s, the Arborist trade helped each other out. It was almost like a brotherhood and Dick was one of the brothers. They educated each other, hired each other, loaned each other equipment and taught each other how to use the new Arborist equipment. John Housley told me Dick Toy was always willing to help anyone in the Arborist trade.

Even though Dick didn't hold an official NAA board position, he conducted numerous Arborist training sessions during those early association years. His main business in and around the Omaha area was spraying, pruning and removal of trees, and planting of trees. During his

semi-retirement years, he did mostly stump grinding. Dick was an associated member of the Valley Nebraska Tree Board and he was a great source of knowledge for the Board when it came to tree planting and removal. Because of his efforts, the City of Valley did receive the Nebraska Arbor Day Foundation Tree City USA Award.

Dick married his lovely wife, Arlene Carol, while he was in the Marines and had been married just three weeks short of their 45 anniversary before her passing.

Dick was recognized for his service to your association, his local community and the greater Omaha area with the award of the Nebraska Arborists Association 'Arborist of the Year' for 2012. I was pleased to be the one that nominated Richard (Dick) O. Toy for the NAA Arborist of the Year. I was fortunate to have the opportunity to interview Dick and learn a little about the history of the NAA. Each year, we seem to lose more and more members of the unique group of the "29th NAA Charter Members" who stepped forward to form your association. Let us not forget men like Dick Toy and the foundation they established for our association.

Reichmuth Funeral Home in Elkhorn, Nebraska is caring for Dick's family needs at this time. A memorial service is scheduled to take place at the funeral home on the 24th of July at 10am. Please check the funeral home's web site to confirm the date and time of the service.



Dick thanking NAA members for the Award

CANADIAN COMPANY'S SUPPORT OF THE NAA

By: Jim Keepers, Maturing Certified NE Arborist

In the fall of 2010, I had the opportunity to attend my first ever TCI EXPO in Baltimore City hosted by the Tree Care Industry Association. I wanted to attend this event for personal reasons. I was born and raised in and around Baltimore City and it had been years since I had been back to their Inner Harbor. When I left Maryland and joined the Navy in 1965, Baltimore's Inner Harbor was a garbage dump. I had heard it had become a tourist attraction and I wanted to see it myself to see how it had changed.



Atlantic Braids Logo

I was very much impressed with the Inner Harbor, and more blown away with the TCI EXPO. While visiting the hundreds of exhibitors on the convention floor, I stopped by Atlantic Braids and started up a conversation with the company's president. Since that chance encounter, Atlantic Braids has been a loyal supporter of the Nebraska Arborists Association's (NAA) silent & live auctions. They have been the only rope company in the industry to donate to our conference auctions since 2010. I felt it was time to repay their generous support by writing up a few words about their company. After talking with Atlantic Braids' Vice President, Patrick Santusano, I felt I had enough information about the company to write up an intelligent article.

Atlantic Braids LTD (ABL) is a Canadian manufacture of premier quality synthetic cordage/rope since 1976 and supply their rope products to customers around the world. Their customers include Arboriculture, Mining, Marine and Utility, and everything in between. Their mission statement is "Providing superior products, exceptional service with the cordage industry's best lead times".

For all the customers they service, they hold a special place in their hearts for Arborists and Utility Linemen. They take their production of rope very seriously and their customers can confidently and safely use their ropes hundreds of feet off the ground. They test what they make in-house and they live and breathe "Quality". ABL is a long-standing and active member of the Cordage Industry.

It is a private, family owned and operated company. ABL provides its rope products to some of the Arborist industry's best-known company's like SherrillTree, Tree Stuff and Tree Climb Japan. Their extremely popular static Kernmantle climbing line, known as Aya, was first marketed in Japan, and in 2019 they developed their own brand and line of products for the United States and Canada. We were fortunate to have some of these ropes in our 2020 NE Great Plains Conference silent auction.



Atlantic Braids rope producing machine.

So, you can see why the NAA has worked so hard to continue this relationship with ABL. This article is in no way an endorsement of ABL but just a way to say thanks for their support of the NAA's silent and live auctions over the past ten years.

WOOD MULCH & ARBORICULTURE

By: Jim Keepers, NAA Newsletter Coordinator

The development and use of wood mulch has greatly changed our Arborist career field over the past 50 years. When I interviewed Richard (Dick) Toy, Nebraska Arborists Association (NAA) Charter Member and NAA Arborist of the Year and Terry Hughes, NAA Arborist of the Year and NAA Lifetime Achievement Award winners, they both told me there were very few chippers being used on the job in Omaha/Lincoln. The standard procedure they followed when cutting down a tree was to find a large ditch to dispose of the waste materials. Nothing was brought back to the marshaling yard so there were no wood chips to turn into mulch. Things sure have changed over the years and we are now taking the waste wood product and turning it into wood mulch and selling it to our customers. Let's take a look at how our wood chips have developed into a money-making product.

"A wood mulch is a layer of wood material applied to the surface of the soil." It is normally applied in rings around trees and shrubs, and in planting beds and vegetable gardens. We are talking about an organic product, not rocks, rubber, or other manufactured mulch products. The major reasons for using wood mulch are the following: 1. It conserves soil

moisture. 2. Improves the fertility and health of the soil. 3. Reduces the weed growth and lastly 4. It enhances the visual appeal of the planting area. One point to remember, wood mulches applied to the top of the soil won't reduce

the nitrogen in the soil but it will reduce soil nitrogen if it is mixed into the soil. A fact stated by Dr. Michael Raupp during his keynote presentation at the 2020 NE GREAT PLAINS Conference.



1200 cubic yards of coarse wood mulch ground up from sawmill wood byproducts.

So let's answer the first simple question as to where wood chips come before we discuss this subject in more detail. Wood chips are a byproduct of pruning or removal of a tree. Normally this is accomplished by Arborists, utility crews, city maintenance crews, homeowners or individuals (who have no reason to be doing any type of tree work) in the field. Additionally, wood pallets are also ground into chips and these are usually a very coarse material. The basic Arborist process is to dispose of the wood chips and bulky wood waste at a disposal site. Wood chips are rather coarse and tend to be used as a mulch in parks and not formal landscapes. The chips are also used to mulch trails because they don't decompose rapidly because of their size.

Mulch has been used for thousands of years around our trees and shrubs. The general consensus is the word mulch comes from the German word "molch", meaning soft; beginning to decay. Early gardeners used straw and leaves to spread on the ground to protect tree and shrub roots after they were planted. Records show Seaweed was one of the first plants to be used over 2,000 years ago as mulch. Over the years, the materials used as mulch have changed to most any type of material that will keep the weeds down, even carpet squares.

To have wood mulch, you must have a machine to produce the raw product wood chips. The first wood chipper was invented in Maashull, Germany, in 1884 by Peter Jensen, and it was called the "Marke Angeln". The wood chipper didn't enter the commercial Arborist market until the 1950s with the invention of the high speed drum chipper. Vermeer built their first brush chipper, the BC 1600, in 1978 and sold hundreds in the first year. Since then, the chipper has been redesigned to include the drum, disk and screw chippers used in the field. Larger and more technical tub and drum grinders have been developed to be mobile and taken to sites such as Christmas tree disposal sites, field operations to chip up entire trees, or set up at the mulching area to accomplish the chipping and start the wood mulching process. Another outgrowth of the wood mulch process is the establishment of wood disposal areas at mulching locations. Wood waste from tree removal is no longer dumped in a ditch, but is taken to a recycling area. Often times a dumping fee is being charged - another profit avenue developed from a waste product.

Who invented the idea of turning wood chips into wood mulch? It all started with the Clean Air Act of 1970. Sawmills were creating too much air pollution by burning their sawdust. To correct this problem, the National Forest Service conducted a study and came up with a solution; sell the sawdust, eventually called mulch, to homeowners to use on their lawns. From this action,



Tree trunk broken off at the base because of volcano mulch.



Properly mulched tree ring with 2 to 3 inches of wood mulch



Improperly tree ring mulching using the Volcano method.



Red dyed wood mulch commonly used in Nebraska

arborist companies had enough foresight to move into the wood mulch business.

During my wood mulch research, I was unable to find who came up with the idea of taking wood chips and changing them into wood mulch and selling them as a product. I do know there are a number of Arborist and Nursery companies in the state of Nebraska who have devoted part of their business to the creation of wood mulch. They are able to deliver anywhere from 25 to 1,200 cubic yards of wood mulch to almost any location. Our local box and hardware stores have gotten into the business of selling wood mulch as well.



Finely graded wood mulch ready for sale



Wood waste at the marching yard

Arborist wood chips have gone from an unwanted by-product, looking for a disposal site, to a desirable, resale product being sold by the bag or the cubic yard, picked up or delivered to the work location. This byproduct of the Arborist's trade has become a valuable commodity.



Rough mulch being regraded and screened



Tub grinder operating in the field

Wood mulch is available in several varieties and colors. I am selective when I buy wood mulch by the bag because some are so coarse, they take a long time to decompose. Others are so fine, they will bind together, hindering the flow of water

to the plant roots. The standard colors are red, brown and black. Tests show the mulch colorants are not a threat to the environment, to people or to pets. The dyes used on the mulch are the same used in the cosmetic and manufacturing industries. Color mulch can be used in the same locations as non-color mulch and has the same benefits as standard mulch. A sprayed dye can be used to restore the color of the mulch. One new additive to wood mulch is pre-emergent, which provides the benefit of two agents suppressing weeds.

There are some poor-quality wood mulches available as well. The major problem lies in the quality of the wood being used to make the mulch. Instead of using tree parts, other wood products are being ground up to make the mulch. Another major drawback is using wood mulch from trees having Verticillium wilt. The wilt can be transferred to other trees if the mulch is applied around trees susceptible to the wilt.

Proper application of wood mulch in the tree ring around the tree is a major issue. One of the most common problem is mulch volcanoes. The wood mulch is piled up in a volcano form around the base of the tree. Last, but not least, the thickness the wood mulch around the tree trunks and shrubs is another issue. The thickness of the mulch is a critical issue. The mulch should only be 2 to 3 inches thick and be kept 2 inches from around the tree trunks and the shrub bases. Wood mulch around a plant's trunk or base will cause a disease problem Also, a thick wood mulch covering will cause the roots to grow up into the mulch. Mulch also needs to be refreshed yearly.



Wood chips being created in the field

In conclusion, wood mulch applied and maintained properly will be a great benefit to the growth of the tree roots underneath. Studies have shown trees and turf grasses are not compatible and they both compete for the nutrients in the soil. A large wood mulch ring around the tree trunk that is expanded each year is one of the best methods to encourage good tree root growth.

CERTIFICATE OF LIABILITY INSURANCE

All Certified Nebraska Arborist are required to provide a "Certificate of Liability Insurance" when it is time to renew your Nebraska Arborists Association (NAA) Certification and your City of Omaha First- or Second-Class Arborist License.

All you need to do is contact your insurance company and have them send a "Certificate of Liability Insurance" to the following: City of Omaha kaylynn.collins@cityofomaha.org. The contact person at the City of Omaha is Kaylynn Collins at 402-444-6733. The other certificate copy is sent to the NAA Office staff@nearborists.org. Contact individual at NAA is Kathi Schildt at 402-761-2219.

A SPECIAL OR UNIQUE TREE

By: *Jim Keepers, Maturing Certified NE Arborist*

Let's start the year off with a very common but hardy tree, the Northern Common Hackberry, *Celtis occidentalis*. The Society of Municipal Arborists has even chosen the Hackberry as its 2020 Urban Tree of the Year. So, you can see, this tree is receiving the recognition it truly deserves.

This tree is related to the elm and has an elm tree form. It is medium-sized, growing 30 to 50 feet in height with a round-topped head and pendulous branches. Now, hold onto your socks, because in the Southern Mississippi Valley, the record Hackberry is 130 feet! That is a tall tree. The tree prefers moist, rich soil, and under these conditions, its fibrous roots grow rapidly. I am always asked by my clients how long a tree will survive. In good growing conditions, the Hackberry can live 200+ years, thus it will be enjoyed by many generations.

The grayish, cork-like bark has wart-like bulges jutting at sharp angles on the tree trunk. For those scientific buffs out there, these are called protuberances. For those common Arborists like myself, I have a new word to impress my clients when I am talking about this tree.

While its narrow leaves are developing in the spring, the Hackberry begins opening its small flowers. The trees produce exceedingly small fruit that is enjoyed by many species of birds. The tree is also a great food source for caterpillars. It is not particularly colorful in the fall.

The wood of the Hackberry is not valuable in the lumber trade because it is quite soft. This causes horizontal branch breaking problems at the trunk when there is a heavy snow load. The tree does have a major unsightly problem in which lumps form on the leaves. This is known as nipple gall. The galls on the leaves have no effect on the tree's ability to accomplish photosynthesis.

The Hackberry tree has some major attributes as well. It is easily transplanted, does not require a lot of water, and is drought tolerant. The Common Hackberry is a great shade tree as well. It serves as a wonderful windbreak and holds its leaves well into the winter. I planted my trees in our windbreak and they have done very well. I must say it is "one tough tree".

I normally only address one tree in this article, but since I do have two of these trees in my windbreak, I would like to give you a little information about a cousin of the Northern Common Hackberry, the Sugarberry Tree or Sugar Hackberry Tree, *Celtis lawvigata*. It is the southern version of the Common Hackberry. Its leaves are very narrow, and its bark is light gray and not very corky. It has more of an upright branching structure. The lower limbs are very unusual and are difficult to describe. I have included a picture so you can see for yourself. This tree is normally found in moist-to-wet soils. It is less winter hardy in our area, and it normally lives for about 150 years. The fruit (drupes) of both trees are the same, starting out blue and then turning red when ripe.

The wood of this tree is harder than the Common Hackberry and is used for furniture and plywood. In the past 14 years, I have never experienced any branch breakage on my two Sugarberry trees because of snow loads. One last quality of the Sugarberry is that it has virtually no gall problems on its leaves. At least my two trees have never shown this problem.

This fast-growing species can withstand strong winds, drier and higher pH soils, and air pollution described as "one tough tree" by the Arbor Day Foundation. I recommend planting either, or both, the Common Hackberry, or the Sugarberry Hackberry in



Stately Hackberry in winter



Hackberry coming to life in spring



Hackberry new leaves emerging in spring



Hackberry gall on leaves



Hackberry trunk bark



Sugarberry trunk bark



Sugar Hackbrry branching structure

YOU MUST TRACK YOUR CONTINUING EDUCATION UNITS (CEUS)

By: *Jim Keepers, Maturing Certified NE Arborist*

As a Certified Nebraska Arborist, it is your responsibility to maintain 30 hours of professional related ‘Continuing Education Units’ (CEUs) over a three-year period. Certified Arborists receive a three year ‘NAA Opportunities Form’ tracking sheet upon initial or renewal certification and it is your responsibility to track all your CEUs. CEUs are offered at one credit per hour of actual seat time. For example, a two-hour course receives two CEUs.

All NAA events are automatically approved for CEUs and the NAA office will record these hours in your records. If you attend any other educational events or approved ISA courses, it is your responsibility to notify and provide the NAA office with documentation, including proof of attendance and number of CEUs you are requesting. This information will then be filed in your Arborist Certification Folder but not saved in the NAA database. You must record all CEUs you have accumulated on the NAA CEU Opportunities Form.

Please review the ‘NAA CEU Opportunities Form’ yearly to make sure you are on the right path to achieving your required 30 CEUs within the required time period. If you find yourself in a situation where you might be short on CEUs, you can contact the association office prior to renewal time to discuss options. Do not wait until the end of the three-year period to check on your CEU status. Remember, it is your responsibility to maintain an up-to-date listing of the training classes you have attended.



Lon Nutter teaching a safety class during the NAA Arborist School

We do not want any Certified Nebraska Arborist finding they are short CEUs and face the possibility of losing their NE Arborist

Certification. It takes a good portion of your time and effort to become certified, and I would hate to see you faced with that possibility.

COVID-19, NOVEL CORONAVIRUS PANDEMIC

BY: *Jim Keepers, Senior Maturing Certified Nebraska Arborist*

Over these past few months, I have been faced with this very deadly enemy Novel Coronavirus, COVID-19. I have reached the point I am tired of hearing I am vulnerable to this disease and should shelter in place. I have decided to spend more of my time with the trees. To my fellow Arborists in my same age category, I would like to give you some reasons why trees are so important to us in our maturing senior years.

Exposure to trees will boost our immune system. They will lower our blood pressure and help reduce our stress. They will help improve our mood and increase our ability to focus. Being around trees will increase our energy level and allow us to sleep a little better at night.

So get out there and spend more time talking and listening to trees and forget about all the gloom and doom you hear on the news. I look forward to seeing YOU all at the 2021 NEBRASKA GREAT PLAINS CONFERENCE!

NEW MEMBERS

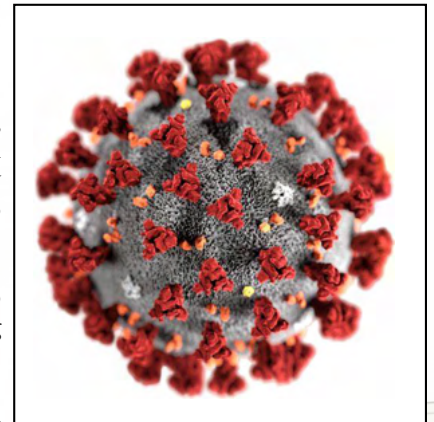
**Evan Arellano
Jerry Imig**

NEWLY CERTIFIED ARBORISTS

**Anthony McLarty
Evan Arellano
Grant Foster
Shaine Rothmeyer**

NOTICE:

The NE GREAT PLAINS SUMMER FIELD DAY has been canceled. A decision has not yet been made regarding the NE GREAT PLAINS CONFERENCE.



UNDERSTANDING GROWING DEGREE DAYS

By: David Olson, Nebraska Forest Service, Forest Health Specialist

When it comes to properly managing insect pests, timing is often of critical importance. Treating too early or too late can reduce the efficacy of the product or even potentially have no impact. One tool often employed by biologists is counting the accumulation of what are known as growing degree days (GDD).

Simply put, growing degree days are a way to count the amount of time spent within a certain temperature range. Insects rely on the surrounding temperature in order to complete their different life cycles. Commonly, for an insect to begin maturing and becoming active in the spring, temperatures must be at 50 degrees Fahrenheit. If the temperature drops below this point, then no progress is made. However, each degree over this threshold also speeds up development, so insects will mature faster in warmer environments until they hit an upper threshold (usually in the upper 80s or higher).

Different models exist to estimate the number of GDD accumulated, since environmental conditions can greatly impact what the actual temperature was in the course of a day. As such, degree day models are less effective in certain parts of the world, and insects often have their own range even within species. Nevertheless, growing degree days provide a great tool for helping to predict emergence of many pests as well as treatment times and surveying efforts.

Table: Growing degree days as of May 8th, 2020 generated using a single sine curve model. As we move into summer, degree days will accumulate far more rapidly than they do in the spring.

Example: Bagworms emerge between 600-900 GDD, which usually falls at the end of May or in early June.

City	GGD as of May 8th 2020
Beatrice	358
Chadron	206
Columbus	307
Falls City	409
Grand Island	372
Kearney	290
Lincoln	335
McCook	420
Norfolk	297
North Platte	333
Omaha	390
Ord	277
Scottsbluff	294
Valentine	303

EMERALD ASH BORE TREATMENT

Justin Evertson, Shady List Server, Nebraska Forest Health Report May

As ash trees begin to leaf out, it will soon be an appropriate time to start injection or bark spray treatments for EAB. Likewise, the soil drench method will become less effective as the leaves fully emerge. Soil drenches for trees under 15 inches in diameter are normally done when the tree has started but is not yet fully leafed out. Basal bark sprays and injections are done shortly after the tree has fully pushed out its new leaves. Homeowners are reminded that injections require an applicators license and should only be done by professionals. Also a reminder that treatments for EAB should not be applied unless EAB is officially confirmed within 15 miles of the tree in question. Treating trees before this criteria is met is a waste of money, can be harmful to the tree, and may unnecessarily introduce harmful insecticides into the environment. Most EAB treatments will not be effective in treating native ash pests such as lilac borer, longhorned beetles, or carpenterworm.



ARBORIST TIDBITS

Anthracnose on trees – Usually seen in early summer, but with the wet weather the fungi will continued to be active. Can be controlled by foliar spray.

Early Fall Coloration on Trees – trees have gone into stress because of weather conditions or over watering. Also, shorter days, and temperature differentials between day and night affect fall coloration. The chilly nights help to promote early fall coloration.

Galls on Oak Twigs– These galls are on the twigs not leaves. Their growth can cut eventually off the vascular system. This is caused by a Cynipid Wasp which is a beneficial predator. Control by pruning off branch. Chemical control is not effective on wasps.

Oak Twig Girdler. Oak Twig Girdler (*Agrilus angelicus*) is a small, slender, bronze-to-black beetle that emerges from May to September and deposit eggs on twigs at the junction between current and previous year's growth. Larvae hatch and bore into twigs. As they grow, they mine spirally so terminal clusters of dead leaves ("flags") appear in August and September. During the next year, larvae continue to mine deeper into twigs and complete development, pupating in the fall. While damage is obvious, it is rarely severe, and there is no need for control efforts.

Information obtained from *Extension Weekly Update*, Sept. 14, 2009

UNIQUE GROWING & PLANTING SYSTEM

By: *Jim Keepers, Maturing Certified NE Arborist*

In my “A Look Back In Your Association’s History” I featured James (Jim) Kluck, Certified Nebraska Arborist, Nebraska Certified Nurseryman, and owner and operator of Dublin Nursery, Schuyler, Nebraska. If you only have a few minutes to skim over this issue, please take the time to read about Jim Kluck, a very special Nebraska Arborist.

One of Jim’s remarkable accomplishments and lasting memories will be his establishment of the first and only tree gravel growing beds, along with his unorthodox tree planting methods. These two unique tree-related methods allowed Jim to grow and plant deciduous trees all around the state of Nebraska during the entire growing season and under some very harsh conditions.



Fiberious roots

The gravel planting bed’s main purpose is to increase the fibrous root systems of bare-rooted trees and shrubs so they can be planted at a later date. One disadvantage of bare root trees is they can only be obtained in

the spring. If you don’t get them planted as soon as they arrive, you must wait until next spring for a new shipment from the grower. Healthy, fibrous tree roots are so important, but clients often spend most of their time looking at the top growth of the tree and are not concerned about the tree’s root system. Fibrous tree roots are the life blood of a newly planted tree. Trees having poor root systems often fail after planting. On the other hand, trees grown in gravel beds have a 100% survival rate.



Removing a tree out of the gravel bed



Jim Kluck explaining the new root system to Justin Evertson

When planting Baled & Burlap (B&B) trees, you are paying for a lot of dirt and leaving most of the tree roots back in the ground. Container trees have less soil, but there is always the problem of girdle roots because the tree is left in the container too long. RootMaker containers and bags help encourage the tree’s root development, but there are still problems if the trees are left too long in the growing container. Bare root trees grown in gravel beds have superior fibrous root structure. They’re easy to transport and ready to plant without spending a lot of time digging the planting hole and transporting large amounts of soil.

How does a gravel bed work? Essentially the bare root stock is placed in an irrigated pile of gravel with an underground watering system. The underground irrigation system allows you to control the amount of water needed using a timing system. You are able to provide even watering of all the roots, and fertilization if needed, thus increasing the quality of the tree’s root system. Trees can be held longer and can be planted throughout the growing season. You can allow the trees to over winter in the gravel bed, but by next spring, you must remove them as the root systems will have grown quite large. One restriction is the size of the gravel bed you want to create. By planting bare root trees in

a gravel bed, you’ll acquire savings in time, people and machinery, both in the establishment of the trees, their removal, and planting in a landscape. I have seen Jim remove trees out of the gravel bed using a skid loader, wrap the roots in plastic, cover the plastic with straw and plant a tree when the temperature was in the 90s. As you can see, there are many advantages to establishing a gravel bed and planting bare root stock in the bed for future planting. Research studies have been conducted to see if 2” caliber trees could be removed from a gravel bed and planted during midsummer, and they have had 100% survivability.



Jim Kluck holds a tree that had produced a tremendous fibrous root growth in only one year

I had never seen Jim’s unique gravel tree planting system method before until he introduced it to me when he planted trees in one of Gretna’s park. Jim used the stump grinder method to dig the hole. With this method, he was able to dig a hole wide enough to allow the fibrous roots to be spread apart and the tree was planted at the proper depth. Most of our newly planted nursery stock trees are planted too deep. Another advantage of the stump grinding method was the soil ground out was so fine, that when water was added doing the backfill process, a slurry was created and it filled in all the spaces around the roots. I know the soil structure was changed, but there was no soil compaction caused by human actions and the roots had no problems growing.

With the loss of Jim, we lost a true tree visionary. His pioneer method of growing bare root trees in gravel beds and his unique planting methods set the standards for planting trees in Nebraska. The question now is will we ever have anyone to follow in Jim’s footsteps? I sure hope so!

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CAN YOU ID THAT TREE IN WINTER?

By: *Jim Keepers, Maturing Certified NE Arborist with input from Rachel Anderson, Community Landscape Specialist, NE Forest Service*

When the temperature is 20 degrees and the wind is blowing 20 mph and there is snow on the ground, can you ID a Sugar Maple from a Norway Maple? I know I would have a hard time and your association has created the “Winter Tree ID Class” to help you solve the problem.

Over the past few years, Justin Evertson, Nebraska Statewide Arboretum (NSA), has been the lead instructor for the class and the class was held in his park in Waverly, Nebraska. “It is his baby”. Because of some last-minute events, Justin was unable to instruct the class so NFS/NSA and UNL instructors Rachel Anderson, David Olson, Graham Herbst, Lauri Stepanek and Eric North stepped in to assist with the instructions. On behalf of the NAA, I want to thank you all for helping.



Eric North instructing in the field

A total of 30 tree enthusiasts attended the class. Because of great weather conditions, the instructions alternated between indoor and outdoor activities and this enabled the students to obtain a more visual tree ID experience. To quote Rachel “It was quite engaging from beginning to end.”

The class started off with Laurie and David working as a team, providing general winter tree species ID. They also provide tree branch samples as reference material. After a great lunch, Eric North led a tree walk through Wayne Park, going over interesting tree facts and characteristics while answering some very thoughtful questions. Rachel stated the following: “These questions generated a good discussion about how to advocate for trees.” Class then resumed back in the classroom and Omaha’s unique Forester, Graham Herbst presented his findings from the tree trials he has been conducting in Omaha streetscapes. Graham’s trials have demonstrated some great tree growing data and how it relates to the best practices for planting and caring for trees in the road right-of-way.



What tree is this?

This year’s tree ID class took on a different format and the method of instruction allowed the students to acquire the knowledge needed in winter tree identification. Winter tree ID is a unique challenge for our Nebraska Arborists and with the help of our great NFS/NSA and UNL instructors, this skill can be learned. By offering the “Winter Tree ID Class” your association is striving to provide our members with the skills to identify trees during our harsh Nebraska winter months.

Again, thanks Rachel, David, Graham, Lauri and Eric for helping us out this year and Justin the tree work you have done in Wayne Park is to be commended.

MILLARD SOUTH CAREER DAY

By *Jim Keepers, Maturing Certified NE Arborist*

Before the arrival of the dreaded COVID-19 pandemic, Arbor Aesthetics was invited to represent the Arborist trade at the Millard South Career Day. I believe this was the first time a local NAA Arborist company was invited to a Millard High School Career Day.

Nebraska Certified Arborists, Dylan Willis and Jake Tolliver, volunteered to staff the table and they were very surprised by the reception they received from all the students. Due to safety concerns, they were unable to set up climbing ropes in the gymnasium, but what they brought to the table did attract the students. Since Dylan is the company’s Plant Health Specialist, he brought an insect collection and some of the tools used in the plant healthcare division. Jake, on the other hand, presented and demonstrated several different knots used to climb trees. Both the insects and the climbing knots seemed to intrigue the students. About 100 students spent time talking to Dylan and Jake.



Certified NE Arborist Jake Tolliver showing a student how to tie a knot.



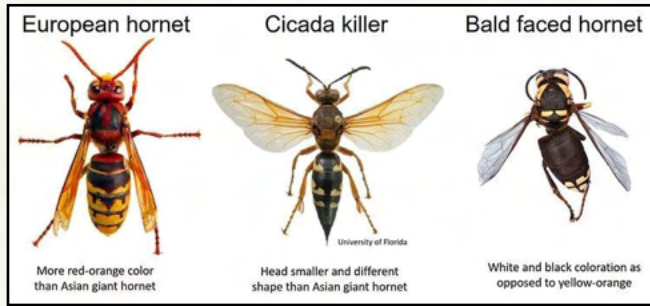
Certified NE Arborist Dylan Willis working the table.

They also used the Tree Care Industry Association’s (TCIA) Outdoor Careers Recruitment Toolkit at their booth. Both Dylan and Jake felt these materials were a great asset in explaining the different jobs in the Arborist Career Field. If you are a TCIA member, I encourage you to take some time to look into the Recruitment Toolkit.

MURDER HORNETS OR MEDIA HYPE?

By: David Olson, Nebraska Forest Service, Forest Health Specialist

By now most have heard about the giant Asian hornet (*Vespa mandarinia*) being spotted in the US for the first time. Dubbed “Murder Hornet” by the popular media, these larger and more aggressive hornets were discovered in Washington State in late 2019, having also been found in the Canadian province of Vancouver a few months before. Much attention has been given to this hornet’s aggressive nature and size, and the fact that they kill around 50 people per year in their native range of East Asia. However,



Asian Hornet

we also have a number of native species that could be mistaken for them, and which, should not be killed since they provide numerous ecological benefits.

The European hornet (*Vespa crabro*) is commonly mistaken for the Asian Hornet, although it is usually just over an inch in size and has more yellow coloring than orange. This species was introduced to North America in the early 1800s and has become widespread in the US, acting more as a non-native rather than an invasive. It can be an occasional pest when it encounters humans, but often functions as a predator on nuisance species in gardens.

Another sometimes aggressive but native species that could be mistaken for the Asian hornet is the Bald-Faced Hornet (*Dolichovespula maculata*). Not actually a true hornet, this native wasp is known for its aggressive nature, but nonetheless serves an important role as a predator of many pest species. It can be easily recognized as being slightly larger than the common yellow jacket, with pale yellow to almost white markings instead of yellow.



**Native Bees (Credit: University of Florida)
Asian Hornet (Credit: Washington State Department of Agriculture)**

Lastly, the fiercely named “Cicada Killer” (*Sphecius speciosus*) can also be mistaken. These wasps although large with an upper size range of two inches, are largely harmless to humans. They build solitary underground tunnels to raise their young, and provision them with paralyzed cicadas, which they sting and carry back to the burrow. Females will only sting if handled extremely roughly, and although males commonly fly close to investigate humans, they are incapable of causing any harm.

Many experts believe the greatest threat with the Asian Hornet is that which it poses to honeybees, since they are aggressive predators of these and can extinguish entire hives. It is unlikely that they are present in Nebraska currently, but it is important to stay vigilant and report suspected finds to the USDA, NDA, or local extension office. These hornets do pose a significant threat to honeybees, but they are unlikely to live up to the “murderous” hype the media has bestowed upon them.



WHAT IS A BARBER CHAIR TREE CUT?

A barber chair tree cut splits lengthwise while you are doing the back cut. A piece of the tree will stay attached while the cut will fall and spring back the other way. That is how an experienced Arborist can get seriously hurt. This tends to happen when the tree is rotted or hollow in the middle, or the face cut you make into the tree is not deep enough.

HEADING CUTS VS THINNING CUTS

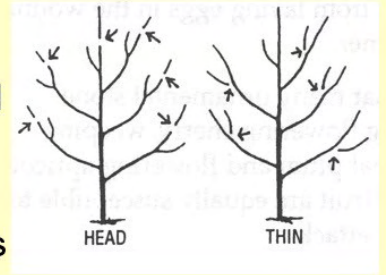
By Jim Keepers, NAA Newsletter Coordinator

Heading cuts control the way the plant grows. The following are three major reasons for using heading cuts:

1. Improve the shape of the plant by promoting growth into a different direction.
2. Control the size of the plant.
3. Increase plant density by encouraging growth of side stems.

The flowering and fruiting behavior of plants are affected by heading cuts. Stem and foliage growth are increased by light heading cuts, whereas, flowers and fruit size are smaller in size but not necessarily in numbers. On the other hand, major heading cuts cause fewer flowers and fruit, but they will be larger than those on an unpruned plant. Major pruning can be reduced when frequent heading cuts are done yearly.

- Heading cut -- only the end of the shoot or branch is removed
- Thinning cut -- the entire limb or shoot is removed



Heading Cuts vs Thinning Cuts

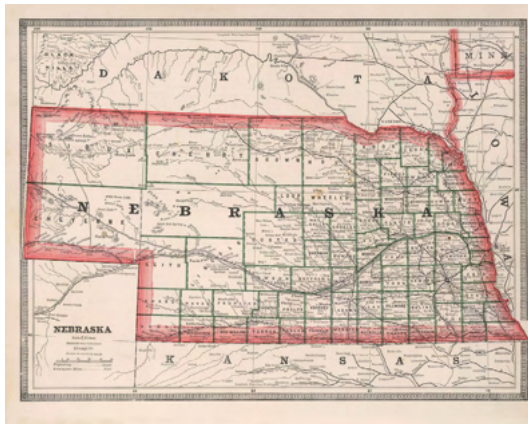


Heading cut one-fourth above the bud.

Heading cuts are selected cuts intended to encourage new side growth on a plant and discourage the main stem from growing longer. When you make a heading cut, prune about one-fourth inch above a bud. You also want to make sure the bud faces the direction in which you want new growth. By removing the branch's terminal bud, you are forcing new grow from the bud, just below the cut. The heading cut must never be more than one-quarter inch above the bud when making the cut. Long cuts above the bud will cause improper wound healing and open the plant to decay. Heading cuts should be done on young branches because the plant can close the wound. Remember, trees do not heal over their wounds like us humans. The cuts are wounded over to block out decay.

The timing of the heading cut is critical and will affect the flowering of the plant. Spring-flowering plants should be pruned after their flowers fade. If you prune too soon or too late, you will be cutting off the flowering buds for next year. Most deciduous trees are best pruned in late winter or early spring except when there are damaged branches or other structure problems. Heading cuts on trees also help to form a strong center leader on a tree. This is sometimes called suppressing pruning.

During thinning cuts, entire branches are removed from the tree trunk. Remember to do thinning cuts on Oaks and Elms only in the winter because of possible disease problems. Young trees are more apt to wall off the cut compared to older trees that have large branches removed. All thinning cuts must be done outside of the tree's branch collar. The tree's branches and trunk are tied together in their cellular structure, and if a flush cut is made, it will open the tree to vertical decay in the trunk.



NEBRASKA TREE FACTS

The following are some fun facts about Nebraska trees, setting your state apart from our sister states. Nebraska is the geographic center of the United States. It is where east meets west.

Nebraska had only 3 percent of the state forested at the time of settlement.

The bulk of the state's tree diversity is found in Southeast Nebraska – 30 native species.

Eastern Nebraska contains oak-dominated forests that follow river corridors, whereas, in the more arid western side of Nebraska, evergreen-dominated forests are prominent.

Nebraska's Niobrara River corridor is one of the nation's greatest scenic and botanical treasures.

Nebraska has a number of boreal species like Quaking aspen & Paper birch.

Nebraska has some incredible, rare trees in the following locations: Burr Oak Canyon, Lehman Springs/Hackberry Hollow, The Pine Bluffs, Wildcat Hills Nature Center, The Cowboy Trail, Niobrara River Valley, Happy Jack Peak, Basswood Ridge Wildlife Management Area, Table Rock Wildlife Management Area, Standing Bear Trail, Steamboat Trace Trail Corridor and South of Salem in Richardson County.

TREE FACTS

Bur Oaks – sensitive to soil distributions

Plant trees at different times – trees planted at the same time die at the same time

City trees last an average of 7 years

Not all trees are Forest Trees

Root to shoot ratio, cannot support the tree – more roots needed to support the tree

Trees store chemicals throughout the trees

Silver Maples – rock star for the things it will do for the environment if properly pruned



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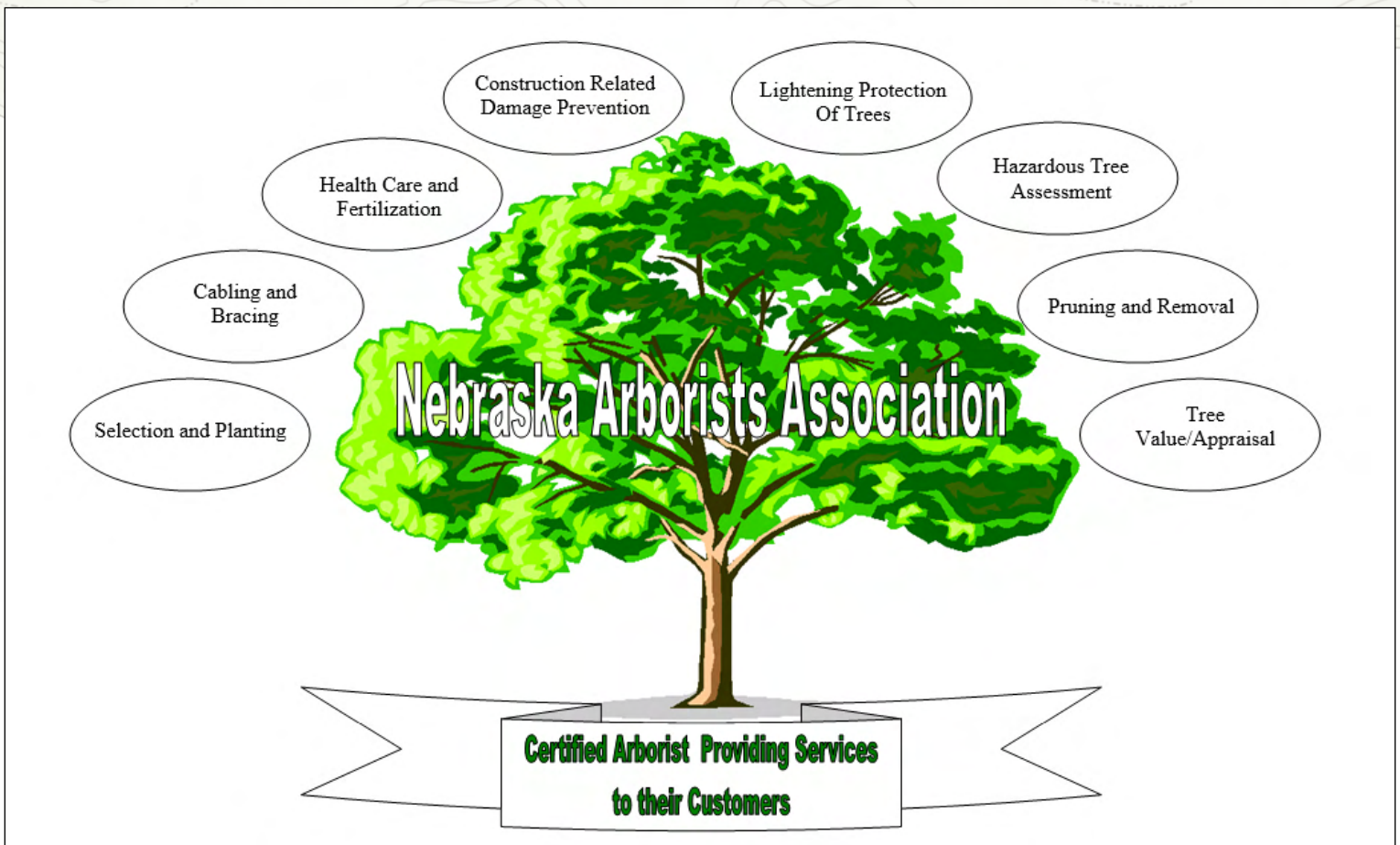
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A BETTER WAY



CONGRATULATIONS, CHRISTINA!

By: *Jim Keepers, Maturing NAA Newsletter Coordinator*

(Material for this article taken from letter written by Christina Hoyt)

Christina Hoyt, previously the Nebraska Statewide Arboretum (NSA) Executive Director, has moved to a new position in the Nebraska Forest Service (NFS) as the Bureau Chief, Community Landscaping and Forest Health Bureau. The NFS is the administrative home at the University of Nebraska – Lincoln for the NE Statewide Arboretum.

The Nebraska Forest Service eliminated the position of Urban & Community Forestry Program Leader and created a new bureau, the Community Landscape and Forest Health Bureau with Christina Hoyt as the Bureau Chief. This new bureau brings together NFS staff serving community forestry, forest health and NSA arboretum programs. The Nebraska Arborists Association (NAA) will still receive outstanding Arboriculture support from the NFS, just though a new bureau. All the NFS/NSA staff members stay the same but a new organizational structure has been created to help coordinate support to the diverse Nebraska customer base.



So essentially, Christina is not really moving out of the NFS, but into a very challenging landscaping and forestry position within the NFS. She will be one building away from her present location and will still be very involved with arboretum programs. Her email and phone number will stay the same.

I have had the opportunity to work with Christina and I must say it has been a very rewarding experience. She is a firm believer in proper tree planting and care. She will work tirelessly to make sure this new bureau lives up to its NFS mission.

In closing, I want to leave you with Christina's departing words she sent out regarding the changes in her life. "I'm incredibly grateful for my time in service as NSA's Executive Director and for the many people who believe in our mission. Thank you for believing in, and taking part in, the work we do. Your commitment and support is needed more than ever."



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