



# North Dakota Forest Service

## the prairie forester

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Spring 2017

### WATFORD CITY IS RECOGNIZED FOR ACHIEVING 25 YEARS AS A TREE CITY USA

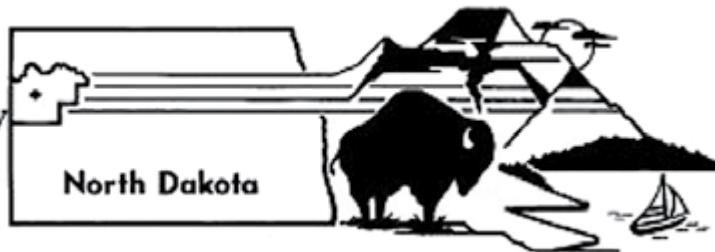
The NDSU-North Dakota Forest Service and Arbor Day Foundation will recognize Watford City with a State Arbor Day Celebration on Friday, May 5. The event will honor Watford City's achievement of 25 years as a Tree City USA community! The celebration will begin at 1 p.m. in the Kent Pelton Nature Park on 7th Street SE. The public is invited to attend.

Tree City USA recognition highlights a commitment to urban forestry, community improvement, and civic pride. Trees make North Dakota communities special places to live. They shade our homes, our businesses, and our streets. They clean our air and water, reduce storm water run-off, increase property values, reduce energy costs, and make the neighborhoods greener, safer, and healthier. Leaders in Watford City understand the value of community trees.

The program will begin with introductions by emcee Kylee Roff,

**Watford City**

**North Dakota**



*The ND State Arbor Day Celebration recognizes the community of Watford City for achieving 25 years as a Tree City USA!*

Assistant Auditor, and an official welcome by Watford City Mayor Justin Voll. Boy Scout Troop #382 will present the flags and Terry Taylor will sing the national anthem. Roff will lead everyone in the Pledge of Allegiance and the Scouts will retire the colors. A musical selection will follow.

Lieutenant Governor Brent Sanford will read the Governor's Arbor Day Proclamation and give some congratulatory remarks on how the Tree City USA program complements and strengthens the Governor's vision for vibrant communities. State Forester Larry Kotchman will give some brief remarks and present Watford City's Mayor with their 25-year award for participating in the Tree City USA Program, which is sponsored by the Arbor Day Foundation, State Foresters, and USDA Forest Service.

A ceremonial tree planting will follow

the program in the park. Robin Arndt, Park Board Manager, will give a tree planting demonstration and plant a Prairie Expedition American elm with the dignitaries. Kotchman will follow with a few remarks.

Refreshments of sugar tree cookies and punch will be served for all participants at the conclusion of the event. The ND Forest Service will provide 100 Colorado blue spruce and 100 Black Hills spruce 12-inch containerized seedlings for everyone.

Special thanks to all the Arbor Day sponsors: Arbor Day Foundation, B-Bonks Bakery, Boy Scout Troop #382, Mayor Justin Voll, McKenzie County Farmer, NDSU-North Dakota Forest Service, Office of the Governor, Watford City Park Board, Watford City Public School, and US Forest Service.



# A View from the Top of the Tree

In my last message, I shared plans for a three-day workshop in Kansas to create the framework for a Great Plains Windbreaks Action Plan. As a member of the planning committee, I am extremely pleased with the outcome of the meeting. Approximately 38 representatives of federal, state and local conservation agencies, universities, and non-profit farm and ranch organizations from North Dakota to Texas attended the February workshop. North Dakota's attendees also included NRCS State Conservationist Mary Podoll and NDSU Extension Forester Dr. Joseph Zeleznik.

The goal of the meeting was to advance the use of windbreaks in supporting profitable and resilient farms and ranches and conserving natural resources across the region. I felt the diverse experience and interests of the participants greatly contributed to the development of an action plan. The workshop, resulting framework, and follow-up efforts will help to:

- **Create a region-wide narrative and objectives** for advancing research, monitoring, and outreach on windbreak use across the Great Plains region;
- **Coordinate and strengthen inventory, monitoring, and data collection** on windbreak adoption, trends, condition and impacts;
- **Craft effective communications**, including the identification of messages for key audiences, and communication tools to catalyze landowner action; and
- **Build partnerships** that advance the use of windbreaks across the Great Plains.

Working groups on advancing research, informing policy makers, outreach to producers and training for service



**Larry A. Kotchman**  
*State Forester*

providers will implement the Great Plains Windbreak Initiative Action Plan. We will strive to involve conservation partners from throughout the Great Plains in these efforts.

In addition, state forestry agencies in Kansas, Nebraska, South Dakota and North Dakota will be receiving financial support from the USDA Forest Service to conduct a region-wide inventory using newly emerged remote sensing and data analysis technologies that accurately describe current windbreak resources across the Great Plains. Given the expected rapid changes over the next decade, we need to assess the extent and condition of windbreaks and then use this data to craft state and region-wide conservation solutions using trees and forests within agricultural systems. The US Forest Service will provide technical support for this two-year effort through the National Agroforestry Center and the Forest Inventory and Analysis Program at the Northern Research Station.

A handwritten signature in cursive script that reads "Larry A. Kotchman".

## ND State Arbor Day Poster Contest Winner

*By: Glenda Fauske, Information and Education Coordinator*



**Alex Ternes**  
*Pioneer School*  
**Arbor Day Poster Contest Winner**

Alex Ternes, a fifth grader at Pioneer School in Bismarck, was selected as the first place winner of the 2017 State Arbor Day Poster Contest. The purpose of the contest is to encourage planting a tree, increase awareness of the benefits

trees provide, and celebrate Arbor Day.

The 49th awards ceremony will be held April 21 at the Lewis and Clark Center in Washburn for Alex and his teacher, Justin Miller.

# Creating Vibrant North Dakota Communities

By: Gerri Makay, Community Forestry Program Manager

Newly elected Governor Doug Burgum presented a list of ambitious challenges to residents and communities in his recent State of the State Address. At the heart of his message, we find a vision of “safe, healthy cities with vibrant, walkable main streets, and downtowns to attract and retain a skilled workforce.”

At the risk of oversimplifying the daunting task of creating safe, healthy cities, consider how areas with trees contribute to this very thing:

- ✓ Trees filter airborne pollutants and reduce the conditions that cause asthma and other respiratory problems.
- ✓ Neighborhood parks promote exercise, especially to people living within a mile of a park. In one study, 75 percent of park users lived a mile or less from the park. In most North Dakota communities with a city park, that park is surely within one mile of resident homes.
- ✓ A study on children with attention deficit disorders discovered the effect of a walk through a park is equal to peak effects of two typical ADHD medications.
- ✓ Visual exposure to settings with trees helps recovery from stress within five minutes, as indicated by changes in blood pressure and muscle tension.
- ✓ Green environment impacts worker productivity: in one study, workers without nature views from their desks claimed 23 percent more sick days than workers with views of nature.



*Hazen's downtown "pocket park" includes wooden shelters, a water feature, colorful flowers and an assortment of trees and shrubs. It is a favorite spot for many community and family gatherings.*

- ✓ Trees improve driving safety. The presence of trees in a suburban landscape significantly reduced the cruising speed of drivers by an average of three miles per hour.
- ✓ A person exposed to direct sunlight takes 20 minutes to burn. However, under a tree providing 50 percent coverage, it takes 50 minutes to burn. Under full shade, it takes 100 minutes before one will experience a sunburn.
- ✓ There is less graffiti, vandalism, and littering in outdoor spaces with natural landscapes than in comparable spaces without plants.

In addition, trees can help save money and even “make” money for your community:

- ✓ Street trees prolong the life of pavement. Shaded roads can save up to 60 percent over 30 years of repaving costs by reducing pavement fatigue, cracking, rutting, and other distress.

✓ Just three strategically placed trees around buildings can decrease utility bills by 50 percent. Shading an air conditioning unit can increase its efficiency by 10 percent.

✓ Urban trees can reduce annual storm water runoff by 2-7 percent, and a mature tree can take up and store 50 to 100 gallons of water during large storms.

✓ Shoppers will travel farther and longer to visit a district with high quality trees, and spend more time there once they arrive. Consumers will spend 9 to 12 percent more for products in business districts with attractive tree-lined spaces.

Communities across North Dakota have collaborated with the ND Forest Service to complete hundreds of planting and program development projects along streets, in schoolyards, and in parks. Hazen and Ellendale transformed vacant city lots into community green spaces. Sheyenne and Valley City have developed community orchards to provide local sources of healthy food. McVille, Casselton, and Cando renovated or planted shelterbelts to protect community athletic fields. Rugby and Minot planted trees to shade and beautify widely used paved trails.

Accept Governor Burgum’s challenge: how can your hometown become a more vibrant community?

For more information on how to enhance your community, contact [Gerri.Makay@ndsu.edu](mailto:Gerri.Makay@ndsu.edu) or call (701) 652-2951.

# Acclimated Woody Plant Material is Essential for Community and Rural Forestry

By: Michael Kangas, Nursery and State Forests Team Leader

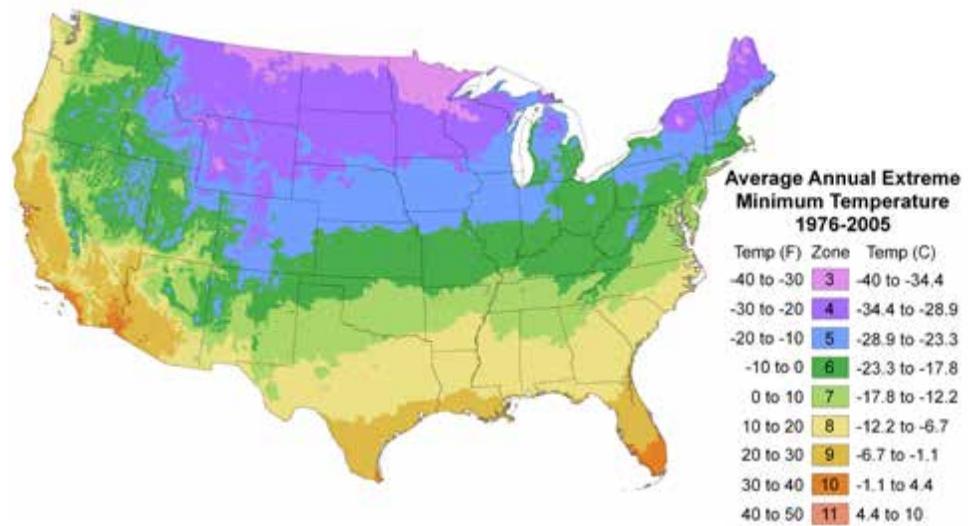
As spring approaches, many landowners and homeowners turn their thoughts toward outdoor activities, such as gardening, spring cleaning, and tree planting. With this in mind, it is always important to take some time to consider the characteristics of trees and shrubs that are adapted to the climate and conditions in the Northern Plains.

Trees and shrubs face many hurdles to long-term survival in our region. Some of these include periods of drought or flooding, alkaline soils, animal damage, untimely frosts, and pests and diseases. Perhaps the most important underlying factor affecting woody plant survival is tolerance to our extremely cold winter conditions, also known as cold hardiness.

The USDA Plant Hardiness Zone Map is the standard by which foresters and natural resources professionals can determine which plants are most likely to survive at a given location. The map designates hardiness zones based on historically observed minimum winter temperatures. North Dakota consists of hardiness Zone 4 in the southern half to Zone 3 in the north, and planted trees and shrubs must possess such cold hardiness for successful landscape and conservation plantings.

To ensure you are selecting woody plant material that is sufficiently hardy for our area, here are a couple of points for consideration:

Determine the seed source of a particular tree or shrub stock type. Seed source refers to the area where



*USDA Plant Hardiness Zone Map. Only woody plant material originating from Zone 4 or lower will survive North Dakota's winters. The USDA Plant Hardiness Map may be viewed in color at <http://planthardiness.ars.usda.gov/PHZMWeb/>.*

seed was collected and is directly related to cold hardiness, since woody plants and trees must be able to survive for many years or even decades to reach maturity and produce seeds. Consequently, if the seed source occurs within a hardiness zone comparable to your planting location, the plant material will likely be of sufficient hardiness. A simple consideration of the species may be insufficient if the seed source is not considered. For example, common chokecherry has a widespread distribution throughout North America ranging from Zone 6 in the southern edge of its range to Zone 2 in Canada. Despite chokecherry being native to North Dakota, chokecherry propagated from seed collected at a Zone 5 or 6 location (southern Michigan or Ohio as an example) would not survive in North Dakota as they lack sufficient hardiness. Knowing this information is critical to

ensure the plant material you select is adequately hardy to North Dakota.

Additionally, stock that originates from other regions may be less tolerant of our alkaline soils, may be less drought-tolerant, or may succumb to other environmental factors even if the seed source is comparable to ours.

As a rule of thumb, tree and woody plant material that originated in our region is best able to thrive in our region. Make sure to inquire about how acclimated a particular tree or stock type is when purchasing trees or shrubs this spring. Your nursery personnel should have that information readily available.

For more information, contact Michael.Kangas@ndsu.edu or call (701) 231-5936.

# Emerald Ash Borer Awareness Week

By: Lezlee Johnson, Forest Health Manager

North Dakotans have an opportunity to observe Emerald Ash Borer Awareness Week this year, May 21-27, 2017. The emerald ash borer (EAB) has not been found in North Dakota. EAB Week highlights steps we can take to delay its appearance for as long as possible while our communities reduce their vulnerability to the pest's destructive appetite for ash trees. As few as 25 and as many as 40 communities have participated in this important learning opportunity in the past. The North Dakota Forest Service (NDFS) partners with the North Dakota Department of Agriculture and NDSU Extension Forestry to make a variety of outreach materials available to communities.

Emerald ash borer has invaded 30 states as well as 2 Canadian provinces. EAB is in Minnesota, as close as the Twin Cities and Duluth. The most important thing we can do to delay EAB's introduction into our state is to prevent the movement of firewood into North Dakota. EAB is a flying beetle with a range of about a half mile, but when it hitchhikes on untreated firewood, it can quickly establish itself hundreds of miles from where it came. "Buy It Where You Burn It" is important to remember when thinking of firewood.



*Improve diversity and add beauty by interplanting other well-adapted trees into rows of green ash.*

Improving tree diversity is the key to reducing the vulnerability of our communities to EAB. The NDFS has inventoried municipal trees in over 80 communities and has found that, overall, 48 percent of our inventoried community trees are ash trees. Losing those trees all at once will be quite a blow. Communities all across the state are taking action to improve tree diversity by planting other suitable trees and by removing their lowest quality ash trees now. EAB Awareness Week points communities toward resources that can help with these efforts.

Any North Dakota community can participate, from the least vulnerable (18 percent ash) to the most vulnerable (80 percent ash). Communities can use materials they have received in the past and can access new materials that will be available at the NDFS website. Communities can access EAB fliers

for posting on ash trees or on bulletin boards; a presentation about EAB and the importance of preparing for this threat; a list of EAB FAQs; identification sheets for EAB and for ash trees; and links to videos and other materials to help increase EAB awareness.

It is important for North Dakota communities to remain vigilant for and continue to prepare for EAB. Last year, the number of states with EAB increased by five. We can all work to remain EAB-free as our communities increase their tree diversity in the face of EAB or any other invasive insect or disease threat.

If your community would like to join in the effort to increase public awareness of this destructive pest, please contact: [Lezlee.Johnson@ndsu.edu](mailto:Lezlee.Johnson@ndsu.edu) or call (701) 231-5138.

# 2017 Spring Fire Season Outlook

By: Ryan Melin, Fire Manager

It appears North Dakota will have a typical spring weather pattern across much of state. We should see above normal precipitation through July with a fairly active and progressive weather pattern. This should result in ample opportunities for precipitation, with periods of drier weather.

With the current projected weather forecast, the North Dakota Forest Service fire staff are anticipating a normal spring fire season with fire activity and fire danger driven heavily by the periods of drier weather coupled with some possible high wind events, which North Dakota often encounters.

The North Dakota Forest Service encourages checking the ND



*A “Red Flag Warning” means the conditions of dry fuel, heat, and wind have the potential to create a fire.*

Department of Emergency Services website [www.nd.gov/des/](http://www.nd.gov/des/) on a daily basis to view the fire danger ratings, stay informed on the current fire potential in your area, and view county issued burn bans.

K-12 Professional Development

## “Cultural Perspectives on Environmental Change”

The 2-credit K-12 teacher institute will focus on fragility and resilience in the picturesque surroundings of the Turtle Mountains and the International Peace Garden. Participants will learn by doing tested activities from Project WET and Project Learning Tree. A distance learning experience to the Knife River Indian Villages; new STEAM-based learning trunks, on-line resources, a Giant North Dakota Map and a large state puzzle will also be featured. Learn more and register at:

[www.ndsu.edu/its/research\\_education\\_networks/ndtressummerinstitute](http://www.ndsu.edu/its/research_education_networks/ndtressummerinstitute)

## Forestry Datelines

- |          |   |            |  |
|----------|---|------------|--|
| April 21 | Keep ND Clean Awards Ceremony<br>Lewis and Clark Center, Washburn, ND<br>Contact: Glenda Fauske at (701) 228-5446   | May 21-27  | Emerald Ash Borer Awareness Week<br>Contact: Lezlee Johnson at (701) 231-5138  |
| April 28 | Coalition for Conservation and Environmental Education (C2E2) Regular Spring Meeting NDSU Research Extension Center Minot, ND<br>Contact: Glenda Fauske at (701) 228-5446 | June 1-3   | ND Firefighter’s Association 133rd Convention Dickinson, ND<br>Contact: Renee Loh at (701) 222-2799  |
| April 28 | Community Forestry Grants Deadline for Post-marked Applications<br>Contact: Gerri Makay at (701) 652-2951   | June 14    | ND Community Forestry Council and State Stewardship Coordinating Committee Joint Meeting, Fargo, ND<br>Contact: Gerri Makay at (701) 652-2951                      |
| May 5    | ND State Arbor Day Celebration Kent Pelton Nature Park Watford City, ND<br>Contact: Glenda Fauske at (701) 228-5446   | June 20-22 | “Cultural Perspectives on Environmental Change” K-12 Educators’ Professional Development Institute – Turtle Mountains<br>Contact: Glenda Fauske at (701) 228-5446  |
| May 11   | ND Urban and Community Forestry Association, First Aid and Aerial Rescue Training, Jamestown, ND<br>Contact: Lezlee Johnson at (701) 231-5138                             | June 27-28 | ND Environmental Education Resource Curriculum Workshop, Devils Lake, ND PLT, WET & ND Studies – 1 credit<br>Contact: Lake Region Teacher Center at (701) 662-7650 |

# People in Forestry

Each year, North Dakota State University (NDSU) recognizes staff who have passed milestones in years of service. The 29th NDSU Staff Recognition Social will be held on Thursday, April 20, 2017, at 1:30 p.m. in the Memorial Union Great Plains Room on the campus in Fargo. The honorees will receive an NDSU Bookstore gift certificate based on years of service. The following ND Forest Service staff will be recognized:

## 35 YEARS

**Keith Broe**, State Forests Technician at Bottineau.

## 25 YEARS

**Brenda Johnson**, Administration Team Leader at Bottineau.

**Tom Claeys**, Forestry and Fire Management Team Leader at Bismarck.

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**Mary O'Neill**, was selected as the Community Forestry Specialist for the North Dakota Forest Service field office in Lisbon. She began her duties on March 20, 2017.

O'Neill will assist local units of governments and communities

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**Mary O'Neill**  
*Community Forestry Specialist  
Lisbon ND FS Field Office*

in proper management of their community forests on a statewide basis. Responsibilities include involvement in conducting forest health surveys; long-term monitoring of impacted community forests to improve forest health and slow the spread of invasive species; and providing technical assistance to affected communities for tree removal and replacement to restore green infrastructure service, increase property values, conserve energy, and mitigate wildland fire hazards. Specific areas of technical assistance provided to communities will include identification and management of insects and disease, tree species selection, community project planning, design and funding,

tree planting, care and removal, and tree problem diagnostic assistance.

A native of Minnesota, O'Neill has a bachelor's degree from the University of Wisconsin-Superior and a master's degree in urban and community forestry from the University of Minnesota-Twin Cities. She was recently the Forestry Outreach Coordinator for the Forestry Department at the Minneapolis Park and Recreation Board.

"I am honored to be part of the ND Forest Service. I am looking forward to helping people and communities learn about the countless benefits of healthy community forests," said Mary.

Mary enjoys traveling with her husband; especially exploring national and state parks. She is an avid sports fan and enjoys photography, reading, and spending time outdoors with family and friends.

She can be reached at:

**NDSU-ND Forest Service  
PO Box 604  
Lisbon ND 58054  
Tel: (701) 683-4323 Ext. 12  
Mary.Oneill@ndsu.edu**

# Recreational Opportunities Abound on State Forests

*By: Tom Nowatzki, State Forests Manager*

Spring is here and many of us have been looking to get out and enjoy nature after this winter. The North Dakota Forest Service manages five State Forests that offer a place for people to enjoy the great outdoors.

The State Forests provide many recreational opportunities such as hunting, fishing, hiking, horseback riding, bird and wildlife watching, berry picking and geocaching. Multi-use trails, scenic overlooks

and Recreation Areas for camping are open Memorial Day through Labor Day for \$10 per night. Trail maps, state forest rules, and state forest locations can all be found at: [www.ndsu.edu/ndfs](http://www.ndsu.edu/ndfs).

## **The Prairie Forester**

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### **North Dakota Forest Service**

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[www.nd.gov/forest](http://www.nd.gov/forest)

*"The mission of the North Dakota Forest Service is to care for, protect and improve forest and natural resources to enhance the quality of life for future generations."*

To save resources, please let us know if your mailing address has changed or is incorrect. Call (701) 228-5446.

## **Field Offices**

**Bismarck** NDFS Office  
Tel: (701) 328-9944

**Bottineau** NDFS Field Office  
Tel: (701) 228-3700

**Bottineau** NDFS Headquarters  
Tel: (701) 228-5422

**Carrington** NDFS Office  
Tel: (701) 652-2951

**Fargo** NDFS Forest Health Office  
Tel: (701) 231-5936

**Fargo** NDFS-Nursery and State Forests  
Team Leader  
Tel: (701) 231-8143

**Jamestown** NDFS Office  
Tel: (701) 400-8330

**Lisbon** NDFS Office  
Tel: (701) 683-4323

**Towner** State Nursery  
Tel: (701) 537-5636

**Walhalla** NDFS Office  
Tel: (701) 549-2441

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