



## GOVERNOR DECLARES STATE FIRE AND DROUGHT EMERGENCY

On June 26, 2017, Governor Doug Burgum declared a statewide fire and drought emergency in North Dakota. Dry conditions, combined with high winds, lack of rainfall and low soil moisture levels are having a detrimental impact on livestock water supplies, crop and pasture conditions. Thirty counties have issued fire emergency declarations, burn bans and/or other fire restrictions.

The hot, windy and dry conditions have led to record low moisture levels in grass and other vegetation contributing to an increased level of wildfire risk. Numerous wildfires have been caused by sparks from agricultural equipment and other human causes. Volunteer firefighters are the main line of defense in North Dakota's rural areas and many of the crews have remained on scene for up to 24 hours at a time as they work to prevent fires from doing even more damage.

The largest fire to date is the Magpie Fire started on July 8 from an unknown cause that burned 5,400 acres in the Little Missouri National Grassland in western North Dakota near Grassy Butte, ND. The Grassland is owned by the US Forest Service and managed by the Dakota Prairie Grasslands office in Bismarck, ND.

Firefighters responding to the fire came from the Billings, McKenzie and several surrounding county volunteer



*NDResponse.gov is a new “single source” website for accurate and timely information for major events impacting North Dakota citizens. Fire Danger, Drought, and Severe Weather tabs provide instant access to all the information and resources you need to respond appropriately.*

fire departments, the US Forest Service, the ND Forest Service, as well as an incident management team from Idaho.

Fires of this magnitude are a huge strain on firefighting resources. The majority of North Dakota's first responders are volunteers who all have other full-time jobs. Volunteers depend upon local businesses and community members for support during emergency incidents.

The State of North Dakota shares responsibility to maintain high readiness levels and provides a coordinated state response in support of local and tribal officials during a statewide fire and drought emergency.

Tasks assigned to the North Dakota Forest Service include providing personnel, equipment and technical assistance support for the prevention and suppression of wildland fires.

Individuals can also help prevent wildfires and help save lives, property, and natural resources. Before burning or participating in outdoor activities, go to [NDResponse.gov](http://NDResponse.gov) and click on “Fire Danger Awareness” and check the following for the most current information regarding restrictions in your area - Burn Ban/Restrictions Map; Fire Danger Ratings Map, and the National Weather Service website to determine if a Red Flag Warning is in effect. Stay safe, stay informed.

## A View from the Top of the Tree

State and Private Forestry programs, funded by the US Forest Service, play a significant role in providing grant funding to improve the management, protection, and utilization of North Dakota's 804,859 acres of trees and forests, which benefit communities, rural fire departments, and private landowners. Trees and forests provide important environmental services including clean water and air, wildlife habitat, flood protection and energy savings to thousands of North Dakota residents. In response to the 2008 Farm Bill, all 50 States prepared comprehensive State Forest Action Plans that identify the highest priority areas needing assistance.

Wildland fire is a continuing threat to communities that is addressed by North Dakota's 378 rural fire departments. Appropriations for the US Forest Service State Fire Assistance (SFA) and Volunteer Fire Assistance (VFA) Programs provide crucial financial and technical assistance to states and local volunteer fire departments for wildland fire prevention, detection, and suppression. In addition to helping ensure the nation's first responders are prepared, the program provides funding to complete hazardous fuels treatments designed to protect local communities from wildland fire.

The US Forest Service Urban and Community Forestry Program (U&CF) helps communities in establishing and managing local urban and community forestry resources. The program serves 236 North Dakota communities with financial assistance for tree planting and program development projects. The federal program also provides



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

science-based research, technical assistance, and financial incentives that contribute to clean air and water, improved economies, human health, and community pride.

National priority Landscape Scale Restoration (LSR) projects are a key way that states, in collaboration with the US Forest Service and other partners, address critical forestry priorities across the landscape. These funds have been instrumental in addressing North Dakota Forest Action Plan priorities, including the prevention and spread of invasive tree pests, such as emerald ash borer, and community forestry flood recovery assistance to Bismarck and Minot following the historic 2011 floods.

To meet the challenges ahead, the US Forest Service State and Private Forestry Program and your State Forester together will apply their resources in the highest priority areas to ensure a full range of forestry benefits both now and for generations to come.

A handwritten signature in black ink that reads "Larry A. Kotchman".

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## Bismarck High School Wins 2017 Envirothon

*By: Glenda Fauske, Information and Education Coordinator*



**1st Place ND State Envirothon**  
**Bismarck High School**  
**Bismarck, ND**

Bismarck High School's "Team 1," coached by Valerie Smallbeck, received top honors at the 18th annual North Dakota State Envirothon competition held at Crystal Springs Bible Camp May 10-12, 2017. The team members included Hope Burdolski, Garrett Havelka, Tanner Jochim, Sarah Vadrais, and Sam Wolf.

The Envirothon is a problem-solving natural resource competition for high school students. The team will represent North Dakota at the national competition in Emmitsburg, Maryland, on July 23-29, 2017.

Second place honors went to Minot High School's "The Botanyas" team and third place to Minot High School's "The Rusty Crayfish" team.

# Moderate Drought Stress on Newly Planted Trees

By: *Michael Kangas, Nursery and State Forests Team Leader*

The abnormally dry conditions in the northern plains have resulted in nearly one-third of the state categorized in a “severe drought” and the remainder in a “moderate drought.” Under such conditions, recently planted trees may be suffering from drought stress. North Dakota Forest Service staff have observed moisture stress throughout the state; particularly in central and western North Dakota.

Recently planted trees require adequate soil moisture for root systems to become established. Root system establishment can take one to three years depending on the soil type and species. During this establishment period, young trees and shrubs need frequent watering to prevent water stress.

Landowners and homeowners are encouraged to give newly planted

trees supplemental water. Generally, landscape trees require one gallon of water per day per inch of caliper (diameter of stem at the base of the tree). Conservation grade trees (shelterbelt plantings) should receive a gallon of water every two days while hot, dry conditions persist. Two to three inches of wood chip mulch spread just beyond the drip line of the trees will also assist in soil moisture retention.

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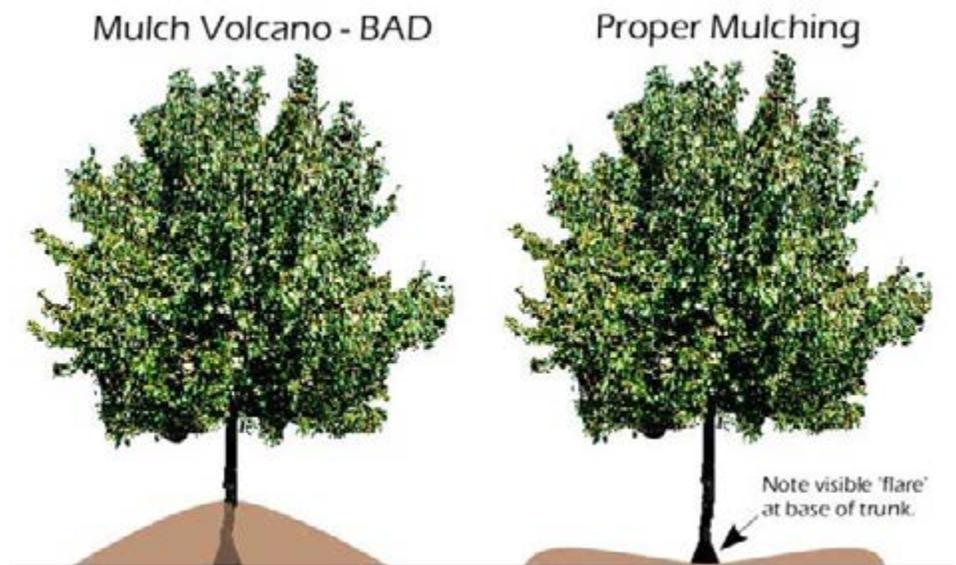
# Volcano Mulching – An All Too Common Problem

By: *Mary O’Neill, Community Forestry Specialist*

When planting new trees, people have the mindset that “more is better.” This is absolutely true as far as planting trees, but definitely not true when it comes to applying mulch. “Mulch volcanoes” are commonly seen with newly planted trees, and often with young trees in landscaped areas. Mulch is extremely helpful to trees, but only if it is applied correctly!

When it comes to mulching your trees, less is more. If you are spending time and money planting trees, you should protect them properly. Mulch has many benefits. Not only does it protect young trees from mowers and weed whackers, it also insulates the soil, helps control weed germination, improves soil fertility, and helps reduce soil moisture loss.

Fortunately, it is pretty easy to mulch trees correctly. Don’t think volcano...think doughnut! Mulch placed around the trunk should look more like a doughnut. There should be 3-5 inches of space between the trunk of the tree and the mulch ring. Mulch that is piled on the trunk will cause smothered and unwanted roots



and fungus, and can attract rodents. This also holds true when too much mulch is used around the base of the tree. The proper practice is to apply 2-4 inches of mulch that will allow moisture to reach the roots while protecting the base of the tree. For poorly drained soils, like clay, use even less mulch (2 inches or less). The mulch doughnut should be spread to the edge of the canopy.

The Arbor Day Foundation promotes an easy to remember 3-3-3 Rule: Keep mulch at least 3 inches from the trunk, 3 inches deep, and about 3 feet in diameter around the tree. Proper mulching and watering will keep your trees happy for many years.

For more information contact [mary.oneill@ndsu.edu](mailto:mary.oneill@ndsu.edu) or call (701) 683-4323, Ext. 12.

# Team Efforts Complete a Forestry Project Planting 250 Trees

By: *Ransom County Gazette, Mattie Richardson-Schmitz (reprinted in part) from June 19, 2017*

On May 22, members of the Lisbon Boy Scout Troop 523, North Dakota Forest Service, North Dakota Game and Fish, and community volunteers partnered with the United States Forest Service, to conduct a reforestation project on the Sheyenne National Grasslands.

The Sheyenne National Grassland is in eastern Ransom and western Richland Counties and is the only national grassland in the tallgrass prairie region of the United States.

One of the major goals of the US Forest Service is to manage the land to keep it a habitat for all the native animals and plants to flourish. A major part of managing the land is managing the state's forested areas as well. Forests in our state are necessary to



*Lorin Fornes, Forestry Technician for the ND Forest Service, helped instruct the Lisbon Boy Scouts, community volunteers, and partnering agency staff on the finer points of tree planting. (Photo: Bernadette Braun, US Forest Service)*

provide wildlife habitat, recreational opportunities, and stabilization of riverbanks, and they contribute to the botanical diversity of the state.

Most of us can enjoy the relaxing beauty of the wooded areas of North Dakota, which provide places to hunt,

fish, camp, hike, and ride horses, among other outdoor activities.

Some of the most prominent forest threats in our time are invasive species, such as the emerald ash borer, and the destruction of forests to use the land for other things such as farmland, residential, or commercial development.

A total of 250 trees were planted, which included American elm, hackberry, and basswood.

“Though the project is valuable for restoration and land health, I see the greatest value is the partnerships,” said Casey Johnson, Sheyenne District Ranger, “and most importantly, getting youth connected to the outdoors and their public lands.”

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## Aspen Management Project Set to Begin

By: *Michael Kangas, Nursery and State Forests Team Leader*

The North Dakota Forest Service (NDFS) and North Dakota Game and Fish Department (NDG&FD) have partnered to implement treatments aimed at improving the long-term sustainability of quaking aspen in the Turtle Mountains and improve wildlife habitat. Utilizing a grant from the US Fish and Wildlife Service under the Wildlife Restoration Act, the agencies were able to purchase a forestry brush cutter and a large skid steer for implementing stand treatments.

The aspen/birch forest type comprises nearly 17 percent of North Dakota's forestland. The majority of this forest type is located in the Turtle Mountains

and represents the state's largest concentration of forestland. Lack of fire disturbance and/or harvesting has resulted in older stands with minimal natural regeneration within these forests. The current condition of many stands are characterized by extensive stem decay and large stem mortality caused by canker fungi. In addition, these stands are prone to periodic outbreaks of defoliating insects that reduces growth, predisposes trees to other damaging agents, and intensifies the process of aging aspen stands.

The forestry brush cutter and skid steer will be used to regenerate these stands by removing old trees and

allowing vigorous regrowth of aspen suckers (root sprouts). Such young aspen thickets benefit many species of wildlife such as deer, moose, and ruffed grouse.

The agencies hope to apply regeneration treatments in small 5- to 10-acre patch cuttings over the next ten years to high priority NDFS and NDG&FD lands. Larger felled trees that cannot be ground up with the equipment will be stacked, set aside and made available for firewood cutting. The work will begin this fall. For more information about the project, contact Tom Nowatzki, State Forests Manager, at (701) 228-3700.

# Dutch Elm Disease – Manage It or Lose American Elms

*By: Lezlee Johnson, Forest Health Manager*

Dutch elm disease (DED) is a hated phrase in North Dakota. DED has been a problem here since it was first reported in Mandan in 1969. It is still killing native elm trees in every county of North Dakota today. Some communities have found very effective ways to manage their American elm resource so that stately American elm trees are still a part of the vibrant community forests. Other communities have struggled, unable to keep up with tree removals, unable to enforce ordinances, and unable to stop the spread to healthy trees.

Dutch elm disease is caused by two closely related fungi, which are transmitted by bark beetles and through root grafts. All North American elms are vulnerable, and no elm species is totally resistant to the disease. It is responsible for the death of most of the native elm trees in the United States over the past century and kills a few more each year.

Communities that are able to keep healthy large American elms are very good at sanitation. Since elm bark beetles breed in dead elm wood with intact bark and in dying elm trees, they remove these sources of beetle habitat. This includes removing elm firewood, dead and dying trees, and elm branches damaged during windstorms. They dispose of the infected wood by burning, burying, chipping, or debarking. Sanitation has to happen on both public and private property in order to be effective.

Pruning out infected branches can also be effective. Prune well below branches showing symptoms. Remove at least 8 to 10 feet of branch that is free from the brown discoloration



*These stately American elm trees frame a Grand Forks neighborhood.*

in the sapwood, then dispose of the branches immediately. Clean tools with diluted bleach before doing any other pruning and monitor the trees closely for several years.

If a DED-infected elm has to be removed, trenching around the infected tree will help stop the fungus from moving into adjacent healthy trees. Call North Dakota One Call (800) 795-0555 or 811 before considering any trenching. Underground utilities may rule out this option. If more than a quarter of the tree's canopy has been affected by DED, it is likely that the fungus has moved to the roots.

Trees can be protected by fungicide injections. The fungicide prevents DED from infecting healthy elms. If the tree is already infected, the fungicide may not be effective. Fungicide must be injected by a trained tree care professional. Fungicide treatment may last for three years, but is not effective against root graft infections. Fungicide should be used in conjunction with sanitation to be effective in reducing

DED infections.

Replace trees lost to DED with a variety of different tree species. There are many elm species that are still suitable for planting. There is even an American elm known as "Prairie Expedition" that is resistant to DED and comes from North Dakota. Contact your city forester or look online for the North Dakota Tree Selector website. The Tree Selector allows you to choose your site conditions and see several tree options that will be suited to your site.

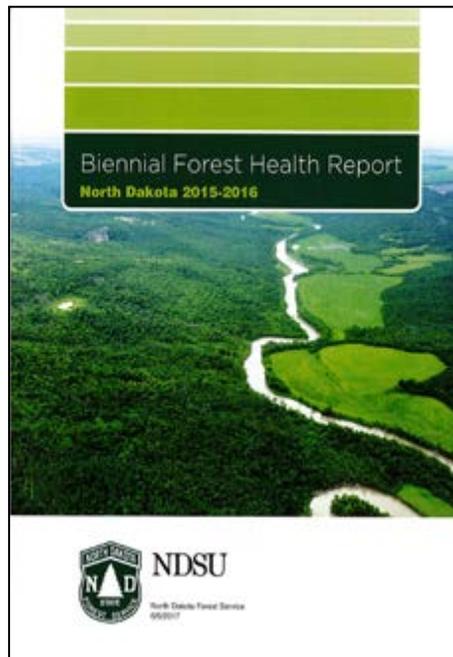
The North Dakota Forest Service has Community Forestry Specialists who can help plan your DED management program. These specialists can also help communities apply for NDFS cost-share funding to help with tree removals. More information about community forestry assistance is available at [www.ndsu.edu/ndfs](http://www.ndsu.edu/ndfs). More information about DED management is found in the NDSU Extension Service publication PP1635 "Dutch Elm Disease in North Dakota: A New Look."

# North Dakota Forest Health Report Released

By: *Lezlee Johnson, Forest Health Manager*

The North Dakota Forest Service (NDFS) has just published its 2015-2016 Biennial Forest Health Report. This report helps people understand our forests and the conditions that affect their growth and sustainability. The NDFS Forest Health Program produces this report, which includes input from city, state, federal, and tree-related organizations; as well as from private citizens. The report is funded by and submitted to the US Forest Service, and is available in print and online to all who are interested.

Our three basic types of forests – native forests, rural tree plantings, and community forests – are very valuable in North Dakota. These forest resources provide ecological, social, and economic benefits to residents and visitors. The NDFS Forest Health Program is constantly collecting tree health information with the help of our many partners and conducting our own tree health assessments throughout the state.



*The “2015-2016 Biennial Forest Health Report” has just been released by the North Dakota Forest Service, and it summarizes the condition of our forest resources and describes emerging forest health issues.*

The report describes North Dakota forest resources and their ownership. It discusses weather-related trends and a variety of common insect, disease, and environmental factors that affect forest health. Highlights include forest health surveys, such as exotic wood borer trapping, statewide spruce health assessments, green ash underbark temperatures, limber pine needle blight, and an interesting interaction between woodpeckers and tiny wasp larvae on bur oak bark.

Additional forest health information, as well as a downloadable Biennial Forest Health Report, are available at the NDFS web page [www.ndsu.edu/ndfs](http://www.ndsu.edu/ndfs). Additional publications about forest health in North Dakota are also available at the NDSU Extension Service website [www.ag.ndsu.edu/extension](http://www.ag.ndsu.edu/extension). If you need a print copy of the report, please contact the author at [Lezlee.Johnson@ndsu.edu](mailto:Lezlee.Johnson@ndsu.edu) or call (701) 231-5138.

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## Forestry Datelines

- |          |  |            |  |
|----------|--|------------|--|
| Sept. 23 | 27th Trees Bowl and Awards Ceremony<br>Fargodome, Fargo, ND<br>Contact: Tom Claeys at (701) 328-9945   | Oct. 19    | ND Urban and Community Forestry<br>Association Tree Pruning Workshop and<br>Service Project, Burlington, ND<br>Contact: NDUCEFA at (701) 355-4458    |
| Sept. 27 | ND Urban and Community Forestry<br>Association (NDUCFA) Tree Risk<br>Assessment Workshop, Washburn, ND<br>Contact: NDUCEFA (701) 355-4458                            | Nov. 19-21 | ND Association of Soil Conservation<br>Districts Annual Conference/Meeting<br>Ramkota Hotel, Bismarck, ND<br>Contact: Kathy Henriksen (701) 223-8575 |
| Sept. 29 | Denbigh Day – Youth Education Program and<br>Evening Public Lands Day Event, Denbigh<br>Experimental Forest, Denbigh, ND<br>Contact: Casey Johnson at (701) 680-5087 |            |  |

## People in Forestry

**Brenda Johnson**, Administration Team Leader at Bottineau for the NDSU-North Dakota Forest Service, retired on July 7, 2017, after 26 years of service. A cake and coffee reception honoring Brenda's retirement was held in Thatcher Hall on July 6 in Bottineau.

As a Team Leader, she was responsible for the leadership, administration, and management functions of the Administration Team, including fiscal, personnel, and office management for the Office of the State Forester. Her primary duty was to assist the State Forester in advancing the mission of the North Dakota Forest Service. The Team Leader reported to the State Forester, supervised the employees assigned to the unit, and was a member of the Leadership Council. Her duties included budget preparations, grants and contracts oversight, payroll, accounts payable and receivable, information technology planning, program planning, monitoring and



*Brenda Johnson retires after 26 years with the NDSU-North Dakota Forest Service in Bottineau. (Photo: Scott Wagar, Bottineau Courant)*

evaluation.

Brenda plans to stay in the Dunseith area and spend more time with her family and friends; working on home projects; and pursuing her love of music with her husband, Dick.

**Garrett Masloski**, Forest Stewardship Specialist at Walhalla for the NDSU-North Dakota Forest Service, left the agency on June 17, 2017, for a new position.

Masloski provided technical and financial assistance for the management and protection of native, riparian and planted forest resources. His duties included both office and field responsibilities promoting the Forest Stewardship Program and related programs, and directing landowners' assistance to implement forestry best management practices.

His position is being advertised and will be filled as soon as possible.

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## The Windbreak Cookbook...Featuring Fruits of Prairie Forests

*By: Derek Lowstuter, Acting Stewardship Manager*

We know about the services windbreaks provide to soils, crops, and livestock. Now, a new cookbook helps show some of the extra value our windbreaks or shelterbelts in North Dakota provide.

Wild-harvested fruits are often considered to be a part of the "special forest products" group. I think most of us have had Juneberry pie or chokecherry jelly. In addition to home-cooked jams and jellies, drinks, and desserts, North Dakota has quite an industry based on fruits. Vineyards, wineries, farmers'



markets, and "you-pick" businesses are scattered throughout the state.

PDF copies of the new cookbook are free to download at:

[www.ag.ndsu.edu/publications/lawns-gardens-trees/the-windbreak-cookbook-featuring-fruits-of-prairie-forests](http://www.ag.ndsu.edu/publications/lawns-gardens-trees/the-windbreak-cookbook-featuring-fruits-of-prairie-forests)

Free hard copies can be obtained from any ND Forest Service office or call (701) 328-9990.

So, get a cookbook today and share your creations with family and friends!

**The Prairie Forester**

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*“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.”*

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

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

**Fargo** NDFS Forest Health Office  
Tel: (701) 231-5138

**Fargo** NDFS-Nursery and State Forests  
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Tel: (701) 231-5936

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