

2012

Nebraska Forest Service Annual Report 2012

Susan Helmink

Nebraska Forest Service, trees@unl.edu

Follow this and additional works at: <http://digitalcommons.unl.edu/nebforestpubs>

Helmink, Susan, "Nebraska Forest Service Annual Report 2012" (2012). *Publications, etc. -- Nebraska Forest Service*. 82.
<http://digitalcommons.unl.edu/nebforestpubs/82>

This Article is brought to you for free and open access by the Nebraska Forest Service at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Publications, etc. -- Nebraska Forest Service by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

Nebraska **FOREST SERVICE**

ANNUAL
REPORT
2012



Enriching lives by protecting, restoring and utilizing
Nebraska's tree and forest resources.



nfs.unl.edu

CONTENTS

Annual Report 2012

2 Scorched & Burned

Nearly 500,000 acres of Nebraska's forest and rangeland succumbed to fire.

4 Saving Chadron State Park

Active forest management protected park infrastructure and helped save the park's forest and buildings from fire.

6 Tree Pests & Diseases Threaten Nebraska

Homeowners and communities need ongoing assistance to combat the threats of tree pests.

8 Tree Pests: A Proactive Approach

A two-year project inventoried 100,000 individual trees in 66 communities.

10 From Adversity Rises Opportunity

Eastern redcedar expansion creates economic opportunities for Nebraska.

12 Mitigating Drought

An estimated 48,000 pines and spruces are at risk of dying from drought.

14 Tribute to a Forester

Dave Mooter provided valuable service to state and national green industry organizations.



15 Survey Says . . .

Researchers find that NFS programs have an annual economic impact and public benefit of more than \$35 million.

16 Refurbish & Repurpose

Transforming used military vehicles into usable fire equipment helps save Nebraska fire departments about \$45 million.

Credits

Dr. Scott J. Josiah, State Forester & Director
102 Forestry Hall, P.O. Box 830815
Lincoln, NE 68583-0815
402.472.2944
nfs.unl.edu - trees@unl.edu
@NEForestService
#NebForestService

Editor/Designer: Susan Helmink
Contributors: Jeanne Andelt, Eric Berg, Dr. Mark Harrell, Casey McCoy,
Dr. Scott J. Josiah, Doak Nickerson, Jeralyn Schluckebier, Lew Sieber,
Adam Smith, Laurie Stepanek, Don Westover

Photography: Eric Berg, Dr. Mark Harrell, Graham Herbst, Fred McCartney,
Doak Nickerson, Laurie Stepanek

A Message from the Nebraska State Forester

IT IS ENDLESSLY INTERESTING TO be part of a state forestry organization in what is commonly called a prairie state. Indeed, in many ways trees are valued more highly in Nebraska than in more heavily forested states. People intuitively understand that the trees all around us work hard to effectively shelter our farms, our homes, our water supplies and communities, and provide us with the “Good Life.” With more than 3 million acres of forests and treed land, trees make a huge contribution to the Triple Bottom Line—improving our economy, our environment and our communities.

A recent public opinion survey showed that Nebraskans are well-informed about the value and benefits of trees and forests. Their concerns are our concerns—with drought, reduced tree planting, water pollution and the loss of forests to development topping the list. After 2012, I think most would add catastrophic fire to their top concerns.

Nebraska experienced the worst fire year on record in 2012, burning nearly 500,000 acres (68,634 of which were forested), 65 structures, hundreds of miles of fence and costing at least \$12 million. Tragically, we are losing the Pine Ridge’s iconic forests to repeated massive wildfires. Thirty years of inventory data tell a sobering story—nearly two-thirds of the Pine Ridge forests have been lost to fire, converted to degraded grassland.



Dr. Scott J. Josiah

Renewable forest resources are essential engines for rural and community economic development, sustainably producing valuable commercial products, supporting local economies and generating many other benefits.

A combination of higher temperatures, intense drought, increased forest fuel loads and the spread of eastern redcedar (38,000 new acres/year) has created an explosive potential for very large wildfires statewide.

The Nebraska Forest Service is working harder than ever, on its own and through a growing number of powerful partnerships (with local, state and federal agencies, nonprofits and businesses), to effectively deal with wildfire and other threats to our tree and forest resources.

Thanks to our partners for all their support as we tackle these daunting challenges. We are making excellent progress—the successes are many and are shared in this annual report. But much more needs to be done if we are to adequately protect trees and forests, the benefits they provide, and lives and property statewide. We look forward to working with you even more closely in 2013 to truly make a difference.

\$286 million/year

Nebraska’s annual economic output from the forest products industry, which employs 2,200 people.

\$92 million/year

Benefits that community trees provide in protection, pollution removal and carbon capture and storage.

13,000 miles

Combined length of farmstead and acreage windbreaks that save Nebraskans millions in increased crop yields and provide protection for soil and water.



Scorched & Burned

Nebraska Experiences Record-breaking Wildfire Season

Even though much has been done to help firefighters and communities prepare for wildfire, much work remains.

NEVER BEFORE HAS SO MUCH OF NEBRASKA BEEN scorched in a single year. Large fires burned almost 500,000 acres. When reports are finalized in 2013, Nebraska Forest Service (NFS) estimates that more than 1,300 fires in 2012 will eclipse half a million acres burned.

Lightning sparked the largest and most destructive fires; however, equipment use and debris burning also accounted for a significant number of acres burned. The season started in June with lightning in the Harrison Fire District. Before being brought under control, the Cottonwood Fire burned more than 4,000 acres, impacting many of the same landowners who had faced wildfire just six years earlier. NFS supported this incident by sending Nebraska Engine 841, staffed by

nationally certified NFS firefighters, and a 5,000-gallon water tender to the area for several days. At virtually the same time, a fire near Potter, also believed to have been caused by lightning, blackened 3,000 acres.

As the drought strengthened in July, lightning-caused fires increased, eventually consuming almost 85,000 acres across many counties including Logan, Banner, Thomas, Brown, Keya Paha and Dawes. The scenic Niobrara River Valley was the hardest hit.

The Fairfield Creek, Wentworth and Hall fires burned more than 75,000 acres and destroyed 31 structures, including homes. It damaged thousands of acres of rangeland and will impact cattle ranchers for years to come. NFS again sent Nebraska Engine 841, a GIS specialist and firefighting foam. The NFS Fire Shop also responded to repair fire apparatus on loan through the NFS Fire Equipment Program.

Conditions deteriorated in August, leaving forests ripe for catastrophic wildfire. Incidents in Dawes, Sheridan and Keith counties burned almost 200,000 acres. The combined impact of two fires within this region—the West Ash and Douthit fires—make it one of the largest Nebraska fires on record.

**Nearly
500,000
acres
succumbed
to fire.**

Incident Commander Joe Lowe reported early in the fire that "...lack of available resources has been a challenge, contributing to large fire growth."

Strategically placed NFS fuels reduction projects helped to protect Chadron State Park, a popular tourist destination in the Pine Ridge, and numerous homes from what would have been significant damage.

- Continue to improve fire suppression training and firefighting resources to ensure that well-trained, well-equipped firefighters are available to respond.

- Improve ability to provide rapid, aggressive and effective initial attack and coordinated extended attacks. Firefighters were stretched much too thin in 2012.

What works? Rapid, aggressive initial attacks.

Just when the fire season seemed to be winding down, a warm, windy October resulted in another 78,000 acres burned, including almost 60,000 acres in a 36-hour period. A 3,500-acre fire near Sutton damaged two homes, three machine sheds, a barn and about 30 antique tractors, including one valued at approximately \$100,000.

Yet short-term forecasts predict continued dry weather this winter and into spring 2013. Over the long term, fire history indicates that since 1964 large fire seasons are not only happening more often, but also the amount of acres burned is steadily increasing.

It's becoming clear that the fires of today are not what they used to be. The growing acknowledgement of a new "normal" in wildland fire makes it imperative that Nebraska adapt to the growing complexity of fire management.

Much has been done to help firefighters and communities prepare for wildfire, but much work remains, such as:

- Expand Firewise® wildfire safety and fuels reduction programs to reduce risk to homeowners, developers and rural landowners.



GENERATIONAL CHANGE. Crown fires were common in 2012. Walls of flame rose high above the forest canopy and whirling fireballs spewed firebrands ahead of the fire, where they fell on tinder-dry fuel and rooftops.

We're Losing the Pine Ridge.

"What we witnessed in 2012 was a generational change in the northwest corner of Nebraska. No one alive today will ever see it as it was just six months ago. The forester in me knows it wasn't destroyed. It was simply nature righting an imbalance that has been building for half a century or more, and it will be back. But it troubles me deeply that my 4-year-old daughter will never have the chance to experience the Pine Ridge as I did. It's becoming a shell of what it was just 30 years ago."

-- Nebraska rural firefighter

DID YOU KNOW?

No longer is the Pine Ridge the single largest continuous expanse of ponderosa pine in Nebraska. That honor now belongs to the Niobrara River Valley, with 225,000 acres.

Forest Management Helps Save Chadron State Park from Fire

OVER THE PAST HALF-CENTURY, wildfire has twice threatened Nebraska's first and oldest recreational landmark, Chadron State Park. In 1973, a devastating, stand-destroying crown fire known as the Deadhorse Fire narrowly missed the Park's northwest corner. Again in 2006, the Park was spared when the fast-moving Spotted Tail Fire destroyed homes and threatened the nearby community of Chadron.

Nebraska, along with the rest of the western U.S., has entered a new age of megafires. These large fires occur more frequently than in the past, spread very rapidly immediately upon ignition and

burn over large areas for weeks. They can be difficult to impossible to control, cost enormous amounts of money and put lives and property of entire communities, residents, visitors and emergency response personnel at great risk.

This year made history with fires carving out three very large "holes" in the dwindling forest resource of northwest Nebraska, when the Park fell victim to the West Ash Creek Fire on its deadly rampage across the Pine Ridge.

The good news is that due to active forest management over the past decade, and with the heroic efforts of many firefighters,

the Park lost no infrastructure and its forest survived the fire intact. About 90 percent of the Park burned, with the majority of the fire staying on the ground as an understory grass fire. Unfortunately, this wasn't the case for surrounding unmanaged forest choked with too many trees, where volatile crown fires blackened large swaths of woodland. To fend against fire and guarantee a green forest for the future, the Park used three key forestry treatments: logging, thinning and chipping.

Based on sound science, there are numerous environmental benefits of this active forest management scheme. The three treatments reduced the number of trees in the dangerously overstocked woodland, thereby reducing fire danger. Stand-destroying crown fire was avoided along with the potential for soil erosion and water pollution downstream in the Chadron Creek watershed.



SOUND SCIENCE. Thinning the forest and removing ladder fuels keep wildfire out of the forest canopy. This makes the fire less destructive and easier to safely suppress.

The resilience of Chadron State Park's forest against destructive fires will serve as the model for how ponderosa pine forests will be managed in the future.

We learned many lessons from the 2012 fire season.

Stagnated timber stands were opened up and slash was utilized as chipped fuel for Chadron State College, allowing more sunlight to reach the forest floor. Sun-starved understory grasses were released along with increased forage production for grazing.

The remaining timber stands have plenty of space to grow; shrubs and forbs have flourished in the understory, providing much-needed habitat diversity for a wide array of wildlife species.

For the ponderosa pine ecosystem of northwest Nebraska, it's not a matter of if a fire comes... but when. We learned many lessons from the 2012 fire season, including reinforcement of the drastic need for active forest management.

The resilience of the Park's forest against these destructive fires will serve as the model for how ponderosa pine forests will be managed in the future. With this said, tree mortality due to crown scorch and torching may eclipse 25 percent, due largely to extreme flame lengths of the understory grass fire.

It's anticipated that the Park will incorporate understory fuel treatments (grazing, prescribed burning) in the future, which will complement the foundation built by the three key forest fuel treatments (logging, thinning, chipping). In doing so, tree mortality from crown scorch and torching will be substantially reduced and the legacy of a green, living forest will continue in perpetuity at Chadron State Park.



EXTREME BEHAVIOR. Trees scorched from ground fire in the Pine Ridge. Trees, especially ponderosa pine, can often survive ground fires, but ponderosa pines cannot survive a crown fire.

DID YOU KNOW?

There are 38,000 new acres of eastern redcedar forest every year in Nebraska; the average volume of this forest is 5.6 tons per acre. That's 212,800 tons of wood added on these new acres every year.

Insect & Disease Threats



EXTENSIVE MORTALITY. Black walnut trees in Colorado killed by thousand cankers disease, a serious threat to Nebraska's walnut trees.

DID YOU KNOW?

NFS trains citizen volunteers to survey for and report invasive tree pests.

TREES IN NEBRASKA ARE UNDER constant attack from insect pests and diseases, and homeowners and communities need ongoing assistance with identification and management of these pests.

“Pines in particular have suffered greatly in recent years,” said Laurie Stepanek, Nebraska Forest Service’s Forest Health Specialist. “Pine wilt, which has killed thousands of Scotch pine in southeast Nebraska, is becoming more common in the northeast and central areas of the state.”

In the west, mountain pine beetle (MPB), which killed millions of acres of trees in the Rocky Mountains, destroyed both

native ponderosa pine and planted Scotch pine in the Wildcat Hills and Pine Ridge.

Mountain pine beetle killed more than 40 million acres of forests in the Rocky Mountains of the U.S. and Canada, the largest outbreak in North America’s recorded history.

Another serious disease, Diplodia blight, affects pine across the state. Other pests, such as emerald ash borer (EAB) and thousand cankers disease are knocking at our door.

Emerald ash borer, which has caused extensive mortality to ash trees in the eastern U.S., was discovered in July 2012, in Kansas City, Kan., less than 70

miles from Nebraska's border. Thousand cankers disease (TCD), which threatens the walnut industry, is widespread in western states and present in Tennessee, Pennsylvania, Ohio and Virginia. Both pests are easily moved in infested firewood.

One of the best management tools for invasive pests is early detection. Surveys for declining ash and walnut are conducted annually by the NFS staff. In addition, over the past three years the NFS has trained 121 citizen volunteers as "tree pest detectors," which has greatly expanded detection efforts.

Education is important as well. Ongoing educational workshops and distribution of educational materials help keep

Nebraskans abreast of current insect and disease threats.

The NFS also provides cost-share funding to help public and private landowners manage mountain pine beetle and slow its spread. The cost-share funding is part of a federal grant that covers 75 percent of treatment costs, including insecticide treatments, removal of infested trees, or thinning of overstocked stands.

"Managed forests are not only more resistant to the pine beetle, but also have a lower risk of catastrophic wildfire," said Rachel Allison, NFS district forester.

The program has helped fund 80 cost-share projects in nine counties: Banner,

Box Butte, Cheyenne, Dawes, Kimball, Morrill, Scotts Bluff, Sheridan and Sioux; however, much work remains to be done.

Asian longhorned beetle photographed by Michael Bohne. Emerald ash borer photographed by David Cappaert, Michigan State University. Photos courtesy of bugwood.org.



Tree Pests Knocking on Our Door

Emerald Ash Borer (EAB)

- Metallic green beetle native to Asia
- Kills all North American species of ash
- Threatens Nebraska's 54 million ash trees
- Currently killing trees in 18 eastern states
- Nearest known infestation: Kansas City, Kan.
- Easily transported in infested firewood

Thousand Cankers Disease (TCD)

- Causes extensive mortality in western states
- Black walnut is highly susceptible
- Black walnut at risk in Nebraska:
 - 1.5 million trees
 - sawtimber valued at \$40-80 million
 - 4,000 commercial nut-bearing trees
 - valuable species for wildlife
 - widely used landscape tree for tough sites
- Easily transported in infested firewood

Asian Longhorned Beetle (ALB)

- Large black-and-white beetle from Asia
- Attacks many species of trees
- Maples highly susceptible
- Infestations have been found in five states
- Easily transported in infested firewood

New NFS publications assist communities in dealing with emerald ash borer (EAB).



DID YOU KNOW?

In just two years, the community tree inventories benefited 66 communities with approximately 360,000 Nebraska citizens. The project identified more than 100,000 individual trees, helping communities assess their response to increasing pest threats.

Tree Pests: A Proactive Approach

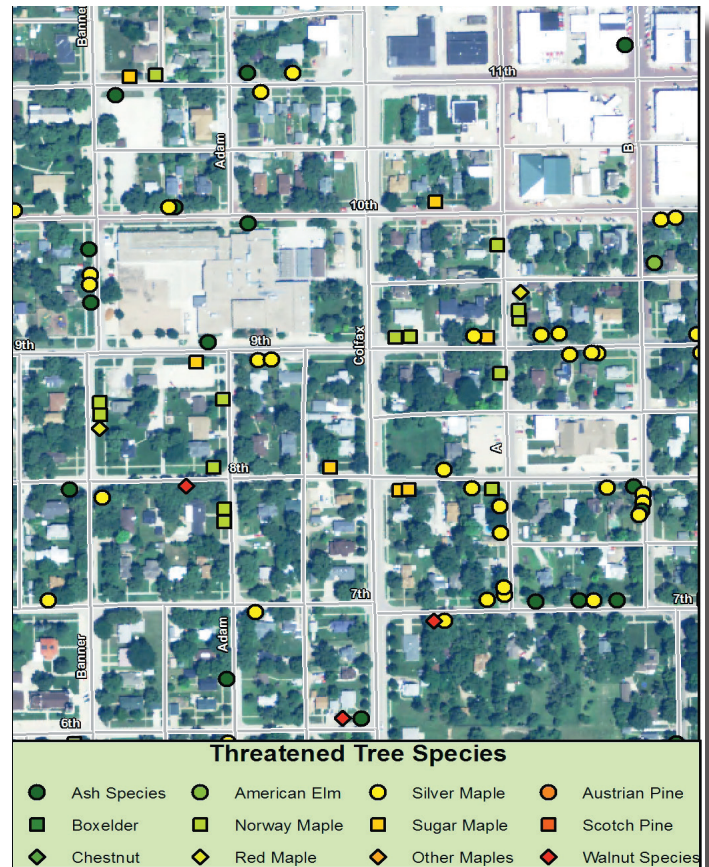
The imminent threat of emerald ash borer (EAB) is one of the driving reasons behind efforts to assist Nebraska communities through tree inventory and analysis.

TREES ARE MORE THAN JUST SHADE FROM THE blistering summer sun and a buffer for howling winter winds on the Great Plains. They beautify our communities, enrich our quality of life and benefit our economy.

When these natural resources become threatened, we take action. Beginning in the summer of 2011 and continuing through 2012, the Nebraska Forest Service conducted rapid community forest inventories through the “Community Threat Assessment Protocol” project, or CTAP, funded by the U.S. Forest Service. This effort to establish new, up-to-date inventories for Nebraska communities is in response to the increasing concern about a myriad of approaching forest insect, disease and wildfire threats in Nebraska.

These inventories provide communities with detailed information about their forest resources, enabling them to make educated management decisions. Data were collected on publicly owned trees in parks, on city managed properties and in easements or planting strips along streets. Identifying and mapping the exact locations of trees will allow for their more efficient management of individual trees. Information collected regarding these community-maintained trees will allow community leaders and decision-makers to plan and budget for likely increases in tree maintenance and removal costs.

During the two-year project, staff inventoried 66 communities with approximately 360,000 citizens. Volunteers donated almost 950 hours of their time to assist NFS with these inventories, which identified approximately 100,000 individual trees.



THREATENED SPECIES. This map illustrates the location of trees, by species, that are threatened by potential tree pests. Such maps will be used by communities to better manage their community forests.



PROACTIVE STANCE. District Forester Steve Rasmussen measures the diameter of a walnut tree.

More than 12 percent of the trees recorded during the CTAP inventory were ash trees. This means that in these 66 communities alone more than 12,000 trees are at very high risk of being killed by emerald ash borer (EAB).

According to the Nebraska Forest Service “Statewide Forest Resource Assessment and Strategy,” there are an estimated 13.3 million public and private trees throughout Nebraska communities (1.5 million in Lincoln; 3.9 million in Omaha). Approximately 7 percent of these are ash, representing 986,000 trees (108,000 and 359,000 in Lincoln and Omaha, respectively). When EAB arrives in Nebraska, the cost to remove and replace these trees statewide could exceed \$886 million, a heavy financial burden that would fall on communities and homeowners already experiencing tight financial constraints.

Collectively, Asian longhorned beetle, gypsy moth, Dutch elm disease and EAB, all current threats in nearby states, threaten more than 8 million trees within Nebraska communities, which could represent a \$6.8 billion loss due to direct and indirect costs of the threats.

For the past six years the NFS has been working closely with community officials and the Nebraska Department of Agriculture, USDA APHIS, the UNL Department of Entomology and green industry representatives to develop and maintain plans to mitigate the impact of EAB on the tree resources in the state.

With the movement of EAB into Nebraska now imminent, the NFS is working with communities to help develop specific

**Nebraska
boasts
13.3
million
public &
private trees.**

local plans for dealing with the impact of EAB by using tree resource data generated by CTAP, and providing recommended management approaches for removing and replacing ash trees. Community-specific plans will help communities use their financial and other resources most effectively when EAB arrives in their area.

Community trees provide nearly \$92 million per year in pollution removal and carbon capture and storage benefits.

Capitalizing on eastern redcedar expansion is key to improving grazing land and increasing economic development.

From Adversity Rises Opportunity

NEBRASKA'S FORESTS HAVE FACED daunting conditions over the past several years, which will have a lasting effect on trees and forests for years to come. The Missouri River floods of 2011, an intense and extended wildfire season and record-setting drought in 2012, increased tree and forest removal in and around agricultural fields and the recent discovery in the Kansas City area of emerald ash borer (EAB) are all taking their toll.

Still, there is one species that continues to thrive and show great resiliency. Eastern redcedar is rapidly expanding into agricul-

tural fields, pastures and grazing lands, and the riparian forests along the Platte and Niobrara rivers. This aggressive tree species is dramatically affecting the natural resources of the state and potentially the livelihoods of Nebraskans.

Based on data collected across Nebraska from the U.S. Forest Service's Forest Inventory and Analysis program, results from inventories conducted from 2001 through 2010 estimated that individual eastern redcedar trees more than quadrupled from 40 million to 170 million on Nebraska forestland.

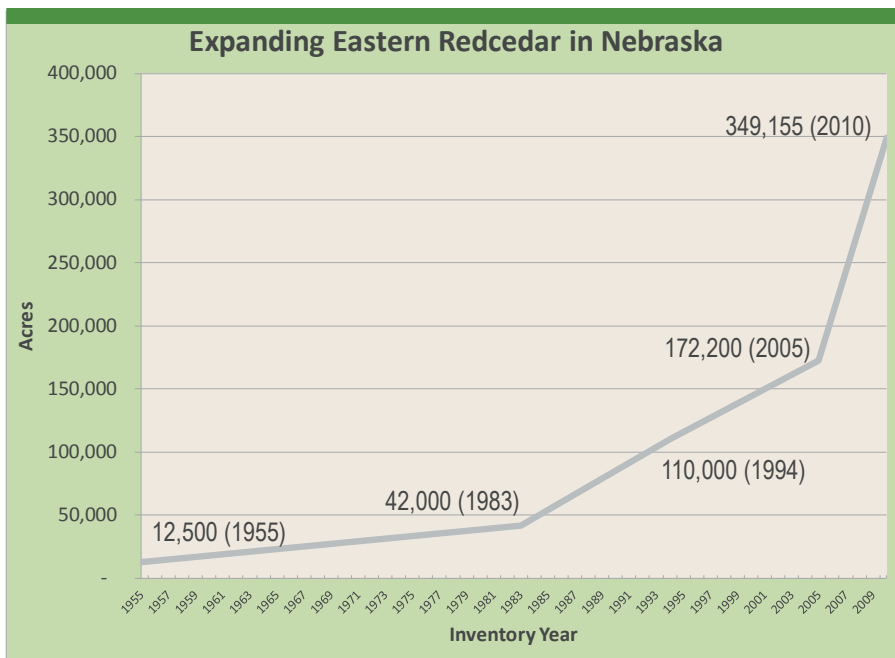
Since 2005, the number of acres identified as eastern redcedar forest or eastern redcedar mixed forest increased from 172,200 to 350,000 acres, an increase of approximately 38,000 acres of eastern redcedar forest every year over the past five years.

With the addition of 307,000 acres of eastern redcedar forest since 1983, we are literally seeing the emergence of an entirely new forest in Nebraska. Unfortunately, cedar is encroaching into native cottonwood-dominated riparian forests, increasing wildfire risk and intensity of these formerly fire-resistant forests. Cedar is also encroaching onto large expanses of range and pasture land, with severe impacts on rangeland productivity and grassland wildlife habitat.

Each 40,000 acres of rangeland converted to eastern redcedar forest results in the loss of enough forage to support 4,970 cows, with an economic loss of approximately \$5.7 million incurred by Nebraska cattle producers.

The redcedar issue is both a problem and an opportunity. Nebraska now has an enormous and virtually untapped energy resource of 5.5 million tons of wood in redcedar forests. This renewable resource could be used for energy to heat and cool buildings, converted to pellets for fuel or livestock bedding, sawn for higher-value products, or chipped for rot-resistant mulch.

Loss of forage land could have increasing impacts on cattlemen.



USEFUL RESOURCES. (Right) Aggressive eastern redcedar impacts a variety of Nebraska resources. Utilizing this species can help preserve rare native tree stands and increase available grazing land. This slash pile represents just a few of the hundreds of redcedar cleared by volunteers in Richardson County.



***Potential revenue
from redcedar as
boiler fuel:
\$9.8 million***

EXAMPLES OF FACILITIES USING renewable energy include the Lied Lodge and Conference Center in Nebraska City, Chadron State College in Chadron, Nebraska College of Technical Agriculture in Curtis and alfalfa dehydrators across Nebraska.

These facilities made the conscious decision to utilize affordable renewable energy instead of traditional fossil fuels. The emergence of vast quantities of redcedar could spark new woody biomass utilization facilities, increase economic development in rural Nebraska, inspire entrepreneurship throughout the state and reduce the negative environmental and economic effects of fossil fuel-based thermal energy applications. Every new wood-fired boiler creates a 30-year market for woody biomass fuel, creating long-lasting jobs in the area.

The Nebraska Forest Service is committed to the promotion and utilization of woody biomass in facilities across Nebraska. Currently, a variety of facilities—municipal buildings, hospitals, schools and college campuses—are working to secure capital funds for facility conversion.

At the same time, the forest products industry in Nebraska continues to expand production of woody biomass to supply these facilities.

The biggest barrier to the use of woody biomass is the need for up-front capital to purchase equipment. While these emerging woody biomass utilization markets are on the verge of breaking through to the mainstream of Nebraska, hurdles remain for small businesses and facilities in acquiring the needed capital to participate in these markets.



RENEWABLE RESOURCE. Eastern redcedar logs provide woody biomass and other high-value products for a variety of uses in Nebraska facilities.

DID YOU KNOW?

***The Wood-fueled Boiler
at the Nebraska College of Technical
Agriculture in Curtis Heats 200,000
Square Feet of Building Space.***

In January 2012, the college fired up its new wood-fueled boiler, a renewable energy conversion project spearheaded by Dean Weldon Sleight, with the assistance of the Nebraska Forest Service.

“One of the goals of this boiler was to create a local market for the eastern redcedar trees being removed from Frontier County pastures,” Sleight said. “Removing the unwanted redcedar will allow for increased cattle production in the area, creating more opportunities for farmers, ranchers and recent NCTA graduates.”

Utilizing cedar biomass is a key way to achieve the triple bottom line—improving economies, the environment and communities.



**Many eastern white pines
were killed by this year's
drought.**

Mitigating Drought's Impact

The 2012 drought pushed many of our trees past what they are adapted to withstand.

THE PAST YEAR HAS BEEN ONE OF extreme to exceptional drought over most of Nebraska. In addition to the serious effects drought has on crop production and water resources, it can cause significant tree losses in communities and rural areas. Drought can kill trees outright as soil becomes too dry or as soil water tables drop, and trees become much more susceptible to serious disease and insect pests as they become stressed by dry conditions.

The U.S. Drought Monitor in the fall of 2012 showed 95 percent of Nebraska in extreme or exceptional drought. At that time, Nebraska had the highest percentage of drought of any state, and the drought conditions were worse than at any time since at least 2000. Over the U.S., the drought of the past year has left more area moderately to extremely dry than at any time since 1955.

Conditions in Nebraska are almost always harsh for many of our trees. We select trees for planting in communities and rural areas to provide shade for cooling and protection from wind, reduce soil erosion, provide beauty and diversity to the landscape and for a variety of other reasons. Their adaptation to Nebraska's climate is a vital consideration when there are temperature extremes and frequent dry weather.

But the drought of 2012 pushed many of our trees past what they had experienced before and what many are adapted to withstand. The extreme and exceptional drought of 2012 has already killed hundreds of pines and spruces across the state, simply

from the extremely dry conditions, and it has the potential to kill an estimated 48,000 more if conditions do not improve.

In addition, Diplodia blight, a serious and often fatal disease of pines stressed by drought, caused widespread decline and death of pines in eastern Nebraska, and pests like mountain pine beetle and pine engraver beetle in western Nebraska have been able to cause greater damage than otherwise because of stress from the drought.

The Nebraska Forest Service has worked with communities and rural landowners to mitigate the effects of the drought as much as possible. Recommendations have been to prioritize the parts of the landscape that receive supplemental water when the water is available. Trees are difficult to replace if lost from drought, and this should be considered when priorities are established. Wood chip mulch should be used around trees to conserve the water that is present in the soil, and low frequency/ deep saturation waterings should be used to concentrate supplemental water to just under and near the tree's canopy, where trees are able to gain the most benefit from it.

The extreme drought we are experi-

encing now will likely push more of our trees beyond what they can withstand. By offering guidance and working together with communities and landowners, we will be able to help our trees cope with the drought and be able to continue receiving their benefits for many years to come.



DROUGHT EFFECTS. Drought-stressed trees such as this ginkgo may develop leaf scorch—browning along the leaf edges.

An estimated 48,000 pines and spruces are at risk of dying.

“Moving to Nebraska, from Ohio, in 1978 to take care of ‘THE TREE’ was a big step for me. It was the first time I was away from home and my parents. But the prairie did yield a great bounty . . . my lovely wife, my children, a great job and wonderful friends. Nebraska is now my home.”

—Dave Mooter, June 2005

Tribute to a Forester: Dave Mooter

NEBRASKA LOST A DEDICATED FORESTER IN February. Dave Mooter, forester emeritus for the Nebraska Forest Service, passed away Feb. 7, 2012, at his home in Kennard, Neb.

Even though Dave retired from the NFS in 2005 after 27 years of service to the University of Nebraska, he continued to provide service and assistance to regional and national community forestry programming efforts.

Dave devoted his professional career with the NFS to improving people’s lives across the state through healthier and more extensive community forests. His leadership, vision and exhaustive efforts led to a large increase in the number of highly trained arborists and green industry professionals. His dramatic improvement of community trees statewide continues to benefit generations of Nebraskans.

His efforts provided considerable and valuable service to state and national green industry organizations; he served in many leadership positions with the International Society of Arboriculture, the Nebraska Arborists Association, the Midwestern Chapter of the International Society of Arboriculture, the American Society of Public Administration, the Society of American Foresters and the Nebraska Nursery and Landscape Association.

He was instrumental in instituting several long-term (20-plus years) training programs that remain strong, including the annual Tree Care Workshops and Arborists Training Seminar. Dave was key in the early development of the ISA and NAA certification standards and testing process.

Since coming to Nebraska in 1978, Dave’s contributions and impact with engaging others in tree planting and care were significant: increasing the number of Tree City USA communities from three to 116; administering over \$4 million in landscape grants to communities and providing literally thousands of educational programs to countless youth, adults and green industry professionals through the Tree Care Workshops, Arborists Seminars and many other educational venues.

Within his professional tenure Dave was often known as a very down-to-earth individual with uncommon common sense.



A FAMILY AFFAIR. Planting a tree in celebration of Arbor Day, April 2011. Dave Mooter, his children Paul and Mary Ellen, and his wife Gail join in planting a tree. (Not pictured: Chris Mooter)

Always willing to take the time to listen to an individual’s problems or tree care challenges, his wit and wisdom were often demonstrated with brief “Mooterisms” such as:

Mooterism on making a difference: *“Quit complaining; you are not a tree, you can get up and do something about this.”*

Mooterism on wisdom: *“You are not working with trees—you are working with people. The people are the ones who need to work with the trees. Be great at working with people first, and maybe you’ll be good at working with trees, too.”*

Mooterism on helpful hints: *“You know, sometimes the worst advice you can give someone is to just be themselves. There may be too much of that already.”*

Trees & Forests Benefit Economy

THE RESULTS OF TWO RESEARCH studies reveal significant data about the Nebraska Forest Service's annual impact on the Nebraska economy and Nebraskans' level of knowledge about trees and forests.

The first survey, developed by the University of Nebraska-Lincoln's (UNL) Bureau of Business Research, estimates both the economic impact and public benefits of the Nebraska Forest Service programs. This includes additional economic output, labor income, employment, safety benefits, cost savings and reduced costs for training.

Survey Reveals

Nebraska Forest Service's annual economic impact and public benefits:

\$34 million

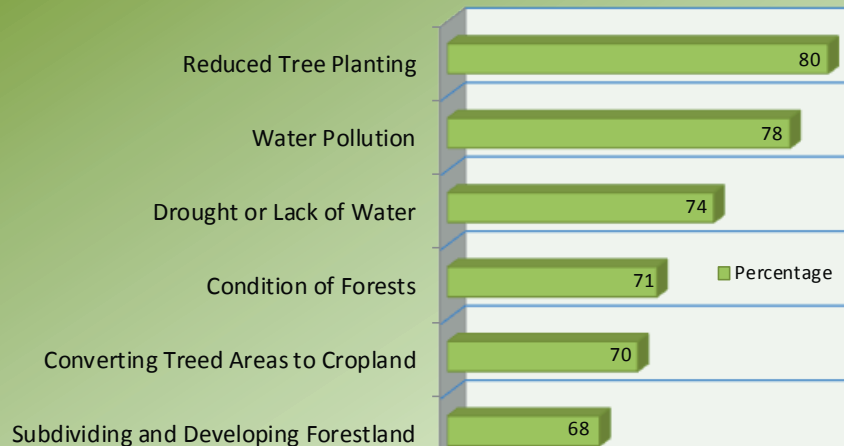
Researchers found that the NFS programs contribute an economic impact and public benefits of more than \$34 million. Further, every dollar invested on NFS programs generates another dollar in benefits.

For example, the direct training, diagnostic, inspection and planning services offered by the Nebraska Forest Health and Rural Forestry programs aid broad sectors of the economy, including efforts to improve the health and management of forests, windbreaks and other residential trees, which can improve the value of tree and forest resources.

Another survey, conducted by the UNL Bureau of Sociological Research, reported that while those surveyed have a positive perception of trees and forests, Nebraskans need and want more information about how to plant and care for trees.

Several topics are of high interest, including identification of tree pests and diseases, the

What Concerns Nebraskans About Trees & Forests



effects of drought on trees and forests and training for homeowners on how to make their properties Firewise® safe.

Even though researchers conducted the survey prior to the recent drought and the devastating summer wildfires, respondents in all age groups indicated concern about both the build up of dense brush and other materials in the forest understories and the effect of drought.

Older respondents—ages 40 years and over—expressed more concern about tree pests and diseases than did younger respondents—ages 19 to 39 years.

The survey also showed that both homeowners and landowners want to know how to select trees that are good for their area, those that offer best results and enhance their property value.

It's encouraging that many Nebraskans recognize that selecting the right plant for the right place better ensures that trees will become well established.

While many Nebraskans feel they need more information about the basics of managing trees and forests, most have a good grasp on how trees and forests affect our environment.

View survey results at: <http://nfs.unl.edu/documents/2012TreeSurvey.pdf>.

TOP 10

Facts Nebraskans Know

1. Trees & forests provide wildlife habitat.
2. Trees provide energy savings.
3. Trees provide clean air.
4. Trees prevent soil erosion.
5. Trees are a renewable resource.
6. Trees provide a sustainable source of wood for fuel.
7. Trees provide social benefits.
8. Trees increase real estate and property value.
9. Trees provide health benefits.
10. Trees absorb & store carbon dioxide.

SOUND INVESTMENT. Used primarily as a tender/grass rig, the Heart of the Hills (Lakeside) Fire Department's Hemmett 8 x 8 carries 2,500 gallons of water off-road. This vehicle follows grass rigs through the field or can be used as a grass rig alone. The fire department's initial investment to acquire the vehicle from the NFS was \$3,500.



Refurbish & Repurpose

IT MAY BE THE ULTIMATE IN recycling, but it's also a labor of love for a dedicated fire equipment manager who transforms used military vehicles into functional vehicles for Nebraska fire departments.

Lew Sieber's skill in turning used equipment into usable fire equipment provides a high return on invested taxpayer dollars. Since the 1960s, the Nebraska Forest Service has operated the Federal Excess Personal Property (FEPP) program, where NFS acquires, transports and refurbishes "excess" government equipment for rural fire districts to put in service for fire or emergency use. Almost all of Nebraska's 480 rural fire districts have used vehicles or equipment from this program at one time or another.

The fire seasons of 2006 and 2012 generated a very large increase in demand for the types of vehicles and services that the

NFS Fire Shop provides. This increase was met head on by personnel changes and the addition of a second program called Fire Fighter Property (FFP), which increased inventory in the field from 279 in 2006 to just under 480 in 2012.

In just 10 months, from Jan. 1 to Nov. 1, 2012, 75 pieces of equipment passed through the Mead facility to fire districts in Nebraska.

As NFS continues to acquire newer and better equipment, more and more fire districts are returning to the program to augment their aging fleets.

As this current trend continues, NFS will have fewer than 10 vehicles older than 1970 in the field by the end of 2012.

The Wildland Fire Protection Program experienced federal cuts in 2012, resulting in the loss of a reconditioning mechanic, and the Wildfire Suppression training and pre-suppression planning programs.

Despite these losses, Sieber doesn't anticipate losing the reconditioning program, which is popular with Nebraska fire departments. The program provides tremendous benefits to communities, especially those with limited financial resources.

In the first 10 months of 2012, 29 districts returned to the program and two partnerships were re-established with the Nebraska Emergency Management Agency and the Nebraska Game and Parks Commission.

This testimony supports the NFS commitment to provide the best return on investment of taxpayer dollars by recycling equipment and helping rural fire districts update their equipment.

"Without our program the volunteer fire departments would collectively need to raise at least \$45 million to replace these vehicles," Sieber said.



MEETING NEEDS. (Left) The Mitchell Rural Fire Department uses this 2.5-ton 6 x 6 as a grass rig, which carries 750 gallons of water. This vehicle is one of two vehicles the department acquired through the NFS Fire Shop. (Below) The Keystone-LeMoyno Fire Department, part of the Ogallala Rural Fire District, acquired this 5-ton Stewart-Stevenson rig. It is one of six vehicles of its type being used in the state.



REFURBISHED PAIR. The Scottsbluff Rural Fire Department acquired this pair of 2.5-ton M35AZ trucks to be used as grass rigs.

480
Number of used military vehicles refurbished for fire departments.

DID YOU KNOW?

NFS helps save Nebraska fire departments at least \$45 million by refurbishing and repurposing used military vehicles into usable fire equipment.

Grants/Cost-share Awarded to NFS Partners in 2012

County	Community	Organization/Project	FEPP/FFP*		County	Community	Organization/Project	FEPP/FFP*	
			Grant Amount	Replacement Value				Grant Amount	Replacement Value
Adams	Ayr	Hastings Rural Fire Dist.		1,700	Cass	Alvo	Eagle/Alvo Rural Fire Dist.		44,000
Adams	Holstein	Holstein Rural Fire Dist.		300,000	Cass	Avoca	Avoca Rural Fire Dist.		280,000
Adams	Kenesaw	Kenesaw Fire Dept.	2,500		Cass	Greenwood	Greenwood Rural Fire Dist.		43,000
Adams	Roseland	Roseland Rural Fire Dist.		341,600	Cass	Murdock	Murdock Rural Fire Dist.		222,000
Adams Total			2,500	643,300	Cass	Plattsmouth	Plattsmouth Rural Fire Dist.		43,000
Antelope	Clearwater	Clearwater Rural Fire Dist.		112,000	Cass	Union	Union Rural Fire Dist.		131,000
Antelope	Neligh	Neligh Rural Fire Dist.	2,150	302,000	Cass Total				763,000
Antelope	Oakdale	Oakdale Rural Fire Dist.		280,000	Cedar	Randolph	Randolph Rural Fire Dist.		45,000
Antelope Total			2,150	694,000	Cedar	Wynot	Wynot Fire Dept.	3,059	
Banner	Harrisburg	Banner Rural Fire Dist.		88,000	Cedar Total			3,059	45,000
Banner Total				88,000	Chase	Wauneta	Wauneta Rural Fire Dist.		112,000
Blaine	Brewster	Brewster Rural Fire Dist.	4,600	526,800	Chase Total				112,000
Blaine	Dunning	Dunning Rural Fire Dist.		464,000	Cherry	Barley	Barley Rural Fire Dist.		176,000
Blaine	Purdum	Purdum Rural Fire Dist.		88,000	Cherry	Cody	Cody Rural Fire Dist.		965,000
Blaine Total			4,600	1,078,800	Cherry	Kilgore	Kilgore Rural Fire Dist.		391,000
Boone	Albion	Albion Rural Fire Dist.		22,000	Cherry	Merriman	Merriman Rural Fire Dist.		651,000
Boone	Cedar Rapids	Cedar Rapids Rural Fire Dist.		414,000	Cherry	Nenzel	Mid-Cherry Rural Fire Dist.		560,000
Boone	Primrose	Primrose Rural Fire Dist.	2,000	570,500	Cherry	Valentine	Valentine Rural Fire Dist.		202,000
Boone	Saint Edward	Saint Edward Rural Fire Dist.		217,500	Cherry	Wood Lake	Wood Lake Rural Fire Dist.	4,600	88,000
Boone Total			2,000	1,224,000	Cherry	Landowners**		26,425	
Box Butte	Alliance	Alliance Rural Fire Dist.		405,000	Cherry Total			31,025	3,033,000
Box Butte		Landowners**	1,203		Cheyenne	Dalton	Dalton-Gurley Rural Fire Dist.		224,000
Box Butte Total			1,203	405,000	Cheyenne	Dalton	Village of Dalton Mtn Pine Beetle Treatments	1,125	
Boyd	Spencer	Spencer Rural Fire Dist.		392,000	Cheyenne	Potter	Potter Rural Fire Dist.	2,100	100,000
Boyd Total				392,000	Cheyenne Total			3,225	324,000
Brown	Ainsworth	Ainsworth Fire Dept.	2,500		Clay	Clay Center	Clay Center Rural Fire Dist.		113,000
Brown	Ainsworth	Brown County Rural Fire Dist.		200,000	Clay	Edgar	Edgar Rural Fire Dist.		43,000
Brown	Calamus	Brown County Rural Fire Dist.		120,000	Clay Total				156,000
Brown	Long Pine	Brown County Rural Fire Dist.		88,000	Colfax	Clarkson	Clarkson Rural Fire Dist.	4,600	22,000
Brown		Landowners**	77,990		Colfax	Howells	Howells Fire Dept.	2,600	
Brown Total			80,490	408,000	Colfax	Leigh	Leigh Rural Fire Dist.		112,000
Buffalo	Amherst	Amherst Rural Fire Dist.		670,000	Colfax	Schuyler	Schuyler Fire Dept.	2,680	
Buffalo	Pleasanton	Pleasanton Rural Fire Dist.	4,600	294,500	Colfax Total			9,880	134,000
Buffalo	Ravenna	Ravenna Rural Fire Dist.		68,000	Cuming	Beemer	Beemer Fire Dept.	1,100	
Buffalo Total			4,600	1,032,500	Cuming Total			1,100	
Burt	Craig	Craig Rural Fire Dist.		6,500	Custer	Anselmo	Anselmo Rural Fire Dist.		539,000
Burt Total				6,500	Custer	Ansley	Ansley Rural Fire Dist.		22,000
Butler	Bellwood	Bellwood Fire Dept.	1,396		Custer Total				561,000
Butler	Bruno	Bruno Rural Fire Dist.		49,500	Dakota	Homer	Homer Fire Dept.	317	
Butler	David City	Butler Co. Fire Prevention Coop.	500		Dakota Total			317	
Butler	David City	David City Fire Dept.	1,000		Dawes		Landowners**	300,349	
Butler	Dwight	Dwight Rural Fire Dist.	1,370	428,300	Dawes Total			300,349	
Butler	Linwood	East Central Prevention Coop.	150		Dawson	Eddyville	Eddyville Rural Fire Dist.		86,000
Butler	Rising City	Rising City Rural Fire Dist.		114,500	Dawson	Farnam	Farnam Rural Fire Dist.		162,500
Butler Total			4,416	592,300	Dawson	Sumner	Sumner Rural Fire Dist.		300,000
					Dawson Total				548,500

*FEPP/FFP = Federal Excess Personal Property/Federal Firefighter Property currently loaned to Rural Fire Districts

** = Landowners receiving cost-share funds for forest fuels treatment and/or forest management activities

County	Community	Organization/Project	FEPP/FFP*	
			Grant Amount	Replacement Value
Deuel	Big Springs	Big Springs Fire Dept.	3,000	
Deuel	Chappell	Chappell Rural Fire Dist.		220,000
Deuel Total			3,000	220,000
Dixon	Dixon	Dixon Rural Fire Dist.		368,000
Dixon	Newcastle	Newcastle Rural Fire Dist.		280,000
Dixon	Ponca	Ponca Rural Fire Dist.	250	112,000
Dixon	Wakefield	NE Nebraska Fire Prev. Coop.	250	
Dixon	Wakefield	Wakefield Fire Dept.	363	
Dixon Total			863	760,000
Dodge	Fremont	Fremont Rural Fire Dist.		520,000
Dodge	Hooper	Hooper Rural Fire Dist.		300,000
Dodge	Inglewood	Fremont Rural Fire Dist.		6,500
Dodge	North Bend	North Bend Rural Fire Dist.	4,600	263,000
Dodge	Scribner	Scribner Rural Fire Dist.		280,000
Dodge	Snyder	Snyder Rural Fire Dist.	664	13,800
Dodge	Snyder	Dodge County Firefighters	1,000	
Dodge	Uehling	Uehling Rural Fire Dist.		330,000
Dodge	Winslow	Winslow Rural Fire Dist.	1,600	568,000
Dodge Total			7,864	2,281,300
Douglas	Valley	Valley Rural Fire Dist.		1,300,000
Douglas Total				1,300,000
Dundy	Benkelman	Benkelman Rural Fire Dist.	2,780	176,000
Dundy Total			2,780	176,000
Filmore	Ohioa	Ohioa Rural Fire Dist.		200,000
Filmore Total				200,000
Franklin	Campbell	Campbell Rural Fire Dist.		354,000
Franklin	Franklin	Franklin Fire Dept.	2,518	
Franklin	Naponee	Naponee Rural Fire Dist.		43,000
Franklin	Riverton	Riverton Rural Fire Dist.		243,000
Franklin Total			2,518	640,000
Frontier	Curtis	Curtis Fire Dept.	1,900	
Frontier	Eustis	Eustis Rural Fire Dist.	2,090	308,000
Frontier	Maywood	Maywood-Wellfleet Rural Fire Dist.		106,500
Frontier Total			3,990	414,500
Furnas	Arapahoe	Holbrook-Edison-Arapahoe Rural Fire Dist.	70	158,500
Furnas	Oxford	Oxford Rural Fire Dist.		166,500
Furnas	Wilsonville	Wilsonville-Hendley Rural Fire Dist.		111,000
Furnas Total			70	436,000
Gage	Adams	Adams Rural Fire Dist.		76,800
Gage	Barneston	Barneston Rural Fire Dist.		215,000
Gage	Blue Springs	Blue Springs Rural Fire Dist.	1,625	86,000
Gage	Clatonia	Clatonia Rural Fire Dist.	2,500	32,000
Gage	Odell	Odell Rural Fire Dist.		12,000
Gage	Wymore	Wymore Rural Fire Dist.	2,125	12,000
Gage Total			6,250	433,800
Garden	Lewellen	Blue Creek Rural Fire Dist.		131,000
Garden	Oshkosh	Garden County Rural Fire Dist.		112,000
Garden Total				243,000

County	Community	Organization/Project	FEPP/FFP*	
			Grant Amount	Replacement Value
Garfield	Burwell	Burwell Rural Fire Dist.		43,000
Garfield Total				43,000
Gosper	Elwood	Gosper County Rural Fire Dist.		386,000
Gosper Total				386,000
Grant	Ashby	Rackett Rural Fire Dist.		286,000
Grant	Hyannis	Sandhills Rural Fire Dist.	1,250	336,000
Grant Total			1,250	622,000
Greeley	Greeley	Greeley Rural Fire Dist.		131,000
Greeley	Scotia	Scotia Rural Fire Dist.		43,000
Greeley	Spalding	Spalding Rural Fire Dist.		112,000
Greeley	Wolbach	Wolbach Rural Fire Dist.	2,800	131,000
Greeley Total			2,800	417,000
Hall	Cairo	Cairo Rural Fire Dist.		54,000
Hall	Doniphan	Doniphan Rural Fire Dist.		280,000
Hall Total				334,000
Hamilton	Giltner	Giltner Fire Dept.	2,000	
Hamilton	Marquette	Marquette Rural Fire Dist.		43,000
Hamilton	Phillips	Phillips Rural Fire Dist.		300,000
Hamilton Total			2,000	343,000
Harlan	Orleans	Orleans Rural Fire Dist.	4,600	830,000
Harlan	Stamford	Stamford Rural Fire Dist.		461,000
Harlan Total			4,600	1,291,000
Hayes	Hayes Center	Hayes County Rural Fire Dist.		43,000
Hayes Total				43,000
Hitchcock	Stratton	Stratton Rural Fire Dist.		224,000
Hitchcock Total				224,000
Holt	Chambers	Chambers Rural Fire Dist.		43,000
Holt	O'Neill	O'Neill Rural Fire Dist.		130,000
Holt	Page	Page Rural Fire Dist.		224,000
Holt	Stuart	Stuart Rural Fire Dist.		155,000
Holt Total				552,000
Hooker	Mullen	Mullen Rural Fire Dist.		224,000
Hooker Total				224,000
Howard	Boelus	Boelus Rural Fire Dist.		483,000
Howard	Dannebrog	Dannebrog Rural Fire Dist.	1,540	110,000
Howard	Elba	Elba Rural Fire Dist.		64,000
Howard	Farwell	Farwell Rural Fire Dist.		253,000
Howard Total			1,540	910,000
Jefferson	Daykin	Daykin Rural Fire Dist.	495	112,000
Jefferson	Diller	Diller Rural Fire Dist.		112,000
Jefferson	Plymouth	Plymouth Rural Fire Dist.	1,600	112,000
Jefferson Total			2,095	336,000
Johnson	Cook	Cook Rural Fire Dist.		43,000
Johnson	Sterling	Sterling Rural Fire Dist.		155,000
Johnson Total				198,000
Kearney	Axtell	Axtell Rural Fire Dist.	3,900	112,000
Kearney	Wilcox	Wilcox Rural Fire Dist.	3,600	88,000
Kearney Total			7,500	200,000

*FEPP/FFP = Federal Excess Personal Property/Federal Firefighter Property currently loaned to Rural Fire Districts

** = Landowners receiving cost-share funds for forest fuels treatment and/or forest management activities

County	Community	Organization/Project	Grant Amount	FEPP/FFP* Replacement Value
Keith	Brule	Brule Rural Fire Dist.		88,000
Keith	Keystone	Ogallala Rural Fire Dist.		1,196,000
Keith	Paxton	Paxton Rural Fire Dist.		46,000
Keith Total				1,330,000
Keya Paha	Springview	Keya Paha Rural Fire Dist.		43,000
Keya Paha		Landowners**	75,615	
Keya Paha Total				75,615 43,000
Kimball	Bushnell	Bushnell-Johnson Rural Fire Dist.	1,227	133,000
Kimball	Bushnell	Village of Bushnell Mtn Pine Beetle Treatments	2,292	
Kimball	Dix	Dix Fire Dept.	2,580	
Kimball		Landowners**	3,422	
Kimball Total				9,521 133,000
Knox	Crofton	Crofton Rural Fire Dist.		139,000
Knox Total				139,000
Lancaster	Bennet	Bennett Fire Dept.	1,500	
Lancaster	Firth	Firth Rural Fire Dist.	938	46,500
Lancaster	Hickman	Hickman Rural Fire Dist.		412,000
Lancaster	Lincoln	Nebr. Game & Parks Commission		43,000
Lancaster	Lincoln	Southeast Rural Fire Dist.		178,000
Lancaster	Waverly	Waverly Rural Fire Dist.		612,000
Lancaster Total				2,438 1,291,500
Lincoln	Hershey	Hershey Rural Fire Dist.		43,000
Lincoln	Maxwell	Maxwell Rural Fire Dist.		100,000
Lincoln	Wallace	Wallace Rural Fire Dist.	3,050	688,500
Lincoln Total				3,050 831,500
Logan	Stapleton	Stapleton Rural Fire Dist.		558,500
Logan Total				558,500
Loup	Taylor	Loup County Rural Fire Dist.	300	156,000
Loup Total				300 156,000
Madison	Battle Creek	Battle Creek Fire Dept.	1,450	
Madison Total				1,450
McPherson	Tryon	McPherson County Rural Fire Dist.		132,000
McPherson Total				132,000
Merrick	Chapman	Chapman Rural Fire Dist.		198,000
Merrick Total				198,000
Morrill	Bayard	Bayard Fire Dept.	3,400	
Morrill	Bridgeport	City of Bridgeport Mtn. Pine Beetle Treatments	413	
Morrill	Broadwater	Broadwater Rural Fire Dist.		362,000
Morrill		Landowners**	319	
Morrill Total				4,132 362,000
Nance	Belgrade	Belgrade Rural Fire Dist.		88,000
Nance Total				88,000
Nemaha	Julian	Brock-Julian Rural Fire Dist.		243,000
Nemaha	Nemaha	Nemaha Rural Fire Dist.	848	131,000
Nemaha Total				848 374,000

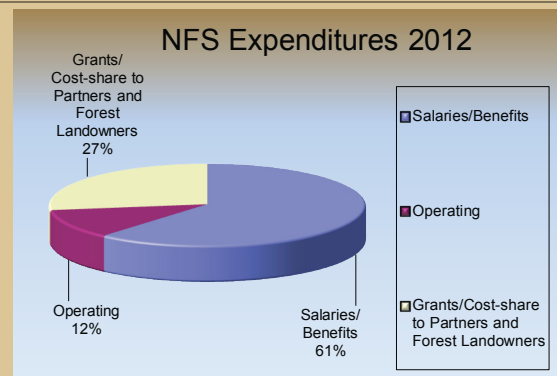
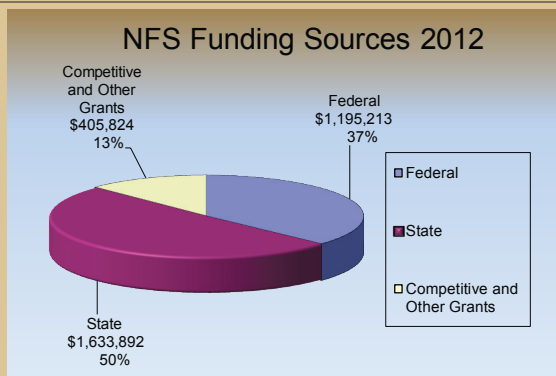
County	Community	Organization/Project	Grant Amount	FEPP/FFP* Replacement Value
Nuckolls	Lawrence	Lawrence Rural Fire Dist.		112,000
Nuckolls	Ruskin	Ruskin Rural Fire Dist.		88,000
Nuckolls Total				200,000
Otoe	Dunbar	Dunbar Rural Fire Dist.		112,000
Otoe	Nebraska City	Nebraska City Fire Dept.	2,000	
Otoe	Palmyra	Palmyra Fire Dept.	2,826	
Otoe	Syracuse	Syracuse Rural Fire Dist.		140,000
Otoe	Unadilla	Unadilla Rural Fire Dist.		46,500
Otoe Total			4,826	298,500
Pawnee	Burchard	Burchard Rural Fire Dist.		88,000
Pawnee	DuBois	DuBois Rural Fire Dist.		412,000
Pawnee	Pawnee City	Pawnee City Rural Fire Dist.		156,000
Pawnee Total				656,000
Perkins	Grant	Grant Fire Dept.	969	
Perkins	Madrid	Madrid Rural Fire Dist.		250,000
Perkins	Venango	Venango Rural Fire Dist.	4,363	119,000
Perkins Total			5,332	369,000
Phelps	Funk	Funk Rural Fire Dist.		112,000
Phelps Total				112,000
Pierce	Hadar	Hadar Rural Fire Dist.		177,000
Pierce Total				177,000
Platte	Monroe	Monroe Rural Fire Dist.		15,000
Platte	Platte Center	Platte Center Rural Fire Dist.		420,000
Platte Total				435,000
Polk	Osceola	Osceola Rural Fire Dist.		46,500
Polk	Polk	Polk Rural Fire Dist.		250,000
Polk	Shelby	Shelby Fire Dept.	4,600	
Polk Total			4,600	296,500
Red Willow	Indianola	Indianola Rural Fire Dist.		112,000
Red Willow	Lebanon	Beaver Valley Rural Fire Dist.	1,400	44,000
Red Willow Total			1,400	156,000
Richardson	Falls City	Falls City Rural Fire Dist.		43,000
Richardson	Humboldt	Humboldt Fire Dept.	4,600	
Richardson Total			4,600	43,000
Rock	Bassett	Gracy Rural Fire Dist.		355,000
Rock	Bassett	Rock County Rural Fire Dist.		152,000
Rock	Newport	Newport Rural Fire Dist.		653,000
Rock Total				1,160,000
Saline	DeWitt	Saline County Rural Fire Dist.		343,000
Saline	Dorchester	Saline County Rural Fire Dist.		275,000
Saline	Friend	Friend Fire Dept.	4,600	
Saline	Swanton	Swanton Fire Dept.	1,905	
Saline	Tobias	Saline County Rural Fire Dist.		200,000
Saline	Western	Saline County Rural Fire Dist.		100,000
Saline	Wilber	Saline County Rural Fire Dist.		43,000
Saline Total			6,505	961,000

*FEPP/FFP = Federal Excess Personal Property/Federal Firefighter Property currently loaned to Rural Fire Districts

** = Landowners receiving cost-share funds for forest fuels treatment and/or forest management activities

County	Community	Organization/Project	Grant Amount	FEPP/FFP* Replacement Value
Saunders	Ashland	Ashland Rural Fire Dist.		1,000,000
Saunders	Cedar Bluffs	Cedar Bluffs Rural Fire Dist.		388,000
Saunders	Ithaca	Ithaca Rural Fire Dist.		143,000
Saunders	Malmo	Malmo Rural Fire Dist.	4,600	244,000
Saunders	Mead	Mead Rural Fire Dist.	4,600	392,000
Saunders	Prague	Prague Rural Fire Dist.		293,000
Saunders	Valparaiso	Valparaiso Rural Fire Dist.		86,000
Saunders Total			9,200	2,546,000
Scotts Bluff	Gering	Gering Valley Rural Fire Dist.	426	88,000
Scotts Bluff	Henry	Henry Fire Dept.	365	131,000
Scotts Bluff	Lyman	Lyman-Kiowa Rural Fire Dist.		131,000
Scotts Bluff	Minatare	Minatare-Melbeta Rural Fire Dist.	440	88,000
Scotts Bluff	Mitchell	Mitchell Rural Fire Dist.	1,170	176,000
Scotts Bluff	Scottsbluff	Scottsbluff Rural Fire Dist.		176,000
Scotts Bluff		Landowners**	9,101	
Scotts Bluff Total			11,502	790,000
Seward	Bee	Seward County Rural Fire Dist.	4,600	58,000
Seward	Cordova	Seward County Rural Fire Dist.		88,000
Seward	Garland	Garland Fire Dept.	2,600	
Seward	Pleasant Dale	Seward County Rural Fire Dist.		20,000
Seward	Staplehurst	Staplehurst Rural Fire Dist.		66,000
Seward	Tamora	Seward County Rural Fire Dist.	2,076	15,000
Seward	Utica	Seward County Rural Fire Dist.		112,000
Seward Total			9,276	359,000
Sheridan	Gordon	Gordon Rural Fire Dist.		86,000
Sheridan	Hay Springs	Hay Springs Rural Fire Dist.	1,100	220,000
Sheridan	Lakeside	Heart of the Hills Rural Fire Dist.		250,000
Sheridan	Rushville	Rushville Rural Fire Dist.	3,400	113,800
Sheridan		Landowners**	119,797	
Sheridan Total			124,297	669,800
Sherman	Ashton	Ashton Rural Fire Dist.		27,000
Sherman Total				27,000
Sioux	Harrison	Harrison Rural Fire Dist.	3,250	612,000
Sioux		Landowners**	233,741	
Sioux Total			236,991	612,000

County	Community	Organization/Project	Grant Amount	FEPP/FFP* Replacement Value
Stanton	Pilger	Pilger Fire Dept.	4,400	
Stanton	Stanton	Stanton Rural Fire Dist.		155,000
Stanton Total			4,400	155,000
Thayer	Chester	Chester Rural Fire Dist.		39,000
Thayer	Deshler	Deshler Rural Fire Dist.		88,000
Thayer	Hebron	Hebron Rural Fire Dist.		575,000
Thayer	Hubbell	Hubbell Rural Fire Dist.		365,000
Thayer Total				1,067,000
Thomas	Halsey	Halsey Rural Fire Dist.		368,000
Thomas	Theford	Theford Rural Fire Dist.		251,000
Thomas Total				619,000
Valley	Arcadia	Arcadia Rural Fire Dist.		132,000
Valley	North Loup	North Loup Rural Fire Dist.		43,000
Valley		Landowners**	20,947	
Valley Total			20,947	175,000
Washington	Arlington	Arlington Fire Dept.	1,250	
Washington	Blair	Blair Fire Dept.	1,500	
Washington	Herman	Herman Rural Fire Dist.		112,000
Washington Total			2,750	112,000
Wayne	Carroll	Carroll Fire Dept.	4,000	
Wayne Total			4,000	
Webster	Bladen	Bladen Rural Fire Dist.		480,000
Webster	Blue Hill	Blue Hill Rural Fire Dist.		224,000
Webster	Guide Rock	Guide Rock Rural Fire Dist.		300,000
Webster	Red Cloud	Red Cloud Rural Fire Dist.		580,000
Webster Total				1,584,000
Wheeler	Bartlett	Wheeler County Rural Fire Dist.		134,000
Wheeler	Ericson	Wheeler County Rural Fire Dist.	2,390	112,000
Wheeler Total			2,390	246,000
York	Benedict	Benedict Rural Fire Dist.		112,000
York Total				112,000
State Fire Marshal Training Division			5,000	
Nebraska State Volunteer Firefighters Association			5,000	1,800
GRAND TOTAL			\$1,060,404	\$45,044,600



*FEPP/FFP = Federal Excess Personal Property/Federal Firefighter Property currently loaned to Rural Fire Districts

** = Landowners receiving cost-share funds for forest fuels treatment and/or forest management activities

Nebraska FOREST SERVICE

102 Forestry Hall
P.O. Box 830815
Lincoln, Nebraska
68583-0815
402.472.2944
nfs.unl.edu
@NEForestService
#NebForestService

Nebraska Forest Service Statewide Offices

Lincoln-Main Office

102 Forestry Hall, P.O. Box 830815
Lincoln, NE 68583-0815
402.472.2944
www.nfs.unl.edu trees@unl.edu

Steve Karloff, Southeast District Forester
402.472.3645 skarloff1@unl.edu

Dennis Adams, Rural Forestry Program Leader
402.472.5822 dadams2@unl.edu

Eric Berg, CFSL Program Leader
402.472.6511 eberg2@unl.edu

Mark Harrell, Forest Health Program Leader
402.472.6635 mharrell2@unl.edu

Don Westover, Wildland Fire Program Leader
402.472.6629 dwestover1@unl.edu

Bassett

Sandy Benson, Forest Fuel Mgmt. Specialist
P.O. Box 130
Bassett, NE 68714-0130
402.684.2290 sandra.benson@unl.edu

Chadron

Doak Nickerson, Northwest District Forester
Upper Niobrara-White NRD, 430 East 2nd St.
Chadron, NE 69337-2433
308.432.6190 hnickerson1@unl.edu

Fred McCartney, Forest Fuel Mgmt. Specialist
Upper Niobrara-White NRD, 430 East 2nd St.
Chadron, NE 69337-2433
308.432.8158 fmccartney2@unl.edu

Clay Center

Scott DeWald, South Central District Forester
South Central Agricultural Lab, P.O. Box 66
Clay Center, NE 68933-0066
402.762.4412 sdewald1@unl.edu

Lincoln, Lower Platte South NRD

Jay Seaton, NRD Forester
3125 Portia Street
P.O. Box 83851
Lincoln, NE 68501-3581
402.476.2729 jseaton.forester@lpsnrd.org

Mead

Lew Sieber, Fire Equipment Manager
Agricultural Research & Development Center
1071 County Road G
Ithaca, NE 68033
402.624.8061 lsieber2@unl.edu

North Platte

Rachel Allison, Southwest District Forester
West Central Research & Extension Center
402 West State Farm Road
North Platte, NE 69101-7751
308.696.6718 rachel.allison@unl.edu

Omaha

Graham Herbst, Community Forester Specialist
Douglas/Sarpy County Extension Office
8015 W. Center Road
Omaha, NE 68124
402.444.7875 gherbst2@unl.edu

Ord

Rich Woollen, North Central District Forester
Lower Loup NRD, P.O. Box 210
Ord, NE 68862-0210
308.728.3221 rwoollen1@unl.edu

Scottsbluff

Amy Seiler, Community Forestry Specialist
100547 Airport Road, P.O. Box 280
Scottsbluff, NE 69361-0280
308.632.2749 aseiler2@unl.edu

Wayne

Steve Rasmussen, Northeast District Forester
Wayne County Extension
510 N. Pearl St., Suite C
Wayne, NE 68787-1939
402.375.0101 srasmussen2@unl.edu

It is the policy of the University of Nebraska-Lincoln not to discriminate based upon age, race, ethnicity, color, national origin, gender, sex, pregnancy, disability, sexual orientation, genetic information, veteran's status, marital status, religion or political affiliation.

UNIVERSITY OF
Nebraska
Lincoln