

KANSAS FOREST SERVICE

ANNUAL REPORT 2021



Letter from State Forester Jason Hartman

Dear Partners and Friends of the Kansas Forest Service,

Reflecting on the year just gone by is one of the advantages of the process of creating the KFS Annual Report. As I think back on 2021, the overarching theme is relearning. We have all had to relearn and re-engage in what were once common everyday activities. These pages highlight stories of the success KFS staff have had in learning how to accomplish old tasks in new ways.

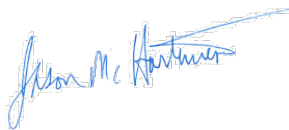
Urban and Community Forestry staff found new ways to deliver training to our community professionals, our volunteer tree boards, and the general public. By utilizing the virtual environment, the KFS staff were able to reach all our target audiences and more!

Staff turned to our established in state relationships with KS Department of Wildlife and Parks to continue monitoring effects of the Emerald Ash Borer when focus at the federal level was reduced. We have long worked with KDWP on matters of management of habitat, and it was good to learn new ways to expand that relationship into keeping Kansas forest healthy.

Throughout the nation the term megafires has become a normal topic of conversation. Kansas has had its share of megafires. A lesser talked about aspect of the megafires is the resulting recovery work that lasts years past when the smoke clears. Along with Clark County, the KFS Fire Staff learned of the dedication and effort it takes to rehabilitate the land from fires like the Starbuck fire. The staff had the opportunity to assist Clark County with a FEMA post fire hazardous fuels mitigation grant for the Starbuck fire area in and around Ashland and Englewood. Although we are hopeful that Kansas will not have megafires in the future, we are thankful for the relationships and skills that have been developed due to these unfortunate situations.

If there are ways that I can work with you and your organization to learn how to better serve Kansas together in 2022 and beyond I welcome that opportunity.

Sincerely,



Jason Hartman
State Forester





Above: Community Forester Kim Bomberger taught tree identification courses from her dining room table during the pandemic. Courses included basic, advanced and common Kansas tree identification.

VIRTUAL TREE ID

The COVID-19 pandemic has drastically altered the way individuals interact with the world and the people around them. Many turned to their immediate surroundings in the outdoors for entertainment and solace but found they perhaps didn't know much about what surrounded them.

Community Forester Kim Bomberger recognized an opportunity to connect to Kansans through tree species identification. While travel restrictions and social distancing requirements prevented traditional outreach and education events from happening, it encouraged Kansas Forest Service staff to find new ways to reach their audiences – Bomberger knew that while not ideal, tree identification courses could be offered virtually.

“As a Community Forester I am tasked with supporting and educating tree board members, city staff and decision-makers about the value and importance of trees in their communities,” said Bomberger. “We normally conduct tree identification courses in person where we can learn the unique characteristics of trees using all our senses – touch, sight, smell – but we had to adapt.”

Little did she know just how successful the courses would be. Over the total of 16 course hours, 1,120 students

from across the United States and beyond learned to identify the most abundant trees in the rural landscapes and communities of Kansas. By adapting to limitations, Bomberger was able to reach significantly more people than she could have with in person courses.

“In each course, ranging from introductory to advanced tree identification, we discussed the importance of landscape diversity and why it is so important to protecting our declining urban canopy,” said Bomberger.

The ability to correctly identify tree species is important for insect and disease treatment, accurate diagnosis and proper land and tree management. By recognizing the different characteristics in trees, species diversity on private and public lands can be increased, building resilience in our tree and forested resources.



EAB Monitoring on Public Lands

Over the last 20 years, Emerald Ash Borer (EAB) has killed millions of ash trees, and is now widely considered the most destructive tree pest to date. EAB was first detected in Michigan in 2002, and it was found in Wyandotte County in 2012.

Since the initial detection, EAB has been found in a total of 10 counties in northeast Kansas including: Wyandotte (2012), Johnson (2013), Leavenworth (2014), Douglas (2015), Jefferson (2015), Atchison (2016), Doniphan (2017), Shawnee (2017), Miami (2019), and Jackson (2019).

“Fortunately for Kansas, EAB appears to be moving more slowly through Kansas than it has in some other states,” said Ryan Armbrust, Forest Health Coordinator with the Kansas Forest Service.

“To date, our only detections of EAB have been in a contiguous area in northeast Kansas, even though we’ve been looking pretty hard in many other counties throughout the eastern half of the state,” said Armbrust.

As part of this effort to address emerald ash borer’s impact, Kansas Forest Service partnered with the Kansas Department of Wildlife and Parks to place girdled trap trees for detection of EAB in high-use areas.

Girdling is the complete removal of bark from around the entire circumference of the trunk of the tree into the cambium. Removing the bark stresses the tree putting it into a state of decline, which makes it more attractive to EAB. If left standing after girdling, the tree would eventually die.

EAB trap trees are girdled in the spring, then in the fall they are cut down and peeled with a drawknife, removing the bark to check for EAB larvae.

Trap trees were placed at 20 high-use sites on KDWP properties including camp sites and fishing lakes. These areas are considered high risk for transmission of EAB because of the movement of firewood to the sites.

“By placing these trap trees in areas outside known infested counties, and in areas that get pretty high use, we hope to find EAB as early as we can if it’s there,” said Armbrust. “Early detection really helps guide communities in planning how to reduce EAB’s threat by treating high-value trees and starting to replace others with a more diverse mix of species.”

Some of the trap trees were in counties adjacent to counties with detections of infection in northeast Kansas. Other trap trees were placed on KDWP properties in from the Nebraska border to far southeast Kansas.

After peeling trees in the fall, no EAB larvae were found.

“While it’s a little anti-climactic when you peel the bark off a tree and don’t find anything, that’s really what we’d like to see, because that’s a pretty good indicator that there isn’t any significant population of EAB in that area yet,” said Armbrust.



Clark County Fuels Reduction

Dead standing trees torched by the flames of the 2017 Starbuck Fire have long stood as a reminder of the devastation caused by the largest recorded wildfire in state history.

Millie Fudge, the Clark County Emergency Manager, managed the county's emergency operations center for the fire in 2017. She is now leading the efforts of the Clark County Fuels Mitigation Project to reduce and remove hazardous fuels and the dead trees left behind when the fire burned through the town of Englewood and along the north and east side of Ashland.

In 2018, Clark County was awarded a Fire Management Assistance Grant - Hazard Mitigation Grant. The grant was submitted for the purpose of reducing and removing fuels in and around the towns of Englewood and Ashland Kansas. Reducing fuels, primarily eastern red cedar in and around both towns, decreases fire susceptibility and fire intensity in the event of another wildfire.

Trees were cut and piled around both communities by contractors. However, assessments, appraisals, delays, and contractor costs exceeded the match Clark County was able to provide.

"After being approached by Emergency Manager Fudge, we decided to assist Clark County with the match by providing in-kind services to help the fire departments (both Englewood and Ashland) with the continual monitoring and watching of the burn piles created by the contractors who were doing the contracted fuels work," explained State Forester Jason Hartman. "Reducing hazardous fuels and

supporting our Kansas communities is something we have been called directly to do."

The Englewood Fire Department and the Ashland Fire Department initially ignited approximately 10 piles in each town in mid-June and did the initial watch for twelve hours. The Kansas Forest Service along with two KFS Fire Protection Specialists took over the pile burn watch for the next four days. When the piles were well consumed, the fire departments from both towns extinguished the remaining embers.

The pile burning in both towns was then done in the same manner on planned weeks during in July, August, and September when the Kansas Forest Service and local Fire Departments could get enough individuals to do ignitions and monitoring the piles for the following four days. As indicated before, the fire departments in both towns did the initial ignitions and the Kansas Forest Service took over the piles to monitor so all the fire department volunteers could return home or their establishments of employment.

In Englewood, there were six project areas with a total of 569 acres and 44 burn piles. In Ashland, there was eight project areas with a total of 197 acres and 61 burn piles.

Dennis Carlson, Assistant Fire Management Officer noted, "With the significant work done by everyone involved with this project, it will provide long lasting effects making a safer and more resilient community for the residents of Englewood and Ashland Kansas."

KFS Wildland Fire staff supported local fire departments with pile burning.



**Protect totals:
766 acres treated
105 piles burned**

2021 BY THE NUMBERS

UTILIZATION & MARKETING

44 active sawmills operated in Kansas

49 timber buyers active in Kansas

CONSERVATION SEEDLINGS

234,575 seedlings distributed in the 2020 fall season and 2021 spring sales

617,600 seeds distributed in bulk for direct seeding projects

WILDLAND FIRE

887 hours of training provided

43.5 hours of flight time on direct suppression

1,166 students instructed

168 fire departments reached through training and course delivery

25 pieces of equipment issued to Kansas fire departments valued at:

\$2.72 million

FOREST HEALTH

600 river miles through **15** counties in western Kansas surveyed for invasive tamarisk and Russian-olive

125 invasive callery pear trees treated for a removal trial

0 new forest pest found established in 2021

229 walnut trees mapped and rated for condition to monitor for potential TCD-related decline

STREAMSIDE FORESTRY

20 streambank projects

45.3 acres cover cropped

10.6 acres acres planted with bareroot seedlings

42 acres direct seeded

COMMUNITY FORESTRY

207 technical assists to communities

23 trainings, workshops and public speaking events

96 Tree City USA communities with 16,461 volunteer hours and spent 19.7 million dollars

RURAL FORESTRY

524 acres of windbreak renovation

1,929 acres of timber stand improvement

1,113 acres of timber stand marking

3,160 acres of windbreak establishment

118 acres of tree planting

8,098 acres under Forest Stewardship Plans

Grant Awards and Financials

The Kansas Forest Service receives funding from four major sources: federal funds through the U.S. Forest Service, competitive grants, fee generation through technical assistance, conservation plant materials sales, and an allocation from the state general fund. Grants and funds described here are from the state and federal fiscal year 2021.

Federal funding is based on the federal fiscal year: October 1, 2020 - September 30, 2021
State funding is based on the State of Kansas fiscal year: July 1, 2020 - June 30, 2021

Consolidated Payment Grant 2020

USDA Forest Service
\$1,746,567

U.S. Forest Service provides annual funding to KFS through the Cooperative Forestry Assistance Program. The funding is intended to assist in the advancement of forest resources management; encouragement of the production of timber; control of insects and diseases affecting trees and forests; the control of rural fires; efficient utilization of wood and wood residues, including the recycling of wood fiber; improvement and maintenance of fish and wildlife habitat; and planning and conducting urban and community forestry programs.

Forest Health Management	
Forest Health Monitoring	\$21,000
Survey & Technical Assistance	\$62,000
Great Plains Forest Health	\$25,000
Invasives	\$5,000
Cooperative Fire Assistance	\$68,4495
Volunteer Fire Assistance	\$45,2143
Forest Stewardship	\$14,6321
Urban/Community Forestry	\$350,608

Conservation Reserve Program

USDA Forest Service
\$13,525

The goal of this program is to reduce soil erosion on cropland and in riparian areas through planning and implementing forestry conservation tree planting practices on private lands. Forestry expertise is needed to prepare conservation tree planting plans and assist other natural resource agencies, primarily the Natural Resource Conservation Service field personnel, in plan preparation and follow up practice inspection. Forestry expertise in Kansas is limited or nonexistent in other natural resource agencies.

Forest Service Allocation

Kansas State University
\$372,421

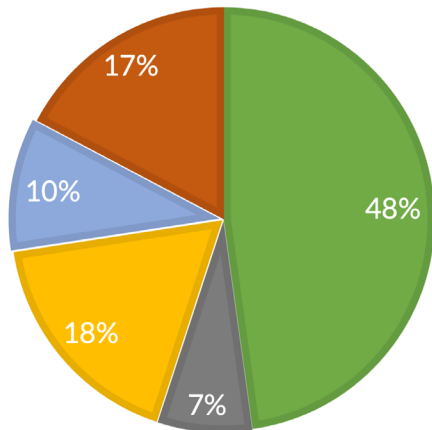
Kansas Univeristy provides an annual allocation to the Kansas Forest Service to support the pursuit of 16 allocated duties outlined in 76-425d. of the statute establishing the Kansas Forest Service.

Wildfire Suppression and Mitigation Allocation

State of Kansas
\$636,710

Funding for state-wide wildfire supression, mitigation, and training of Kansas firefighters.

Kansas Forest Service FY 2020/21 Budget



- FY20 Federal Funds, \$1,746,567
- FY20 Competitive Grants, \$266,297
- FY20 Fee Generation & Tree & Shrub Sales, \$646,379
- FY21 State General Funds, \$372,421
- FY21 State Wildfire Suppression, \$636,710

Total: \$3,681,899

Thousand Cankers Disease/Walnuts

USDA Forest Service
\$36,856

Since first being described in 2008 in Colorado, Thousand Cankers Disease (TCD) has been detected in nine western and three eastern states, but not yet in Kansas or Missouri. However, TCD has been found in several eastern Colorado towns near Kansas, along highways that lead eastward to the native range of black walnut in eastern Kansas and Missouri. Shortly after TCD was described, a project that aimed to identify black walnut “sentinel trees” across Kansas that could be monitored for symptoms of TCD succeeded in locating these trees throughout the state, but was not able to be fully implemented due to lack of funding. Systematic monitoring of these trees will allow for early detection of decline, and identify targets for WTB trapping. KFS is currently working on updating and expanding this existing dataset from 2009/10 that was created to survey for early detection of TCD in Kansas. These “sentinel walnuts” are being located, assessed for condition, and photographed to better track any future canopy decline. With the nearest known location of TCD in Eads, CO., the known walnuts in western Kansas were prioritized in 2021. So far, 227 trees have had information updated, using ArcGIS Field Maps to collect the information.

Improving Bur Oak Resiliency

USDA Forest Service
\$116,711

KFS and the Nebraska Forest Service received a multi-state Landscape Scale Restoration grant from USDA Forest Service to assess and respond to impacts on bur oaks in the Great Plains. This project is the initial phase of a broader program to improve bur oak resiliency by examining herbicide injury and damaging oak galls. This first phase will focus on 20 priority landscapes 11 in Nebraska, and 9 in Kansas encompassing multiple forest resources including woodlands, rural community forests & conservation & shelterbelt plantings. A stakeholder survey will provide information about the extent of bur oak damage by these threats. Herbicide symptom documentation and tissue tests will provide baseline data currently lacking on the effects of herbicides on bur oak. Seed sources that are potentially resistant to galls will be identified. Test/demo plots will be established with a long-term outcome of improved bur oak lines. Initial activities include collecting samples of bur oaks potentially impacted by herbicides for tissue analysis and assessing impact from three different gall-forming insects.



Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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