

KANSAS FOREST SERVICE

ANNUAL REPORT 2020



KANSAS



FOREST
SERVICE

KANSAS STATE UNIVERSITY

A Note from State Forester Jason Hartman

February 1, 2021

Dear Partners and Friends of the Kansas Forest Service,

The attached Annual Report for the Kansas Forest Service is an opportunity to reflect back on a time that will not be easily forgotten. As these pages show, the staff of KFS continued on doing great work during a world-wide pandemic that presented unprecedented challenges. This was not a unique situation to us; everyone in Kansas, the country and throughout the world faced enormous challenges. What we learned and the lessons we take away is what will define us all.

Even without the challenges of the pandemic, there was much for me to learn in the State Fiscal Year 2020 timeframe covered in this report. For much of that time I was learning and adjusting to being the State Forester for Kansas Forest Service. Likewise, the staff was getting used to having someone new in the front corner office. Early on I enjoyed learning KFS by the numbers as you will as well in this report. Learning such thing as that the forest industry in Kansas has nearly 50 operating sawmills, and that we have some of the longest running, and an impressive number, of nearly 100 recognized Tree City USA sites. However, the most valuable lesson I learned was one that my predecessor, Larry Biles, had prepared me for as he and I transitioned. It would be very challenging to find a group of natural resource and wildland fire management professionals with greater dedication and desire to serve!

I continue to be humbled at the opportunity to assist this great staff as we commit to learning and growing more in 2021. Thank you for your support of the Kansas Forest Service.

Sincerely,



Jason Hartman
State Forester
Kansas Forest Service



FY 2020 by the numbers

Program accomplishments from June 2019 - July 2020.

Water

23.52 acres cover cropped for tree & shrub establishment

12.4 acres planted with bareroot seedlings

53.49 acres direct seeded with trees & shrubs

4 streambank live cutting plantings



Community

225 technical assists to communities

93 Tree City USA communities with 17,636 volunteer hours and spent 19.8 million dollars

38 trainings, workshops and public speaking events



Marketing & Utilization

49 active sawmills operated in Kansas

81 attendees at the ROI Carbonator 500 biochar demonstration

50 timber buyers active in Kansas

\$25,000 awarded in biochar grants to five projects in Kansas



Learn more at KansasForests.org

Rural Forestry

1,373 acres of tree planting

3,026 acres of timber stand improvement

9,417 acres of under Forest Stewardship Plans

2,181 acres of windbreak establishment



1,040 acres of windbreak renovation

100 acres of woodland harvests

1,788 acres of timberstand marking

209.7 acres of riparian forest buffers



Wildland Fire

350 hours of training provided

112 fire departments reached through training and course delivery

864 firefighters trained in Kansas

59 pieces of equipment issued to Kansas fire departments

\$6.28 million dollars of equipment issued

Forest Health

27,151 pines counted and surveyed for Pine Wilt

65 locations surveyed for callery pear infestation

0 new Kansas county detections for emerald ash borer

300+ acres of forestland restored from bush honeysuckle infestations

Conservation Trees

260,690 seedlings distributed in the 2019 fall season and 2020 spring sale season

2,458 orders shipped

2.68 million seeds distributed in bulk for direct seeding projects



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 2020.

Federal funding is based on the federal fiscal year: October 1, 2019 - September 30, 2020
 State funding is based on the State of Kansas fiscal year: July 1, 2019 - June 30, 2020

Consolidated Payment Grant 2020

USDA Forest Service
 \$1,519,115

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	\$620,943
Volunteer Fire Assistance	\$394,259
Forest Stewardship	\$170,910
Urban/Community Forestry	\$304,200

Conservation Reserve Program

USDA Forest Service
 \$10,420

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.

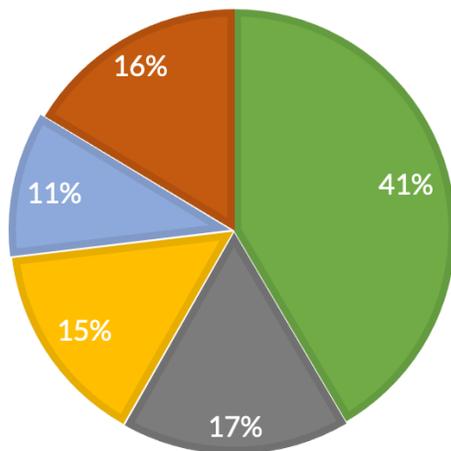
Native Shrub Seed Orchard

USDA Forest Service
 \$15,000

The purpose of this project is to establish native shrub orchards to be managed as long-term seed sources for the Kansas Forest Service's Conservation Trees Program. The orchards will be dedicated to producing chokecherry, dwarf chinquapin oak, black walnut, and Konza-variety fragrant sumac, with possible additions of other species.



Kansas Forest Service FY 2020 Budget



- FY20 Federal Funds, \$1,650,500
- FY20 Competitive Grants, \$661,856
- FY20 Fee Generation & Tree & Shrub Sales, \$591,481
- FY20 State General Funds, \$419,114
- FY20 State Wildfire Suppression, \$650,000

Total: \$3,972,951

Thousand Cankers Disease/Walnuts

USDA Forest Service
\$36,856

The Kansas Forest Service has secured competitive grant funding to help protect black walnuts from Thousand Cankers Disease (TCD) by monitoring sentinel trees across western Kansas for signs of decline. TCD, a fatal disease of black walnuts first described in 2008, has not yet been found in Kansas or Missouri, but is known to exist in several locations in eastern Colorado. Should TCD become established in Kansas, an economic loss of more than \$160 million has been estimated over the next two decades.

Plants that Tell a Story

USDA Forest Service
\$10,000

The purpose of this project is to create a field guide for landowners and conservationists to conduct basic but meaningful ecological evaluations of forests and woodlands. The plant indicator guide will be an approachable and relatively quick reference document for diagnosing ecological condition in forests and woodlands. The guide will focus on a selection of indicator species which allow users to reliably identify different states of ecological complexity and functionality.

Landscape Stewardship

USDA Forest Service
\$600,000

In 2020 the Kansas Forest Service was awarded two \$300,000 Landscape Scale Restoration grants from the USDA Forest Service. The grants will improve water quality and quantity in 14 high priority watersheds in Kansas and support Kansas Forest Service staff members that work with the Interagency Streambank Protection Team and the Kickapoo Tribe in Kansas. The grants will restore over 24 miles of riparian forest buffers through 75 streambank stabilization projects & 900 acres of forest stand improvement practices.

Forest Service Allocation

Kansas State University
\$357,956

Kansas University 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
\$650,000

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



Wildland Fire Management

In what may have been one of the most challenging years for Kansas firefighters and first responders due to the COVID-19 pandemic, KFS Wildland Fire Management Program staff remained dedicated to serving local and volunteer fire departments through incident support, training and excess equipment. The efforts of the program were bolstered by a \$650,000 budget allocated by the Kansas Legislature.

District Fire Management Officers provided incident support on multiple wildfires, including the EWB Fire in Barber County (5,500 acres) and the Cherry Creek Fire (6,000 acres) in Cheyenne County. The Great Plains

Interstate Fire Compact was initiated this year for the 412 Fire in Oklahoma to prevent spread into Kansas. Air Tanker 95 was assigned to each of these large fires and several others in the state, working closely with local fire departments and KFS DFMOs. All aviation costs were funded through the state appropriated funds.

Training courses were adapted to ensure the safety of firefighters and staff by offering online and remote delivery. The KFS Wildland Fire Management Program will continue to adjust programs and deliverables to meet the needs of Kansas firefighters, chiefs, communities and landowners.



Conservation Trees

The staff of the KFS Conservation Trees Program focused on keeping themselves and the seedlings safe and healthy during the COVID-19 pandemic resulting in a record season of sales.

The announcement was made in mid-March of 2020 that all staff of the Kansas Forest Service should work remotely for two weeks to reduce the spread of the COVID-19 pandemic during the height of sales and shipping for the Conservation Trees Program.

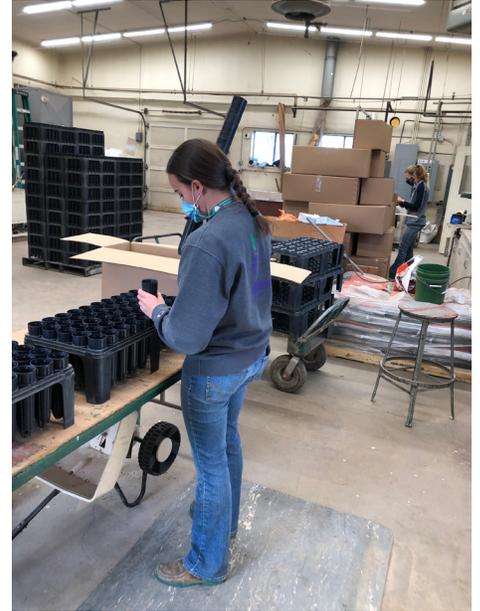
Conservation Tree Program staff knew they could not abandon the seedlings in the greenhouse, or the thousands of orders placed by Kansans. They created a plan that would minimize interaction and exposure, while maintaining the needed workforce.

To mitigate exposure, staff and student workers maintained the suggested six feet for social distancing and wore masks the entire time they were working. Additionally, all phone orders were forwarded to a single line allowing sales staff to take and process orders from their home

offices. Online orders continued to increase in popularity.

As a result of their dedication to the Conservation Tree Program, the staff produced a record year, shipping 260,690 seedlings from 2,458 orders – selling out nearly all of the seedling stock for the spring planting season. They additionally shipped 8,000 stratified Black walnut and Pecan seed and 2,680,472 seeds distributed in bulk for direct seeding projects.

In a year when many public services were forced to halt, the staff of the Conservation Tree Program provided Kansans the opportunity to implement conservation plantings.



Emma and Grace, KFS student employees, prepare tubes for container-grown seedlings.





Fifty years of urban forestry: cultivating resilient urban forests for northwest Kansas

Digitizing historical tree inventories provides opportunities for trend analysis guiding plans for conserving urban forests in Northwest Kansas.

Urban forest inventories conducted over the last half century by KFS foresters have provided 43 towns across northwest Kansas with information and recommendations necessary to effectively manage their street tree populations. These historical inventories and the corresponding management plans have been fully digitized using ArcGIS Online, with species distribution tables and management plans attached to each point as PDF files and editable attribute tables.

Pulling these records out of the filing cabinets and organizing them into a format capable of automated analysis allows us to explore urban forestry in northwest Kansas through the years - illustrating lessons learned in the past - and guiding our future plans for conserving northwest Kansas's urban forests.

Preliminary analyses of the historical inventories show a staggering species dominance of American

and Siberian elm in every single town inventoried. For inventories conducted in the early- to mid-1970's, elms occupied 45-80% of street tree canopies. The infection

of Dutch Elm Disease (DED) in the late 1970's and early 1980's caused roughly 60% loss of American elms across the district. Recent inventories indicate Siberian elms and DED-resistant hybrid elms still occupy about 30% or more of urban canopy in northwest Kansas.

TOP FIVE TREE SPECIES in northwest Kansas

1. **ELM**
2. **HONEY LOCUST**
3. **JUNIPER**
4. **GREEN ASH**
5. **COTTONWOOD**



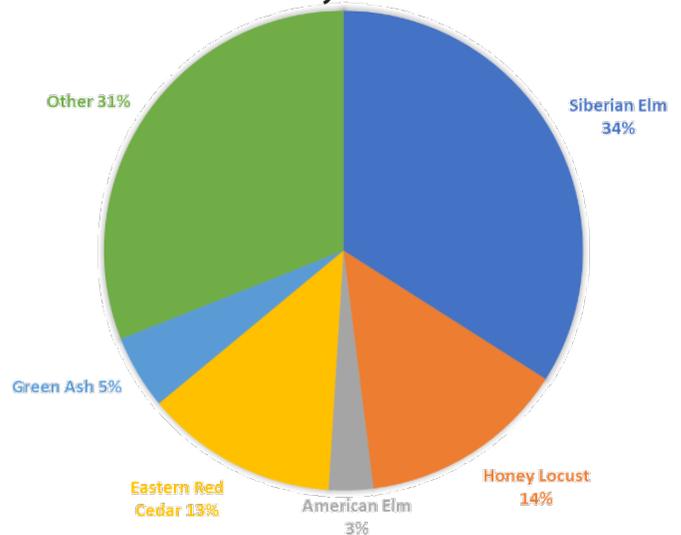
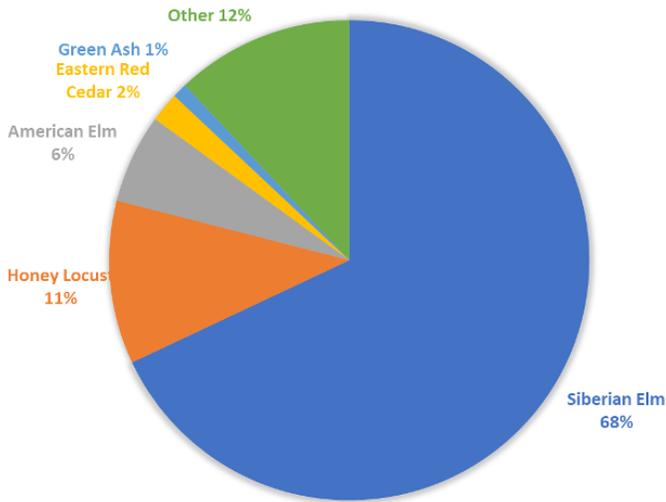
Across the district, the top ten species present in urban canopies include elm, honey locust, juniper, green ash, cottonwood, crabapple, hackberry, pear, pine, and silver

maple (listed in order of prevalence). Of course, with the dominance of elm in all communities, the percentages occupied by the other "top ten" species are extremely low. Generally, honey locust, juniper, ash, and cottonwoods compose 5-15% of the canopies,

GOODLAND, KANSAS

1972 - 6,788 trees

2002 - 3,750 trees



and crabapple, hackberry, pear, pine, and silver maple comprise 2-5%. Individual species composing less than 1% of the canopy were lumped together as “miscellaneous trees”, which together comprise around 5% of the canopy. Though as little as one tree can be counted as a representative of a particular species within the canopy, the diversity of the “miscellaneous trees” category has proven relatively impressive for street trees of northwest Kansas. An estimated average of at least 30 species are present in most of the inventories.

to tease apart other causes for canopy loss, which may include urban sprawl, destructive weather events, intense drought, and loss of funds for tree management and staffing.

Future work for this study includes identifying a defensible method of tree selection for species trialing throughout northwest Kansas, pinpointing causes of canopy loss, and finding funding avenues to conduct updated inventories. A recent grant awarded to the KFS Community Forestry program is slated to fund the complete inventories of 10 TCUSA participants in summer 2021. Inventories will be conducted by tree boards, city staff, and volunteer citizens. A series of tree identification and inventorying workshops will be held in spring 2021.

Repeat inventories conducted in towns which actively participate in the Arbor Day Foundation’s annual Tree City USA (TCUSA) program indicate dramatic canopy change over the last 50 years. In communities with dedicated forestry staff, such as Beloit and Hays, street tree canopy has nearly doubled in size. For many towns which must rely on volunteer groups or city employees without dedicated forestry duties to manage street trees, roughly 60% of the canopy has been lost. Additional analysis is needed



This work was made possible by a partnership between KFS District 7 forester, Jami Seirer, and the Hays High School Career Explorations program, offering unpaid internships to Hays High seniors. All data entry was conducted by Zoe Buffington (pictured at left), Hays High Class of 2020.



Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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