



Kansas Forest Service 2014 Annual Report



Stabilizing Stream Banks: One of the Kansas Forest Service's 16 Legislated Duties

Underground and surface water issues were brought to the forefront in Kansas in 2014.

The increasing loss of streamside forests is contributing to reservoir sedimentation and nutrient loading so that many Kansas reservoirs have lost more than 40 percent of their water storage capacity and are experiencing frequent algal blooms.

The 2013 Kansas Legislature, through Senate Bill # 43, proposed the Kansas Water Office prepare a comprehensive plan with specific instructions to employ stream bank stabilization and other methods to reduce sedimentation in watersheds above water supply reservoirs.

Legislative and executive action continued in 2014 as the legislature and governor approved securing a \$20 million bond to dredge the John Redmond reservoir. The governor commissioned a *50 Year Vision for the Future of Water in Kansas*. An

outcome of this vision is language directing state agencies to “Define a strategy to reduce all federal reservoir sedimentation inflow rates ...” and to “Create a streamside forest conservation program in priority watersheds and incentivize streamside forest conservation to landowners sustaining riparian forests.”

The Kansas Forest Service has taken an active role in the governor’s water vision discussions and submitted the following.

Vision

Kansas will have a riparian forest conservation framework for priority reservoir watersheds.

Mission

Working with stakeholders, develop policy and tools to sustain the storage capacity and to improve the quality of water in reservoirs by reducing the flow and accumulation of sediment and nutrients from

Kansas drinking water supplies are at risk. Loss of streamside forests is contributing to reservoir sedimentation and nutrient loading. Many Kansas reservoirs have lost more than 40 percent of their water storage capacity and are experiencing frequent algal blooms.

The Kansas Forest Service’s goals, in support of the governor’s *Vision for the Future of Water Supply in Kansas* include:

- Establishing a streamside forest protection funding source.
- Slowing the loss of water storage in federal, state, and local reservoirs.
- Slowing the flow of pollutants that impair water quality.
- Define a strategy to reduce sedimentation inflow rates.



Larry Biles
Kansas State Forester

collapsing stream banks and surface runoff.

Goals

No net storage loss in federal, state and local water impoundments and no additional water quality impairments entering water impoundments.

Strategies

No net loss of streamside forests.

- Establish a streamside forest protection funding source.
- Establish baseline streamside forests data for each federal reservoir watershed.
- Employ forest technical assistance agents for each of the federal reservoir watersheds.
- Incentivize stream bank protection by providing annual forest protection and improvement rental payments to subscribing landowners.

Launch research studies to:

- Determine the impact and value of riparian forest on stream bank erosion.
- Determine the environmental service values of existing riparian forest (stream bank stabilization, nutrient uptake,

hydrological impacts, carbon sequestration, etc.).

- Determine what it will take to restore the hydrograph.
- Investigate landowner attitudes towards riparian forests.

In addition to being a legislated duty, much of this plan is contained in the *Kansas Forest Services Action Plan*. We are diligently working to advance an understanding and appreciation of stream side forest on water quality and quantity with emphasis on stream bank stabilization and nutrient absorption. The methods used to advance an understanding of streamside forest values and to initiate the adoption of streamside forest practices are:

- Classifying functioning condition of riparian forest,
- Targeting outreach,
- Working through local watershed groups to sustain, manage, and establish riparian forests, and
- Preparing management plans.

Ready to Act

To date, four priority watersheds have been assessed. These assessments have uncovered a number of hot spots, thus through landowner overlays, the Kansas Forest Service has identified landowners who are ideal targets for information and streamside forest technical services. Materials provided to these landowners detail the issues, identify types of practices necessary to improve the issues, highlight available technical services, and summarize cost-share assistance available for addressing the issue.

In addition, the agency is working with local establishments to extend limited technical services and to capitalizing on peer-to-peer relationships.

The Kansas Forest Service envisions the state to soon have a Riparian Forest Conservation Framework for priority reservoir watersheds. In addition, the agency envisions that policy will soon be established and tools, in concert with stakeholders, will be developed to sustain the storage capacity and to improve the quality of water in reservoirs. Failing to achieve these measures puts a significant portion of the state's drinking water supply in jeopardy.



Rural Woodland Threats: Emerald Ash Borer, Thousand Canker Disease, and Bush Honeysuckle

Nearly 10 percent of Kansas is covered by forestland of one type or another, with much of that estimated 5 million acres of forestland occurring as linear woodlands along rivers and streams.

In those riparian forests throughout the state, cottonwood, hackberry, and green ash thrive in the erodible, lowland soils immediately adjacent to the streams and rivers. In the eastern third of the state, black walnut is a major component of these streamside woodlands, as well.

By volume of timber, green ash is the third-most prevalent species in Kansas, with black walnut ranking sixth. An estimated 60 million green ash and more than 26 million black walnuts are now at risk from invasive insects and diseases that threaten to seriously disrupt the riparian forests of Kansas.

Emerald ash borer has been detected in communities in Wyandotte, Johnson, and Leavenworth counties. It is only a matter of time before ash mortality occurs in the rural forests surrounding these areas, leading to decreased canopy cover and soil stabilization in those forests.

Lower-quality species, such as hackberry, which has surpassed cottonwood as the most common tree

in Kansas (by timber volume), may replace the ash component of those woodlands.

While the emerald ash borer is present in the state already, and cannot be eradicated, slowing the spread of the insect can help preserve our forest resources, both urban and rural, while succession and replanting efforts take place.

If thousand cankers disease is introduced to Kansas, the loss of the black walnut industry would represent at least \$160 million dollars in lost revenue over the next 20 years. This does not include the damage to the lowland ecosystem that would occur when the long-lived black walnuts are removed from the forest due to death from thousand cankers disease.

To protect the valuable black walnut resource in Kansas, it is important to avoid introducing thousand cankers disease by moving firewood or other untreated material that could carry the associated insect and fungus.

Invasive species causing a change in the composition of riparian forests represent a threat to the functionality of those already-declining ecosystems that is difficult to accurately assess. A decrease in biodiversity always leads to a more unstable system, making an already challenging task of protecting

and restoring riparian watershed systems even more daunting.

An additional threat to these stressed riparian forests is the spread of invasive Asian bush honeysuckle, a shrub that can quickly dominate the woodland understory and edge, forcing out native shrubs and perennials. This loss of understory diversity can lead to loss of habitat for native birds, increased erosion, and suppression of native tree regeneration. In short, bush honeysuckle can severely affect the future of that forest.

Efforts to eradicate bush honeysuckle are underway, led by the Kansas Forest Service and its partners around areas of heavy infestation near Kansas City, Topeka, Lawrence, Wichita, and Hutchinson.

If green ash and black walnut rapidly disappear from Kansas stream sides, only to be replaced by low-quality species and invasive bush honeysuckle, the ability of those forests to alleviate excess sedimentation of reservoirs, prevent stream bank collapse, and reduce leaching of nutrients and pollutants also will be reduced.

Because of these issues, the Kansas Forest Service is leading efforts to protect our valuable woodlands from invasive threats to the health of the forest.



HYDRO Analysis of the Blue River Watershed

Water quality is a concern in the Blue River watershed in the Kansas City metro area. To help assess this concern, an i-Tree Hydro analysis was conducted to learn how changes to the tree cover along the river could affect stream flow. The amount of tree cover and impervious cover were calculated to provide the correlations below.

In the Blue River watershed, pollutants including bacteria, elevated nutrients, dissolved solids, hydrocarbons, and other trace elements are a concern. Where trees grow along a river, creek, or streamside, they filter pollutants and anchor stream banks.

Soil flows into streams and rivers through erosion and deterioration of

stream banks. The sedimentation of federal reservoirs and other public water supplies in Kansas has reduced the storage life of those public drinking supplies.

Streamside forests also provide habitat for wildlife and improve air and water quality.

Additional awareness is needed to reduce impervious landscapes in the urban settings, such as parking lots, roofs, and other water-shedding surfaces. Impervious surfaces increase water runoff and the amount of pollutants in contact with those surfaces.

From this analysis, the Kansas Forest Service recommends increasing and mitigating the loss of canopy

cover in the Blue River watershed. Communities in the watershed without stream setback ordinances should adopt and enact measures to protect streamside forests and woodlands throughout their jurisdictions. An ideal vegetation buffer is two times the width of the stream or river and maintained on both sides.

While often overlooked, streamside forests in urban areas contribute significantly to the quality of life of citizens and visitors. As with streamside forests in rural areas, they are the long-term cure of sedimentation flow to federal reservoirs and other public drinking supplies.

i-Tree HYDRO Analysis of the Blue River Watershed

Current Land Use

The main stem of the river is predominantly urban. Agricultural land uses are found near the headwaters in Johnson County.

Pollutants of Concern

Bacteria, elevated nutrients, dissolved solids, hydrocarbons, and other trace elements from both point sources and nonpoint sources are found in the river.

Impact to the River

Impervious surfaces are the dominant cover type influencing stream flow. While increasing tree cover along the river will reduce stream flow, increasing impervious cover had a 32 times greater influence than tree cover on stream flow.

Increasing impervious cover by 1 percent averaged a 3.2 percent increase in stream flow. Increasing forest cover by 1 percent averaged a 0.1 percent decrease in stream flow.

Manipulations of Impervious Surfaces

Increasing impervious cover reduces base flow and pervious runoff while significantly increasing flow from impervious surfaces.

Increasing impervious cover from 31.5 percent to 40 percent of the watershed would increase total flow by another 53.7 percent — 1.46 billion cubic feet.

Removal of current impervious cover would reduce total flow by an average of 65.4 percent — 1.78 billion cubic feet.

Manipulations of Tree Cover

Increase of tree cover reduces flow from pervious and impervious areas. Increase of canopy cover from 34.6 percent to 40 percent reduces overall flow by another 0.4 percent during simulation period (6.5 months).

Loss of tree cover in watershed increases total flow by 2.3 percent — 63.4 million cubic feet.



Educating about Kansas Forests

Kansas Arbor Day Poster Contest

The theme for the 2013-2014 contest was *Trees Are Terrific ... in Kansas Cities and Towns!*

1,120 posters were drawn at the local level with 70 educators using the lesson plan content.

Seven partners from professional organizations and public utilities support the contest.

Project Learning Tree Deliverables from KACEE

Volunteer facilitators provided professional development opportunities for 370 educators in Project

Learning Tree curriculum through 26 workshops. Specifically:

- 14 PLT Workshops – Engaged 225 people
- 1 PLT Secondary Workshop – Engaged 8 people
- 11 PLT Early Childhood Workshops – Engaged 137 people

This engagement impacted 12,950 Kansas children.

Other PLT-related action, as stated in KACEE's 2014 Project Learning Tree Annual Report:

“Designed and implemented a variety of strategies to attract more educators to the workshops offered.

Strategies included offering PLT, PLT Secondary and PLT Early Childhood Experiences in combination with other programs such as Project WILD, WILD Aquatic, Growing Up WILD, Project WET and the Leopold Education Project. In FY2014, 306 educators attended professional development experiences that combined PLT with another program.”

“Continued working on exciting new initiatives to enhance the overall delivery of environmental education in Kansas. Initiatives include: PLT Next Generation Science, through a grant from the American Forest Foundation to connect PLT with the Kansas College and Career Ready Standards for Science. We will work to train our facilitators to use these resources in upcoming workshops; Connecting PLT with School Gardening. KACEE has received a small grant from Pioneer to better connect PLT, Kansas Green Schools and School Gardening as a resources for PreK-12 Educators.”



Governor Sam Brownback recognizes State Winner Abigail Aquilar at the State Capitol.



Fire Training Improves Riparian Forests

The 2014 Fuel Reduction Project provided training, fuel reduction, cooperation, partnerships, environmental awareness, prescribed burning, and public involvement at Toronto State Fishing Lake, Toronto, Kansas in March 2014. This project provides fire fighters with new suppression skills, provides added protection to the community from wildland fires, and enhances the quality of the riparian forest surrounding the lake.

While the focus of the project was to reduce the fuel load using prescribed fire and mechanical thinning, fire-tolerant species such as oaks have the opportunity to replace the invasive, shade-tolerant understory.

All redbuds, eastern red cedars, Osage orange, and black locust within the worksite were removed, opening the canopy to allow for oak regeneration. Oak, walnut, and elm have stronger, more stabilizing root systems than some other species.

The Kansas Forest Service Fire Program Fuel Mitigation project was started in 2005 as a cooperative activity that brought Hutchinson Community College Fire Science students and Kansas Forest Service together with two objectives in mind. It was to be an educational experience for the students, following a plan that would mirror a federal fire incident as closely as practical. Wildlands fuel also would be reduced in or near the respective communities. Students

receive a small stipend, college credit and a unique experience that can be added to their portfolio. This experience is important in that it focuses not only on training current fire-fighters and emergency responders, but it also builds sustainability for the future of the fire service and results that benefit the local community.

In more recent years the project has moved to various locations, called upon local, state and national agencies and expanded its services and training. The 2014 project had 77 participants representing 19 agencies from nine states.

Employees of the Kansas Department of Agriculture and the Kansas Southeast Incident Management Team shadowed the project participants for part of the six-day event. Their participation continues to develop interagency relationships with groups and individuals whose focus is not fire, but are called on to manage other emergencies, ranging from animal health to tornadoes.

While many of the attendees are Hutchinson Community College students, others work on position task books, one of the steps toward being vested in a position. This allows them to be deployed to federal incidents and to move from one position of responsibility to the next.

This project has developed into a respected exercise to learn

how to manage and suppress fire in the light, flashy fuels prevalent in Kansas. These skills are sometimes overlooked, they are a dangerous and necessary part of wildland firefighting on a national scale.

There is a tremendous commitment from all participants. In 2014, the Incident Management Team provided a mobile command trailer, Kansas Department of Wildlife, Parks, and Tourism gave free housing, the community provided meeting space, and other agencies provided equipment. Several individuals covered their travel costs to take part in this exercise.

This exercise brings an intangible value to the citizens of Kansas. When we bring expertise and experiences from across the nation, there is an opportunity to draw on a larger pool of knowledge. Participants are not only emerging leaders in fire suppression, but in prescribed burning, smoke management, animal health, and the disaster recovery. Through these projects, Kansas has earned respect and continues to grow as a state that produces high-quality professionals.

This project also taps into the knowledge of the Kansas Forest Service foresters to provide guidance in proper thinning methods, leaving a healthier riparian forest when the projects ends. Park visitors then have a living classroom to see the benefits of managed forests.



Partnerships Building Capacity and Sustainability

The Kansas Forest Service and the Kansas Arborists Association are working to improve urban trees in Kansas. For 41 years, this unique partnership between a state agency and an industry organization has produced sustainable results for individuals, tree care companies, and municipalities.

The Kansas Arborists Association's Arborist Training Course is a week-long, intensive educational experience that provides the first step for an individual to become a Kansas Certified Arborist.

The course involves classroom instruction, hands-on demonstrations, and climbing experience. The instructors include municipal foresters, private tree-care companies, K-State faculty, and Kansas Forest Service staff.

Course participant skill levels include those just starting their careers in tree care, volunteer tree board members, grounds maintenance personnel, and 30-year veteran tree trimmers.

Foresters with commercial and utility arborists, municipal parks and forestry staff, and other governmental agencies learn the basics to the

advanced in the course: pruning, fertilization, insect and disease issues, defective and hazardous tree identification, chainsaw safety, proper climbing techniques, cultural practices, and proper tree planting and maintenance practices. These individuals raise the level of tree care and safety within their companies or municipalities.

Benefits exist for all involved. Individuals may receive a promotion or a pay grade increase. Municipalities and companies have a more knowledgeable staff, which may increase efficiency, safety, and production. Well-trained staff may lower missed work days by reducing accidents. Knowledgeable staff also leads to better communications with the customer; which leads to more trusting public and more work. Many communities and others who bid work for tree care prefer using certified arborists.

Over the 41 years of the course, more than 1,800 individuals have completed the course with more than 225 individuals currently listed as Kansas Certified Arborists. The course may have also lead to the

interest in becoming an International Society of Arboriculture Certified Arborist. The state of Kansas currently has approximately 125 of these certified arborists.

The 1,800 attendees are approximately a 50/50 mix of commercial/utility and municipal/governmental arborists, which has increased the number of certified arborists and the number of companies or cities that have a certified employee on staff.

Those that pass the course can then apply to become a Kansas Certified Arborist or simply use the information they receive to properly care for and manage their tree resources. Resulting in a quality, skilled, and knowledgeable workforce to build the capacity and sustainability of the community forest.

A healthy and sustainable canopy creates a healthier community with social, economic, and ecological benefits from properly maintained trees.

In 2014, the Kansas Forest Service community forestry staff:

- Performed 267 technical assists to communities,
- Held 41 workshops/public speaking events with 1,809 attendees,
- Performed 10 street tree inventories and four community tree assessments, and wrote four management plans

In 2014, 104 Kansas Tree City USA Communities

- Spent \$18.5 million dollars on their community forests
- Planted 8,584 trees
- Pruned 56,871 trees
- Removed 20,495 trees

Conservation Seedlings Ease Sediment Loads

In 2014, more than 332,000 trees were distributed by the Kansas Forest Service for conservation purposes. These trees were used to reforest 639 acres on 2,099 properties. This is an increase in seedling distribution since the previous year by 31,303 seedlings. Riparian forestry, or tree plantings along rivers and streams, is an increasingly important conservation use for those tree seedlings.

In just one project, the Kansas Department of Wildlife, Parks, and Tourism partnered with the Kansas Forest Service to plant nearly 72,000 trees along several miles of the Fall River near Eureka. This planting, in the Fall River Wildlife Area, was implemented by Brian Meiwes, area manager, to rehabilitate the river

corridor within a few hundred feet of the river on land previously used for agricultural production.

This tree planting, made up of native species such as bur oak, sycamore, black walnut, and others, will not only stabilize and improve the sensitive riparian corridor along the Fall River, but also will provide important habitat for the wildlife and game animals in the area.

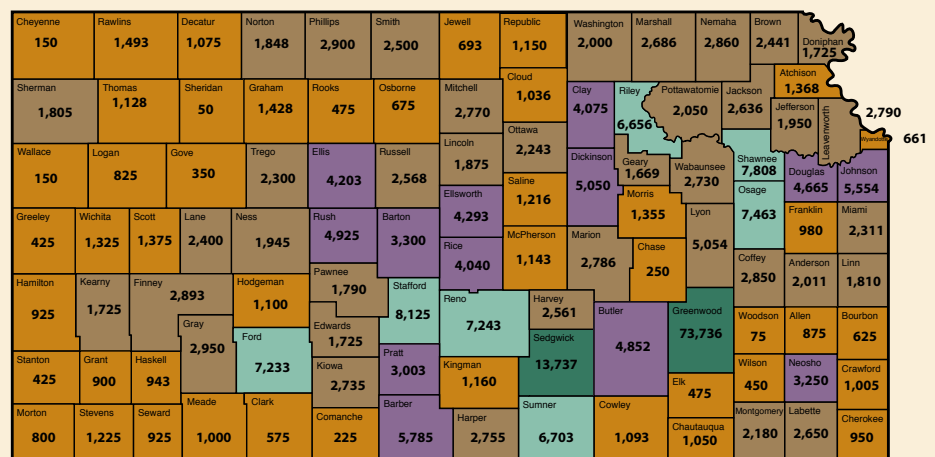
With almost 72,000 trees planted on a 10-foot by 10-foot spacing within 300 feet of the river, about 175 acres along nearly 5 miles of river was planted in just 2 weeks of work by the contractor. The annual sediment inflow from 1 mile of unstabilized stream bank is estimated to add more than 8,448 cubic yards of

sediment that must be dredged from the downstream reservoir at a cost of \$56,348. By stabilizing 5 miles of the Fall River, this project potentially saved \$281,740 in future dredging costs, not to mention the value of intercepted nutrients from agricultural fields that otherwise would have increased the chances of toxic algal blooms downstream.

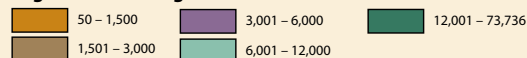
By planting trees along stream corridors in projects just like this, the future quality of the stream and downstream reservoirs can be enhanced and preserved. Nutrient inflow and sediment deposition is significantly reduced, and other benefits such as wildlife value and forest product income can be realized.

Five Kansas counties made up more than 30 percent of the 2014 tree sales: Greenwood, Sedgwick, Stafford, Shawnee, and Osage.

Combined, these counties ordered 110,869 seedlings.



Legend — Seedlings Ordered in 2014



This Kansas map shows the number of conservation seedlings distributed to each county. This 2014 season, conservation seedlings were planted in every Kansas county.



Streamside Forestry Improves Water Quality

Targeting Efforts

The Kansas Forest Service continues to provide statewide leadership in the assessment of the condition of streamside forests in high-priority watersheds. These assessments critically targeted 1) areas where stream-side forests are non-existent and in need of establishment, such as in areas where cropland is farmed to the edge of stream banks, 2) areas not functioning because the width or health of the streamside forest is inadequate, and 3) areas with valuable woodlands that provide important water quality benefits and should be protected from conversion to cropland.

Two assessments completed in 2014 included the Spring River watershed in Cherokee County and Delaware River watershed above Perry Lake north of Topeka and Lawrence. The Delaware assessment found that two-thirds of the total riparian areas lack adequate stream-side forests with 70 percent of plots measured with cropland to the edge of stream banks. The Spring River assessment found that the majority of their riparian areas were in need of management and protection. Both watersheds showed an overall lack of management with a high percentage of undesirable tree species.

Future plans include engaging targeted landowners to plant riparian forest buffers, remove undesirable trees to release walnut and bur oak, and develop protection strategies for higher quality woodlands.

Re-establishing Streamside Forests

This year Kansas Forest Service foresters assisted with the planning and planting of a little more than 3 miles of riparian forest buffers in high-priority targeted watersheds. These plantings provided an estimated savings of \$175,059 in dredging costs. Since 2010, more than 15 miles of trees have been planted by foresters along stream banks with more than 60 at-risk sites planned in the future in the Delaware, Neosho, and Kansas River watersheds.

Improving the Health of Streamside Forests

As most assessments have indicated, the health of streamside forests is often lacking with an over-abundance of invasive and low-quality timber species. In 2014, foresters marked, planned for, and implemented 698 acres of forest stand improvement in high-priority watersheds. These forests can keep up to 736,732 cubic yards of sediment from entering waterways annually projected an estimated savings of \$4.9 million in dredging costs.

Protecting What We've Got

In 2014, the Kansas Forest Service began attempts to document riparian forest lost to conversion to cropland using GIS techniques. The first pilot study focused in





the Delaware watershed where an estimated 20.8 acres of streamside forest was removed between 2008 and 2014, mostly in the upper watershed. It is estimated that this area of forest prevented an estimate 21,954 cubic yards of sediment from entering the Delaware River and ultimately Perry Lake.

These conservation benefits are now lost, potentially adding an estimated \$3.2 million in dredging costs to Perry Lake. During the same period, 47.6 acres of riparian forests and stream bank stabilization practices were implemented in the

same watershed. Costs for about half these practices is \$1.5 million. Clearly, Kansas is in dire need of a protection policy for riparian forests above federal reservoirs.

New Water Quality Forester

In 2014, Mitch Lundeen became the new water quality forester for the Kansas Forest Service to lead our agency's efforts in our Streamside Forestry Program. A graduate of the University of Minnesota, in natural resource management and a minor

in water resources, Lundeen brings excellent leadership qualities to the critical water issues facing the people of Kansas.

Spreading the Word

Educating farmers, policy makers and natural resource professional is important to increase the value placed on streamside forests. This last year 17 educational field days, workshops and meetings were held that provided information to more than 1,000 people on the role streamside forests play in addressing the water quality and quantity issues of the state.



In the Delaware River watershed alone, an estimated 20.8 acres of streamside forest was removed between 2008-2014, which previously prevented an 21,954 cubic yards of sediment from entering the watershed. This loss can potentially add an additional \$3.2 million in dredging costs to Perry Lake

2014 Award Recipients



State Forester's Community Forestry Award

Brad Loveless serves as the director of biology and conservation programs for Westar Energy and as a representative of the Lyndon, Kansas Tree Board. Brad has worked for Westar for more than 30 years and helps plan the company's actions to address climate change and has the volunteer group called the Green Team. Brad has been involved in hundreds of projects that involve environmental education, tree plantings, prairie and watershed restoration, and wildlife habitat improvement. Brad and the Green Team are great partners with Kansas Forest Service in assisting communities that have suffered storm damage losses with tree planting projects.



2013 Kansas Wildlife Federation Forest Conservationist of the Year

Dave Bruton, district forester with the Kansas Forest Service, was named the 2013 Kansas Wildlife Federation Forest Conservationist of the Year. The Kansas Wildlife Federation recognition is one of the most prestigious conservation-related awards given in Kansas. For the last 25 years, Dave has provided conservation, wildlife, and forestry expertise to the people of northeast Kansas. He provides woodland and wildlife management education through the Kansas Environthon; gives presentations to the Kansas Christmas Tree Growers Association; and coordinates delivery of the Governor's Christmas Tree and Wreath.



2014 Forest Stewardship Outstanding Tree Farmer of the Year

Frank Martin was recognized by the Kansas Forestry Association and the Kansas Forest Service as the 2014 Forest Stewardship Outstanding Tree Farmer of the Year. Frank is specifically being recognized for tree planting and forest stand improvement practices adjacent to Stranger Creek. A long-time advocate of environmental stewardship, Frank is now working through the Environmental Quality Incentives Program to implement a of 22.4-acre timber stand improvement over a 4-year period. He is 2 years into this project and has completed 12.1 acres.



2014 Kansas Agroforestry Award

Winners of the 2014 Kansas Agroforestry Award and hosts of the 2014 Fall Forestry Field Day, John and Karen Buchanan have established an alley cropping system that enables them to produce hay crops while growing potentially high-value trees. This was accomplished by planting oaks, black walnut, pecan, and black cherry at a 25-foot by 25-foot spacing, allowing the harvesting of native grass hay crops between tree rows. Perhaps as important are the conservation and wildlife benefits the system also creates. Meticulous record keeping for each tree is documented and mapped with a geo-spatial reference point that identifies the location of each tree.



2014 Jim Sledge Current Achievement Award for Forest Resource Management

Bob Atchison, forester with the Kansas Forest Service, was recently given the 2014 Jim Sledge Current Achievement Award for Forest Resource Management. Bob has a long history of involvement with the program, a depth of institutional knowledge, and a long-term vision for success. The success of the program is in large part due to the active involvement and contributions of a few insightful, knowledgeable and forward thinking state forest stewardship coordinators such as Bob who are willing to devote a significant amount of time and energy

to the advancement of national program policies and initiatives. Bob was the principle author of the *Kansas State Forest Action Plan*, which serves as a national example for effectively integrating all state and private forestry programs to address priority resource management landscapes.

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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