



## Partnership Creates Funding Opportunities

The 2010 Kansas Forest Resource Assessment and Strategy identified sustaining and protecting forest and agroforestry ecosystems and water quality and quantity as two of the most important forest-related natural resource concerns in Kansas.

These concerns are supported by natural resource inventories that suggest nearly half our 43,436 miles of windbreaks are in poor condition; 46 percent of Kansas woodlands and forests are classified as “cull,” having no merchantable value; and sedimentation from streambank erosion has reduced the storage capacity and lifespan of many reservoirs by 50 to 100 years, creating potential water supply shortages.

Fortunately, a unique partnership has been created between the Natural Resources Conservation Service (NRCS) and state forestry agencies in Kansas, Nebraska, and the Dakotas through a grant from the Cooperative Conservation Partnership Initiative (CCPI) to address these resource concerns.

An initiative of the 2008 Farm Bill, CCPI has the potential to bring an additional \$800,000 to Kansas for riparian tree planting, windbreak renovation, and forest stand improvement projects in the next four years. In Kansas, CCPI works through the Environmental Quality Incentives Program (EQIP) for Forestland Health, which provides a little more than \$100,000

each year for forest and agroforestry projects. With the new CCPI program, more than \$300,000 will be available to landowners in 2011 for windbreak and forestry projects through EQIP.

Forest, woodlands, windbreaks, cropland, and grassland all have the potential to qualify for the program if a “resource concern” is identified. Primary resource concerns for the program are the health and condition of trees in windbreaks, woodlands and forests; soil erosion of streambanks; and water quality issues associated with excessive sediment.

Specific examples might include old windbreaks with gaps and dead trees or shrubs; streambank erosion, where additional tree planting can provide long-term reduction in

soil loss; and forests or woodlands that are either overcrowded or need additional tree planting, or contain a high percentage of invasive or undesirable trees.

Private landowners statewide are eligible to sign up for the program if they meet the agricultural producer requirements for EQIP. Forestry and windbreak applicants are exempt from the requirement that a minimum of \$1,000 of agricultural products must be produced or sold annually by applicants.

Applications for CCPI and EQIP are accepted continuously at county NRCS



*EQIP and CCPI provide funding to establish riparian tree plantings adjacent to streams and rivers*



*Most of the cost of removing undesirable trees from woodlands and forests is covered through EQIP and CCPI.*

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## Comments from the State Forester



Larry Biles, State Forester, Kansas Forest Service.

### Newsletter Publication Information:

**Kansas Canopy:**  
Newsletter of the Kansas Forest Service

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During the summer of 2009, the Kansas Forest Service contracted for a survey to determine the potential of wood energy and woody biobased products in Kansas. The targeted individuals and groups for this survey were:

- Primary and secondary wood processors,
- Municipal, commercial, and utility arborists,
- Landfills and burn sites.

Eight hundred thirty-three individuals and groups were contacted. Four hundred nineteen of the contacts returned information. Subsequent to the receipt of this report, the Kansas Forest Service initiated the development of a community of interest around the subject of woody bioenergy and biobased products. Three outcomes were championed:

- jobs;
- ecological restoration as a wood energy – biobased products market offers an opportunity to address the redcedar and tamarisk encroachment issues; and
- Increased application of silviculture (forest management) practices on the state's native forests.

Groups recruited for the community of interest include:

- Federal: USDA Forest Service, Natural Resources Conservation Service with emphasis on Resource Conservation and Development Councils (RC&D), and Rural Development.
- State: Senate Natural Resources, and Energy and Utilities Committees, Kansas State University's Extension Service and Center for Engagement and Economic Development, Departments of Commerce, Health and Environment, and Energy, and the Small Business Development Center.
- Private: Kansas Association of Conservation Districts, Kansas Livestock Association, and Tall Grass Legacy Alliance.
- Business: Superior Boiler Works, Queal Enterprises and Ranchland Development.

Simultaneous to this work, the Kansas Forest Service worked with the Department of Labor to gather information on boiler systems in Kansas and worked with the Nebraska Forest Service to prepare and submit a special grant proposal addressing the subject. The short-term outcome for this work includes the:

- receipt of grant funds,
- hiring of a forest products specialist,
- recruiting people to visit the "Fuels for Schools" projects in Montana,
- a request to serve as a panelist at the states 2010 Energy Conference, and the national BioCycle Conference.

Subsequent to these activities, the Kansas Forest Service has been invited to meet with businesses and groups involved with energy activities. These groups include government agencies responsible for solid waste issues and private groups and organizations working the field of bio-refined energy.

Although the Kansas Forest Service is hesitant to forecast long-term outcomes, we believe there could be a new market for Kansas' wood resources. Much of the market niche and early market development will likely revolve around conventional wood waste materials including invasive resources such as redcedar and tamarisk.



Potential biomass material.

The past 12 months have been quite encouraging, especially the old and new partnering aspects. Should the next 12 months go as targeted, 2011 could be a milestone year for advancing the acceptance and use of conventionally labeled wood waste. The technical process is in place, and the environmental issues can likely be managed or defended. The principle unknowns are economics and image. We intend to quantify the former through feasibility studies. Image will likely be a bigger challenge as Kansas and wood are not synonymous. Success with a few wood energy or biobased projects will not make them synonymous, but it might stifle puzzled expressions.

**Larry Biles**, State Forester, oversees all operations of the Kansas Forest Service.



# Tree Profile



## River Birch

*Betula nigra*

**Family:** Betulaceae (Birch family)

**Native Range:** Indigenous to three counties in southeast Kansas (Crawford, Cherokee, and Chautauqua). Southeast Iowa, western Missouri, eastern Oklahoma, and Texas form the boundary of its eastern range. Southern Illinois, Indiana, Ohio, and Pennsylvania represent most of the boundary of the northern range. Occurs predominately in the southeastern United States as far south as northern Florida.

**Mature Height:** 40 to 60 feet in Kansas. May reach up to 90 feet on good sites in the southeastern United States.

**Spread:** 40 to 50 feet.

**Form:** Depends on whether single or multi-stemmed, but it is always graceful. Single stemmed trees are pyramidal in youth and rounded at maturity. Handsome as a multi-stemmed tree, which tends to be vase-shaped.

**Growth Rate:** Fast (30 to 40 feet in 20 years).

**Foliage:** Simple, alternate, triangular in shape with pointed tip. 1½ to 3½ inches long, ¾ to 2½ inches wide. Leaf margin double-toothed. Leaf surface is dark green and shiny above, pale underneath, turning bright yellow in the fall.

**Flowers:** Blooms mid-April with leaf emergence. Male and female catkins on the same tree (monoecious). Male catkins are most prominent (2 to 3 inches long) and from the previous growing year, female catkins about ¼ inch.

**Fruit:** Cone-like, 1 inch long containing small winged seeds.

**Bark, Twigs, Stems, and Buds:** Bark on young trees is red-brown with light, horizontal markings called lenticels. Becomes a pale-salmon color with orange inner bark as it ages, peeling into thin, papery sheets that are an attractive feature of the tree. Twigs are reddish to gray, slender, drooping, and zigzag. Buds are same color, pointed, less than ½ inch in length.

**Site Description:** Always found near water, adjacent to streams, or in pasture sloughs. Prefers acid soils with a pH range 6.5 or less. Occurs in hardiness zones 4 to 9. Tolerates

a wide range of soil conditions (with the exception of alkaline) if there is plenty of water. Despite its affinity for water, it is only moderately resistant to flooding. Intolerant of shade.

**Insect and Disease Problems:** Not many. Iron chlorosis on alkaline soils and leaf spot during extremely wet years.

**Limitations:** Susceptible to ice and storm damage because of the weak nature of the wood. Leaf drop during periods of drought.

**Suggested Applications:** An outstanding landscape specimen for all seasons. Should be planted where adequate moisture is present. Excellent for parks, campuses, and large open areas. Good yard tree if there is plenty of room. Multi-stemmed form especially attractive.

**Cultivars:** ‘Heritage’ is the most common cultivar. Purportedly grows faster and is more heat tolerant with consistent bark characteristics.

**Wildlife Benefits:** High wildlife value for song birds, small mammals, and hoofed browsers.

**Comments:** “The most beautiful of American trees” is how Prince Maximilian, Emperor of Mexico described river birch. River birch is on the Kansas Forest Service preferred tree lists for northeast, southeast, and south central Kansas and is an excellent tree for urban planting. Limit rural planting to southeast Kansas. The wood is used for pallets, furniture, basket hoops, turned articles, children’s toys, and artificial limbs. Because of its tolerance to acid soils, it has been used in strip mine reclamation.

## References

*Manual of Woody Landscape Plants*, Michael Dirr; *Know It and Grow It*, Carl Whitcomb; *Silvics of North America*, Volume 2 Hardwoods, Agricultural Handbook 654; *Native Trees, Shrubs, and Vines for Urban and Rural America*, Gary Hightshoe.

**Bob Atchison**, Rural Forestry Coordinator, coordinates rural forestry activities for the Kansas Forest Service.



The form for older river birch tends to be rounded in shape.



River Birch leaves are glossy, triangular-shaped, with doubly-toothed edges



Multi-stem form and exfoliating bark are key aesthetic features of River Birch

## ***Partnerships, continued from page 1***

offices located in USDA Service Centers. Locations and contact information for USDA Service Centers is on the Web at [www.ks.nrcs.usda.gov](http://www.ks.nrcs.usda.gov). An EQIP self-assessment worksheet for forestland health is available at the website. Completing the worksheet before applying may improve chances for funding.

NRCS will refer EQIP applicants to a Kansas Forest Service district forester who will

schedule a site visit with the applicant and develop a management plan to guide the project. NRCS will then rank and prioritize the application based on criteria developed for forestland health. EQIP attempts to cover 75 percent of project costs based on statewide average costs.

**Bob Atchison**, Rural Forestry Coordinator, coordinates rural forestry activities for the Kansas Forest Service.



*One of many Kansas windbreaks in poor condition being renovated through CCPI and EQIP*



## **Manhattan's First Saw Mill**

In territorial Kansas, manufacturing of raw materials was crucial for the construction of houses for new settlers. The New England Emigrant Aid Company was active in both purchasing and transporting mills for the settlers.

Some mills could be used for both making lumber and grinding grain, commodities of great importance. When the mills were first established, they turned out lumber and later, when grain was available, they were used to grind flour or corn meal.

One observer in Manhattan noted the arrival of an Emigrant Aid mill from Lawrence, drawn by 20 yoke of oxen, was a greater event to the citizens in 1859 than the arrival of the Kansas Pacific Railroad eight years later.

Manhattan's saw mill, however, was not the first one in the region. That distinction belonged to the U.S. Army, which, a couple of years previous to 1859, had a saw mill operating near the confluence of the Republican and Smoky Hill Rivers for the construction of buildings at the relatively new U.S. Army base at Fort Riley.

**Source:** Dick, Everett, *The Sod House Frontier, 1854-1890* (University of Nebraska Press, Lincoln and London, 1979), reprint from 1937 and 1954 editions. p. 492.

**Larry Rutter** is a member of the American Tree Farm System and serves on the Kansas Tree Farm Committee and the Kansas Chapter of the Walnut Council Board.

*Editor's note: Growth Rings is a new feature in the Kansas Canopy. It will feature forestry news from Kansas history.*

## Additional Cost-Share Funding Available for Riparian Forest Buffers

**A**gricultural producers in Kansas have additional funding to allocate toward riparian forest buffers. The Cooperative Conservation Partnership Initiative (CCPI) is a voluntary conservation initiative that uses financial assistance through the Environmental Quality Incentive Program (EQIP), Wildlife Habitat Incentive Program (WHIP), and Conservation Stewardship Program (CSP).

This initiative will provide Kansas with \$100,000 per year in cost-share for riparian forest buffers over a five-year period. CCPI funds can potentially be coupled with non-USDA cost-share programs, such as funding from Watershed Restoration and Protection Strategy groups (WRAPS) to provide 100 percent cost-share.

NRCS will provide financial assistance through EQIP to fund practices, and will join with state forestry agencies to provide technical assistance to agricultural producers for practice implementation. All

practices must meet NRCS Field Office Technical Guide standards. Applications will be accepted continuously, and cutoff dates will be posted soon by NRCS. For more information, contact your area conservation district, or a forester with the Kansas Forest Service. Additional information on CCPI, along with relevant forestry contacts can be found at the following websites:

[www.nrcs.usda.gov/programs/ccpi](http://www.nrcs.usda.gov/programs/ccpi)

[www.kansasforests.org](http://www.kansasforests.org)

For more information on the potential for 100 percent cost share through WRAPS funding, visit [www.kswraps.org](http://www.kswraps.org) to find your local WRAPS group.

There is currently a lot of cost-share funding available for forested buffers — I encourage everyone to look into them.

**William Beck**, Watershed Forester, has statewide responsibility for forestry practices that improve water quality.

## A Christmas Tree Goes To College

**O**n Tuesday, Oct. 26, Lynn and Karla Davignon were beaming with pride, just like any other proud parent leaving their child at college. Only, in this case, they weren't leaving a child, but rather a 7-foot-tall southwestern white pine tree from their Prairie Dell Pines farm located near Ellis, Kan. Prairie Dell Pines is the furthest west Christmas Tree Farm in Kansas.

Like any child, the Davignons cared for and nurtured this tree for the past six years, literally shaping it over the years. The tree was dug from the Davignon's Christmas tree farm on Oct. 9 and made the trek to Manhattan. On Oct. 26, it was loaded onto a wagon, pulled by a team of horses, at the Kansas Forest Service State office and made its way through K-State's campus to its final "growing place" off the northwest corner of K-State President Kirk Schulz's residence.

President Schulz and his wife, Dr. Noel Schulz, were on hand to accept the tree and greet the delivering party. The wagon and team of horses are owned and operated by Robert and Cecil Carter of 3C Carriage Service, White City, Kansas. Megan Wright, a K-State student, helped drive the team.

The Davignons generously donated the tree to President Schulz and Kansas State University on behalf of the Kansas Forest Service and the Kansas Christmas Tree Growers Association. The Davignons said, "We feel very fortunate to be a part of this project and are proud to represent the Kansas Christmas Tree Growers Association, a group that has done so much for us during the years we've been in the business of raising Christmas trees. We've enjoyed the working relationship with the Kansas Forest Service that brought this event to fruition. And, having attended Kansas State in the 70s, three children graduating from the university, our family believes in 'all that is K-State'."

It is hoped that the tree will thrive at its new home and be enjoyed by the Schulz's, students, staff, and visitors to Kansas State University for many years to come. Plans are to decorate the tree for the holiday season and light it on Thanksgiving Day.

**David Bruton**, District Forester, provides direct technical assistance to Kansans in 13 northeast Kansas counties for the Kansas Forest Service.



Lynn and Karla Davignon, Noel and Kirk Schulz, and Larry Biles with the living Christmas tree on the K-State campus.

## Forester Highlight: Sabina Dhungana

**M**y name is Sabina Dhungana and I am the new woody biomass specialist with the Kansas Forest Service. I joined Kansas Forest Service in October, 2010. I am originally from Nepal, a small, beautiful country with a population near 30 million. Nepal is located between India and China. The mountainous Himalayas in the north of Nepal have eight of the world's 10 tallest mountains, including the highest point on Earth, Mount Everest, called *Sagarmatha*.

I received my bachelor's degree in forestry from Tribhuwan University, Nepal in 2006. While earning my bachelor's degree, I worked with one non-government conservation institution in Nepal and had a chance to be exposed to field-based forest management programs. After completing my bachelor's degree, I worked with the Resource and Environmental Conservation Society. My job responsibilities included forest inventory, planning and management, social surveying, study area evaluation, preparing final reports, and grant writing.

In August 2006, I came to West Virginia University for my graduate studies specializing in wood products utilization. My research analyzed potential utilization of woody biomass for energy production for West Virginia. I developed a web-based woody biomass energy system to identify the available quantity and cost in handling those wood materials for energy production for different spatial locations in West Virginia and neighboring states. The system uses the US Forest Service's Timber Product Output data and regional cost information. Users must spatially identify the area, quantity, and type of woody materials needed for production. Based on user's entered parameters, the system starts searching for woody biomass and displays the retrieved information in tabular format.

After graduate study, I worked as a statistical data modeler at West Virginia University where I used a STELLA Modeling Tool to determine user's satisfaction and the

number of outfitter guides needed in national forest areas. I have used a variety of GIS tools and computer skills, in forestry applications.

In Kansas, I will use my knowledge of forestry and wood energy in real-life situations. I will conduct woody biomass supply chain assessments for switching fuel systems in different locations with emphasis on public institutions throughout the state.



*Sabina Dhungana, woody biomass forestry specialist.*

We believe Kansas to have a sufficient supply of woody biomass for niche energy production operations. Much of this material is already being handled, but because it is regraded as having no value, it is relegated to landfills and burn sites.

These valuable resources can be used for energy production, which can help the state become energy independent and environmentally friendly. Such energy production also helps reduce greenhouse gas emissions.

I believe fuel switch systems will foster improved forest management activities and add extra revenue for state and local economic development. Moreover, there is a potential opportunity for forestry in the developing carbon emission markets.

We have started a feasibility study for a project in Winfield, Kansas, where four buildings are identified as potential pilot study sites. We are planning to start our work with small-scale demonstration projects and expecting to increase the scale as the projects progress. We expect this demonstration project to create public awareness about using woody biomass for energy production while maintaining positive feedback on sustainable forest management and biomass utilization for present and future uses.

***Sabina Dhungana***, Forester, Sabina has statewide responsibility for woody biomass utilization.

## Preparing for Winter

The cold winter months are fast approaching and you may need to do some seasonal maintenance around the house. For the best fire protection around the homestead, one needs to look beyond the front porch.

The first killing frost usually happens between October 15 and 20. As soon as that occurs, fuel moisture drops within a few days. Even before the frost comes, fuel moisture is on the decline. Curing of the native grasses starts as early as late July and August, although the grass looks green, it is not as moist as it was during the early growing season.

So, how does one get ready for winter? After the first frost and the leaves have fallen, rake around the house and under the deck. Decks are a good place for leaves to collect, continue to cure, and become a fire hazard.

Leaves also collect in corners and around shrubs and outdoor furniture. Rather than bagging all those leaves, make a small investment in a leaf vacuum, which will grind the leaves somewhat, then spread them on the garden or flower bed for added humus. I like to work them in to the soil in the fall and they don't end up back by the house.

I see several yards that have been converted to low maintenance or natural areas. Many have forbs and bushes to attract wildlife. These need to be left upright so birds can find them with snow on the ground. While the forbs will burn, because of the spacing and vertical arrangement of the plants, they don't pose as great of a fire hazard as leaves and tall, dense grass. However, even these feeding areas should be kept several feet from the house and other structures. Most wildlife would rather be some distance from the house, anyway.

If you live in the wildland/urban interface, that area around the perimeter of communities where it may not be as developed as it is in more traditional parts of town, there are some guidelines for making your home as fire safe as possible.

Starting with the landscape, keep shrubs away from the foundation. Don't have bushes as high as the bottom of the windows. Should these ignite, that puts all the heat next to the window. Windows are one of the vulnerable areas of the house. Double pane windows will help control fire spread. A good rule for the wildland/urban

interface home is to maintain a groomed yard for 30 feet around the house.

Houses in this area should be covered with fire-resistant siding and shingles. We cannot make a house fire "proof" short of making it look and feel like a bomb shelter. No one wants or needs that. Fire resistant means that house will withstand a fire that burns the grass and perhaps trees but does not support combustion once the flame front passes.

Some good siding choices are stucco, concrete, and metal. Even the heavy timber that makes up log homes will withstand a fast-moving wildfire. Remember, it is the gases given off at the surface of the fuel that burn, not the fuel as we see it. So the more dense the fuel, the longer it takes to get to the ignition point. Roofing material should also be fire resistant. On today's market, there are several attractive, fire-resistant roofing materials. Although attractive, shake shingles, are not one of them.

Many wildland fires in Kansas are the result of carelessness. Carelessness is not an accident; it is the result of someone not thinking. Setting a plastic bucket full of hot fireplace ashes against wood siding is not an accident. Failing to clean the chimney is not an accident, yet we call chimney fires accidental. Not cleaning the leaves from under the deck before you burn the pile of limbs left from last year's ice storm is not accidental.

So, prepare for the coming of winter wisely. Make it a family activity; get the kids involved, they are after all the next generation of homeowners. We can make it a fun and educational experience.

**Ross Hauck** Fire Management Coordinator, directs fire management activities for the Kansas Forest Service.



*A wildland/urban interface with vegetation too close to wood siding.*



*A Firewise home with the well-maintained yard, low shrubs near the house.*

## Fall Container Seedling Sales

This fall brought the conclusion of our sixth season offering fall conservation containerized tree seedlings. We received a little more than 390 orders, which resulted in approximately 21,150 seedling sales. This sales number of fall containerized seedlings sold is the best in six seasons, slightly ahead of last season.

The species this fall included: Austrian pine, bur oak, Colorado blue spruce, eastern redcedar, English oak, fragrant sumac, pecan, pinyon pine, Ponderosa pine, redbud, southwestern white pine, sawtooth oak, and swamp white oak. We also offered our non-plant items to compliment tree planting.

Eastern redcedar led the way for the species most sold comprising more than 50 percent of the seedling sales. The rest of the evergreens accounted for more than 25 percent of the sales and the deciduous just under 25 percent of the sales.

Seedlings were planted in 82 counties this fall. Sedgwick County accounted for the most seedlings planted, followed by Butler, Cowley, Kingman, and Grant counties.

The seedlings were planted for many different conservation purposes. Home windbreaks continued to be the planting type most used, which was more than 50 percent, followed by windbreaks for fields and livestock. Wildlife planting continues to be a popular use of the seedlings and other uses include Christmas trees, riparian planting, and wood lots.



*Fall containerized bur oak from shade house production area.*

We ask our customers how they hear about the conservation seedling sales to help get a feel for where our customers are coming from. Our order form has a place to check how they heard of us. The choices are: I am a previous customer; government agency; friend, neighbor, or relative; radio or TV; newspaper or magazine; Internet; and workshop/field day. We advertise in all those areas.

This fall, our previous customers were 68 percent of our sales, government agencies accounted for 10 percent of the sales, and word of mouth category, friend, neighbor, or relative, also took care of 10 percent of the seedling sales. The rest of the choices only made up 12 percent of the sales.

Fall continues to be a popular time for conservation tree seedling planting. If you missed the opportunity to purchase seedlings this fall and are interested in planting specifically during the fall months, the Conservation Tree Planting Program will be offering plants again next fall starting early September through mid October. If you would like to plant trees or shrubs in the spring, you can take advantage of spring sales that are occurring right now. Although seedlings will not be available until about the second week of March, the Conservation Tree Planting Program is accepting orders from now until the first Monday in May.

**Mark Haller**, Conservation Forester, manages the Conservation Tree Planting Program and related activities for the Kansas Forest Service.

## Kansas Conservation Tree Planting Program

<b>Bare-Root Shrubs \$17/unit of 25 seedlings</b>
American plum
Caragana
Choke cherry
Elderberry
Fragrant sumac
Golden currant
Lilac
Peking cotoneaster
Sand hill plum

<b>Seedling Specials (contact the Kansas Forest Service for pricing details)</b>
Songbird bundle
Quail bundle
Pheasant bundle
Wildlife mast bundle
Black walnut stratified seed
Pecan stratified seed

<b>Bare-Root evergreen trees \$17/unit of 25 seedlings</b>
Austrian pine
Eastern redcedar
Eastern white pine
Oriental arborvitae
Ponderosa pine
Rocky Mountain juniper

<b>Container-Grown evergreen trees \$45/ unit of 25 seedlings</b>
Austrian pine
Eastern redcedar
Ponderosa pine
Southwestern white pine

<b>Non-Plant Specials (contact the Kansas Forest Service for pricing details)</b>
Marking flags
Rabbit protective tubes
Root protective slurry
Tree tubes
Weed barrier fabric and pins

<b>Bare-Root deciduous trees \$17/unit of 25 seedlings</b>
Baldcypress
Black walnut
Bur oak
Chinkapin oak
Cottonwood
Hackberry
Honeylocust
Lacebark elm
Northern red oak
Pawpaw
Pecan
Persimmon
Redbud
Russian mulberry
Sawtooth oak
Shumard oak
Silver maple
Sycamore

**Shipping charges for containerized plants and weed barrier fabric = \$14/unit**

<b>Subtotal of all materials except containerized plants and weed barrier fabric is as follows:</b>		<b>Charges for pick-up orders (all items)</b>	<b>Handling Charge</b>
\$1-50	\$14	\$1-100	\$5
\$51-100	\$18	\$101-300	\$10
\$101-200	\$22	\$301-500	\$15
\$201-300	\$35	\$501-700	\$20
\$301-400	\$40	\$701-1,000	\$30
\$401-500	\$45	\$1,001-2,000	\$40
\$501-600	\$50	\$2,000+	\$50
\$601-1,000	\$80		
\$1,001-2,000	\$125		
\$2,000+	\$300		





## Potential Trees for Downtown Tree Pits

While I do not condone subjecting trees to these tree graves, I think we can do a better job of selecting trees that we do condemn to the slow miserable death.

Most of the time the only purpose for this particular planting site is strictly atheistic, as we will never see the long-term benefits from these trees as they will typically never reach maturity. I do think, however, that we can select trees that might be a little more tolerant of this planting site: slow-growth trees and trees tolerant of drought, moisture, pollution, limited rooting area, and compacted soil.



A typical pit tree planting.

The other side of the coin would also take into account the actual planting site. We can make the pits larger and increase the soil volume, construct common planting beds that trees roots will share, make use of structural soils, or use the Silva Cells system.

We do need to start creating a better site for the trees to thrive versus a slow demise. We need to invest in these planting sites as we do the streets and other grey infrastructure.

The following are some suggestions for these tough sites. These are based mostly on actual experiences and a few suggested ideas.

**Goldenraintree, *Koelreuteria paniculata*:** Goldenraintree is a tough tree that is tolerant of tough sites with little care. Its potential invasiveness will not be an issue in downtown pits. It can be a little messy and attract boxelder bugs. But think of the panicles of yellow blooms followed by the Chinese lantern type fruit and the fall color of yellows and oranges. It has the advantage

of blooming after the spring blooming trees and expands our bloom time.

**Japanese tree lilac, *Syringa reticulata*:** The single stem will provide an upright form and lend itself to being pruned up. The tree has lilac-like white blooms in late spring, but the flowers are somewhat odoriferous. It is drought tolerant and can tolerate periodic excessive moisture. The fruit will persist on the tree. I have recommended this tree many times for pit plantings.

**Chinese fringetree, *Chionanthus retusus*:** I have not seen this tree used in downtowns, but I would recommend it as a potential. It is not a fast grower. It produces white fragrant blooms in the spring and is drought and moisture tolerant. Fall color is a light yellow, but possesses attractive bark in the winter. Fruit is in a cluster similar to oval shaped blueberries.

**Lacebark elm, *Ulmus parvifolia*:** In general, elms are a tolerant species and do not have any special requirements. Lacebark elm is adaptable to most soil types, pH tolerant, and tolerant of dry conditions. Carl Whitcomb has developed a cultivar named 'Easy Street' for use as a street tree. The John C. Pair Horticulture Center has a release named Emerald Prairie that is resistant to elm leaf spot and anthracnose. It will not cast the leaves like some other Lacebark elm varieties.

Another elm to consider is **Frontier elm, *Ulmus* 'Frontier'**; it is a hybrid cross of *U. parvifolia* and *U. carpinifolia*. It will provide a purple fall color. We used 'Frontier' elm in the Greensburg streetscape. Arkansas City has used some of the elm hybrids on the side streets downtown.



Goldenraintree.



Chinese fringetree.



Lacebark elm.



Emerald Prairie lacebark elm.

## Pit Trees, continued from page 12

Emerald sunshine elm, *Ulmus propinqua*

'JFS-Bieberich': This tree is a selection of the Chinese white barked elm that Steve Bieberich brought back from China. During tours of Kansas nurseries this summer these plants were not phased by our hot, dry weather. It is a fast, upright grower and appears to be adaptable to the Great Plains. Emerald Sunshine elm is quickly becoming one of my favorite urban trees, although I have yet to see it used in a tree pit.



Frontier elm.

Hedge maple, *Acer campestre*: If it has the name hedge in it, you know it has to be tough. This medium-sized maple

is drought tolerant and will survive the heat island effect of a downtown planting site. This tree is a slow grower, will provide a rich-golden, fall color and showy, corky bark in the winter. Newton has used this tree downtown in tree pits.



Hedge maple.

Shantung maple, *Acer truncatum*:

I have not seen this tree used in tree pits, but should be considered. Sometimes referred to as purple blow maple, the new spring growth will have a purple/maroon color. It is extremely drought tolerant with a glossy green leaf that provides fall colors ranging from red to orange to yellow. Two other potential hybrids are Norwegian Sunset and Pacific Sunset; these are shantung crossed with Norway maple. Limit the use of the crosses to eastern half of Kansas, as they may not possess as much drought and heat tolerance. Lawrence has been using Pacific Sunset maple in the replanting of their pits downtown.



Shantung maple.

Thornless Osage orange, *Maculra pomifera var. inermis*: Of course, use the male, thornless selections and not the native. What could be tougher or



Osage orange.

more tolerant of a tough site than Osage orange? It has a glossy, green leaf that will tolerate the heat island effect all summer and provide a yellow fall color. This tree does not have many pest issues with this tree. The two most popular cultivars are 'Whiteshield' and 'Wichita'. Hutchinson has used 'Whiteshield' osage orange in their downtown redevelopment.



Japanese Zelkova

Japanese Zelkova, *Zelkova serrata*: The upright vase shaped form of Zelkova in general lends itself to this particular planting site. Its form reminds you of a smaller version of the American elm. It possesses elm like leaves, exfoliating bark and a bronze fall color. Potential cultivars include, 'Green Vase', 'Village Green', and 'City Sprite'. We used Zelkova in the Greensburg streetscape.



Shumard oak.

Shumard oak, *Quercus shumardii*: Shumard oak is referred to as the southern red oak in reference to the red it possesses. This tree is more drought and moisture tolerance. Everyone seeks red, fall color and this tree

*continued on page 13*

## Pit Trees, continued from page 12

will not let you down. It has a pyramidal shape in youth and lends itself to having the canopy raised for clearance. Small acorns could be a deterrent, but will attract urban wildlife. The Wichita has used this in the tree pits downtown.

Another oak worth mentioning is the English oak. Although the English oak is not suited for planting in the southeast corner of Kansas due to powdery mildew issues.

Londonplanetree, *Platanus x acerifolia*: The newer cultivars have greater resistance to the anthracnose disease that can be an issue in *Platanus* spp. These cultivars include; 'Bloodgood', 'Exclamation', and 'Ovation.' It is a fast grower tolerant of both drought and moist situations. This tree maintains a strong central leader and mostly right angled branches. The large leaves could be a drawback in the fall.

Silver linden, *Tilia tomentosa*: Lindens in general are tougher than given credit for and this one may be the most drought tolerant for Kansas. Its name comes from the leaf that is dark green on top with a silvery underside. It is pH adaptable and pollution tolerant. This tree may require trunk protection during the winter to prevent sunscald. Silver linden was used in the downtown streetscape in Sterling. One could easily add littleleaf linden, *Tilia cordata* to this list also.

Ginkgo cultivars, *Ginkgo* spp.: Ginkgo does not have a particular insect or disease issue. I recommend using only male clones of this species, as they do not have the messy and stinky fruit. Cultivars are too numerous to mention. Ginkgo has slow growth, upright form, and a yellow fall color. Gngkos have been used in tree pits in Wichita.

Redbuds, *Cercis* spp.: Some do not agree with this selection, but there are some great pit-planted redbuds. They prefer the drier types of pits versus the heavier soils with poor drainage. You cannot beat the heavy bloom in the spring, although the seeds could be messy. Start with trees that have

been limbed up and continue that process to raise the canopy quickly.

Baldcypress, *Taxodium distichum*: Baldcypress is a tree that tolerates drought and excessive moisture, is conical in form, and can be readily limbed up uniformly. Some have mentioned the fruit being messy, but I have not seen that as an issue. Of course, as of late, bagworms and rust spider mite can be an issue. If used in high pH soil, you will need to use 'Frio River' baldcypress.

Here are a few additional "outside the box" choices: Foster's and American holly; southern magnolia, a very tolerant tree, but would require limbing up and limited to southeast and south central Kansas in this situation; Turkish filbert; Persian parrotia; hardy rubber tree; and Texas red oak. Chinese pistache is an option for the southern half of the state.

Another tree not mentioned is the Callery pear. While it tolerates and its form lends itself that site, there may be too many of them in the canopy.

Some of the trees recommended in this list are considered large trees. While the pit sites may hamper them from becoming large trees; you will need to take their canopy size into consideration when selecting. While the above choices are the trees I would recommend for the tough sites, I would prefer that we start to concentrate on the creation of more suitable planting sites during the planning and construction phases.

**Tim McDonnell**, Community Forestry Coordinator/District Community Forester, coordinates community forestry activities and provides educational and technical services for communities and green industries in southeast and south central Kansas.



Silver linden.



Ginkgo.



Baldcypress.

## Dennis Carlson Receives President's Award

**D**ennis Carlson, Kansas Forest Service district forester, received the 2010 Society of American Forester's Presidential Field Forester Award for District 9. This prestigious award recognizes Society of American Forester's field foresters who demonstrate unusual talent, skill, and understanding of science to employ innovative methods of sustainable forestry to achieve landowner's management objectives. Recipients are also recognized locally or regionally by their peers for excellence in field application.

This is the first time a Kansas forester has received this recognition. Dennis had to compete with foresters from Missouri, Arkansas, Oklahoma, Kentucky, Tennessee, Illinois, Indiana, Ohio, and Nebraska.

With close to 20 years of field forestry experience, Dennis began his career with the USDA Forest Service and has been working with the Kansas Forest Service out of Hutchinson since 1998. He assists private landowners in a 15-county district. He has excelled in the provision of technical service to private landowners in windbreak design and renovation, riparian forest and woodland management, forest stand improvement practices, and hardwood tree planting.

Dennis has the primary responsibility for managing the 960-acre Jackman Demonstration Forest. In the past five years he has made site visits to 400 landowners and has written forest management and

practice implementation plans for 9,000 acres. Dennis has often gone the extra mile to help landowners implement their plans marking timber and planting trees well into the evening hours to get the work done. He serves on the Kansas Tree Farm Committee and is a certified tree farm inspector.

In addition to technical service, Dennis excels in educating young and old about the importance of forests, woodlands, and agroforestry. Some examples include the annual Walk-in-the-Woods program at the Riggs Arboretum where an estimated 2,500 children have benefitted from hands-on environmental education activities. His other annual education events include Arbor Day celebrations, conservation district field days, Environthon, and Kansas Forest Service field days where he has taught an estimated 7,300 students.

Dennis also regularly provides leadership within the Kansas Forest Service introducing GIS and Web-based technologies to the agency. Special thanks to Thad Rhodes, Kansas Forest Service district forester, for nominating Dennis for this well-

deserved recognition and for providing much of the information in this article.

The award was presented to Dennis at the 2010 Society of American Foresters National Convention in Albuquerque, N.M. in October.

**Bob Atchison**, Rural Forestry Coordinator, coordinates rural forestry activities for the Kansas Forest Service.



*Dennis Carlson knows how to listen to landowners and help them reach the forest management objectives they have for their property.*



*One of countless educational events where Dennis helps people manage and care for their windbreaks.*

## Morriss Named Forest Stewardship Tree Farmer of the Year

After 31 years of practicing sustainable forestry and being a certified member of the American Tree Farm System, Dennis Morriss has been awarded the 2010 Forest Stewardship Tree Farmer of the Year award.

The recognition included a \$350 STIHL gift certificate, a Forest Stewardship Tree Farmer of the Year sign to post on his Walnut Hill tree farm located just north of Topeka and a Forest Stewardship Tree Farmer of the Year walnut plaque.

As tree farms go, the Walnut Hill Tree Farm is not large, but the 18 acres of woodlands provide a surprising diversity of beautiful oak/hickory upland forest and some sweet bottomland hardwoods, which buffer Half-day Creek. The tree farm's close proximity to Topeka and the water quality benefits his forestland provides, makes it a targeted area for protection from development as north Topeka continues to expand.

Some of Dennis' forest management accomplishments over the years have included the establishment and management of a 4-acre riparian black walnut plantation on Half-Day Creek, the removal of the exotic invasive, Amur honeysuckle, to increase bio-diversity and hardwood regeneration and general forest stand improvement throughout his woodlands.

Though Dennis' forest management accomplishments are impressive, it was his devotion to promoting sustainable forestry that earned him the 2010 award presented by the Kansas Tree Farm Committee.

Examples include serving as president and board member of the Kansas Chapter of the Walnut Council and as a long-standing member of the Kansas Tree Farm Committee, hosting the Walnut Council Field Day in 2006, representing Kansas at National Walnut Council meetings and assisting with the organization and preparation of multiple Kansas Forest Service field days.

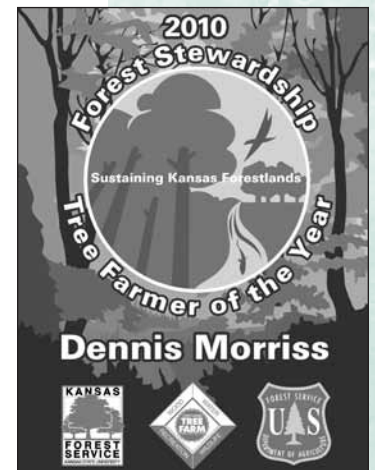
The recent establishment of the Kansas Forestry Association has largely occurred because of the time and effort Dennis devoted to the creation of the new by-laws and the subsequent acceptance of them by the national organizations. Dennis will also be nominated for Forest Conservationist of the Year, a prestigious award presented by the Kansas Wildlife Federation.

Nominations for the 2011 Forest Stewardship Tree Farmer of the Year are now being accepted. If you, or someone you know is deserving of this recognition please contact Bob Atchison at (785) 532-3310 or by e-mail at [atchison@ksu.edu](mailto:atchison@ksu.edu). Eligibility requirements include 1) having a Forest Stewardship Management plan, 2) being a certified member of the American Tree Farm System and having property located in the central or eastern Kansas Forest Service districts.

**Bob Atchison**, Rural Forestry Coordinator, coordinates rural forestry activities for the Kansas Forest Service.



*Dennis Morriss is a strong advocate for active management of Kansas forestlands*



*The sign that Morriss will receive to display at his tree farm.*

## Christmas Tree Growers Donate Tree to Governor Parkinson



Governor Mark Parkinson and First Lady Stacy Parkinson (right) accept a Christmas tree and wreath from the Kansas Christmas Tree Growers Association. The tree was donated by Lynn and Karla Davignon (left) of Prairie Dell Pines Christmas tree farm, Ellis, Kansas. The wreath was made and donated by Mike Kasl (behind Mrs. Parkinson) of Kasl Christmas Tree Farm, Belleville, Kansas. Delivery was made by a horse drawn wagon provided by Robin Dunn (pictured on wagon) of Dunn's Landing, Wellsville, Kansas. Mitch Walther, President of KCTGA, is obstructed but helping hold the KCTGA Banner behind the Davignons.



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### Links of Interest:

Kansas Forest Service  
[www.kansasforests.org](http://www.kansasforests.org)

K-State Research and Extension  
[www.ksre.ksu.edu](http://www.ksre.ksu.edu)

State of Kansas  
[www.accesskansas.org](http://www.accesskansas.org)

Kansas Department of Wildlife and Parks  
[www.kdwp.state.ks.us/](http://www.kdwp.state.ks.us/)

Natural Resources Conservation Service-Kansas  
[www.ks.nrcs.usda.gov/](http://www.ks.nrcs.usda.gov/)

Farm Service Agency-Kansas  
[www.fsa.usda.gov/ks/](http://www.fsa.usda.gov/ks/)

## Calendar of Events

**December 2** – Urban Trees Workshop, El Dorado. Contact Tim McDonnell, (316) 788-0492 or [tmcdonne@ksu.edu](mailto:tmcdonne@ksu.edu)

**January 12 – 14** – Kansas Arborist Association Shade Tree Conference, Topeka. Downtown Ramada. Contact Tim McDonnell, (316) 788-0492 or [tmcdonne@ksu.edu](mailto:tmcdonne@ksu.edu)

**January 20- 21** – Kansas Natural Resource Conference. Wichita. Airport Hilton. Contact Charles Barden, (785) 532-1444 or [cbarden@ksu.edu](mailto:cbarden@ksu.edu) or on the web at <http://kansasnrc.org/>

**January 22** – Kansas Christmas Tree Growers Association Winter Meeting, Manhattan Clarion Hotel, Contact Susan Grelinger (316) 733-0918 or e-mail [rstree@dishmail.net](mailto:rstree@dishmail.net)

### We Need Your Help

In an effort to reduce printing and mailing costs, the Kansas Forest Service would like subscribers who are willing to receive the newsletter electronically to send their e-mail address to [pmccaffr@ksu.edu](mailto:pmccaffr@ksu.edu) or call us at (785) 532-3300.

Your e-mail address will not be given to any other organizations.

If you have any questions please do not hesitate to let us know.

For a current listing of events, check our Web site: [www.kansasforests.org/calendar](http://www.kansasforests.org/calendar)