150 people from multiple states, with an interest in forestry came to Mayetta for Walnuts in Indian Country. Field tours ventured to two riparian forest buffer sites on the Kickapoo Reservation and to Copperhead Hill Ranch for a variety of discussions and demonstrations from assessing timber to birds of the forest, agroforestry to stream processes, plant identification to drones, wildlife to pruning, and many more. Indoor sessions included women owning woodlands, lumber vs. nut production, ticks and diseases, Potawatomi and Kansas histories, and effects of fire from speakers Dr. Bill Reid, Dr. Tamara Walkingstick and Dan Dey to name a few. The event was a great experience and many compliments were offered to Kansas for our efforts. Thank you to all who were able to attend and thank you to all who helped make this event a success.

Right: How to assess black walnut and grading saw logs was demonstrated by Danny Barrow & associates. Attendees were able to see the qualities and potential flaws of several examples of lumber logs from the eyes of logging professionals.

Right: Charlie Barden & Bob Atchison, along with Watershed Foresters Jarran Tindle & Andy Klein discuss stream form, streambank stabilization and riparian forest buffers. The vast scope of the issue and efforts to utilize forest buffers to reduce sedimentation were included.

Right: The ever popular sawmill demonstration was performed by David Boyt at the Copperhead Hill Ranch. Throughout the days, there was an opportunity to see various stages and types of development, production, and final products in many examples of forests and woodlands.

Upcoming Events

- **August 17, 9am-4pm** – Douglas County Wildlife Conservation Event, Douglas County Fairgrounds – For more info contact the Douglas County Conservation District at 785.843.4260 ext. 3

- **October 9** – Fall Field Day, Geyer Research Site, 6625 Dyer Rd, Manhattan, KS – For more info contact Shane Neel @ 785.617.0717 or shane@ksu.edu

- **Sept 3 - Oct 15** – Order fall conservation seedlings online at kansasforests.org or call 888.740.8733

- **October 17, 9:30am-3:30pm** – Manhattan Plant Materials Center Open House, 3800 South 20th Street, Manhattan, KS – For more info contact Mark Janzen @ 785.823.4595 or mark.janzen@usda.gov

Save the Date for the Fall Field Day at Geyer Research Site in Manhattan on October 9th

The fall field day will return to the Geyer Research Site, near Tuttle Creek to see an update on several research projects and enjoy diverse topics related to forestry and woodland management. Presentations and demonstrations will include controlling invasives and pests such as bush honeysuckle, mushroom inoculation research; a sawmill demonstration, direct seeding and nut planting techniques, biochar production and uses, how to manage woodlands in extreme weather conditions and more. We will also have updates from the KFA board, as well as presentations for annual forestry award winners. Please plan to join us on October 9th in Manhattan. More information will be coming soon and can be found at ksforestryassociation.org. If you have any questions or have suggestions of other topics to be included in this event, contact Shane Neel at 785.617.0717 or shane@ksu.edu.

2019 Walnut Council Spouses Tour

Spouses from 7 states participated in the optional tour provided during Monday and Tuesday, June 17th and 18th at the National Walnut Council meetings.

A variety of stops in Topeka allowed the 19 participants to explore a few of the attractions in Topeka. Monday started with a morning in the Ted Ensley Gardens located on the west side of Lake Shawnee in southeast Topeka. The guided tour took everyone along the paths to highlight much of the 37 acre arboretum that featured 120 varieties of trees, 1200 varieties of perennials, and a multitude of annuals. Lunch was at The Blind Tiger before the afternoon stops. The Kansas Governor’s Mansion “Cedar Crest” in northwest Topeka provided some history of the mansion along with a tour of the beautiful public portion of the home. The last stop of the day was the Kansas Capitol and Statehouse. There, several of the more athletic individuals of the group chose to climb the 296 steps to the dome to a panoramic view of Topeka, while the rest chose to take the historic tour of the lower five floors. This magnificent recently restored building is a proud Kansas showplace.

Tuesday’s weather was equally pleasant when the group toured Old Prairie Town at Ward-Meade Historic Site. The group was divided into three smaller groups which allowed the guides to share the 1870 Victorian Mansion, 1854 replica cabin, Potwin Drug Store, a small railroad station, old school house and 1880 Mount Zion Methodist Episcopal church moved in from western Kansas. Our group went to Glaciers Edge Winery just south of Topeka for a catered lunch and wine tasting. The final stop on the tour was the Mulvane Art Museum on Washburn University Campus. There the tour ended in the Children’s Art Lab with a bit of whimsical art work completed by the participants to take as a souvenir.

-- Carolyn Turney, KFA Board Member and Tree Farm Chair
Tree Shelter Destruction and Prevention

We have all shared the frustration of witnessing our hard work during TSI projects come to nothing as significant numbers of our seedlings and shelters are damaged or destroyed before they mature. High mortality rates occur for many reasons including drought, storms, access, location, diseases and much more. After studying tree shelter and plant destruction for years, we have arrived at some conclusions and best practices. It is preventable!

Working with our Kansas Foresters, other landowners, and neighbors, several observations and conclusions have been made. Tree shelter destruction occurs more frequently in established woodlands during Timber Stand Improvement activities than is seen in more open land applications such as plantation or forest expansion projects. On my land, we have been involved in TSI for over 15 years. This is a well established older oak/hickory forest. We have been removing less desirable species, such as witch trees and repairing tornado damaged areas. I have been planting replacement trees, primarily walnut and various oaks, using five foot shelters only to see high mortality rates. Significant shelter destruction accounts for as much as 25% of my crop. This destruction is characterized by significant chewing on the entire length of the tube, holes of various size chewed completely through, plastic cable ties chewed off, and shelters crushed and bent to the ground, resulting in the death of the plant. This was obviously animal damage, but was this the behavior of a single species or multiple culprits?

After several years of observing this and working with my district forester, I set game cameras in my newest TSI areas. After six months of observation, we were able to document a single species engaging in this behavior...Raccoons. I have dozens of pictures of other animals browsing and congregating around the shelters such as deer, woodrats, and opossums, but only the raccoons were observed chewing, climbing and handling them. I gave a sample damaged shelter to Dave Bruton and he forwarded it to several biologists and other colleagues who confirmed the teeth marks to be raccoon. So...what to do? Eliminating all or most of the raccoons in a 40 acre woodlot attached contiguously to miles of adjoining forest would be impossible. The only viable answer was to experiment with methods to strengthen, secure and stabilize the shelters.

After trialing several different materials and methods, the best practice that provides the best results is to: Eliminate the plastic ties and replace them with insulated, single strand, common electrical wire. Baling wire does not work as it cuts into the shelter and slices it when the animals are climbing. You must have at least three contact points (and four is better) with at least one strand of wire looped around the entire circumference of the shelter. This provides stability so that the tube will not be turned or twisted. The additional contact points, tied tightly, provide the strength. As for the chewing, I have not found anything that discourages this behavior for any prolonged period of time. The stronger, more stable shelters do show evidence of less chewing, probably because they are more difficult to bend and twist, the animals can’t get their mouths around it as easily. Even though my shelters still show signs of this chewing activity, the trees inside are surviving.

This brings us to the question of... Why do they do it?! It doesn’t seem to really be related to the seedling inside as they have plenty of naturally growing seedlings to demolish in the understory. Does the shelter material taste good? Probably not. Other animals would be consuming it too. If you are a KFA member and love the outdoors, you have probably been observing raccoon behavior for a long time. They are by nature, curious, inquisitive, AND DESTRUCTIVE! I hope you’ve never had one in your barn! We will never know the true answer but I hope this has been helpful to those of you endeavoring to maintain your tree shelters and young trees!

--Tim Lyons, KFA Member and Douglas County KS Landowner
Special thanks to contributing authors: Carolyn Turney and Tim Lyons
Pictures by: Charlie Barden, Carolyn Turney, and Tim Lyons