We are living in some interesting and uncertain times. Hopefully, you are all staying well and can spend some time out in the woods, whether for management or recreation. In addition to the virus, we’ve been dealing with difficult timber harvesting due to high rainfall. Even bringing logs to my one-man sawmill has been challenging, and the demand for milled lumber has dropped off drastically. As challenging as these times are for woodland owners, I am thankful I’m not in the same situation as my neighbors who bulldozed down their trees so they could raise cattle. At least we have the option of holding off on a harvest until the markets pick up without the expense of feeding our trees through the winter! Not that there isn’t plenty to do out in the woods, but at least we don’t have to do it in the pouring rain!

Things have changed in the way we meet and interact. As you no doubt know, the Missouri Chapter has cancelled the Spring ’20 field day, and the national Walnut Council meeting has been cancelled, as well, though both will hopefully meet next year in their respective same places. The Walnut Council Board of Directors had some meetings on ZOOM and, while it isn’t the same as actually being there, it makes attending a lot more practical. Meanwhile, it doesn’t hurt to keep in touch with each other.

By now, you should have received the May 2020 issue of Green Horizons. In addition to the other great information, take note of the webinars listed in the calendar at the bottom of the publication. The great thing about the webinars is that you can either join them as they occur, which gives you the opportunity to interact with the presenter or watch a “re-run” at your own convenience. A couple of places to check out are the Penn State Center for Private Forests and the USDA Forestrywebinars.net.

I am a second-generation tree farmer in southwest Missouri. My parents bought the property fifty years ago while I was still in high school. The man they bought it from had purchased it as surplus property when Camp Crowder scaled back in 1956. Back then, everyone thought he was nuts for buying a square mile of “worthless” hills for the outrageously high price of $5/acre! I remember one time, after buying the property, but before moving onto it, my dad announced he was bringing steaks when we went there on a nice Saturday afternoon. I found my anticipation of a cook-out was misplaced when we got there and he handed me a bundle of wooden stakes with red plastic ribbon on the end with instructions to mark the walnut seedlings. I had to settle for a peanut butter sandwich.

Chapter Fall Event
Hopefully, we can get together on Saturday, September 19th at the Whitney Kerr Tree Farm near Arrow Rock. Hold this date!

Chapter Factoid
Membership (Regular + Guests) = 174
Tales of a Tree Planter
Phil Moore, Past President

I have completed planting the trees that I have purchased, so far, as I keep seeing discount sales and the temptation is always there. This year I ordered some trees from the Missouri Department of Conservation, this is not new since I have ordered some trees every year beginning in 1967, is that 53 years? This year I ordered black walnut, pecan, shellbark hickory and a conservation bundle. I planted 200 of these and gave the rest away. So, I am slowing down! I am a lifetime member of the Seed Savers Exchange and as I was looking through the yearbook saw some antique apples that looked interesting, so I ordered eight cultivars of sci-on wood. Then I decided I needed more trees to graft them to. So that caused a trip to Forrest Keeling to purchase 10 of their Malus domestica potted trees for root stock which I have now grafted.

Over the years I have planted over 100 acres of trees under the CRP programs and I am closing in on 50,000 trees total. Have I made a few mistakes, YES; in 1968 I planted 2,000 multiflora rose! They were from Missouri Department of Conservation! I have killed that many since then, but they still have descendants. About 1990 I went to a community sale and 4 inch top Osage orange posts were selling for over $4.00. I figured on a 6-foot spacing that was 1200 trees per acre or $4,840. per acre! My dad always said of a hedge post, if you put the small in the ground it would last a 100 years and if you put the large end in the ground it would last forever. Guess the jury is still out on that! In my pastures it only takes 15 years to grow one that size. I planted 2,000. You do not tell folks around here something like that now or be considered a few bricks shy of a full load. Before year 1900 thousands of miles were planted around here. Anyway, I took my Sawzall pruner, made my way into the grove. Osage orange on 6-foot spacing do not grow as fast as they do in a pasture. Maybe 3 inches now and I have the scars to prove it. Later in the 90’s I planted pecan trees 40-feet apart on 65-foot rows. I thought 40-foot is a lot of wasted space, so I planted 3 oak trees between each one to sell as yard trees. In 2007 they were ready to sell, but the market was gone. By the time the market came back they were too big! I have not learned to grow mushrooms.

One lesson I have learned is that planting trees is like real estate, location, location, location. I have a property on the South edge of Pleasant Hill. Google it if you wish, west side of highway 7, that has a stream called Big Creek running through it. Also, the Rock Island spur of the Katy trail. It floods often. I have determined that a walnut tree will not thrive over 100 feet from the stream bank. Even this is not completely true. As a stream floods the larger particles settle out first and the smaller, clay settles further from stream. Great for the walnut trees, then the stream decides to change course and goes through the clay it deposited years before. Not so good now. It is all about drainage. I have planted riparian buffer trees on the outside of the bends to keep Big Creek in place, and the walnut growth rate is not equal. My best walnut planting resulted from an older lady bringing walnuts to sell to Hammond Products after the season was over. She had an older car and the walnuts had been in it for a while. Husk maggots were everywhere! I felt so sorry for her I bought the 400 pounds, took them down by Big Creek and used the field cultivator to cover them up. The rate was about 300 pounds per acre. The silver maple seeded the area at about the same rate, 300 pounds per acre. Beaver like silver maple better than walnut.

Here at home I planted 10 walnut trees dug out of the garden with a spade in 1978 and they average 24 inches DBH. Location is on top of a hill. In 1983 I planted a quarter of mile of walnuts, 10 feet apart, along a road fence, much lower land. I measured them four years ago and they ranged from 9 inches to 2 1/2 inches DBH. Of course, use your soil maps, but a tree doing well probably needs some friends nearby!

In closing, I am a collector of black walnut, pecan, and hickory cultivars. If I can help anyone out in future years do not hesitate to contact me.
Sources of Improved Varieties of Hardwood Planting Stock

Bob Ball, Member

Tree planting season always triggers messages from fellow Walnut Council members, and others, looking for sources of improved varieties of planting stock for hardwood trees. Most of our hardwood tree planting stock comes from state nurseries. Their planting stock and overall operations have been exceptionally reliable for many years.

I am finding, though, an increasing number of woodland landowners willing to pay more for “improved planting stock”. It is rare to hear from someone looking for planting stock for nut production, because I believe that information has been well delivered by the Missouri Nut Growers Association. However, finding sources of superior varieties for timber production requires more searching.

Walnut Council reached out to Carrie Pike, Nursery and Regeneration Specialist of the US Forest Service for both state and private forestry for the Midwest region. Carrie communicates with these dealers regularly and quickly pointed us to this amazing directory: https://www.rngr.net/resources/directory.

This is a large database and searching for this single niche market can be time consuming, but there is a wealth of information!


I have encouraged state chapter presidents to submit sources of improved black walnut planting stock for hardwoods in their respective states. I will share that list with you when it has been compiled. Here are a few sources I am aware of: Pence “Select” Walnut sold by Hensler Nursery, Inc., Hamlet, Indiana; Advanced Tree Technology, New Haven, IN; Indiana State Nursery, Vallonia, IN; the Iowa State Forest Nursery, Ames, IA and Forrest Keeling Nursery, Elsberry, MO.

The “Missouri Black Walnut Initiative” is a promotion by the Missouri Chapter, Walnut Council to encourage establishing and managing black walnut growth on idled acres of well-suited soils. Walnut trees could become a significant source of income for your family and future generations. Well-managed walnut trees are like a savings account when there is need. The long-term outlook for future market value of walnut products is very good.

Missouri has 41 million black walnut trees 5” or greater in diameter; more than twice as many as the second ranked state. Twenty percent of all native range walnut is grown in Missouri, with more walnut timber than any other area in the world! And 75% of all native black walnut nuts purchased commercially are grown here as either “wild run” or “improved cultivars”.

About Missouri Chapter News

Missouri Chapter News is distributed to members of the Missouri Chapter, Walnut Council and selected guests. The newsletter is intended to keep members informed about timely events while also distributing general information about the management of fine hardwoods. Members are encouraged to provide feedback about this outreach approach and suggest topics for future issues. Comments and suggestions can be emailed to Bob Ball, Newsletter Editor. During the year we will also distribute “technical articles” on specific topics of interest to woodland landowners. Both the newsletters and technical articles are being archived at our chapter website.
Controlling the Competition
Bob Ball, Past President

We are at a time in our lives when fighting foreign invaders is becoming the norm. Woodland landowners, their family members, and their communities must also now be concerned about the Coronavirus as they go about their daily routines. Sadly though, we have been fighting invaders on our tree farms for many years. These nasty invasive species may be winning the war of the woods!

Autumn olive, bush honeysuckle, Japanese honeysuckle, multiflora rose, tree of heaven, garlic mustard, and sericea lespedeza, to name only a few, are causing panic in our forests and woodlands. The battles in our urban communities are not going well either because you can see bush honeysuckle taking over nearly every wooded draw and our community green spaces. Besides the competition for essential nutrients and water, the foliage of largely shade tolerant invasive species crowd out hardwood seedlings, vines can strangle sapling and pole size trees and they just make it difficult to simply walk through your woods to carry out routine woodland management practices.

Growing fine hardwood timber depends largely on using herbicides to control trees, shrubs, vines, grasses and invasive plants competing with our crop trees. Although chemical control is only one of three methods of killing invasive species and other weed species, often biological control options are just not available to most of us and mechanical control is often just not practical. For example, pulling a few garlic mustard plants or young shoots of bush honeysuckle is relatively easy in the spring, but try pulling an acre of them! Learning how to apply approved herbicides safely to protect both you and the environment is usually the only practical means of winning the war with competing species.

Tree farmers who may lack the knowledge and experience in using herbicides need to turn to their land grant universities for technical assistance. Look for the university’s Extension Forester or the state forestry agency and their publications on controlling invasive species in woodlands. However, where that help may be somewhat lacking possibly due to limited staff and financial resources, various organizations, like Walnut Council, have taken on the task of preparing management guides for their members helping them in utilizing approved herbicides.

“Controlling the Competition – Using Herbicides to Manage Fine Hardwoods”, written by a woodland landowner for fellow tree farmers, is now available as a guide offering the basics needed when using herbicides. It reflects methods and procedures learned from others applied in his woodland. It is a combination of weed science merged with the knowledge and experiences from active woodland managers. It consists of descriptive text, corresponding photos tables and numerous hyperlinks to land grant university websites plus links to herbicide manufacturers. Follow the hyperlink above to access this herbicide guide at our chapter website.
Mechanical Brush Control – One Alternative to Using Herbicides
Mike Gentzsch, Member

There are alternatives to using herbicides to control the competition as reported by members Mike and Nancy Gentzsch at their Gentzsch Tree Farm near Columbia. The Gentzsch’s recently purchased an Altoz zero turn mower that is making their mowing chores much easier!

“We think it would be an asset on any farm. It is an Altoz zero turn mower that has a 66-inch brush cutter deck. This machine is on tracks and has solid tires on the front. This means no flats cutting like regular mowers. It has a 37hp air cooled fuel injected engine. The deck is a 1/4 inch thick. It will cut multiflora roses, blackberry briars, buckbrush and up to 2-inch sprouts. We have been cleaning up the farm most of the spring and this thing is great. More traction and easier ride because of the tracks. It does a great job on pond dams and other slopes. Also, this is a great machine to use making trails through the woods. We use most of our property for recreation with grandkids riding 4 wheelers. We have made some alternate campsites around the farm and have several ponds The grandkids enjoy using the trails and the campsites. It is extremely easy to turn this machine around in the woods,” said Mike.

Mike further added, “They would be great for cleaning up plantation type trees as you can turn and back up with ease. One other great feature, they have three sets of brush cutter blades and they discharge from the back. No windrowed piles of cut material. However, this may be a problem for the turkeys as they like to turn piles over to eat bugs and worms. On the downside these units are expensive. On the upside they are a joy to run and the one I bought made a dandy Mother’s Day present!”

The Altoz mowers are available at Jones Farm Home and Auto in Millersburg, MO. Visit the Altoz website at:  

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Treat Ash Trees for EAB
Bob Ball, Past President

Our tree farm is in Southeastern Ohio, and about 15% of our timber stand is, or was, ash trees. They are all dead now and have been for about three years! The Emerald Ash Borer, or EAB, wiped out every ash tree on our farm regardless of where they were standing. Mature, single trees in the middle of our pastures are dead. Sapling trees 6” in diameter deep in the woods...also dead! The Emerald Ash Borer will find and kill every ash tree in its path.

Here in Columbia we have two large green ash trees in our lawn only a short drive from the University of Missouri campus where EAB was discovered last fall. It is inevitable our trees here will soon be dead too. Removing maturing trees in a city is a costly endeavor! Treating those trees seemed like a good investment when faced with thousands in removal costs.

The most common EAB treatments are soil drenches or trunk injections. Drenches allow the trees to uptake the insecticide through their root systems then distribute it throughout the tree. They should be completed in early spring prior to leaf-out, and need to be done annually. Soil drenches are most effective on smaller diameter trees (<15” DBH). Several products are available to homeowners.

Trunk injections deliver the insecticide directly into the tree’s conductive tissues, which is then evenly dispersed throughout the canopy with the flow of water and nutrients. Injection treatments should be done in the spring, following leaf-out, and about the time adult beetles emerge (mid-May in Missouri), but can be done up until mid-summer. The treatment will provide protection for roughly two years. Most trunk injection products can only be applied by qualified professionals.

Regardless of the treatment method used, repeat treatments will be required to maintain the life and health of the ash trees. (Continued on Page 7)

(Photos - Above) The ash tree in the background appears to be dead while the one in the foreground seems healthy. To protect trees from EAB, treat only healthy ash trees.

(Photos - Above) Chris Lohmann, CF, drills into the base of the ash tree to inject TreeAzin. The volume of insecticide needed is based on the DBH of the tree.
Chris Lohmann, Heartland Forest Consulting LLC, Ashland, used “TreeAzin” Systemic Insecticide on our trees. Treatment cost is based on a price per inch of tree diameter or DBH (diameter at breast height). This insecticide is distributed by BioForrest Technologies Inc.: http://www.bioforest.ca/index.cfm?fuseaction=content&menuid=12&pageid=1012

TreeAzin is a botanical injectable insecticide formulated with azadirachtin, an extract of neem tree seeds (not neem oil). It is registered with the Organic Materials Review Institute for organic use. TreeAzin controls EAB and other insect pests in Canada and the United States, including Gypsy Moth, Hemlock Woolly Adelgid, Elm Leaf Beetle, Tent Caterpillars, Spruce Budworm, Jack Pine Budworm, Leafminers, Sawflies, European Elm Scale, and Red Elm Bark Weevil.

TreeAzin is formulated to inject quickly into ash (avg. 15 - 30 minutes/tree) and translocates rapidly throughout the tree (approximately 48 hours). The insecticide kills insect larvae feeding on the tree’s tissues by regulating growth and disrupting normal molting. In certain groups of insect pests, like Emerald Ash Borer, TreeAzin has been shown to reduce fertility and egg viability when adult females feed on a treated tree’s foliage. Multiple modes of action help reduce the potential for resistance in pest populations. TreeAzin is found throughout the tree at effective levels through the growing season providing up to two-years protection.

Another popular product used in Missouri is “TREE-äge® Insecticide which is a soil drench distributed by Arborjet. Both insecticides work within the tree in a similar manner. For more information about TREE-äge® visit: https://arborjet.com/problems_solutions/emerald-ash-borer/

For a list of certified arborists in your area visit: www.treesaregood.org. For questions related to EAB, ash tree treatments, or managing ash in forests, send an email to: forest.health@mdc.mo.gov or call MDC’s Forest entomologist, Robbie Doerhoff, at (573)815-7901, extension 2906. For MDC’s “EAB Management Guide for Missouri Homeowners”, visit: https://mdc.mo.gov/sites/default/files/downloads/mo_eab_management_guide.pdf

Spring Rains Can Alter Woodland Management Plans

Take advantage of spring rainfall to update your woodland management plan. Walking in the woods during heavy rains gives you a perspective of your woodland you may otherwise miss entirely. If your streams are muddy, as shown here, where is the source of the erosion contributing the sediment? Did you have a timber harvest recently? Are logging trails eroding flushing sediment into streams and creeks? Is the tree canopy now so open on steeper slopes you are getting sheet or even gully erosion? Water erosion can occur in the woods and forest floor when you have concentrated flows especially on steeper slopes. Plus, you may have segments of your streams that are unstable due to steep gradients or bends in the stream accelerating bank erosion.

Look also at possible “crop trees” you have been caring for that are precariously close to the edge of the stream-banks. Can those trees survive for another 50 years or will they topple into the creek? Are those crop trees?