Species | Size  | Type     | Price per 1000
---------|-------|----------|-----------------|
Spicebush | 12-18” | Seedlings | $580.00         |
American Arborvitae | 8-15” | Seedlings | $250.00         |
Silver Maple | 18-24” | Seedlings | $590.00         |
Black Walnut | 18-24” | Seedlings | $630.00         |
Silky Dogwood | 12-18” | Seedlings | $430.00         |
River Birch | 18-24” | Seedlings | $650.00         |
Swamp White Oak | 12-18” | Seedlings | $560.00         |
White Pine | 10-14” | Seedlings | $270.00         |
Norway Spruce | 16-24” | Transplants | $785.00         |

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The reigning Ohio State Champion Anderson White Oak in Mahoning County. Read about this tree and the landowner who was its caring owner on page 15.
As we approach mid-June 2014, the summer season is slow in arriving. A wet, cool spring has delayed planting field crops and gardens. Old Man Winter left his mark by providing 151 inches of snow, 22 days 0 degrees or colder, and nearly 4 months of snow cover here at Snowy Oak Tree Farm. Maple syrup season finally started by the third week of March and extended into April. We had a bountiful harvest of over 1,000 gallons of mostly grade A medium amber maple syrup. The Gobbler Sawtooth oaks are just now leafing out and an experimental planting of Cherrybark oak (southern red oak) has experienced considerable die back. From clean air and water, to wildlife habitat, to carbon storage, to wood products and recreation, Ohio private forests give abundantly. The Ohio Tree Farm System through the American Forest Foundation works on the ground with family forest owners to give them the tools needed to maintain healthy and productive forests. Forests cover nearly 8 million acres in Ohio or 31 percent of the state’s total land area, of which more than 85 percent is privately owned. There are 1,681 tree farms in Ohio certified by the American Forest Foundation, which cover a total of 253,342 acres. As you can see, the Ohio Tree Farm System impacts only a small part of Ohio’s woodlands.

What are the major threats to Ohio’s forests? Invasive plant species such as bush honeysuckle, autumn olive, multiflora rose, Ailanthus, and buckthorn crowd out our native species. Invasive insect species such as emerald ash borer, Asian longhorned beetle, hemlock woolly adelgid, and walnut twig beetle would like to eat our trees or give them deadly fungal disease. Forests cover nearly 8 million acres in Ohio or 31 percent of the state’s total land area, of which more than 85 percent is privately owned. There are 1,681 tree farms in Ohio certified by the American Forest Foundation, which cover a total of 253,342 acres. As you can see, the Ohio Tree Farm System impacts only a small part of Ohio’s woodlands.

Fragmentation of the land is a major threat to our forests. The average parcel size of private woodlands in Ohio went from 19.0 acres in 1991 to 17.3 acres in 2006. As land is fragmented into smaller parcels it is harder to manage for disease, invasive plants and insects, and timber production. Another threat to Ohio’s forests is smaller parcels it is harder to manage for disease, invasive plants and insects, and timber production. Another threat to Ohio’s forests is the impact on woodlands. From clean air and water, to wildlife habitat, to carbon storage, to wood products and recreation, Ohio private forests give abundantly. The Ohio Tree Farm System through the American Forest Foundation works on the ground with family forest owners to give them the tools needed to maintain healthy and productive forests.

As a member of the National Public Affairs Committee for the American Forest Foundation, I recently attended three days of meetings in Washington, D.C. Our committee met with Jason Wheeler, Chief of the US Department of Agriculture (USDA) Natural Resources Conservation Service and Tom Tidwells, Chief of the USDA Forest Service, as well as members of Congress from across the United States. We discussed policies, application procedures, and how best to get stewardship and forest health programs “on the ground.” Funding the 2014 Farm Bill for forest health and stewardship programs at current levels or greater was emphasized. The forest stewardship program is the primary federal program responsible for providing “boots on the ground” technical assistance to land owners. As administered through state forestry agencies, it supports a strong network of service foresters who provide advice and technical services to woodland owners.

In the past two fiscal years, the USDA Forest Service (USFS) was forced to transfer more than 1 billion dollars from programs within the agency to pay for fighting wildfires. Transfers disrupt nearly all Forest Service programs, negatively impacting program delivery and disrupting funding priorities set by Congress. The impact of wildfire funding transfers has halted work to stop the threat of invasive species, resulted in fewer forest owners from receiving assistance for stewardship programs, and stopped active management work to reduce future fire risk. Ohio Congressmen David Joyce and Tim Ryan are cosponsors of the Wildfire Disaster Fund Act (S. 1875/ H.R. 3992). By creating an emergency wildland fire funding structure, Congress will enable the USFS to meet its protection responsibilities and still achieve their mission of managing our nation’s forests to sustain health, diversity, and productivity.

Reforestation is key to the long term sustainability of our working forests, but it can be a financial burden, particularly for forest owners who may lack capital to cover the up-front expenses. The existing reforestation tax deduction is important to support reforestation on private land, especially smaller family owned forests. Without the proper tax policies in place, we could not only see low reforestation rates, but also pre-mature timber harvesting, reduced investment in the needed ongoing management of forest land, and conversion of forests to non-forest uses. Congress has made proposals to eliminate reforestation expenses as tax deductions, eliminate conservation easement tax reduction, and treat timber sales as ordinary income and not capital gain. Needless to say, our committee lobbied congressional members to maintain current tax policies. Without these tax provisions tree farmers will be further burdened financially.

Ohio tree farmers should continue to communicate with and educate our law makers in regards to family forests. Invite elected officials to your tree farm and forestry events. Hopefully some of Ohio’s elected officials will attend our Ohio Tree Farm Tour September 20, 2014 at the Coldwell Family Tree Farm in Columbiana County (directions on page 29). Show them the good we do for the air, water, soil, environment, climate change, wildlife, and economy.

One last thought from Aldo Leopold from “The Farmer as a Conservationist,” 1939. “When land does well for its owner, and the owner does well by his land; when both end up better by reason of their partnership, we have conservation. When one or the other grows poorer, we do not.”

The 2014 Farm Bill for forest health and stewardship programs offers technical assistance to land owners.
recently the Division of Forestry received a grant from the USDA Forest Service for a state-wide evaluation of Ohio’s best management practices (BMPs) for logging. The work will include visits to recent timber harvest sites to document whether logging BMPs were used and, if so, determine their effectiveness. The division will be working with the Ohio Forestry Association on this project.

Logging BMPs are erosion control measures that reduce soil and water impacts resulting from timber harvest activities. The Division of Forestry partners with the Ohio Forestry Association in training and certifying master loggers in the use of logging BMPs – a requirement of the master logger certification. The use of BMPs is also a requirement for logging done on state forest lands and for private landowners certified in the Ohio Forest Tax Law program. The division also partners with organizations to conduct logging BMP Inspector Training. Some of the division’s service foresters and state-lands foresters are trained at these sessions and in turn conduct BMP inspections at a sampling of sites logged by master loggers.

This more extensive state-wide evaluation of BMPs will provide valuable data on how well BMP initiatives are working, and whether changes need to be made. Results of the evaluation will be made available to the public.

Woody Warehouse Nursery, Inc., WWN, is a grower of native trees and shrubs conveniently located in central Indiana. Owners Paul and Peggy Berg entered the nursery industry over 20 years ago on a few acres of farmland. The initial plant species they grew included groundcovers, mums, and Christmas trees. Over time, the need for native trees grown in containers became evident throughout the industry to better align with fall installation opportunities.

Today, WWN employs 17 seasonal and 7 fulltime employees. Kent and Pete Berg have managed this second-generation business for the past nine years. Operating on 23 acres, approximately 150,000 trees and shrubs are germinated annually from regionally collected seed. Thirty thousand trees and shrubs are shifted into larger containers each year. An additional five acres were converted from farmland to nursery production in 2014. WWN offers 117 species, including 17 oaks and 5 hickories. Seed collected for propagation originates within Indiana and the surrounding states. Utilizing genotypes of local provenance provides consistent growth, winter hardiness, and adaptability during their stay at the nursery and for the clients throughout the distribution range.

Over eighteen years, WWN has developed its exclusive Root Force™ growing process. Root Force™ produces young seedlings with high quantities of fibrous roots by means of advanced root pruning practices. Trees and slow growing shrubs undergo a process which air root prunes the taproot two to four weeks after seed germination. This accelerates the transition from a coarse taproot dominant system to a horizontally branched, fibrous root mass. Plants propagated and grown in this system regularly exhibit higher establishment percentages and accelerated growth when compared to bare-root or balled and burlapped material. Typical finished sizes of one-year, three gallon hardwoods often are two to five feet in height. Slow growing species like hickory require two growing seasons to achieve 12 to 24 inches in height.

To serve a vast array of applications, plants are grown and sold in containers ranging from 1 to 15 gallons. Uses often include reforestation, mitigation, municipality and park projects, and urban forestry, as well as commercial landscaping. Besides using typical smooth sided containers, plants are also offered in root-pruning containers which continue the development of the fibrous root mass that began at the propagation stages of growing. While additional root mass is always beneficial, perhaps the greatest advantage of these containers is maintaining a structurally sound root mass by substantially slowing root circling as roots encounter the root-pruning container.

Woody Warehouse Nursery serves both wholesale and retail markets. Visits and order pick-ups are welcomed with an appointment. Shipping options vary depending on order size. Pallet, sprinter van, or semi and 53-foot enclosed trailers are available to suit customer needs.

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WR

WW

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Teachers applied seed, fertilizer, lime, and straw mulch to this newly installed water bar during a Best Management Practices workshop at the 2011 Teacher Field Day held at Tar Hollow State Forest. Photo by ODNR

Air root pruned hickory seedling.

Payless Nursery

Pruning 7-gallon container grown oaks.
O

n March 15, 2014, 30 Lions Clubs members from southeastern Ohio joined foresters from American Electric Power (AEP) to plant tree seedlings near The Plains. Based on the weather conditions this winter, the planters were not sure if the ground would be thawed or if they would have to dig through several inches of snow to put the seedlings in. Well, they didn’t have to “Beware the Ides of March” as Mother Nature provided a sunny day with just a little wind and good ground conditions. After some coffee, hot chocolate, and instructions on how to plant seedlings, the Lions got to work planting Pit-Lob pine seedlings in mowed rows at the old Poston Power Lands. In the middle of this one-acre area, approximately 100 sawtooth oaks were planted as a future wildlife food plot. Adjacent to this, a second half-acre plot was planted to all sawtooth oaks. Working in teams of two, three, and four, the Lions helped each other and took turns with dibble bars and seedling buckets to get the trees in the ground. One family worked together with mom and dad digging and closing the holes, and the children placed the seedlings and heeled the holes to secure the final step of the process. The AEP foresters trimmed the roots and walked the rows after planting to check on the quality of the process. Not counting the two children, the average age of the planters was between 60 and 65 years old with several Lions in their 70’s. Even so, in about two and a half hours, 1000 pines and 600 oaks were planted on approximately 1 ½ acres. Not bad for mostly inexperienced tree planters!

This planting was done as part of the Lions Clubs International’s (LCI) Environmental Initiative where tree planting and beautification are the goal. Two years ago, LCI’s president challenged Lions all over the world to plant 1 million trees. Within 12 months, Lions planted over 16 million trees in urban and rural areas. The Lions of southeast Ohio had contributed 2300 trees to that total. This year’s goal is to plant more than 2500 trees in southeast Ohio, and this year’s 1600 planted in March have given the Lions a good start. The 50 Lions Clubs in the 12 southeastern Ohio counties are planting more trees in their communities on public and private ground, and several are teaming up with the Tree City USA program and helping with local tree programs. To find out more about the Lions of southeast Ohio and their programs, go to www.13klions.org. Lions is the largest service organization in the world with 1.3 million members in over 200 countries and geographical areas. Though their major focus is the cure for preventable blindness world wide, they are community-based clubs that help local people in need. The Lions have become one of the strongest humanitarian organizations helping out as first responders to major disasters like floods, hurricanes, earthquakes, tsunamis, and tornadoes. ●

Lion Bill Schultz retired from the ODNR Division of Forestry. He is an avid woodsman and Smokey Bear collector, and remains active in Project Learning Tree.
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What Time of Year Should I Consider A Timber Sale?

S

stumpage price is derived from lumber price, and both are known to exhibit seasonal influences. Mead (1964) found demand for specific grades of lumber varied due to the seasonal needs of downstream purchasing sectors. Dahal and Mehmood (2005) stated one determinant of a timber tract's bid price was seasonality. For example, increasing procurement activities in fall prior to wetter and colder weather can help guard against potential emergency purchases in periods of low inventories (Gallagher 2003). Prudent supply management can also protect sawmills from competing against purchases in periods of low inventories (Gallagher 2003). Prudent and colder weather can help guard against potential emergency example, increasing procurement activities in fall prior to wetter

goods From the Woods

seasons respectively.

The price data are collected in the spring (May) and fall (November) feet, Doyle) reported for the six primary species bought and sold in Ohio were utilized in this study. Black cherry, hard and soft maples, red and white oaks, and yellow-poplar. Prices were obtained from the Ohio Timber Price Report for the period 1978 to 2012. The Report is a biannual price survey of foresters, timber buyers, loggers, and mills. Gathering prices from a number of sources helps provide an overall picture of the marketplace that reflects differing perspectives. The price data are collected in the spring (May) and fall (November) seasons respectively.

All prices were adjusted for inflation to 2012 constant dollars using the Producer Price Index for all commodities. Each species was examined for seasonal price differences. First, annual price highs occurring in both spring and fall were calculated for each species, with their percent frequency
determined. Price cycle lengths were also established, which were defined here as the elapsed time between adjacent price peaks.

Trend analyses were conducted to determine the average annual percentage rate of change (APR) in stumpage price for each species across their entire time series as well as for the spring and fall seasons from 1978 to 2012 at a statistical significance level of α = 0.05. For each species, a seasonality effect in the price trend line was then investigated by testing for trend line intercept (initial price) and slope (APR) differences.

<table>
<thead>
<tr>
<th>Species</th>
<th>Initial price</th>
<th>APR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cherry</td>
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<td>Not different</td>
</tr>
<tr>
<td>Hard Maple</td>
<td>Not different</td>
<td>Not different</td>
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<tr>
<td>Red Oak</td>
<td>Not different</td>
<td>Not different</td>
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<tr>
<td>Soft Maple</td>
<td>Not different</td>
<td>Not different</td>
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<tr>
<td>White Oak</td>
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<tr>
<td>Yellow-poplar</td>
<td>Not different</td>
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</tbody>
</table>

Table 3 – Within species seasonal price comparisons of trend line intercepts (initial price levels) and slopes (average annual percentage rate of change [APR]).

(Dahal and Mehmood 2005). Also, Mead (1964) concluded a significant negative correlation existed between seasonal price variation and lumber grade. This in turn could indicate the potential for a seasonal effect within the price trends of one or more individual tree (or delivered log) grades. Future research should address this issue.

Note: The Ohio Timber Price Report only accounts for market activities during the spring and fall seasons. Quarterly timber price data, inclusive of the summer and winter seasons, could reveal potential differences which were undetectable in this study. The potential for seasonal effects should still be considered for other forest management and wood utilization activities, such as site operability or regeneration, when planning and conducting a timber sale.

References and Suggested Readings


Eric McConnell will be joining the faculty at North Carolina State University this fall, where he will be an Assistant Professor in the Department of Forest Biomaterials and a Wood Products Extension Specialist with the North Carolina Cooperative Extension Service.
I was invited to Raymond Anderson’s farm near Canfield in Mahoning County, Ohio to look at his ailing state champion white oak tree. The tree had tattered, discolored leaves, and Raymond was concerned that his prized tree was dying. Although it is dubious as to what causes “oak leaf tatters,” I told Raymond that I had seen this before and that trees usually survive unless severely stressed by other factors.

He seemed a little consoled by this information, and asked me for suggestions on how to get his enormous tree to grow faster. It was then that Raymond revealed his desire to grow this tree to be the national champion white oak. Already the tree was the Ohio champion white oak at 295 inches in circumference, 92 feet tall, and 124 feet of average crown spread.

I suggested root fertilization and removing some limbs from surrounding smaller, 3-foot diameter red oak trees that were inhibiting the canopy of the champion white oak. The next year Raymond had me out again with the report that the tree looked “better that it has in years.” I don’t know what he did in the way of fertilization, he didn’t say, but the tree had a dark green, full canopy.

I inquired about the other trees I had recommended removing limbs from to give to the Champ more room to grow. Raymond had decided to give his tree even more room to grow and all the surrounding trees were leveled, essentially doing a crop tree release.

Loving care for this tree has not just been a recent development. Since 1809, generations of this family have maintained a healthy respect and love for the magnificent oak. In 1867, a second house and then barn were built on the property. The tree’s first recorded picture was taken in July of 1949 and shows its prominent position in the barn yard. Even then it was large enough to be picture worthy.

The tree was locally known, but gained wider notoriety with a newspaper article that appeared in the Youngstown Daily Vindicator in 1977. In the article, the Anderson Oak was nicknamed the “Green-Robed Senator” after a line from one of John Keats’ poems. It was not until 1988 that an official big tree nomination and measurement was made. The state service forester at the time, Jim Elze, measured the tree at 252 inches circumference, 84 feet in height, and 114 feet average crown spread.
The Anderson Oak has grown significantly over the last 25 years, most notably in circumference. Unfortunately, the exact age of the tree will always be just an estimate. Internal rot started in the main stem after a 24-inch diameter limb broke off the main stem in the 1940s. The wound has nearly healed after about 70 years, but in that time rot has erased the recorded history of the tree written in its growth rings. Now the tree is shrouded in not only wonder as to its size but also in mystery about its age.

Another large white oak discovered in 2012 in southwest Ohio prompted a re-measurement of both the champion Anderson Oak and second place Simpkins White Oak in Millfield, Ohio. Once the measurements were taken from the three competing trees, the newly discovered southwest Ohio white oak and the Simpkins White Oak tied for second place. The Anderson Oak retained its first place champion status by 8 points.

It is a rare honor to have one state champion tree on your property. The Anderson Oak is in good company at the Anderson farm as it is 175 yards away from the Ohio state champion Kentucky coffee tree that grows next to the old 1860s farm house. The champion Kentucky coffee tree seems to have been overlooked for years as people walked by it to go see the Anderson Oak.

Raymond’s dream of growing his tree to be the national champion white oak is still far in the future. The national champion white oak resides in Clay County, Indiana and is 313 inches in circumference, 110 feet in height, and 138 feet average crown spread. At its current growth rate the Anderson Oak will need another 25 years of growth to rival the national champion.

Raymond passed away in May of 2013, but the tree lives on as his memorial. Like so many times before, land and trees are passed down to the next generation, hopefully in better condition than when we inherited them.

More information and pictures of Ohio champiion big trees can be found at the ODNR Division of Forestry web site at http://forestry.ohiodnr.gov/bigtree, or contact Lisa Bowers, ODNR Division of Forestry at 614-728-4210.
The Wood Duck

The entire woodland, from the tops of trees down to the roots entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting among the leaves of trees in the upper canopy, scarlet tanagers nest among the branches of the mid-canopy, black rat snakes rest among the lower branches of trees and shrubs (yes, snakes climb trees), swallowtail caterpillars live and feed on spicebush and pawpaw, and red back salamanders and chipmunks forage along the forest floor living under rocks and logs. Yet there is a very important home I haven’t mentioned - tree cavities. Whether in a dead standing tree or a live tree, holes in trees— or cavities—are one of the more important habitat features for many species of woodland wildlife.

Wildlife species that use cavities for their homes are called cavity nesters. Many of you reading this are likely familiar with some cavity nesters, such as woodpeckers, songbirds, raccoons, and squirrels. Snakes, lizards, mice, and some weasels also use cavities. However, a group of animals that rarely comes to mind when we think about cavity nesters is waterfowl. In Ohio, there are several species of woodland wildlife.

Cavities--are one of the more important habitat features for many species of woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife. Red bats can be found roosting entwining underneath the soil, is made up of hundreds of homes for woodland wildlife.

Imagine if your first life experience was bungee jumping… without the bungee!

The life of a wood duck

The wood duck (Aix sponsa) is also one of the most colorful of Ohio waterfowl species. Both males and females have a crest on their head, but like many birds, the variety of color belongs to the male. Male wood ducks can boast plumage of almost every color of the rainbow. Iridescent blue, green, and purple feathers adorn the head and wings. Male wood ducks have red eyes, rust-colored chests, bronze sides, and black backs and tails. Two white stripes of feathers run parallel from the base of the bill to the back of the head and down around the neck. These bright and contrasting colors make it difficult to mistake the male wood duck for another species. Female wood ducks are brown-gray with white eye rings, throats, and chests with a bit of blue on the wings.

Like other waterfowl species, wood ducks require a source of permanent water for feeding, mating, and rearing young. However, because wood ducks are cavity nesters, they prefer their water source to be among or nearby the woods.

Wood ducks are migratory in Ohio, and arrive in late winter to begin their breeding season. Nests within tree cavities are lined with wood chips and down. The female wood duck will lay 6-15 eggs and then incubate them for roughly a month. The chicks are ready to leave the nest only 24 hours after hatching.

And now the truly fascinating question: How do the newborn chicks leave the nest? A cavity too close to the ground will be in danger of predation, so the female wood duck will often choose a cavity high up in the tree. Wood duck nesting cavities may be 8, 10, or 15 feet above the ground, yet some may be 30 feet or higher. Only 24 hours after hatching, the young chicks have no other option but to jump from the tree cavity in order to reach the water, where they will spend the rest of the summer. And no, they are not yet able to fly. Imagine if your first life experience was bungee jumping… without the bungee!

The chicks line up at the cavity entrance, and with their mother’s encouraging calls from below, one by one take a flying leap. Stubby wings and tiny webbed feet pin wheeling, they speed towards the ground in true belly-flop fashion, hitting the ground with a bounce or two and then waddling off. The young chicks are light enough and the forest floor cushy enough with leaves that they are not harmed. Visit your computer’s web browser and search for videos of wood duck chicks leaving the nest to see this amazing and adorably comical feat.

Attracting wood ducks

Wood ducks prefer wooded wetlands, marshes, rivers, and ponds with an abundance of emergent or floating vegetation to attract macroinvertebrates, a wood duck’s favorite food, and surrounded by live and dead trees with plenty of cavities. Wood ducks will also feed on seeds and acorns, particularly pin oak acorns, which are small enough for them to swallow whole. Inventory your woodland for trees at least 16 inches diameter at breast height with large cavities. Entrance holes should be at least 4 inches in diameter.

If you are missing the critical component of tree cavities, don’t fret. Wood ducks will also use nest boxes in place of tree cavities. Nest boxes can be placed in ponds 6-8 feet above the water a little ways off the shoreline. Boxes can also be placed within the woods with a predator guard to keep raccoons and cats from climbing the pole to reach the box. For nest box plans and more information on box placement and predator guards, check out this fact sheet from Ducks Unlimited: http://go.osu.edu/woodduck.

Female wood duck on nesting box.

Wood ducks - female and male. Photo copyright Susan Hoffman

Wood duck duckling. Photo copyright Cal Vornberger

Wood ducks - female and male. Photo copyright Susan Hoffman
Wrapping it up

While waterfowl don’t usually conjure up images of woodlands, the wood duck is the exception. This bird starts out life with quite the thrill and grows to be a strikingly colorful male, or a female with the challenging task of coaxing her young from the nest. Throughout its life, the wood duck is without a doubt one of our many wild wonders in the woods.


Check the calendar on page 8 for regional and statewide events for woodland owners and outdoor enthusiasts. Lots of interesting things are happening outside in the Buckeye State!
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The Gwynne Conservation Area

**TUESDAY, Sept. 16, 2014**

**Preparation for the Farm Science Review Teachers:**
- **10:00-11:00** Preparing for the Envision (OSU Preservice AgriScience Teachers):
  - Landscape Design(s) with Dr. Jack Comer, ODNR.
  - Sustainable Landscapes with Sara Ernst, Franklin Co. SWCD.
  - Preservice Teacher Training Workshop: "Water Quality" with Dr. Steve Baker, ODNR.

**Preparation for the Envision (OSU Preservice AgriScience Teachers):**
- **11:00-12:00** Preparing for the Envision (OSU Preservice AgriScience Teachers):
  - Landscape Design(s) with Dr. Jack Comer, ODNR.
  - Sustainable Landscapes with Sara Ernst, Franklin Co. SWCD.
  - Preservice Teacher Training Workshop: "Water Quality" with Dr. Steve Baker, ODNR.

**ACTIVITY**
- **12:00-1:00** Invasive Species ID Workshop:
  - Invasive Species Control Workshop with Dr. John Rockenbaugh.
  - Invasive Species Control Workshop with Dr. John Rockenbaugh.

**Lunch Break**
- **1:00-1:30** Lunch Break

**Preparation for the Envision (OSU Preservice AgriScience Teachers):**
- **1:30-2:00** Preparing for the Envision (OSU Preservice AgriScience Teachers):
  - Landscape Design(s) with Dr. Jack Comer, ODNR.
  - Sustainable Landscapes with Sara Ernst, Franklin Co. SWCD.
  - Preservice Teacher Training Workshop: "Water Quality" with Dr. Steve Baker, ODNR.

**ACTIVITY**
- **2:00-3:00** Invasive Species ID Workshop:
  - Invasive Species Control Workshop with Dr. John Rockenbaugh.
  - Invasive Species Control Workshop with Dr. John Rockenbaugh.

**THURSDAY, Sept. 18, 2014**

**Preparation for the Envision (OSU Preservice AgriScience Teachers):**
- **10:00-11:00** Preparing for the Envision (OSU Preservice AgriScience Teachers):
  - Landscape Design(s) with Dr. Jack Comer, ODNR.
  - Sustainable Landscapes with Sara Ernst, Franklin Co. SWCD.
  - Preservice Teacher Training Workshop: "Water Quality" with Dr. Steve Baker, ODNR.

**ACTIVITY**
- **11:00-12:00** Invasive Species ID Workshop:
  - Invasive Species Control Workshop with Dr. John Rockenbaugh.
  - Invasive Species Control Workshop with Dr. John Rockenbaugh.

**Lunch Break**
- **1:00-1:30** Lunch Break

**Preparation for the Envision (OSU Preservice AgriScience Teachers):**
- **1:30-2:00** Preparing for the Envision (OSU Preservice AgriScience Teachers):
  - Landscape Design(s) with Dr. Jack Comer, ODNR.
  - Sustainable Landscapes with Sara Ernst, Franklin Co. SWCD.
  - Preservice Teacher Training Workshop: "Water Quality" with Dr. Steve Baker, ODNR.

**ACTIVITY**
- **2:00-3:00** Invasive Species ID Workshop:
  - Invasive Species Control Workshop with Dr. John Rockenbaugh.
  - Invasive Species Control Workshop with Dr. John Rockenbaugh.

**Hours are 8 am to 5 pm September 16 - 17 and 8 am to 4 pm September 18, 2014.**

For information on Farm Science Review programs and events log on to http://fsr.osu.edu. For more information on the programming at the Gwynne Conservation Area go to http://gwynne.osu.edu.
The ramp (Allium trioccum) is a unique springtime herb that grows in the rich, shady woodlands of Ohio and the eastern United States. Ramps resemble a green onion with broad, flat leaves and are favored for their tasty garlic and onion flavor.

They are typically the first greens of spring, emerging in early March before the canopy trees leaf out. Ramps grow rapidly and reach full size by mid-April. A unique part of the ramp life cycle occurs from mid-May to June when the leaves begin to yellow and die back. As the leaves are drying, a flower stalk sprouts from the heart of the bulb and will be the only visible part of the plant until the following spring. The white flowers are pollinated by small bees and insects and will produce shiny black B-B-sized seeds. These seeds ripen in September and naturally fall from the plant over the winter months.

Each year, the emergence of the ramp sends harvesters flocking to the woods to gather them for their own tables, or to sell into the growing ramp market. Ramps have traditionally been sold at roadside stands, from the beds of pick-up trucks, at rural diners, and at ramp festivals. With new interest in wild foods, the ramp has now found its way into urban farmers markets and five-star restaurants.

There are no official records kept on how many ramps are harvested each year, but estimates suggest at least 5-6 million plants are needed to meet current demand. There are very few ramp growers in the U.S. and the market is being predominately supplied from wild populations.

Ramps can form extensive patches in the wild, some covering 15, 20, or 25 acres. A large and maybe indefinite amount of ramps could be harvested from these patches with sustainable management. Certainly some harvesters are collecting sustainably, but there are many who are not.

Researchers have modeled population recovery after harvesting, and it is clear that excessive and unsustainable harvesting will take many years to heal. If an entire population is harvested, it could take 150 years to fully recover, if at all. Ramps only begin to produce seeds after 7 years of growth, and seed mortality is also high, adding to population recovery time. Most of the growth in ramp populations is after 150 years to fully recover, if at all. Ramps only begin to produce seeds many years to heal. If an entire population is harvested, it could take.

The best way to take pressure off wild populations is to promote cultivation on private forestlands as an income strategy, and educate wild harvesters about sustainable collection.

The best way to take pressure off wild populations is to promote cultivation on private forestlands as an income strategy, and educate wild harvesters about sustainable collection.

For more information about cultivating ramps or managing populations in your forest, contact Tanner with Rural Action’s Forestry Program at (740) 677-4047, or email tanner@ruralaction.org. Cultivation resources are available at www.ruralaction.org/forest-botanicals.
Columbiana County
One of Ohio’s 88 Greats

By Eric McConnell

Columbiana County contains 143,700 acres of forestland. Responsible managing these woodlands provides community to the county’s forest industries. These Columbiana County businesses employed 306 people while directly generating $79.7 million in output and $3.11 million in taxes in 2012. Sources: United States Forest Service Forest Inventory and Analysis, Columbiana County 2012 forest survey database; and 2012 input-output model for Columbiana County.

Columbiana County boasts the second most active tree farms of any county in Ohio, next to neighboring Carroll County (153).

The Coldwells are welcoming all to their 620 acres of managed woodlands for a fun and informative day beginning at 9:00 a.m. until late afternoon. The family has hosted many forestry field days, so they enjoy having folks out to share their experiences and extensive knowledge about forestry and wildlife practices.

Directions to Coldwell Family Tree Farm

The property is between Summitville and Salineville on Hull Road off of State Route 644. Travelers will need to come from the west side of Hull Road as directed since the east side entry of Hull Road is impassible. With this in mind, the address for GPS units is 33320 Hull Road, then follow the signs to parking.

From Canton/northwest

US 30 to Kensington. There is a 4-way stop sign in Kensington at the intersection of US 30/SR 9/SR 644. Proceed straight onto SR 644. Follow SR 644 east then curving south to Summitville. Go through Summitville to the second road/ left off of Hull Road and follow the signs.

From New Philadelphia/Carrollton/southwest

SR 39 to Salineville. North/ left on SR 644. Right on Hull Road and follow the signs.

The Coldwell family is hosting this year’s Ohio Tree Farm Tour on their Columbiana County property on September 20.

Did you know?

With 133 certified family tree farms, Columbiana County boasts the second most active tree farms of any county in Ohio, next to neighboring Carroll County (153).
The Paul Bunyan Show, the official trade show of the Ohio Forestry Association, Inc. is getting ready for another great year. And for the 8th year in a row, the show will be held at the Guernsey County Fairgrounds, near Cambridge in Old Washington, just a few miles east of the intersection of I-77 and I-70.

This is the 58th anniversary of the show that started in McArthur, Ohio in 1957. The show is offering some new events, exhibits, and classes, but those attending will find this mixed with a lot of traditional activities, events, and fun they've found at previous shows.

First and foremost, the show will be the same outstanding logging and wood manufacturing trade show that it has been for its long history. There will be hundreds of exhibits featuring state of the art wood manufacturing equipment for logging, sawmilling, wood processing, firewood production, and chainsaws, among many others.

The Great Firewood Shootout first featured two years ago at the PBS, is back again for another round, following last year's Great Portable Sawmill Shootout in which portable sawmills of different size categories and configurations from a host of manufacturers competed against one another. The 2012 Great Firewood Shootout made for a fun event to watch while giving viewers the chance to compare machines in simultaneous operation. For those who may remember, the first firewood shootout competition took place in Youngstown, Ohio in 1999. This will be the seventh running of the event.

The exhibit lay-out features a safe zone for viewing large chipping and grinding equipment at the north end of the grounds. This has been established for viewers and potential buyers to get a good look at operating equipment while maintaining viewer safety. Other exhibits were modified to group by equipment types.

As always, we expect to have new exhibitors to go along with many who have exhibited in the show for years. We are also working to attract even more specialty wood crafts and products that will be of interest to the entire family.

Husqvarna, the Show Sponsor, will be back again anchoring their large exhibit area with educational demonstrations on chainsaw safety and use. Husqvarna will also have tree climbing demonstrations and their famous Women's Amateur Chainsaw Competition for all those hardy ladies who would like to compete for a chance to win a chainsaw.

Once again, the Paul Bunyan Show will host a number of competitions and lumberjack events. The always popular log loader competition will be held on Saturday, and for the second year there will be a skid steer rodeo on Sunday. Skid steer operators will run an obstacle course to display various skills.

The Ohio & International Lumberjack Competitions will bring expert competitors from around Ohio and the United States. The chainsaw exhibit area will once again feature special lumberjack entertainment provided by the Great Lakes Timber Show.

The Paul Bunyan Show has worked hard in recent years to provide a nice array of educational seminars for both the professional in the wood industry as well as the lay person just interested in knowing more about forests and trees. This year, in conjunction with the Great Firewood Shootout, there will be an array of fee-based professional seminars on such subjects as lumber drying, log grading, and managing small woodlots.

We are looking forward to another great show this year that will offer a valuable opportunity to those in the wood industry to get information on new equipment as well as those who want to learn more about what forests and the wood industry are all about. So come and enjoy a great day with Paul Bunyan!
Activity 27: Every Tree for Itself

Try this active simulation to give children an understanding of the conditions trees need to live and grow. This activity will also help teach that trees must often compete for their needs.

Doing the Activity
Challenge students to think about the things they need to live and grow. Then ask about the things trees need to survive. What are a tree’s needs and how do they get them? What happens to trees when these needs are not met? Explain how trees use leaves to capture sunlight and roots to access water and nutrients.

Did you know that for many species, a tree’s height is roughly equal to the diameter of its root spread? This concept is illustrated in the diagrams below.

Explain to children that this information can be used to determine the root spread of a tree their size... or the size of their own root spread if they were a tree! Ask:
• How tall are you?
• What is the diameter of your root spread? (the same as their height!)
• How can we make a circle large enough to show the size of your root spread? (help them do so, using string or sidewalk chalk)

Have children stand in the middle of their root spread circle and pretend they are a tree. Remind children that trees are rooted to the ground and cannot move or talk in order to get what they need. Ask children to demonstrate how a tree might act if sunlight only reached one side. What might a tree look like if it is hungry, thirsty, or cold? What might happen if a tree’s root spread overlapped with those of other trees? How do trees compete for survival?

Adapted from Activity 27: Every Tree for Itself from Project Learning Tree’s PreK-8 Environmental Education Activity Guide.

Discover how PLT can help you teach... from nature!
• Attend a workshop near you to receive PLT activity guides, ideas, and materials.
• Contact your Ohio PLT State Coordinator: Sue Wintering, plt@dnr.state.oh.us or 614-265-6657.

Connecting Kids to Nature
Try this activity in a forest—a natural place to learn!
For over 35 years, Project Learning Tree® has used the forest as a “window” to help young people gain an awareness of the world around them and their place within it. Blending a walk in the forest with a fun and engaging PLT activity creates a powerful learning experience for children of all ages. Here’s one idea in a series from PLT that introduces the concept of interrelationships.

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Adapted from Activity 27: Every Tree for Itself from Project Learning Tree’s PreK-8 Environmental Education Activity Guide.
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If you would like to assist in placing the Journal in your county schools or need additional information, please contact:
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