

GREEN HORIZONS

Vol. 10 No. 2

Growing Tomorrow's Future Today

Spring 2006

Protect your property from wildfire

Hank Stelzer, Extension Forester



Wildfire moves quickly, but there are defensive strategies available to landowners for lessening its impact.

Missouri's farmers and ranchers are very much aware these days of the extremely dry weather patterns that are affecting almost every corner of the state. However, folks new to the rural scene might not be so in tune with Mother Nature. While a forest or grass fire in Missouri might not compare to the massive forest and range fires out West, try telling that to someone who has just lost a home or cabin to wildfire.

The term wildland/urban interface describes any area where potentially dangerous wildland fuels — such as forests, old fields and grasslands — are found next to homes and other outbuildings. There are a number of preventive measures that homeowners can take to reduce hazards and potential damage to their property.

Defensible Space

Defensible space is an area around a structure where fuels and vegetation are treated, cleared or reduced to slow the

spread of a wildfire toward a building. It also reduces the chance of a structure fire moving from the building to the forest. The three zones of defensible space are:

Zone 1: Defensible Space. THE MOST IMPORTANT SPACE is the first 30 feet from the structure. If the building is on a hill, increase the distance by 10 feet for each additional 10% of slope. It is the area of maximum modification and should be designed as a barrier to fire. Defensible space provides room for firefighters to do their job.

(cont. pg 2)

Removing unwanted trees from your woodland: Part 2

Hank Stelzer, Extension Forester

In the last issue of *Green Horizons* we covered two methods of removing unwanted trees from your woodland: felling and girdling. We will conclude this topic by looking at frilling, tree injection, basal bark spray, and cut stump application.

Frilling

Frilling is a variation of girdling in which a series of downward angled cuts are made completely around the tree, leaving the partially severed bark and wood attached at the bottom (See Figure 1, pg 3). Frilling is done with an ax or hatchet. One needs to be especially careful when frilling hardwood trees like ironwood or maple because of the ax's tendency to glance-off this extremely dense wood. For that reason alone, I do not like this method. Besides, it tends to be a time-waster. (cont. pg 3)

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Protect your property from wildfire (cont from page 1)



The open space immediately surrounding structures allows fire-fighters to do their jobs.

Maintain a grass lawn. Use stone, concrete or brick for patios and decks. Ornamental shrubs should be no taller than 18" and be fire-resistant. Check with your local nursery before you buy plants as to their growth habits and flammability. Eliminate all conifers (especially red cedar) in this zone. As most wildfires in Missouri stay on the ground, prune tree limbs 6'-10' from the ground. Trim limbs within 15' of the roof. Stack firewood outside this zone. Lastly, remove dead trees, branches and leaves from the area.

Zone 2: The Mid-Zone. This is an area, 30'-70' from structures, of fuel reduction and for landscaping with fire-resistant trees and shrubs. (Any plant will burn under the right conditions, but fire-resistant plants are less flammable.) It's also a good place for planting orchards and gardens. As with Zone 1, increase this distance by 10' for each additional 10% of slope.

Spacing between shrubs should be at least twice as wide as their height. Prune lower tree limbs 6-10 feet from the ground. Clear vegetation within 10' of woodpiles and LP (propane) tanks.

Zone 3: The Outermost Zone. Zone 3 is an area of traditional forest management. It extends from the outside edge of Zone 2 for several hundred feet or to your property boundary.

Thin trees so there is at least 10' of space between crowns. Prune tree limbs to 10' from the ground. Do not let dead wood accumulate on the ground and remove groups of dead trees.

Location

While the view from a hilltop may be breathtaking, a home built too close to a steep slope is more prone (**cont. pg 6**)

I have this walnut tree in my yard...

by Hank Stelzer, Extension Forester



Buyers tend to avoid even "good-looking" backyard walnut trees for fear of embedded metal in the wood.

You cannot imagine how many calls that come into my office begin with, "I have this walnut tree in my yard..." Reports of black walnut trees being sold for hundreds or even thousands of dollars often cause landowners to dream of huge profits from selling their backyard walnut trees.

Unfortunately, most urban walnut trees do not display the characteristics of high-quality marketable trees. Urban walnuts often grow in open areas without surrounding trees. This results in trees with short trunks and numerous branches, i.e. little or no merchantable height.

Even urban walnut trees that appear suitable as lumber or veneer trees (like the one above) usually are avoided by buyers because of the risk that they may contain objects such as nails, wire, insulators, clothes hooks, and more that would damage saw blades or veneer knives. While most mills have electronic equipment or other procedures to avoid striking embedded objects, there is usually no way a buyer can determine the presence of such objects when examining the standing tree. Most buyers simply do not want to assume the risk that all or part of the value of the tree will be lost because it contains foreign objects.

The cost and difficulty of harvesting urban trees also discourages the purchase of urban walnuts. It is rarely economical for a buyer to invest crew and equipment time in traveling to harvest one or two trees. In addition, many urban trees are close to house power lines, or other facilities, making them more difficult, time consuming, and expensive to harvest. But, don't be discouraged. While your urban black walnut tree might not be a "big money" tree in direct economic terms, its value in providing shade, beauty, and wildlife habitat is money in the real-estate bank.

Removing unwanted trees from your woodland (cont. from page 1)

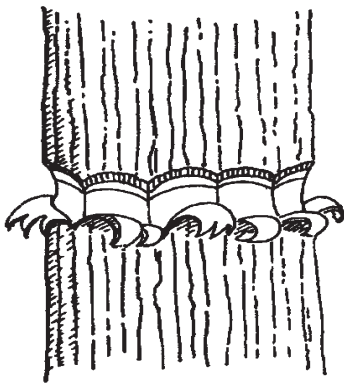


Figure 1: Frilling, in which downward angled cuts are made completely around the tree, is time-consuming and potentially dangerous in dense-wooded species like sugar maple.

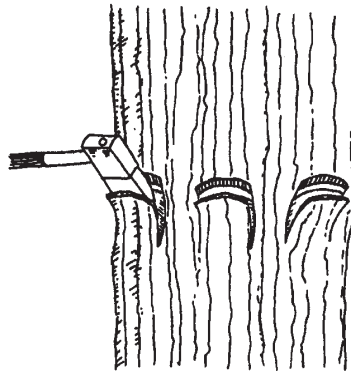


Figure 2: The tree injection method involves making spaced cuts around the trunk and applying a water-soluble herbicide directly in the cut.

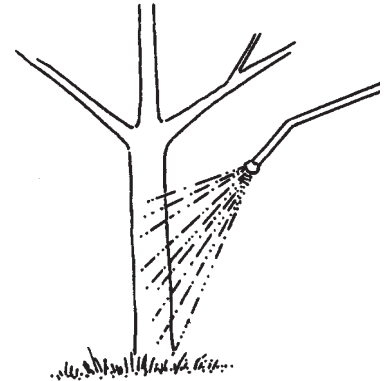


Figure 3: With the basal bark spray method, the herbicide is applied to the lower 12"-18" of the trunk of trees less than 4" dbh (diameter at breast height).



Figure 4: With water-based herbicides, you only need to treat the sapwood and bark of the cut surface of the stump.



Figure 5: With oil-based herbicides, spray the entire stump, particularly the exposed roots.

Herbicides used for basal spraying are generally applied in oil carriers. The technique is effective on trees less than 4 inches in diameter. One clear advantage of this technique is that because it is typically used with oil-based herbicides, it can be done during spring sap flow. One disadvantage, however, is that as bark becomes rougher and thicker, the technique becomes less effective.

Care must be taken when the herbicide is applied to minimize the amount that runs into the soil. This is important not only from an environmental quality standpoint, but also to avoid »

damaging non-target trees. The roots of trees often extend well out beyond their crowns. It would not be at all unusual for the roots of an adjacent desirable tree to extend below the trunk of a tree being basal sprayed. If excess amounts of herbicide were applied to the treated tree, the adjacent desirable tree could absorb the herbicide and be killed or seriously damaged.

Tree Injection – Spaced Cuts

Tree injection involves introducing a herbicide into the undesirable tree through spaced cuts made around the tree's trunk with an ax, hatchet, or tree injector (**Figure 2**). Non-overlapping horizontal cuts penetrating into the sapwood (the outer area of lighter-colored wood in the stem cross section) are made completely around the tree. Cuts are approximately 2 inches long and are spaced with their edges 1 to 3 inches apart, depending on tree species and specific herbicide being used.

As the cut is made, open the wound with the ax blade and allow 1 to 2 milliliters of the chemical to run down the blade and into the cut. This is a very small quantity; but fortunately, most quart spray bottles deliver this amount.

Basal Bark Spray

Basal spraying, or basal bark as it is sometimes referred to, is a technique to deaden small trees, shrubs, and occasionally vines by spraying the lower 12 to 18 inches of the trunk with a herbicide (**Figure 3**). The intent is for the herbicide to penetrate the bark and kill the tree and any basal buds that might sprout.

Cut Stump

When a tree or vine is cut, there is a high probability that the stump will sprout. Sprouting can be eliminated by treating the cut stump with a herbicide. The herbicide can be applied to the stump in many ways; the most common being to spray with a backpack or hand-held sprayer.

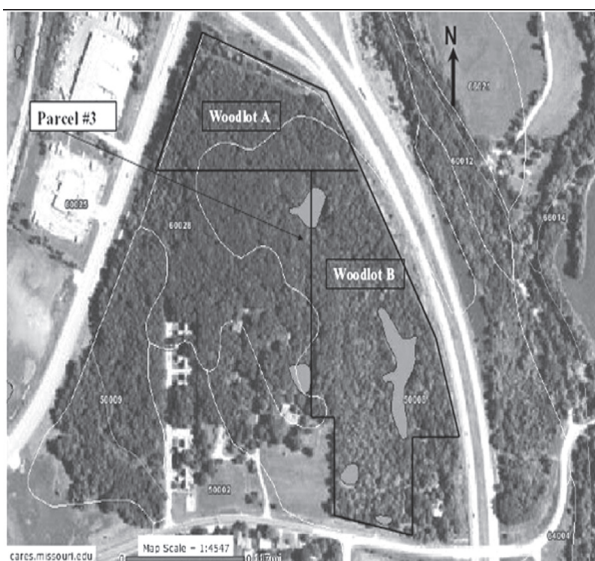
How much of the stump needs to be treated depends on the formulation of the herbicide. Many herbicides labeled for cut stump application are water soluble. The critical area of the stump that must be treated to prevent sprouting is the sapwood and bark of the stump's surface (**Figure 4**). Stump treatment with water soluble herbicides must be done immediately after cutting to be effective. If treatment is delayed, adequate downward movement of the herbicide will not occur and sprouting will not be eliminated. (cont. pg 6)

University of Missouri Center for Agroforestry hosts workshop

As part of an ongoing commitment to increase the knowledge and adoption of agroforestry practices across Missouri and the Midwest, the University of Missouri Center for Agroforestry (UMCA) has expanded the depth and reach of its training program. This effort began with a successful Agroforestry Professional Training Workshop held Jan. 10 and 11, 2006, in Columbia, Mo.

In the fall of 2005, the Center was awarded a Sustainable Agriculture Research and Education (SARE) Professional Development Program grant to fund a series of agroforestry trainings geared toward a targeted audience: individuals from state and government federal agencies, University Extension personnel, and non-profit and professional organizations dealing with issues that directly impact landowners and their management of forests and farms. More than 50 professionals representing several disciplines in the natural resource-based fields attended the January training. The training was designed to increase core agencies' knowledge about agroforestry practices and the benefits they offer when applied as sustainable farming practices, and to foster the establishment of social networks for assisting resource professionals and landowners in finding answers regarding the establishment and management of agroforestry.

The event utilized a new and updated Agroforestry Training Manual designed to facilitate all phases of implementing the five agroforestry practices (alley cropping, silvopasture, riparian forest buffers, windbreaks and forest farming). Speaker topics included assisting landowners with budgeting/planning for agroforestry practices; marketing the products they grow; designing agroforestry for wildlife habitat management; and institutional barriers affecting agroforestry. In addition to classroom instruction, a tour of the Horticulture and Agroforestry Research Center at New Franklin, Mo., featured demonstrations of diverse agroforestry practices.



Aerial view of portions of Idolour Farm, Boone County, Mo. The farm was utilized for an agroforestry case study project during the training workshop.

Natural resource professionals broke into smaller multi-agency work groups to evaluate implementing agroforestry practices into a real-world agroforestry case study, Idolour Farm in Boone County, Mo. The farm is owned and managed by J. Arbuckle, Ph.D. student at the University of Missouri-Columbia and a Center for Agroforestry research collaborator, who plans to implement ideas presented by the group into an agroforestry plan. A cow/calf operation, woodlots, and riparian areas are among the farm's features Arbuckle may expand to meet his goals – including a goat operation, non-traditional crops and a rotational grazing system.

"I felt like I was in one of those TV shows, 'Extreme Agroforestry Makeover' or something. It was great to have so many resource professionals thinking about ways that we might improve our conservation and production practices through agroforestry," said Arbuckle. "One of the things that was most interesting to me was how the groups came up with so many ideas for agroforestry applications for such a small farm - windbreaks, riparian buffers, silvopasture, forest farming - all on under a hundred acres. Plus, they gave me good ideas on how we might find some funding to help with establishment costs. It was a fun learning experience and we plan to implement some of those ideas over the coming years." **GH**

How to Gravel Your Farm Roads for Less



(adapted from
Scott Brundage)

Barrel "plug" centered behind the tailgate forces gravel to fall in the tire tracks of your road.

Probably every woodland owner has an access road to a cabin, lake or picnic area. Most of these property owners usually spread gravel to avoid muddy roads, ruts, and stuck vehicles. At

\$180 to \$210 per load of rock, money can be spent real fast if one is not careful.

You really need rock only where you drive and not in the center of the road. So, when you order rock from the quarry, tell them you want what is called a "plug" put in the truck before the rock is loaded. Typically the quarry will then center a small barrel just behind the tailgate. This plug will prevent the rock from falling in the middle of the road.

To be on the safe side (and avoid a long pause (**cont. pg 8**))

Landowner Spotlight – Macon landowner named state Tree Farmer of the Year

by Rachel McCoy, University of Missouri Center for Agroforestry, and Brian E. Schweiss, Missouri Department of Conservation, Resource Forester

Howard and Sara Fleming, Moberly, Mo., are a testament to dedication to the land, strong stewardship practices and building a family legacy of conservation – all qualities recently honored with the designation of Missouri State Tree Farmers of the Year for 2005, a recognition program coordinated by the American Tree Farm System® (ATFS) to honor outstanding private forest landowners.



Fifteen years of implementing Quality Deer Management has improved the Flemings' deer and tree harvests.

Fleming, a Tree Farm member for 25 years, was nominated for the award by the ATFS Missouri State Committee (a committee sponsored by the Missouri Forest Products Association), and received the title at the 26th Annual Missouri Conference for Missouri Tree Farmers in February in Columbia, Mo. The Flemings are now among finalists for one of four Regional Tree Farmer of the Year awards, from whom the National Tree Farmer of the

Year will be selected at the ATFS national meeting in October 2006.

Howard and Sara manage 976 acres near Moberly, Mo., with nearly half (487 acres) in forested land. The remaining acreage is comprised of cropland (200 acres), hay ground (219 acres) and prairie, 70 acres.

Productivity and conservation are management emphasis areas for the Flemings, who welcome new opportunities to enhance the farm's efficiency. Cattle, hogs, turkeys, pen-raised quail, pheasant and ducks were among the operations managed on the farm during past years.

"It is important that this is a working, economically viable farm," said Howard.

Current agricultural activities are row crop and hay ground.

The Fleming's 200-acre row crop operation utilizes conservation tillage practices.

"Wildlife is a critical component of the farm management," said Howard, "and we manage the forests for both optimum



Newton White (left) Vice-Chair, Missouri Tree Farm Committee, and Howard Fleming chat during a break at this year's Tree Farm Conference in Columbia, Mo.

economic value and wildlife potential."

The Flemings have practiced Quality Deer Management for more than 15 years, "before there was even a name for it," said Howard.

This management includes establishing plots for deer, including ladino clover, turnips and corn. Howard has also thinned the woodlands to benefit game and timber production.

In addition to active forest and cropland management, Howard is an active member of the Conservation Federation of Missouri, and is especially proud of the Federation's support of the Share the Harvest Program. Share the Harvest is a joint program between the Missouri Conservation Federation and the Missouri Department of Conservation in which hunters donate venison to families in need by bringing deer to an approved meat processor. The costs for meat processing are partially reimbursed to the hunter through the program. However, there were no meat processors in Moberly, and the Conservation Federation provided a refrigerated truck for collecting and delivering deer to processors, with the costs fully paid by the Federation.

Aside from hands-on service projects like Share the Harvest, Howard is active politically to support and protect Missouri's forested and wildlife areas. He has helped maintain the 1/8 of 1% sales tax to support the Missouri Department of Conservation, and continues to write letters and speak with legislators to protect this program.

"The greatest value of it all is the impact having a farm has had for my children," said Howard. (cont. pg 9)

Protect your property from wildfire (cont. from pg. 2)

to being caught in the path of flames racing up the hillside. Narrow passages between hills are also poor locations. As fire moves uphill, pre-heating and spot fires occur ahead of the main fire. Choose a location at least 30' back from a steep slope.

Fireescaping

The goal is to develop and design a landscape with plants that offer fire protection and still enhance the property. There is no such thing as a fireproof plant. Any plant will burn under the right conditions. But, fire-resistant plants are less flammable. These plants have little or no seasonal accumulation of dead leaves. Their wood and leaves are non-resinous. They also tend to be drought tolerant. Examples are oak, hickory, maple, ash, dogwood, redbud and sumac.

Flammable plants have needle-like or other fine leaves. They tend to have resinous, oily or waxy foliage or wood. Their bark can be loose or papery. Most conifers, such as junipers, pines and cedars fit this bill.

Building Materials

While attractive, wood shingles are a big no-no. Use noncombustible roofing materials such as Class C asphalt shingles. Consider a fire-resistant sub-roof. Exterior surfaces should be masonry, stone or block: not vinyl. Your local fire department can also provide other useful building tips.

Access

If possible, identify two exits from your property. Design road widths, grades, curves, turnarounds and bridges for large emergency vehicles. Make sure your road name is clearly posted. Post names and address of occupants at driveway entrance. Lastly, prune overhanging branches above roads.

For more information, contact your local Missouri Department of Conservation office or visit these web sites:

Online Resources:

- Firewise: www.firewise.org
- National Interagency Fire Center: www.nifc.gov
- FEMA Fire Facts: www.fema.gov/library/wildlanf.htm
- USDA Forest Service: www.fs.fed.us/fire **GH**

Report forest arson

Forest fires are a problem everywhere, and Missouri is no exception. The Missouri Department of Conservation (MDC) reports that arsonists deliberately set 50% of the wildfires in the state each year, careless trash burning accidentally starts 40%. The last 10% start from miscellaneous causes.



Operation Forest Arson is an effort to reduce the number of arson fires in Missouri. It is a combined effort of the MDC, U.S. Forest Service and the Conservation Federation of Missouri.

Concerned citizens can anonymously report arsonists by calling a toll free hotline, 1-800-392-1111. Callers are assigned a code number and can make arrangements to receive a non-traceable bank draft after arrest and conviction of the arsonist.

Removing unwanted trees (cont. from pg 3)

Some herbicides labeled for cut stump application are to be mixed with oil. These materials do not move readily in the plant, but penetrate the bark. To be effective, the entire stump, particularly the bark and exposed roots must be thoroughly sprayed (**Figure 5**). Timing is less critical because these herbicides are not so dependent on downward movement from the cut surface for distribution. In situations where immediate treatment of stumps is not possible, an oil-based herbicide should be used rather than a water-soluble formulation.

Treatment with an oil-carried herbicide is also recommended in the spring when treating species that have a strong spring sap flow such as maple, grape and ironwood. Water-carried herbicides will usually not be adequately absorbed to be effective during this time of year.

Specific Herbicide Recommendations

An excellent reference for specific herbicide rates based on application technique entitled, "Herbicides Commonly Used for Controlling Undesirable Trees, Shrubs, and Vines in Your Woodland", is available online from Ohio State University Extension at <http://ohioline.osu.edu/for-fact/index.html>. As always, remember to READ THE ENTIRE LABEL before using any herbicide. **GH**

Mushroom workshop features marketing and production techniques

Like most value added or alternative crops, some of the best knowledge of specialty mushroom production is that passed from grower to grower.

The University of Missouri Center for Agroforestry provided an opportunity for hands-on information exchange at the second Specialty Mushroom Workshop, held Feb. 17-18, 2006, in Columbia, Mo.



Tom Glaser of St. Charles, Mo., practices drilling holes in a log for inoculation.

More than 40 participants from across the Midwest attended the workshop designed to teach the basics of production and/or marketing techniques for specialty gourmet mushrooms, including shiitake, oyster and Stropharia. University of Missouri research faculty members, professional mushroom growers and mar-

keters provided participants the knowledge and skills needed to get started growing and marketing mushrooms.



MU plant pathologist Johann Bruhn, standing, shows mushroom workshop participants a log suitable for growing shiitake mushrooms. **Photos:** Jason Jenkins

A hands-on tour of the mushroom cultivation sites at the MU Horticulture and Agroforestry Research Center, New Franklin, Mo., featured demonstrations of UMCA current research and explored the steps involved in growing mushrooms in a forest farming setting.

Forest farming, one of the five agroforestry practices, can enhance and diversify farm income opportunities, while at the same time making significant improvements to the composition and structure of the forest for long-term improvements in overall health, quality and economic value. By developing an understanding of the interactions between the overstory trees and the understory environment, forest

management activities can be used to create an understory capable of growing profitable shade-loving crops – such as gourmet mushrooms.

For more information about specialty mushroom production, order or print the Agroforestry in Action guide “Growing Shiitake Mushrooms in an Agroforestry Practice” (AF1010-2005) from University of Missouri Extension at <http://extension.missouri.edu>. To learn more about forest farming, visit www.centerforagroforestry.org. **GH**

“Community Forestry at its Best” National Conference

June 19 - 21, 2006

Arbor Day Farm

Lied Lodge & Conference Center
Nebraska City, Nebraska

Beautiful, well-maintained trees along a city's streets, in its parks, and among its homes and businesses contribute greatly to its overall appearance and character. These trees are an integral part of the community's “green infrastructure.” This “community forest” provides shade from the summer's sun, slows winter's winds, stores atmospheric carbon, provides oxygen, and prevents runoff.

The “Community Forestry At Its Best” National Conference provides valuable information to the many professionals and volunteers from the public and private sectors that are involved with or interested in improving and maintaining their community's valuable tree resource. Building a successful community forestry program is a big undertaking in the face of budget cuts, development, and other challenges. This conference is designed to help you meet those challenges whether they are technical, political, fiscal, or educational.

This conference will address important new techniques, ideas, and trends in urban forestry. Particular attention will be placed on tree planting and planning, working with children and youth, building organizational support for community forests, community trees and public policy, working with volunteers, and responding to challenges creatively.

Attending this conference can provide direction and guidance to those individuals seeking to gain Tree City USA® recognition for their community. Likewise, it can provide important information to those working in existing Tree City USAs who are trying to grow and maintain their urban forestry programs. “Community Forestry At Its Best” provides a national forum to strengthen cooperation and the exchange of ideas among all members of the urban forestry community.

For more information, visit www.arborday.org/programs/conferences/communityforestry/

Missouri Walnut Council to Host TSI Workshop - June 22, 2006

The Missouri Chapter of the Walnut Council and other Fine Hardwoods will conduct a one-day Timber Stand Improvement (TSI) Workshop on **Thursday, June 22**, at the **Runge Nature Center** in Jefferson City, Mo. This organization is first-rate in teaching landowners how to manage their woodlands. You do not have to be a member of the Walnut Council to attend. (But, all nonmembers who do come will immediately see the many benefits of joining this organization.) Participants will learn the benefits of TSI to the health of their forest, wildlife community, and pocketbook! They will not only find out the best time to kill unwanted vegetation, but how.

For more details and how to register, contact Dusty Walter, University of Missouri Center for Agroforestry, at (573) 884-7991 or by email walterd@missouri.edu; or Scott Brundage at (573) 443-3977 or by email at brundage@socket.net.

The Bid Box

Saline County:

- On approximately 200 acres
- 1,041 mixed hardwood trees containing an estimated volume of 186,900 board feet (Doyle scale)
- Plus 149 walnut trees containing an estimated volume of 22,976 board feet (Doyle scale)
- Four bids ranged from \$36,062 to \$63,550
- Return per acre: \$318

Boone County:

- On approximately 15 acres
- 51 sycamore trees containing an estimated volume of 11,780 board feet (Doyle scale).
- Plus 48 walnut trees containing an estimated volume of 5,665 board feet (Doyle scale)
- Two bids: \$4,539 and \$7,852
- Return per acre \$524

Remember: If you are considering selling timber from your land, your best strategy is to know what you have and an estimate of its value *before* you sell.

Gravel your farm roads for less (cont. from page 4)

on the phone), simply cut a small log, 6- to 8-inches in diameter and 30- to 32-inches long, and take it to the quarry and explain what you want.

So, what do you do if the truck arrives at your property with no plug in place? Never fear; there is a simple way to solve the problem. Have the driver set the chains on the tailgate as normal. But, then have him (or her) leave the bed flat and quickly drive forward about 20 yards at the beginning of your road. This will allow a small amount of rock next to the tailgate to be spread in

a tailgate-wide sheet on your road (like normal). Next climb up on the back of the truck and drop your cut log in place next to the center of the tailgate. When the driver raises the truck bed to spread, the rock will now come out in the desired two track-wide streams; perfect to drive on.

Tailgate chains set for spreading rock prevent the "plug" from falling out.



If the road has never had rock, use 3" for a base. Once this is worked in over a month or so, spread another 1-1/2" on top. As the gravel gets worked into the ground, simply spread another 1-1/2" every two or three years to keep your road in good shape. This simple technique will allow you to either rock existing access roads for less or rock more roads with your current gravel dollars! **GH**



Using a plug will prevent rock from falling in the middle of the road, allowing you to rock existing roads for less!

Celebrate Arbor Day April 26, 2006

Officially founded in 1874, Arbor Day is a nationally-celebrated observance that encourages tree planting and care.

Macon landowner is Tree Farmer of the Year (cont. from pg. 5)



“They worked on the farm growing up and developed a strong work ethic and appreciation for the land. They return to it to hunt during deer and turkey seasons. We could not imagine not having the place.”

The American Tree Farm System® (ATFS) is a national program that promotes the sustainable management of forests through education and outreach to private forest landowners. Founded in 1941, the ATFS has 33 million acres of privately owned forestland and 51,000 family forest owners who are committed to excellence in forest stewardship. Tree Farmers manage their forestlands for wood, water, wildlife and recreation with assistance from 4,000 volunteer foresters. ATFS is a program of the American Forest Foundation, a nonprofit organization that works for healthy forests, quality environmental education, and informed decision-making about our communities and our world.

For 25 years, ATFS has honored those members who show an outstanding commitment to responsible forest management through the National Outstanding Tree Farmer(s) of the Year award. These awardees are recognized for their remarkable efforts to enhance and sustain their forests, and for spreading the practice of sustainable forestry.

The detailed process begins with inspecting foresters nominating a state Tree Farmer(s) whose conservation efforts, outreach efforts in the community, and advocacy for sustainable forest management exceed expectations. For more information,

visit www.treefarm-system.org/index.cfm



The Missouri Forest Products Association's (MFPA) mission is to encourage the wise use and conservation of our nation's natural

resources. MFPA promotes the business of all forest-related industries and encourages closer working relationships among forest product firms, forest owners, producers, and harvesters. This networking helps improve procurement, processing, research, and marketing of forest products. For more information, visit www.moforest.org. The Missouri Tree Farm Committee is a program of MFPA designed to promote the maintenance and improvement of private lands for forest growth, quality, wildlife habitat, soils, recreational benefits, wetland and watershed protection. **GH**

Backyard Woods Program

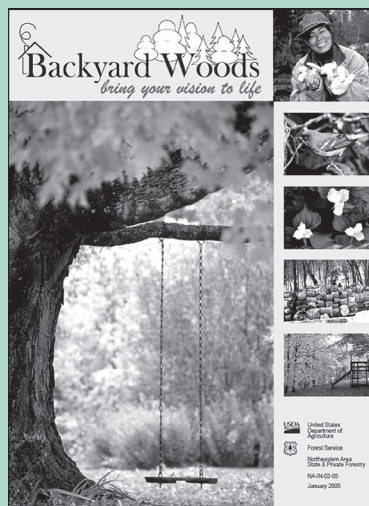


Wooded land doesn't have to cover hundreds or thousands of acres to provide richness and diversity of life. Smaller acreages can have big impacts too!

If you are one of the 6 million landowners in the United States who own 1 to 10 acres, then the Backyard Woods program is for you.

Whether you want to enhance the scenery in your backyard woods, provide superb habitat for wildlife, or even utilize your land as an extra source of income, the Back-

yard Woods program can assist in bringing your vision to life.



A cooperative project of the USDA Forest Service, Northeastern Area; the National Association of Conservation Districts; and the National Arbor Day Foundation, Backyard Woods inspires landowners with a 44-page guide and detailed tip sheets that cover 12 topics. Learn how

to develop a master plan, protect property from wildfire, plant properly, and much more.

Order your own full-color guide (with tip sheets) or download a free version today from:

www.arborday.org/backyardwoods/guide.cfm

Woodland Steward Short Course Schedule for April - July

Since its rollout January 1st, over 100 private woodland owners have completed the Missouri Woodland Steward Short Course. Early feedback is that this Missouri-based natural resource program is a hit!

Short courses are scheduled based on local demand and the schedules of both regional MU Extension specialists and natural resource professionals. To enroll for an upcoming short course listed below, simply call or email the appropriate person listed.

If you wish to see Woodland Steward offered in your county and have not already done so, please call your MU Extension County Office or Hank Stelzer (573-882-4444, stelzerh@missouri.edu). Thanks for your interest in Missouri's forests!

County	Start Date	Contact	Phone	Email
Iron Madison St. Francois	Apr 10	Debra Henk	573-546-7515	henkd@missouri.edu
Benton Dallas Hickory	Apr 24	Wesley Tucker	417-745-6767	tuckerw@missouri.edu
Cooper Howard	May 2	Wendy Flatt	660-248-2272	flattw@missouri.edu
Crawford Franklin Jefferson (north) Washington	Jun 1	Matt Herring	636-583-5141	herringm@missouri.edu
St. Charles St. Louis	Jun 21	Scott Killpack	636-970-3000	killpacks@missouri.edu
Lincoln	Jun/Jul	Charles Ellis	636-528-4613	ellisce@missouri.edu
Carroll Chariton Saline	Jun/Jul	Parman Green	660-542-1792	greenp@missouri.edu

FAQ: What is well-drained soil?

Question:

On your website and in publications I receive, you often recommend planting in well-drained soil. What, exactly, does this mean?

Answer:

Well-drained soil is that which allows water to percolate through it reasonably quickly and not pool. Standing water or saturated soil deprives roots of oxygen. Some tree species can tolerate wet site conditions longer than others, so we make the distinction in our planting recommendations.

Deep, loamy soil and sloping sites tend to be well drained. Soil high in clay content, depressions, or sites with high water tables, underlying rock or 'hard pans' (a layer of soil impervious to water) tend to not be well drained. A test that is often recommended is to dig a hole 12 by 12 inches square and about 12 to 18 inches deep. Fill it with water and let it drain. Then do it again, but this time clock how long it takes to drain. In well-drained soil the water level will go down at a rate of about 1 inch an hour. A faster rate, such

as in sandy soil, may signal potentially dry site conditions; a slower rate is a caution that you either need to provide drainage or look for a species tolerant of wet conditions. Most trees grow best in a deep, moist, well-drained soil. Each species has a different level of tolerance to soils on either the wet or dry side of the ideal. Of course, other site factors such as pH and shade tolerance are also important in considering what trees to plant.

(From the National Arbor Day Foundation, www.arborday.org/)

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Calendar of Events

June 22, 2006: Timber Stand Improvement (TSI) Workshop, Runge Nature Center, Jefferson City, Mo. The workshop is hosted by the Missouri Walnut Council and features the benefits of TSI for forest health and wildlife communities, as well as methods for killing unwanted vegetation. For more information, or to register, contact Dusty Walter, University of Missouri Center for Agroforestry, at 573-884-7991, or email walterd@missouri.edu. (It is not necessary to be a member of the Missouri Walnut Council to attend.)

July 22 – 23, 2006: Chestnut Growers of America Meeting and Tour, Western Illinois University, Macomb, Ill. Held prior to the Northern Nut Growers Association Meeting; featuring presentations/discussions on chestnut production and culture and orchard tours. For more information, visit www.wcga.net

July 23 - 26, 2006: Northern Nut Growers Association Meeting, Western Illinois University, Macomb, Ill. For more information on speaker topics and tours, visit www.nutgrowing.org or contact Tucker Hill by email at tuckerh@epix.net

July 30 - August 2, 2006: Annual Walnut Council Meeting, Lied Center, Nebraska City, Neb. For more information, visit www.walnutcouncil.org or contact Liz Jackson at 765-583-3501.

Save the Date! Oct. 14, 2006: 4th Annual Missouri Chestnut Roast, Horticulture and Agroforestry Research Center, New Franklin, Mo. The Chestnut Roast is an outreach and educational opportunity featuring guided farm tours of the 660-acre HARC farm, agricultural exhibits and displays, free samples of fresh Missouri roasted chestnuts and chestnut dishes, agroforestry and cooking demonstrations, children's activities and several Missouri value-added food vendors, featuring Missouri black walnuts, chestnuts and pecans; meats and cheeses; specialty condiments and wines. Free admission and free parking. Hours are 10 a.m. to 4 p.m. Visit www.centerforagroforestry.org for more information; email Rhoadsj@missouri.edu; or call 573-882-3234.