



Forestry, Wildlife & Fisheries Update Newsletter

Department of Forestry, Wildlife and Fisheries
George Hopper - Professor and Head

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Website: <http://fwf.ag.utk.edu>

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Calendar of Events - 2002

March 23

1st Annual Meeting of the TN Chapter of The American Chestnut Foundation
Oak Ridge

April 19 & 20

Timber Harvesting Expo
Jackson

May 6, 7, & 8

District Forestry & Wildlife Judging Contests

Faculty:

Brian Bond, Forest Products
Wayne Clatterbuck, Forest Management
Craig Harper, Wildlife Management
Thomas Hill, Fisheries Management

George Hopper, Natural Resources
David Mercker, Forest Management
Larry Tankersley, Forest Management

Tennessee Chapter of The American Chestnut Foundation Meeting*George Hopper, Professor and Dept. Head***What:** 1st Annual Meeting of the TN Chapter of The American Chestnut Foundation**When:** Saturday, March 23 (9:30 to 3:30)**Where:** Oak Ridge, TN - Science and Energy Museum**Details:** 3 Presentations in the AM pertaining to Natural History of American Chestnut in Tennessee and the ACF Breeding Program. The afternoon session will focus on volunteer opportunities.**Costs:** Admission is free. Bring a friend!**Contact:** Dan Hurst, President, TN Chapter of TACF
865-539-2077

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Recommended Herbicides for Tree Injection*Wayne Clatterbuck, Associate Professor, Forest Management*

The most effective method for killing undesirable standing trees will usually involve the use of a herbicide. For those who prefer not to use herbicides, cutting, frilling or girdling can be used without herbicides. However, physical methods of deadening standing trees that do not use herbicides are generally less dependable (particularly with hard-to-kill species such as red maple, hickories, dogwood and beech) and require longer to be effective than those that incorporate herbicides into the treatment. Refer to the UT Agricultural Extension Service Publication SP559 "Crop Tree Release in Precommercial Hardwood Stands" for information on the practice of deadening selected trees for the benefit of releasing desirable crop trees.

Herbicides that can be used for tree injection or in frilling (hack & squirt) operations are:

1. **Trade Name:** Accord **Cost:** \$59/gallon
Common Name: Glyphosate
Time of Year: During active growth, early summer
Mixture: Undiluted or 50:50 in water
Method: Make one injection or chop per 2" DBH, apply herbicide at rate of 1 ml. per cut. Complete frill is best on large trees.
Species Resistance: Weak for Holly, Maple, Hickory, Black Gum

2. **Trade Name:** Pathway, Tordon 101R **Cost:** \$32/gallon
Common Name: Picloram + 2,4-D
Time of Year: Any time except early spring during spring sap flow
Mixture: Undiluted
Method: 1 ml. undiluted in each wound with 2 to 3 inches between edges. Complete frill is best for hickory and dogwood. Do not apply within root zone of desirable trees unless such injury can be tolerated.
Species Resistance: Beech, Holly, Maple, Dogwood

3. **Trade Name:** Velpar L **Cost:** \$57/gallon
Common Name: Hexazinone
Time of Year: Summer
Mixture: Undiluted
Method: 1 ml. per 4" of circumference in injector wounds or axe frill. Controls black cherry, oaks, red maple, sweetgum.
Species Resistance: Yellow-poplar

4. **Trade Name:** Garlon 3A **Cost:** \$73/gallon
Common Name: Triclopyr
Time of Year: Anytime except early spring
Mixture: Undiluted or 1:1 in water
Method: Inject or spray ½ ml of undiluted or 1 ml of diluted (1:1 in water) through bark at 3-4 inch intervals around the stem.
Species Resistance: Maple

5. **Trade Name:** Arsenal or Chopper **Cost:** \$480/gallon or \$140/qt (Arsenal)
Common Name: Imazapyr
Time of Year: August - March
Mixture: 20% Arsenal AC in water solution (25 ounces of Arsenal and 103 ounces of water makes 1 gallon of solution OR 40 percent Chopper in water solution (51 ounces of Chopper and 77 ounces of water makes 1 gallon of solution)
Method: Apply 1 ml. of solution into each cut spaces every 3 inches of stem diameter. Complete frill is preferred. Effectiveness occurs in the 2nd growing season after treatment. During first growing season, trees will lose foliage or may exhibit abnormal leaf shapes and colors
Species Resistance: Locust

Frilling can easily be accomplished with an axe or chainsaw and herbicides can be sprayed with a squirt bottle. Be sure to calibrate the amount of spray/stream so the correct amount of herbicide reaches the frill. Tree injectors, though effective, are rather cumbersome and rarely used.

This article contains pesticide recommendations that are subject to change at any time. These recommendations are provided only as a guide. It is always the herbicide applicator's responsibility, by law, to read and follow current label directions for the specific herbicide being used. Due to constantly changing labels and product registration, some of the recommendations given in this article may no longer be legal by the time you read them. If any information in these recommendations disagrees with the label, the recommendation must be disregarded. No endorsement is intended for products mentioned, nor is criticism meant for products not mentioned. The University of Tennessee and the author assume no liability resulting from the use of these recommendations.

TWRA Offers Money to Plant Native Warm-Season Grass Buffers

Craig Harper, Assistant Professor, Wildlife Management

The TWRA is offering a one-time \$50 per acre signing incentive payment (SIP) to landowners who establish native warm-season grasses (NWSG) on certain buffer practices enrolled under the USDA Conservation Reserve Program (CRP). To be eligible, landowners must plant CRP filter strips (CP-21) and vegetated terraces (CP-15B) using NWSG. Filter strips are grass strips established between cropped areas and creeks and rivers. Terraces with a cropping history are also eligible for these payments if sown to NWSG.

USDA is currently under a continuous signup for buffer practices. This allows landowners to enroll into CRP without the competitive bid process if certain land eligibility criteria are met. With the combined incentive payments from TWRA and USDA, landowners may receive \$150 – 200 per acre for establishing filter strips and vegetated terraces on 10- to 15-year contracts. While enrolled, landowners receive annual payments per acre and cost-share payments for establishment costs.

NWSG eligible for these practices include big and little bluestem, indiangrass, switchgrass, and sideoats grama. These grasses provide excellent habitat for many wildlife species, including bobwhite quail, rabbits, and several species of songbirds.

To take advantage of this opportunity, landowners should apply for CRP buffers through their local USDA Service Center. To receive TWRA SIP funds, buffers and terraces should be planted to NWSG and payment forms submitted to TWRA before June 15, 2002. These funds are available on a first come, first served basis to CRP participants until project funds are depleted or until June 15, 2002. For more information, contact Mike Hansbrough, USDA-NRCS Biologist at (731) 668-0700 ext. 3 or Tim White, TWRA Small Game Coordinator at (615) 781-6616.

For more information contact: *Craig Harper at 865-974-7346*
caharper@utk.edu

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Hybrid Sunfish are Good for Small Ponds

Tom Hill, Professor, Fisheries Management

Hybrid Sunfish (bream) are a viable alternative for small pond owners in Tennessee who want to grow fish, but may not want catfish for various reasons. Hybrid sunfish have the advantages that they grow rapidly, do not reproduce excessively, are good to eat and are highly vulnerable to fishing. This latter characteristic may actually be a disadvantage because hybrids can be fished out of a pond in a short time when fishing pressure is heavy.

There are many ponds in the state that are less than one-fourth acre. Research has shown that ponds this small have difficulty establishing and maintaining balanced populations of large-mouth bass and bluegill. As a result, fisheries biologists usually recommend that they be stocked with catfish.

Channel catfish smaller than one pound are not very well accepted for sport fishing. However, one-half pound bream from farm ponds are considered outstanding. This means that twice as many fish should be available to be caught from a pond stocked with hybrid bream.

Hybrid sunfish can be produced by stocking together five males and five females of the desired cross per surface acre. Before the breeder fish are stocked, it is absolutely necessary that every other fish be eliminated

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from the pond. Correct identification of the sexes is essential, and males and females to be mated should be about the same size. It is fairly routine to sex sunfish during the spawning season as males will discharge milt and females discharge eggs when the abdomen is gently pressed. Some studies have shown it to be advisable to remove the red opercular tab from the redear males before stocking with other species of sunfish.

Hybrid sunfish fingerlings may be stocked in fertilized ponds at 1,000 to 1,500 per surface acre. One-half as many should be stocked in unfertilized ponds. If pelleted fish food is fed daily, the stocking rate can be increased to 3,000 bluegill-green sunfish hybrids per surface acre. This practice is not recommended with redear-green sunfish hybrids since they do not readily consume pelleted fish foods.

Whichever hybrid sunfish is used, 50 largemouth bass (1-2 inch) fingerlings per acre should be stocked. The bass will keep the reproduction from the hybrids under control and more food will be available for the larger fish.

Records of the numbers of hybrid sunfish harvested from a pond should be kept. Since it will be necessary to periodically either drain or poison the pond and restock it, the records will help the pond owner decide when this needs to be done. If another small pond is available, it may be used as a brood pond to hatch hybrid sunfish for stocking.

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Direct Seeding Oak Acorns

David Mercker, Extension Forester

Oak trees are a very important component in Southern hardwood forests, not only for market value, but also for mast production – essential to an array of wildlife. Efforts to restore oak trees on farm sites have increased over recent years, a result mostly from government programs. The lack of availability of oak seedlings and costs associated with transplanting them sometimes deters would be tree farmers from establishing an oak plantation. An alternative to traditional tree planting, is the *direct seeding* of acorns.

Direct seeding is less expensive than traditional seedling planting. Planting stock, labor, storage and equipment are cheaper, leading to an overall establishment cost of about 40% of the alternative. Survival results are less reliable, however, and direct seeding is more likely to need reinforcement planting to bring the stocking to acceptable levels. To counter the poorer survival rates, planting spacing is normally tightened to 10 feet between rows and 3 feet within rows, a sowing rate of about 1,500 acorns per acre. Direct seeding can be done at any time of the year (provided conditions are not too wet or dry and that your stored acorns are still viable). For satisfactory results, follow these guidelines:

- Collect the acorns as soon as possible after seedfall and store them immediately in 4 mil polyethylene bags at about 35 degrees F. If cold storage is not available, bury them in the bags about 1 foot deep in the ground;
- Acorns should be floated in water, discarding the ones that float. The sinkers are potentially viable. The moisture content of the acorns should be kept at 40 to 45 %. A humidified cooler is preferred.

If the moisture content falls below 35%, the acorns should be soaked in water at room temperature for 24 to 48 hours. Properly stored, red oak acorns can be stored for up to 2 years.

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- To reduce animal predation on the acorns once planted, it is best to choose planting areas larger than 2 acres and preferably not surrounded by forest. Predation will be worse along the forest edge where wildlife frequents. Sites should be fairly well drained and not with heavy clay soils (see a professional forester for specific site requirements for each oak species).
- Sowing depth of 2 to 3 inches seems to favor germination. Seeds can be sown by hand, although commercial planting machines are now available.

The initial growth rate will be slower for seedlings that originate from direct seeding. Also, they can't tolerate strong herbicide rates, important for early weed control.

Direct seeding is a viable alternative to restoring farm land to hardwood forests. Explore it.

For more information contact: *David Mercker at (731) 425-4717*
dcmercher@ext1.ag.utk.edu

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4-H Forestry

Larry Tankersley, Forest Management

4-H Forestry Contests are just around the corner (May 6-9) so it is not too soon to start practicing. We will have new rule books in the office very soon and will alert you when you can place your orders. In the meantime, use the rules from 2001.

Changes to the contest are not drastic but you will notice "new" insect and disease lists. The national contest committee revised the lists that we are required to know when we get to that contest thus we agreed to adopt the new lists. A CD with "flash cards" of the new insects and diseases is available at the National 4-H Forestry Invitational website: <http://www.invitational.uiuc.edu/>. See the "training materials" button.

Brian Bond continues to contribute to our efforts with a new publication on "Wood Identification". Check it out at the UT publications website under forestry or give us a call for hard copies.

Another change that I am very excited about is the addition of a "Site Evaluation" event at the State contest. This is a team event that begins to teach students concepts and critical thinking to forest management. It has long been an aspiration of mine to have such an event. I hope we are all ready to move into this phase of our 4-H Forestry efforts. Let me know what you think.

Don't ever hesitate to contact me about 4-H Forestry! Have fun and keep in touch as questions arise.

For more information contact: *Larry Tankersley at 865-974-7346*
latankersley@utk.edu

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Timber Sale Income Can be a Capital Gain With or Without a Basis.

Larry Tankersley, Forest Management

Certain discussions about casualty losses from Southern Pine Beetles have distracted and discouraged folks who have not established a basis in their timber. These folks should be assured that they are in good company as few people have allocated a basis. After many years have past, figuring one is not worth the trouble(money).

Although a basis is nice to have it is not required in order to report timber sale income as a capital gain. If the owner holds the timber as income-producing property and they sell it standing in all likelihood the sale is a capital transaction. (Selling logs is ordinary income. Logs are not timber.) The best part about having a basis in your timber is that you are allowed to reduce the amount of your capital gain. You are not taxed on the money you have in the timber, only the gain. Note that you can also deduct from your timber sale proceeds costs associated with the sale such as consulting fees, legal fees, postage, paper and paint. You are only taxed on the net proceeds.

If the timber has been held for more than twelve months, the timber sale proceeds qualify as a long-term capital gain and are taxed at a maximum rate of 20% (10% if you are in the 15% tax bracket).

Sales conducted on shares always qualify as capital gains, because the owners retain an economic interest. This means you don't get paid unless the timber is cut. Lump sum sales generally qualify as capital gains. Where the owner has not conducted many sales, the income is a modest percentage of the adjusted gross income and the landowner has not held themselves as in the "business" of growing timber by claiming losses for a number of years. Be advised to retain an economic interest in the timber to ensure capital gains treatment.

The main lesson this month is that a basis is not required for capital gains treatment. For more information refer to the "new" UT extension forestry publication, "Setting Up the Books" This is a pretty good discourse on timber basis. I hope all readers with internet have bookmarked the national timber tax website:

www.timbertax.org. Keep up the good work and keep in touch!

For more information contact: *Larry Tankersley at 865-974-7346*
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Some Final Words About Taxes

Larry Tankersley, Forest Management

Many folks may not have a basis in their pines/forest from a cost allocation as discussed in the "Setting Up the Books" publication, but many recall planting these trees and may have records indicating money spent when these trees were set. Out of pocket costs of planting a forest are the most direct indicator of a timber basis. Farmers who have recently lost pines to SPB should be encouraged to recall and to seek records indicating whether their pines are "natural" or planted. This includes all species of pines that might have been planted for conservation purposes. The planting costs would be your basis for casualty loss purposes.

Another item related to direct expenditures on reforestation is a reminder to take advantage of the Reforestation Tax Credit and Amortization. This is thoroughly discussed at the Timber Tax Website. Especially important is the provision that requires that the amortization schedule **must** be filed in the year the money is spent or the opportunity to deduct these costs over the next seven tax years is lost. Report the amortization on Part VI of Form 4562 or by writing “reforestation” on line 32 of your Form 1040.

The tax credit can be used to amend last year’s return or carried forward for 20 years and should be reported on line 3 of IRS form 3468.

Casualty loss on a Amended return? Yes, but the loss must be claimed for the year in which it occurred. If you have not completed your calculations determining your loss, filing by the deadline and amending in the next three years would seem better than requesting an extension beyond April 15.

For more information contact: *Larry Tankersley at 865-974-7346*
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