



# The **Temperate Agroforester**

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## **AFTA Publishes National Report on Status of Agroforestry**

By Miles Merwin

A current update on the status of agroforestry in the US will soon be published by AFTA. The 40-page document, entitled "The Status, Opportunities and Needs for Agroforestry in the United States: A National Report," makes specific recommendations on ways to advance the development of agroforestry. All current AFTA members will receive a copy of the report, to be mailed in early 1997.

The new publication is a summary of nine regional assessments of agroforestry that were prepared by independent authors for the USDA National Agrofore-

stry Center. All US states and Pacific island territories (except Alaska and Puerto Rico) are included. Production and distribution of the report by AFTA was made possible by financial and technical assistance from the National Agroforestry Center.

The findings of each regional assessment related to the following topics are summarized in the report: (1) environmental problems which agroforestry might help mitigate, (2) current status of agroforestry

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## **AFTA Offers Lifetime Membership in Logo Design Contest**

AFTA is seeking the help of its members to design a new logo, and is offering a substantial reward for the winning entry: lifetime membership (a \$300 value). In anticipation of its reorganization as a non-profit corporation, the new logo will help distinguish AFTA *Inc.* from the present unincorporated association. To encourage greater "ownership" of this important transition by the members, AFTA is conducting a contest among the members and invites suggested designs for the new logo prior to the deadline (May 1, 1997). the contest rules are as follows:

1. The new logo should be a distinctive symbol which readily identifies AFTA and which also conveys the concept of agroforestry. Proposed designs should include a graphical element and either the initials (AFTA) or the full name (Association for Temperate Agroforestry) in upper or lowercase.

2. Text and graphics must be drawn in solid black lines (no gray tones or colors), and lines must be thick enough so they won't fade out when the logo is reduced to a small size (e.g., 1 inch).

3. Designs must be submitted in finished form as a large image (e.g., 6 X 6 inches) in black ink on plain white, 8½ X 11 paper. If a computer program is used,

please submit both a high resolution (300-600 dpi), full-size print out and the file on 1.44 MB disk (PC compatible format). Entrants must furnish a SASE if they wish their artwork returned.

4. The contest is open to all AFTA members in good standing, except current officers and Board members. Receipt of entries will be acknowledged.

5. The AFTA Board of Directors will review all entries. The Board will select only one winning design, and reserves the right to reject all entries or request that submitted designs be modified; its decision will be final. As a condition of their selection, the winning entrant will agree to transfer all copyrights for their logo design to AFTA and to accept the prize offered as their sole consideration for the design submitted.

6. The prize for the winning design selected by the Board will be lifetime membership in AFTA (not redeemable in cash). The winner will be announced in the July newsletter.

7. **All contest entries must be postmarked on or before May 1, 1997.** Mail entries (*unfolded* in a large envelope) to AFTA, The Temperate Agroforester, P.O. Box 266, Lake Oswego, OR 97034. Please include your name, address and telephone number. □

## **The Temperate Agroforester**

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[http://www.missouri.edu/~c648324/afta/afta\\_home.html](http://www.missouri.edu/~c648324/afta/afta_home.html)

### **Association for Temperate Agroforestry**

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### **Mission Statement**

The mission of AFTA is to advance the knowledge and application of agroforestry as an integrated land use approach to simultaneously meet economic, social and environmental needs. AFTA focuses on agroforestry in temperate zones, with an emphasis on North America. AFTA pursues its mission through networking, information exchange, public education, and policy development.

### **AFTA Membership Dues**

Regular: 1 year \$25, 2 years \$45, 3 years \$60;

Student \$10; Sustaining \$50; Lifetime \$300.

Non-voting: Institutions \$40, Nonprofits \$20.

Overseas Postage: Canada/Mexico, add \$5 per year;

All other countries, add \$10 per year.

Send annual membership dues by check payable to

AFTA in US dollars to: Dr. Deborah Hill, AFTA Treasurer, Dept. of Forestry, University of Kentucky, Lexington, KY 40546-0073, USA.

### **The Temperate Agroforester**

*Editor:* Miles Merwin

Contributions related to agroforestry are welcome. Please submit items either on PC-formatted diskette, via e-mail, or typewritten. Deadlines for submissions are the 15th of March, June, September and December. Address all items to: Miles Merwin, The Temperate Agroforester, P.O. Box 266, Lake Oswego, OR 97034, Tel.(503) 697-3370, Fax (503)697-1767, e-mail [mimerwin@teleport.com](mailto:mimerwin@teleport.com)

Articles originally appearing in the *Temperate Agroforester* may be reprinted provided that source credit is given.

## **President's Corner**

*By Gene Garrett, AFTA President*

As we begin 1997, I sense an excitement about temperate agroforestry that I have never sensed before. When I was first exposed to the literature on tropical agroforestry so many years ago, I believed immediately that the fundamental principles upon which tropical agroforestry was founded not only had relevancy in the temperate zone but, if adopted, could serve to address many of the shortcomings of conventional forestry and agriculture.

While I must confess my naiveté regarding how long I believed it would take us to reach this point in time, I am pleased that agroforestry, with all the wonderful opportunities it offers, has finally arrived and is being applauded by so many. A movement that began with a handful of believers has grown into a full-blown alliance consisting of supporters from virtually all walks of life.

Since the formation of AFTA in Springfield, Missouri in 1991, one of our primary goals as an organization has been to help increase the understanding of the value of agroforestry in the temperate zone and to secure the assistance of various individuals and organizations in increasing the number of "users." We

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## **Nominations Sought for AFTA President-Elect**

AFTA is seeking nominations of candidates to run for the office of President-Elect. After serving a two-year term, the President-Elect automatically becomes AFTA President.

Any AFTA member in good standing may serve, and you may nominate yourself or others. Ballots for the election of the President-Elect will be mailed to all members in good standing.

All nominations must be mailed **NO LATER THAN MARCH 1, 1997** to H.E. 'Gene' Garrett, AFTA President, School of Natural Resources, 1-30 Agriculture Building, University of Missouri, Columbia, MO 65211, fax 573-882-3647, e-mail [gene\\_garrett@muccmail.missouri.edu](mailto:gene_garrett@muccmail.missouri.edu).

# Agroforestry Symposium Held at Agronomy Society Meetings

By Bill Rietveld, National Agroforestry Center

AFTA co-sponsored a symposium entitled "Agroforestry: an Integrated Science" at last year's American Society of Agronomy (ASA) meetings held Nov. 3-8 in Indianapolis. The other sponsors were ASA Division A-8 (Integrated Agricultural Systems) and the National Agroforestry Center. Focused on temperate-zone agroforestry, the symposium was organized by Bill Rietveld and AFTA President Gene Garrett in response to an invitation from ASA Division A-8. The 4-hour symposium consisted of eight papers designed to expand the interest in agroforestry and stimulate interdisciplinary cooperation. Papers were presented on the following topics: agroforestry as an integrated land use management system, windbreaks, alley cropping, silvopasture, riparian buffer strips, forest farming, economics, and social dimensions of agroforestry.

There were a total of five agroforestry sessions at the 1996 ASA meetings: the temperate agroforestry symposium, temperate agroforestry poster papers, a tropical agroforestry symposium (organized by P.K. Nair, University of Florida), tropical agroforestry

poster papers, and volunteer presentations related to agroforestry. This represented a sizeable jump in interest in agroforestry among agronomy researchers and educators.

The ASA meetings are an excellent forum for agroforestry because they bring together thousands of professionals from a broad range of disciplines, institutions and agencies. They also provide an excellent opportunity for the exchange of scientific information between domestic and international scientists working in agroforestry.

The proceedings of the temperate agroforestry symposium will be published as an ASA special publication entitled "Agroforestry: an Integrated Science and Practice." Gene Garrett, Bill Rietveld and Dick Fisher (Texas A&M University) are the editors. It is intended to be the first textbook/desk reference on temperate agroforestry in the US, and will contain additional chapters beyond the papers presented at the ASA symposium. The book will be published sometime later in 1997. □

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## ► *President's Corner*

have indeed accomplished that and so much more, but the need for our efforts continues.

Within the past few weeks, we have made yet another major contribution towards creating a greater understanding of agroforestry with the publication of a synthesis document entitled, "The Status, Opportunities and Needs for Agroforestry in the United States - A National Report." This document is the direct result of a partnership with the National Agroforestry Center in Lincoln, Nebraska. With this document, which assesses the needs and opportunities in eight regions of the US, AFTA can now turn its attention to the formal development of Regional Agroforestry Associations.

Based upon the new report, I am in the process of appointing a task force to develop a national framework to establish Regional Agroforestry Associations as a part of the AFTA infrastructure. Regional associations are critical to the future of AFTA and temperate agroforestry due to the vast differences that exist between regions. To maximize the opportunities in agroforestry, we must approach research, policy and technology transfer needs on a region-by-region basis.

Furthermore, to be successful, we must guarantee that each designated region has an active membership. To accomplish this, I am asking for your help.

Agroforestry is receiving increased attention from within forestry and agriculture. With the increased recognition comes a new pool of potential members. Each of us knows one or more individuals that would benefit from membership in AFTA. I am asking that each current member help guarantee the success of his/her "soon to be identified" Regional Association by recruiting one or more new members.

In this regard, I remind you of our new policy announced in the October 1996 newsletter, whereby you receive a free, three-month extension of your membership for each new member you recruit - four recruits and you have a year's free membership.

I would also like to take this opportunity to announce that the individual member with the greatest number of recruits to their credit during the year will receive special recognition at our national meeting. I am proclaiming 1997 as "the year of the member" and am asking for your help in making our membership drive a success. Let us all work together to make 1997 the year to "re-member." □

## ► **National Report**

practices, and (3) recommendations to address needs and opportunities to advance agroforestry. A national synthesis of these findings was prepared to identify common problems and needs across regions, and to help promote programs at the national and regional levels in agroforestry research, development and technical information.

### **Agroforestry Defined**

The report begins with AFTA's definition of agroforestry: "an intensive land management system that optimizes the benefits from the biological interactions created when trees and/or shrubs are deliberately combined with crops and/or livestock." The five basic types of agroforestry practices found in the US today, i.e., windbreaks, alley cropping, silvopasture, riparian buffers and forest farming, are the focus of the report.

According to the regional assessments, economic gain is the primary motivating factor in the adoption of agroforestry by private landowners in the US. While economics are often paramount in the decision to adopt agroforestry, social and aesthetic considerations may also be important.

The report found that the relative weighting of economic, social and other factors varies among landowners depending on the size of the farming or forestry enterprise, the level of production intensity, proximity to markets, and whether it is a full or part-time activity. Nevertheless, many landowners may not recognize particular practices as "agroforestry" even though they make use of them (e.g., windbreaks).

Farm-level studies of the potential economic costs, benefits, and risks associated with agroforestry practices are the greatest research need, according to the authors. This information is necessary so that both production- and conservation-driven agroforestry practices can be objectively compared with alternative land use options. Long-term, basic research is needed to investigate the biological interactions between the tree/crop/animal components of an agroforestry practice. At the same time, applied research should focus on how to maximize the tangible economic, conservation and social benefits of agroforestry in the short and intermediate term.

### **Locally Relevant Information**

Most of the report's regional authors emphasized that technical information must be developed locally

or regionally for application within that region. Information which is too general or which comes from dissimilar climate zones is not likely to convince landowners to adopt agroforestry practices. On-farm demonstrations and field days are vital to the better understanding and appreciation of agroforestry practices. Furthermore, the report recommends that landowners should be more closely involved in the process of developing and disseminating technical information, based on local conservation needs and market opportunities.

The report found that government cost-share assistance is perhaps the most important incentive for the adoption of protective forms of agroforestry, e.g., windbreaks and riparian buffers. Financial and technical assistance should be also combined with flexible guidelines for the management of conservation agroforestry practices by landowners. The report recommended a review of government policies and regulations that negatively impact the adoption of agroforestry by private landowners. Agroforestry can be a useful tool in developing proactive and flexible approaches which enable landowners to comply with environmental quality guidelines.

The principal focus of activity to advance agroforestry should be at the state and regional levels, according to the report. Regional agroforestry groups will help to coordinate research and outreach activities among universities, government agencies, private groups, and practitioners. The report also recommended that research and information dissemination should continue simultaneously at the national level, both through private groups such as AFTA and federal programs such as the USDA National Agroforestry Center.

### **Agroforestry Practices**

The regional authors noted some persistent confusion over what land use practices are, and what are not, agroforestry. Expanding on AFTA's general definition of agroforestry, the report further elucidates agroforestry practices as "*intentional* combinations of trees with crops and/or livestock which involve *intensive* management of the *interactions* between the components as an *integrated* agroecosystem." These four key characteristics -intentional, intensive, interactive and integrated - are the essence of agroforestry and are what distinguish it from other farming or forestry practices.

The report provides an overview of the current status of five basic types of agroforestry practices ►

# USDA Plans Agroforestry Satellite Broadcast in March

USDA will conduct a national forum on agroforestry via a nationwide satellite broadcast from Washington on March 20, 1997. The broadcast will have a two-fold purpose: to examine the concept and need for agroforestry, and to receive public comment on the current approaches to advance agroforestry in the US.

Representatives of the three co-sponsoring organizations, USDA Natural Resources Conservation Service, National Agroforestry Center, and AFTA, are now at work planning the content and format for the broadcast. The preliminary agenda calls for a variety of speakers to address the following topics: definition and key characteristics of agroforestry, the needs for and benefits of agroforestry, descriptions of the five major temperate agroforestry practices, and the rele-

vance of agroforestry to local interests.

The broadcast will be aimed primarily at natural resource professionals in public and private agencies, and university educators. During the broadcast, viewers will have the opportunity to ask questions and supply feedback via telephone or fax. Current plans also call for an edited version of the broadcast to be made available at a later date.

Special arrangements must be made in advance to receive the broadcast at local offices of USDA agencies and university campuses. Interested parties should start planning for a local downlink as soon as possible. For more information regarding the March 20 agroforestry satellite broadcast, contact the USDA National Agroforestry Center, East Campus-UNL, Lincoln, NE 68583, Tel. 402-437-5178. □

## ► National Report

in the US: alley cropping, windbreaks, riparian buffer strips, silvopasture, and forest farming. Alley cropping combines trees, planted in single or grouped rows, with agricultural or horticultural crops which are cultivated in the wide alleys between the tree rows. The annual crops cultivated between the trees provide extra income before fruit or nut trees come into bearing and/or early in a long-term timber rotation. The report found that alley cropping of tree plantations and orchards is common only in the Pacific Islands, but is also practiced in the Midwest and somewhat in the Southwest, South and Northeast.

### Windbreaks

Windbreaks are planted to enhance crop production, protect livestock, and control soil erosion. Field windbreaks can improve the yield and quality of wind-sensitive crops and provide other benefits such as improved bee pollination of crops and wildlife habitat. Feedlot windbreaks help reduce animal mortality, feed and water consumption, and odor problems. In snow country, windbreaks can function as living snow fences to help with water management by dispersing snow more evenly across cropland. According to the report, field windbreaks are most prominent in the Great Plains, and are commonly used in every region of the country except the Northeast. Feedlot windbreaks are particularly important in the Great Plains, Northwest, and Intermountain regions.

Riparian buffer strips consist of rows of perennial

vegetation (tree/shrub/grass) planted to filter the runoff from cropland or pastures flowing into adjacent streams, lakes, and wetlands. Riparian buffers reduce non-point source pollution from agricultural activities by trapping sediment, filtering excess nutrients, and degrading pesticides. The report found that interest in riparian buffer strips is increasing in all areas of the US, particularly the Northeast, Midwest and Northwest.

### Silvopasture

Silvopasture combines trees with forage (pasture or hay) and livestock production. The trees provides shade and wind shelter, thereby protecting livestock from temperature stresses. Grazing provides a source of income during the early years of the rotation in tree plantations managed for timber or Christmas trees, and some nut and fruit orchards may also be grazed to produce income before the trees begin bearing. Silvopasture is an important practice in the South and is also found in the Midwest and Northeast.

Forest farming utilizes a forested area that has been modified to provide the correct level of shade for the intensive cultivation of specialty crops. Shade tolerant understory crops such as ginseng, ferns or mushrooms are grown for medicinal, ornamental or culinary uses. Forest farming can provide annual/regular income either before, or as an alternative to, harvesting the trees for wood products. The report found that forest farming is rapidly gaining interest and economic importance everywhere in the US, except the Great Plains and Intermountain regions. □

# “Wild-Simulated” Forest Farming for Ginseng Production

By Andy Hankins, Virginia State University

*(The following description of a forest farming agroforestry method to produce ginseng is excerpted from a paper entitled, “Wild-Simulated Ginseng Cultivation.”)*

American Ginseng (*Panax quinquefolius L.*) is a familiar plant to many people in the Appalachian region. For several generations “digging sang” has been an enjoyable and profitable activity for many mountain people. In 1995, wild dried roots of ginseng sold for as much as \$470 per pound. That price has tripled in the last ten years. In 1995, quite a few pounds of cultivated dried ginseng roots sold for \$20 per pound. That price has been reduced by half in the last ten years.

Why should there be such a difference in the prices paid for wild and cultivated ginseng? Nearly all of the ginseng, grown or gathered from the wild in the United States, is exported to oriental countries for sale. Ginseng growers and gatherers in the US and Canada produced about four million pounds of ginseng for export to the Orient in 1994. Apparently the Chinese people prefer wild ginseng over cultivated because it more closely resembles the revered wild Oriental Ginseng (*Panax ginseng*). The Chinese believe that the slower-growing wild roots, which are harvested at an older age, absorb more curative power from the forest floor.

Anyone who knows ginseng can easily tell the difference between wild and cultivated roots. The wild roots are dark tan in color, gnarled in appearance and show many concentric growth rings. Wild roots are generally small in size and light in weight. The cultivated roots are cream colored, smooth and fat, and exhibit few concentric growth rings. Cultivated roots are often large and heavy. The Oriental buyers have quite an elaborate grading system for the dried roots they purchase.

## Intensive Cultivation

Approximately 3,800 acres of ginseng are grown in intense cultivation under artificial shade in Wisconsin. Under intense cultivation the roots grow quickly to a harvestable size. Four year old roots are very commonly harvested. Yields as high as 2,500 pounds of dried root per acre have been reported. Establishment costs for one acre of ginseng beds, under wood lath shade or under polypropylene shade cloth,

varies from \$20,000 to \$30,000 depending upon the current prices of materials needed.

The greatest problem associated with intensely cultivated ginseng is disease, including alternaria blight, damping off and phytophthora. Any disease outbreaks severely threaten ginseng under intense cultivation because the plants are so close together that the disease can spread quickly through the entire bed. This intense fungus disease pressure forces artificial shade growers to use a vigorous fungicide spray schedule to prevent losses.

## Wild-Simulated

A method called wild-simulated cultivation can be used to grow ginseng without fungicide sprays and expensive establishment costs. The prices paid for ginseng grown under wild-simulated cultivation are normally the same as prices paid for wild ginseng roots. While ginseng growing is very risky, wild-simulated ginseng cultivation can potentially provide supplemental income for persons who have patience, perseverance and discretion.

To grow wild-simulated ginseng, the first step is site selection. The most favorable temperature and soil moisture conditions generally are associated with north or east facing slopes with at least a 75 per cent shade canopy. The best shade is provided by deep rooted, deciduous trees such as poplars and oaks. Ginseng grows best in a moist, well drained soil.

Successful growth of ginseng most often occurs in sites where herbaceous woodland plants such as Jack-in-the-pulpit, bloodroot, Solomon’s seal and ferns are growing. If no herbaceous plants are growing on the forest floor, ginseng will probably not grow there. Excellent soil drainage is essential.

In the wild-simulated method, stratified ginseng seed is planted in the fall when the trees lose their leaves. In some locations, clearing of undergrowth will be necessary. If the site is sufficiently shaded, there should not be a great deal of competitive weed growth. This is an extensive (as opposed to intensive) planting method. If dense patches of weeds exist on the site, simply avoid them and plant in other areas. It is desirable to disturb the site as little as possible to reduce the spread of fungus diseases.

The only tools needed to plant wild-simulated ginseng are a rake and a garden hoe. It is a good idea to

plant seeds in defined beds that are 5 feet wide and 50 feet long. The beds should be separated by three foot wide walkways. The beds should run up and down the slope rather than across the slope for better air drainage around the plants. Rake the leaves on the forest floor away from the bed right down to the topsoil. Using the hoe, make three narrow furrows 13 inches apart, all the way down the length of the bed.

Plant ginseng seeds, by hand, three inches apart in each furrow. About one ounce or 500 seeds will be needed to plant three furrows at this spacing in a bed that is 5 feet wide and 50 feet long. Cover the seeds with 3/4 inch of soil. After planting, carefully step down each row to firm the soil around the seeds. To finish the planting, rake one inch of leaves back over the bed as a mulch. After a couple of rain storms, no one will be able to detect that any planting has occurred. The site will look completely natural.

The stratified seed will germinate the next spring. The plants will look like three small strawberry leaves on a stem about one inch tall. Some of the ginseng seeds will not germinate and some will be eaten by rodents. Over the next seven years, the plant population in each bed will be reduced every year by various natural forces. The final stand will be a thin, healthy population of wild ginseng plants.

In the wild-simulated method, after planting, no more work is required until the ginseng roots are dug six to ten years later. The ginseng plants are left to the vagaries of nature. Weeds on the forest floor will compete with the plants for water and nutrients. Insects and rodents will attack certain plants. Fungus diseases infect ginseng plants from time to time. Severe weather may reduce plant growth. All of these stressful conditions result in a wild appearance of the roots that are eventually harvested. Digging the roots will be difficult work because they often become entwined with the roots of other woodland plants. The harvested roots should be air-dried in the shade.

### Investment

The investment in a half acre of wild-simulated ginseng is \$800.00 for 10 pounds of stratified seeds and 20 days of labor. A half acre will produce anywhere from 0 to 200 pounds of dried roots in six to ten years. The natural fertility of the particular planting site will determine both the quantity and the quality of the ginseng that can be grown there.

The greatest threat to the crop is theft. Ginseng should not be planted in areas where people go to dig wild ginseng. In some regions, ginseng hunters comb the mountains every fall looking for wild gin-

seng. These hunters will certainly be excited if they come across a dense population of plants. Somehow cultivated ginseng plants are often considered "fair game" by wild gatherers. Fines for stealing ginseng are negligible. The wild-simulated method of growing ginseng is best practiced on lands where access is controlled. It is highly recommended that anyone attempting to grow ginseng this way, keep quiet about the enterprise.

Ideal growing conditions for ginseng are more difficult to find in low-lying regions than they are in the mountains. The forest floor in most woodland areas is too hot and dry during the summer for ginseng to survive. Micro-environments may be found, however, that are good, if not perfect, places for ginseng to grow. Small pockets of cooler soil may be found very often on a north-facing hillside above a stream or river. Many Virginia landowners are successfully growing ginseng well out of the mountains.

### Marketing

For several decades, natives of the Southern Appalachian region have harvested natural plant materials from the wild for sale to the many medicinal herb buyers in the region. Very often these buyers operate small grocery stores. There is at least one buyer in every town in southwest Virginia. Products most commonly traded are ginseng, black cohosh, bloodroot, golden seal, lady slipper, mayapple and slippery elm.

The local person, who buys the roots, bark, leaves or seeds from medicinal plants, often also buys furs and hides. These small buyers, in turn, sell the plant materials they purchase to regional brokers who either export the materials to the Orient or sell them directly to pharmaceutical companies in the United States.

As native wild populations of these medicinal plants disappear due to over harvesting, potential increases for profitable sale of cultivated woodland medicinal plants. Indeed, many small landowners throughout the region have already successfully grown and sold these plants. There is never any problem marketing the products they grow. Prices fluctuate, of course, but the market channels developed years ago for sale of wild harvested plant materials can reliably be used for sale of any cultivated medicinal herbs in current demand. □

*Andy Hankins is Extension Specialist in Alternative Agriculture; Virginia Cooperative Extension, Virginia State University, P.O. Box 9081, Petersburg, VA 23806.*

# Job Openings in Agroforestry at University of Missouri

The School of Natural Resources in the College of Agriculture, Food and Natural Resources at the University of Missouri, Columbia has announced openings in two positions related to agroforestry. Both positions are non-tenure track, 12 month appointments. Salary will be commensurate with experience. The starting date is Feb. 15, 1997, or as negotiated.

## Technology Transfer Specialist

Responsibilities for the Research Assistant Professor, Agroforestry Technology Transfer Specialist will include: identifying landowners receptive to adopting agroforestry technology; assessing informational needs by user classes, developing information and targeting information to audiences and; developing and carrying out a delivery system that includes; (a) workshops for professionals, (b) landowner conferences, (c) farm demonstrations etc.

Qualifications for the position are a minimum of a Masters of Science in forestry (Ph.D. preferred) with a strong background in journalism. Individual must have a) demonstrated ability to communicate and work effectively with others, b) demonstrated experience in developing training materials and informational brochures, c) a broad knowledge of natural resources, and d) specific knowledge and, preferably, advanced training in agroforestry.

## Tree Improvement Specialist

Responsibilities for this 100% research position will include continuing a tree improvement research program initiated in the late 1960's by the Missouri Department of Conservation relating to mass selection and half-sib progeny testing. In addition, this individual will be expected to initiate controlled breeding and micro-propagation programs in black walnut. Secondary emphasis will be on selecting and developing pecan varieties for Missouri.

Qualifications required for the position a minimum of a Masteforest genetics or closely related discipline with two years of experience. It is preferred that the candidate have experience in the controlled breeding of hardwood species. Candidates must have a strong commitment to active and collaborative team work and the practical application of research results.

Applicants should submit a letter of application, resume, academic transcripts, and three letters of reference to Dr. H.E. Garrett, School of Natural Resources, 1-30 Agriculture Building, University of Missouri, Columbia, MO 65211, Telephone (573) 882-3647; Fax (573) 882-1977.

Applications will be accepted until the position is filled; screening of candidates will begin on Feb. 1, 1997. The University of Missouri is an EEO/AA employer and complies with guidelines of the ADA. □

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## US Forest Service Hosts Northeast Agroforestry Workshop

*By Mike Majeski, US Forest Service, St. Paul, MN*

US Forest Service Northeastern Area, in partnership with the USDA National Agroforestry Center, hosted a very successful agroforestry conference on November 8 & 9, 1996 in Hagerstown, Maryland.

The conference had two sessions. The session on November 8 was for land resource professionals. Thirty service foresters, consulting foresters, and NRCS District Conservationists heard presentations that helped them understand agroforestry practices and how they could use them in their assistance to private landowners. Bruce Wight from the National Agroforestry Center defined agroforestry. Louise Buck from Cornell University discussed agroforestry practice and potential in the Northeast. Charles Feldhake with USDA Agricultural Research Service presented information on research in progress that is

looking at combining trees in pastures to increase production of forage, and improve the ecosystem. The final speaker was Karl Davies a consulting forester from Massachusetts. He discussed working with landowners on agroforestry practices, and his work with tree crops such as walnut, chestnut, and hazel nuts. The participants evaluation of the session was very positive.

The November 9th session was targeted at landowners and farmers, and emphasized the income opportunities from agroforestry. About 90 people attended the day-long session, and the evaluations were very positive. The secret to our success was the three landowners that spoke on their use of agrofore-

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### First AFTA Webmaster/New Address

Dean Gray, a graduate student in the agroforestry program at the University of Missouri in Columbia, has recently volunteered to be AFTA's first webmaster. Dean will keep our postings on the World Wide Web informative and current through regular updates to existing pages and the creation of new pages as needed. He will also answer queries from visitors to our Web site.

One of Dean's first tasks was to move AFTA's home pages to a new server at the University of Missouri. This will make it easier to update and add information to our site. AFTA's home page will maintain links to the Temperate Agroforestry Home Page at the University of Minnesota. Our web site contains new information on the 5<sup>th</sup> North American Agroforestry Conference, and a complete table of contents for back issues of the *Temperate Agroforester*. Visit AFTA's new home page at: [www.missouri.edu/~c648324/afta/afta\\_home.html](http://www.missouri.edu/~c648324/afta/afta_home.html).

### Farmer's Guide to the Internet

[www.rural.org/frmrguid/frmrguid.htm](http://www.rural.org/frmrguid/frmrguid.htm)

This site contains a wealth of links related to farming, crops, livestock, states, and rural life. Maintained by the Rural Studies program at the Tennessee Valley Authority, these links are part of their new publication, *The Farmer's Guide to the Internet*. Information on how to order this book is also available at the site.

### Society of American Foresters

[www.safnet.org](http://www.safnet.org)

SAF's new web site made its debut on the Web at the 1996 annual convention in Albuquerque, NM. The site will help communicate SAF and forestry information not only to SAF members, but also to other researchers, scientists, teachers and natural resource professionals. It offers up-to-date information about SAF programs and services, including meetings and conventions, forest policy statements, publications, merchandise and membership.

### National Conservation Districts

[www.nacdnet.org](http://www.nacdnet.org)

The National Association of Conservation Districts (NACD) has a new Web site. It contains information on the nation's 3,000 local conservation districts, leg-

islation related to conservation issues, environmental education, meetings and events, and membership in NACD.

### Nonpoint Source Project Database

[www.terrene.org](http://www.terrene.org)

The Terrene Institute of Alexandria, VA maintains a fully searchable database related to nonpoint source pollution, and watershed protection and management. It is accessible at no charge via Terrene's home page. The Nonpoint Source Projects Database contains information on prevention and control projects conducted or compiled by a variety of agencies such as US EPA, USDA, University of North Carolina, and Renew America. Included is the Watershed Information Resource Database (WIRS), which currently indexes and abstracts over 5,000 documents related to watershed restoration, protection and management. Among the topics covered are aquatic ecology, watershed problems, point and nonpoint sources of pollution, watershed management/BMP's, water quality assessment, restoration, modeling and wetlands.

### Sustainable Agricultural Systems

[ianrwww.unl.edu/ianr/csas/](http://ianrwww.unl.edu/ianr/csas/)

The Center for Sustainable Agricultural Systems is located at the University of Nebraska at Lincoln, under the Institute of Agriculture and Natural Resources. The Center publishes a bimonthly newsletter and annual reports, some of which can be viewed on this site. Other pages describe their current activities which include the Integrated Farm and Sustainable Agriculture Training Program.

### California CRMP

[www.ceres.cs.gov/cacrmf/](http://www.ceres.cs.gov/cacrmf/)

Coordinate Resource Management and Planning (CRMP) is a process used for resource planning, problem solving, and management. The CRMP process emphasizes direct participation by everyone concerned with natural resource management in a given planning area. The concept underlying CRMP is that coordinating resource management strategies results in improved decision-making, and minimizes conflicts among land users, landowners, governmental agencies and interest groups. The general information about CRMP planning is applicable to other states. □



### American Tree Farm System

The American Tree Farm System is a nationwide community of more than 70,000 individuals and families joined by their desire for excellence in forest stewardship. They share a unique commitment: to protect watersheds and wildlife habitat, to conserve soil and provide recreation for their neighbors and, at the same time, to produce the wood America needs to grow.

Tree Farm is truly a local enterprise, run in large part by volunteers. State Tree Farm committees bring foresters from industry, consultants, and government together with experienced Tree Farmers to plan and administer the Tree Farm program in each state. State forestry associations often provide administrative support.

While each state Tree Farm program is self-governing, all work under guidelines developed by Tree Farm's National Operating Committee. Most members of the National Operating Committee are Tree Farmers and Tree Farm volunteers from around the nation. They work with representatives of industry and state forestry organizations to set overall policy and assure that the Tree Farm program meets the real needs of forest landowners.

### Qualifications for Certification

To qualify as a Tree Farmer, landowners must generally manage at least 10 acres of forest land. They must prepare and implement a written plan that details their management objectives and shows how they will provide for wildlife, recreation, water and soil conservation while producing timber. After their land is inspected by one of the 9,000 foresters who volunteer time to the American Tree Farm System, landowners are certified and earn the right to erect

the Tree Farm sign. Every five years thereafter, Tree Farms are reinspected to assure that landowners continue to meet the System's rigorous forestry certification criteria.

### Benefits of membership

Members in the American Tree Farm System enjoy several benefits:

- Membership in a network of professionals and fellow landowners who share their commitment to sound, sustainable forestry.
- Invitations to seminars, field days, and workshops that can help them learn how best to achieve the goals they've set for their Tree Farms.
- An annual convention where they can meet, share experiences and enjoy the fellowship of Tree Farmers from all over the nation.
- A free first-year subscription to *Tree Farmer: The Practical Guide to Sustainable Forestry*. It's the only national magazine specially designed for forest landowners -full of articles with easy-to-use information, product reviews and plans that can put to work right away on the Tree Farm.
- Opportunities, training and tools that will help them educate others about the benefits of excellent forestry -whether it's school children visiting the Tree Farm, other landowners who want to know more about management, or lawmakers looking to regulate forestry or set tax rates.
- An initial (free) inspection of their Tree Farm by a professional forester to help them meet Tree Farm System standards.

For more information about the American Tree Farm System, contact the American Forest Foundation, 1111 19<sup>th</sup> St. NW, Ste. 780, Washington, DC 20036, tel. 202-463-2472. □

### ► Agroforestry Workshop

stry practices on their farms. All three made excellent presentations. Joel Salatin, a livestock farmer from Virginia, is a great motivational speaker on the importance of trees on farms. He set the tone for the entire session. The audience was into the conference for the rest of the day.

Scott Persons is a ginseng farmer from North Carolina. He talked about growing ginseng in the woods,

and did such a good job that his books were sold out by noon. Bill Slagle is a uniquely innovative farmer from West Virginia. He talked a little on his ginseng production, more on his walnut plantations, and even more on his shiitake mushroom production. We were limited for time, so he couldn't talk about his other activities. The other speakers on the program were Extension Specialists discussing ginseng growing and markets in China, marketing agroforestry products, and developing a business plan. □



## Mark Your Calendar

**Agroforestry Satellite Broadcast**, March 20. See story this issue. For information, contact USDA National Agroforestry Center, East Campus-UNL, Lincoln, NE 68583, Tel. 402-437-5178.

**Midwest Agroforestry Workshop**, June 11-13, West Lafayette, Indiana. Representatives of eight Midwestern states will meet to learn about agroforestry practices and to initiate the formation of a Midwest Agroforestry Association within AFTA. For information, contact Michael Majeski, US Forest Service, 1992 Folwell Ave., St. Paul, MN 55108, Tel 612-649-5240, Fax 612-649-5238.

**Agroforestry for Sustainable Land Use: Fundamental Research and Modelling**, June 23-28, Montpellier, France. For information, contact Daniel Auclair, CIRAD / INRA, Unite de modelisation des plantes, B.P. 5035, 34032 Montpellier cedex 1, France, Tel +33-67-59-38-57, Fax +33-67-59-38-58, e-mail: auclair@cirad.fr.

**Soil and Water Conservation Society**, July 23-26, Toronto, Ontario. The theme of this year's annual conference will be "Managing Ecosystems on a Watershed Basis." For information, contact Nancy Herselius, SWCS Meetings Coordinator, tel. 515-289-2331, ext. 18, or see the Web page at [www.swcs.org](http://www.swcs.org).

**Fifth North American Agroforestry Conference**, August 3-6, Ithaca, NY. The theme will be "Challenges for Agroforestry in Changing Rural Landscapes." For information, contact Barbara Cliff, Dept. of Natural Resources, 118 Fernow Hall, Cornell University, Ithaca, NY 14853-3001, Tel 607-255-2810, Fax 255-0349. Information is also available on AFTA's Web site at [www.missouri.edu/~c648324/afta/afta\\_home.html](http://www.missouri.edu/~c648324/afta/afta_home.html). □



## New in Print

### Agriculture and Environment Conference

This collection of 36 papers from a 1995 conference held at Tufts University offers examples of agricultural systems that benefit the environment in diverse ways. Topics include: increasing wildlife habitat and biodiversity, water quality protection, substitutes for nonrenewable energy sources, urban waste recycling, landscape aesthetics, and bringing urban residents into closer contact with food production and the land. The conference was co-sponsored by Tufts, American Farmland Trust, and the Henry A. Wallace Institute for Alternative Agriculture.

For copies of *Environmental Enhancement Through Agriculture*, send a check payable to "Trustees of Tufts College" for \$20 (postpaid) to Center for Agriculture, Food and Environment, School of Nutrition, Science and Policy, Tufts University, Medford, MA 02155.

### Books, Seeds and Plants from UK

The Agroforestry Research Trust in Devon, UK, has issued their 1996/7 catalog of books, seeds and plants. ART has compiled an extensive amount of information about multipurpose plants suitable for tem-

perate climates, including trees, shrubs, annual, perennials, fungi, tubers, etc. Back issues of their quarterly newsletter, *Agroforestry News*, are also available; the catalog lists the contents of each issue. ART also operates a mail-order nursery supplying seed and seedlings of many different species. The catalog contains brief descriptions of the growth habits, temperature tolerances and uses of over 200 species.

Agroforestry Research Trust, 46 Hunters Moon, Dartington, Totnes, Devon, TQ9 6JT, UK.

### Riparian Forestry

The proceedings of a conference, "At the Water's Edge: The Science of Riparian Forestry," has been published by the University of Minnesota. Papers from the 1995 conference contain the latest research on the biological, physical, social, economic and cultural values of riparian forest areas and the effects of forestry practices on these values.

*At the Water's Edge: The Science of Riparian Forestry*, BU-6637-SL, \$20 plus \$4 shipping (MN residents add 7% sales tax). Order from University of Minnesota, MES Distribution Center, 1420 Eckles Ave., St. Paul, MN 55108-6069. □



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## Membership Application and Renewal

Membership in the Association for Temperate Agroforestry includes a subscription to our quarterly newsletter, discounts on AFTA publications, and reduced registration fees for meetings sponsored by AFTA.

**Annual Dues:** Individuals and Families: 1 year \$25, 2 years \$45, 3 years \$60; Student \$10; Sustaining \$50; Lifetime \$300; Corporate and Institutions (non-voting) \$40; Nonprofit Organizations (non-voting) \$20

**Overseas Postage:** For all addresses outside the US, add the following amounts to the above membership/subscription rates: Canada/Mexico, \$5 per year; All Other Countries \$10 per year.

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Main Agroforestry Interests \_\_\_\_\_

Recruited by (new members): \_\_\_\_\_

Please make your check (U.S. dollars) payable to AFTA, and send along with your application and dues to AFTA, c/o Dr. Deborah Hill, Treasurer, Forestry Dept., University of Kentucky, Lexington, KY 40546-0073, USA.