



The **Temperate Agroforester**

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Make Plans to Attend Agroforestry Conference in Hot Springs

By Catalino Blanche, Conference Co-Chair

All AFTA members and their guests are invited to attend the Sixth Conference on Agroforestry in North America, titled "Land Use Management for the Future." The conference will be held at the Arlington Resort Hotel in Hot Springs, Arkansas on June 12-16, 1999. It promises to be AFTA's largest-ever biennial conference.

The Sixth Conference on Agroforestry in North America will highlight the potential for agroforestry-based land management systems in rural communities. Agroforestry practices can be used individually or in combination to create management systems that conserve natural resources and sustain commercial commodity production. This biological approach to comprehensive land utilization and its impact on small farm productivity and rural economic development will be addressed through plenary and contributing speakers, poster sessions, landowner presentations, and field trips. In addition to concurrent sessions on the fundamental aspects of the five principal agroforestry practices, the technical program will include sessions on water quality, soil management, wildlife management, rural economic development, small farm management, carbon sequestration, and short rotation woody crop production.

The information presented at the Conference will be disseminated in an array of publications that include a Technical Proceedings, a Field Use Manual, an Executive Summary, a Summary for Policy Makers, and a special issue of *Agroforestry Systems*. Potential attendees include agroforestry researchers, land use policy makers, public and private land use practitio-

ners, extension and resource agency personnel, land use educators, and all AFTA members.

New Program Features

We plan to introduce a few new program elements at the conference in Hot Springs that have not been included in past biennial agroforestry conferences. First, on Saturday, June 12, there will be an "agroforestry academy" for which participants can earn continuing education units (CEUs). The two topics for the academy are: Evaluating Agroforestry Options (8:00-11:30 AM, \$35 fee), and Basic Internet for Agroforestry (1:00-3:30 PM, \$25 fee). Class size is limited and therefore enrollment will be on a first-

come, first-served basis. Make sure that you pre-register for one or both courses to get a chance to learn new technologies for agroforestry. The outlines for these two courses are available upon request.

Second, we will have a pre-conference tour on Sunday, June 13 from 7:00 AM to 3:00 PM. Highlights of the tour will include the Heifer Project International, Winrock International, USDA ARS-Winrock Research Project on silvopastoral configurations, lunch at the Petit Jean State Park, and a visit to landowner Bob Carruthers' Pecan/wheat/soybean alley cropping system. The pre-conference tour costs \$40 and pre-registration is required, as we need a critical mass of 30 participants for the tour to proceed. Mark Powell of Winrock International is pre-conference



The Arlington Hotel, site of the 6th Conference on Agroforestry.

► **Agroforestry Conference, p. 4**

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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 and Subscriptions

Regular: 1 year \$25, 2 years \$45, 3 years \$60;
Student \$10; Sustaining \$50; Lifetime \$300.

Non-voting: Institutions \$50, Nonprofits \$25.

Overseas Postage: Canada/Mexico, add \$5 per year; All other countries, add \$10 per year.

Send your check payable to AFTA in US dollars to:
AFTA, c/o Center for Agroforestry, 203 ABNR,
University of Missouri, Columbia, MO 65211.

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 mlm1@teleport.com

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President's Message

Happy New Year!

By Joe Colletti, AFTA President

As we all gear up for another year, it is appropriate to recognize significant 1998 events in the growing history of AFTA. In late July, we had a membership meeting in Columbia, Missouri hosted by the University of Missouri. In the past we have met at the roving, biennial North American Agroforestry Conference. Now we shall meet annually with the non-conference year meeting likely to be more field-oriented and much shorter in duration.

On the administrative side, the Board of Directors embarked last year on a strategic planning process to chart AFTA's growth and future activities. Part of our future involves attainment of tax-exempt charitable status by the IRS; we are awaiting word on our application since the necessary forms were filed last fall.

As a charitable organization, AFTA could actively engage in fund raising, seek and give grants, and expand our mission to advance the knowledge and application of agroforestry in temperate zones. On behalf of the Board, I wish to solicit AFTA members who might be interested in serving on our new Fund Raising Committee. If you are interested, or know of an AFTA member with particular talents in the area of writing grants to foundations and overall fund raising, please contact me, Peter Schaefer (President Elect), or Miles Merwin (Editor). We are excited about the possibilities that an energized Fund Raising Committee can cause to become true for AFTA.

I would be remiss if I did not highlight the excellent planning work of Catalino Blanche, Terry Clason, Jim Robinson, Charles Feldhake, and others involved with the Sixth Conference on Agroforestry in North America, slated for June 12-16, 1999 at the Arlington Resort Hotel and Spa in Hot Springs, Arkansas. Make plans to join us there.

As part of the conference, AFTA will hold a Silent Auction as a fund-raiser. Please consider making a donation to the Silent Auction. It would be neat to have items at the auction from many states and associated with various agroforestry practices. Please see the article in this newsletter for more info.

Well, that's about all for this first newsletter of 1999. Take care and keep advancing AFTA and agroforestry!

Web



Extra

When you see this symbol at the end of a story in the *Temperate Agroforester*, it indicates that further information related to that story is available on the AFTA website (www.missouri.edu/~afta/).

Directors Vote to Annualize Membership Renewal Process

The AFTA Board of Directors held a telephone conference call on Dec. 16, 1998. Following is a summary of the minutes of the meeting.

Dues Renewal

In an effort to streamline the membership renewal process, it was proposed that members be asked to renew on an annual basis rather than the current quarterly system. Under the current procedure, members are billed for their annual dues on the anniversary of the calendar quarter in which they first joined.

The directors passed a resolution calling for members to be billed for annual dues in October or November for the next calendar year. Payments will be due by January 1, and those who have not renewed by March 1 will be dropped from the membership roll. Since changing to an annual renewal system also requires amendment of the membership provisions in the current Bylaws, the directors further acted to put a resolution to that end before the members in April 1999.

Transition to the new procedure will begin this year. Those members whose memberships are due for renewal during the first half of 1999 will receive invoices this month. Then everyone will be billed in late October or November for their year 2000 dues, except those who have paid several years in advance.

Silent Auction Committee

The Directors appointed a committee to coordinate the silent auction to be held during the June agroforestry conference in Hot Springs, AR (see article in this issue). Jim Robinson will chair the committee, aided by Joe Colletti and Miles Merwin. Individual directors will seek contributions of goods and services for the auction from institutions and companies.

Treasurer's Report

Since the current Treasurer has not been available to perform her duties, the Board appointed Sandy Hodge as Acting Treasurer until the election of her successor this spring. Until then, she will also continue her duties as Secretary. Sandy reported that, as of the meeting date, AFTA had approximately

\$12,000 in the bank.

New Logo

The Board gave its approval to contracting with a professional graphics designer to create a new logo for AFTA. A subcommittee, consisting of Miles Merwin (chair), Jim Brandle, Gene Garrett and Pete Schaefer, was appointed to work with the designer and to make recommendations to the Board which will decide on the final version. The new logo should be finished before the agroforestry conference in June.

Fund Raising Committee

It was proposed that the Board appoint a new Fund Raising Committee to prepare and submit grant applications to foundations and government agencies. Directors felt that the committee should have representatives from the Board, the Regional Council and the membership at large. Since this committee will have a very important role in the future development of AFTA, grant writing experience will be an important qualification for participation. Before appointing the committee at its next meeting, the Board wishes to hear from any AFTA member who is interested in serving on the Fund Raising Committee (contact President Joe Colletti).

Candidates Needed for Board Elections

In April 1999, AFTA members will elect a new President-Elect, Secretary, Treasurer and three Directors at large to two year terms of office. Candidates are needed for these positions, and members are invited to nominate themselves or anyone else they feel would be willing and able to serve AFTA. Please send the names of those you wish to nominate for each office to Joe Colletti, AFTA President, 243 Bessey Hall, Iowa State University, Ames, IA 50011, Tel. 515-294-4912, Fax 294-2995, Email colletti@iastate.edu. **Nominations will close on March 31, 1999.**

Other Business

The Directors were informed that AFTA filed its application last October to the IRS for recognition as a 501(c)(3) charitable and educational organization, and that a response has not yet been received. A "members only" area of AFTA web site was proposed, which would include information of interest primarily to AFTA members (e.g., past newsletters, meeting announcements, special offers, etc.); further consideration was deferred until the next meeting.

The next meeting of the AFTA Board is scheduled for March 10 via telephone conference call. The next in-person meeting of the Board will be held during the Sixth Conference on Agroforestry in North America in June 1999; members will be welcome. □

HOTEL and TRAVEL INFORMATION

Accommodations The Arlington Resort Hotel & Spa

P.O. Box 5652
Hot Springs, AR 71902
Tel. 800-643-1502, Fax 501-
623-6191
www.arlingtonhotel.com

Special Conference Daily Room Rates

(Available only 'til April 30):
Single w/king bed - \$64
Double w/king or 2 double
beds - \$74
Mineral water room - \$160
Mini suite - \$160

Downtowner Hotel

Tel. 800-251-1962, Fax 501-
624-4635
www.angelfire.com/ar/
downtownerhs/
Room rate - \$47/night

Travel Information

Hot Springs Convention and
Visitors Bureau
P.O. Box K, Hot Springs Na-
tional Park, AR 71902
Tel. 800-SPA-CITY
www.hotspots.org

Little Rock - Hot Springs
Shuttle Service
Tel. 501-321-9911

For more information, con-
tact Dr. Catalino Blanche,
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Farms Research Center, 6883
South State Hwy. 23, Boonev-
ille, AR 72927, Tel. 501-675-
3834, Fax 501-675-2940, E-
mail cblanche@yell.com.

Web



Extra

► Agroforestry Conference

tour Co-chair. (See story in this issue for more information.)

Third, we will have a silent auction during the conference as an AFTA fund-raiser. Your help is needed with donations of items for the auction; please see the article in this newsletter for details.

AFTA Meeting and Conference Program

Following the opening icebreaker reception and dinner on Sunday, June 13 (5:00-7:00 PM), the annual members' meeting of AFTA will be held at 7:00 PM at the Arlington Hotel. Members, spouses and guests are welcome to attend the meeting and meet the officers of their association. Presentations will update the members on current and future activities.

On Monday, June 14, the conference will open with a general session, followed by two concurrent sessions of paper presentations. The poster session will be held that evening from 7:00-10:00 PM.

Participants will depart the next morning at 8:00 AM for an all-day field tour featuring agroforestry practices on small farms in Arkansas and northern Louisiana. The tour will include a visit to agroforestry research trials at the LSU Hill Farm Research Station in Homer, LA.

The third and final day of the conference will include two concurrent sessions. The closing general session will conclude at 5:00 PM.

Accommodations and Registration

Plan this conference as a part of your vacation and bring the family. A special program for spouses during the conference has been arranged by the Hot Springs Convention and Visitors Bureau (contact person is Shanna Dickson). The CVB has lots of information about things to do in Hot Springs. If you haven't experienced a natural hot spring bath with therapeutic effect, this is your chance of a lifetime!

The Arlington Resort Hotel and Spa is a 484-room, award-winning resort nestled in the beautiful Ouachita Mountains of Hot Springs National Park. Two hundred rooms have been reserved for the conference at a special daily rate. The cut-off date for these rates is April 30, 1999. Participants also have the option of staying at the Downtowner Hotel, just a block away from the Arlington.

As usual, participants are responsible for making their own lodging arrangements. I encourage you to make reservations as early as possible since we anticipate a big turnout. Hot Springs is a busy resort area at that time of the year, and another big conference (American Poultry Growers Association with about 5,000 members) will take place at the same time. See the sidebar for hotel rate and contact information.

We are working very hard on a reduced registration rate, probably in the neighborhood of \$100 for regular registrants and \$60 for students. We will have scholarships available to help bring students to the conference. Current members of AFTA will receive a discount on registration fees. Registration information and forms will be mailed out automatically to all AFTA members, probably in February.

Complete details on the conference program and registration will be posted as soon as they are available on AFTA's home page (www.missouri.edu/~afta/), and in the next issue of the *Temperate Agroforester*. □

Your Help Needed to Make Silent Auction a Success

A new feature of this year's North American Agroforestry Conference will be a silent auction of items donated for the benefit of AFTA. The silent auction of both goods and services will be conducted during the conference, and the proceeds will go toward supporting AFTA's nonprofit, educational programs. The success of this fund raising event for AFTA will depend largely upon the generosity of AFTA members in contributing high-quality items for auction.

Conference planning committee and AFTA member Jim Robinson has volunteered to coordinate arrangements for the auction. Jim asks all AFTA members to help by contributing items for the silent auction themselves, or by soliciting contributions from their employers or other companies. There's no limit on the types of items that could be donated for the auction, e.g. crafts, books, tools, gift certificates, consulting services, etc. Items related to agroforestry, farming, livestock, resource conservation, rural enterprises, trees and forestry would be of particular interest to conference participants.

Donations from companies and organizations are welcome. These could include product samples, memberships, magazine subscriptions, etc. Services can

also be donated for the silent auction, e.g., a site visit by a farm or forestry consultant. If appropriate, the geographical limit for donated services should be specified.

During the agroforestry conference in Hot Springs, donated items will be displayed for several days. Each item will have a bid sheet on which participants can write their bids. After the silent auction closes and before the end of the conference, the winning bidders will be able to pay for and collect their prizes. Look for more details on the silent auction in your conference registration packet.

Jim Robinson asks that everyone who plans to donate goods or services, or to solicit donations from companies, please contact him as soon as possible but **no later than June 1**. Please send a description of the item, your estimate of its fair market value, and your name, address and phone. If the product or service is from a company or organization, please include the name, address and phone of the contact person.

Jim Robinson, c/o USDA Natural Resources Conservation Service, PO Box 6567, Ft. Worth, TX 76115-0567, Tel. 817-509-3215, ext. 3624, Fax 817-509-3210, Email jrobinso@ftw.nrcs.usda.gov. □

Highlights of Pre-Conference Tour Announced

An all-day tour on June 13, before the opening of the Sixth North American Conference on Agroforestry, will visit the following stops:

Heifer Project International (HPI). This is a NGO project located in Perryville, Arkansas about one hour's drive from Hot Springs. This is one of the leading commercial cattle breeding programs of the world. HPI has demonstration facilities depicting the farming systems and livelihood of developing countries. This is one place that you should see to have an appreciation of sustainable farming systems as practiced in developing countries.

Winrock International. This facility is located on top of Petit Jean Mountain. Winrock International has a large program on agroforestry primarily in the tropics. If you are interested in international agroforestry, this is one place you would not want to miss. Winrock Farm is co-located with Winrock International. Silvopastoral projects of the USDA ARS are established here. Loblolly shortleaf pine stands of different tree row configurations (single row, double row and quadruple row) separated by wide alleys of

40 ft are being monitored for forage, wood and pine straw production. The effect of pruning on these three production variables is likewise being investigated. This area is being grazed annually.

Petit Jean State Park. Lunch will be served at the Petit Jean State Park which is adjacent to Winrock International. Participants will have opportunities to see the waterfalls and enjoy spectacular views.

Bob Carruthers' Agroforestry Project. This farm is located in Morrilton, Arkansas, about 30 minutes drive from Petit Jean State Park. Bob's agroforestry project is a unique operation that uses scientific knowledge and advanced technology. He has 500 acres of pecan alley-cropped with wheat in winter and soybeans in summer. His pecan trees started bearing nuts after only 4 years. More interestingly, his alley crops of wheat and soybeans have recouped 40% of his project establishment cost. Another interesting project of Bob's is on the herb, catnip. He has a standing order for 60,000 lbs per year that grosses \$180,000 from a twelve-acre site. Bob was the first in Arkansas to go into pine straw harvesting. □

MN Hosts *Farming the Agroforest for Specialty Products*

By Miles Merwin, Editor

An exciting and informative “meeting of minds” took place October 4-7, 1998 when 175 people gathered in Minneapolis for the first North American Conference on Enterprise Development Through Agroforestry: Farming the Agroforest for Specialty Products. The conference planning committee, lead by Scott Josiah of the University of Minnesota, designed the meeting to facilitate information exchange and personal interaction among the participants. The event was successful in bringing together a diverse group of practitioners, academics, extensionists, and entrepreneurs to share knowledge and discover common interests in agroforestry.

Rural economic development was the underlying theme throughout the conference sessions. Thus the emphasis was on hands-on or extension information rather than scientific research results. Participants learned first hand about the challenges of business development and marketing from farmers and small business owners, while presentations from the public and academic sectors provided a broader perspective for these individual “success stories.”

Forest farming to produce special forest products (SFP) could be an “engine” of rural economic development, according to Scott Josiah. The whole range of SFP’s were covered in one or more presentations: florals, botanicals, medicinals, landscaping materials, handicraft items, food crops, Christmas trees and specialty hardwoods.

Forest farming produces economically-valuable products that can only be grown under the microclimatic and edaphic conditions of a forested environment. The conference sought to show how cultivation of these unique products can provide income opportunities for rural landowners. (Perhaps there should be a new term, other than special forest products, to distinguish products produced through cultivation as opposed to gathering, e.g., “Agroforest Products.”)

From Wildcrafting to Cultivation

Several speakers stressed the differences between gathering of native wild plants for sale (wildcrafting) versus intensive cultivation of understory plants as part of forest management (forest farming). Keynote speaker Adella Backiel, Director of Sustainable Development at USDA, said that wild-harvesting can have a deleterious impact on populations of native plants.

Louise Buck of Cornell University said that wildcrafters often operate through “informal economies” and, since demand often exceeds supply, they have little incentive to conserve plant resources. The transition from wildcrafting to intentional cultivation, they said, would bring greater economic stability to rural dwellers and also reduce harvest pressure on native plant populations.

Economic Development

Adella Backiel said that agroforestry can help improve the economic and social sustainability of rural communities, and conserve the natural resources upon which they depend. Forest farming can expand the range of existing farm enterprises, she said, and help keep farms and ranches economically viable, particularly those near urban areas. Farm business lenders and insurance companies need to be informed, she said, about the real risks and opportunities in forest farming so that its image will eventually move from “alternative” to “mainstream.”

Using examples from the Upper Peninsula of Michigan, Marla Emery of the US Forest Service said that special forest products are economically and socially important to country dwellers. Rural, resource-based economies are characterized by boom and bust cycles, shortfalls and uncertainty, she said. Over 130 different SFP’s are harvested in the Upper Peninsula for personal consumption, gifts or sale, Marla said, and they provide small but important sources of money to help families cope with seasonal gaps in employment income, catastrophic downturns and special needs. She noted, however, that income from special forest products harvesting often provides less income than a minimum wage job.

Marketing of Agroforest Products

In the Pacific Northwest, the potential role of special forest products in rural, resource-based communities has also been studied. Jim Freed of Washington State University cautioned that they cannot realistically replace high wage jobs from commodity industries, e.g. sawmills. In wildcrafting, the retailer of raw or processed wild products may receive up to 27 times what the gatherer receives for their effort. This low return plus the often-limited supply of wild native plants does not support a “commodity” approach to

SFP production.

Jim suggested that “direct wholesaling” of special forest products promises a greater return for producers. The goal should be to produce a reliable supply of a range of products rather than maximizing production of any one, he said. New markets can be developed through personal contacts with local buyers such as florists, restaurants and nurseries. Marketing directly to consumers can also be profitable through farmers markets, community-supported agriculture and stalls in urban areas where people gather such as park-and-ride lots. Rural tourism is another opportunity for landowners to sell direct to consumers, Jim said; for example, U-pick wild mushrooms in specially-managed private forests.

New food and herbal products are constantly being introduced in America, Jim noted. A growing number of consumers believe that “natural” products are better, and are willing to pay premium prices for them, he said. Special forest products will appeal to “green” and health-conscious consumers as long as they are safe and of high quality. Agroforest products can also be sold to processors of ethnic foods who serve growing markets, Jim said.

Who Are the Entrepreneurs?

Several speakers examined the likelihood for different types of rural landowners to successfully develop new income-generating enterprises based on forest farming or SFP’s. Jonathan Kays of Maryland Cooperative Extension said that entrepreneurial success depends on motivation, self-reliance, a realistic look at goals and markets, and, perhaps most importantly, a second off-farm income.

Different landowners have different skills and motivations, he said. For example, traditional farmers are seeking diversified sources of income and improved cash flow when other crops are not being harvested. Part-time farmers want to supplement income from their regular job, he said, and may be highly motivated to start new enterprises. “Urban returnees” are seeking a rural lifestyle and need more technical assistance to get started with a new venture. Many nonindustrial forest landowners are more interested in special forest products for personal use than for sale, he said. In his experience, Kays said that only 1-5% of all rural landowners who obtain extension information will actually start a new enterprise.

Several entrepreneurs who have successfully developed forest farming enterprises spoke at the conference. Among them was Richo Cech of Horizon Herbs

in Williams, Oregon, who described their system of cultivated beds under a thinned forest canopy to grow a wide variety of medicinal herbs. Ed Fletcher of Wilcox Natural Products in Boone, North Carolina, discussed the large scale cultivation of forestland medicinal plants such as goldenseal and echinacea. Both speakers noted that more knowledge is needed of the effects of cultivation and forest canopy management practices on the concentration of active medicinal compounds in plants produced by forest farming.

Forest Management

Shelby Jones of the Missouri Dept. of Natural Resources said that special forest products can be an important source of income for private forest land owners during the years before any timber is harvested. Citing examples from Missouri, Jones said that annual income streams from the forest can provide landowners with the necessary financial support to undertake long-term forest management that may only produce timber revenue once in a generation.

According to Steven Arnold, of Menominee Tribal Enterprises in Wisconsin, the 230,000 acre Menominee Forest is the largest contiguous old growth forest east of the Mississippi. He described how the tribe has earned recognition of its sustainable management of the forest through independent certification from the Smartwood program. Many special forest products have important cultural values for Native Americans, he said, and are a complementary component of the Menominee Tribe’s overall management strategy.

The production of special forest products may be either an opportunistic or deterministic result of forest management, according to John Davis, US Forest Service. Manipulation of the forest environment to produce a reliable supply of several SFP’s at a time is preferable, he said, to trying to maximize production of any one understory plant. He noted that as conditions in the forest environment change over time, the mix of SFP’s that can be produced will also change.

Agroforest products can also be integrated with conservation-driven agroforestry practices. Bruno Moser of Purdue University discussed the production of ornamental flowering shrubs within riparian buffer strips. Shrubs such as red osier dogwood are well adapted to riparian areas, add to the filtering capacity of the buffer strip, and are in demand from the florist trade. □



Southern Agroforestry Research Focus of Alabama Conference

By Phil Cannon, Alabama A&M University, Normal, AL

The Southern Agroforestry Conference was held at the Hilton Hotel of Huntsville, Alabama from Oct. 19-21, 1998. It endeavored to involve active proponents of agroforestry in Alabama and neighboring states. Since it was the first time for a conference on this theme in Alabama, the large majority of the meeting was dedicated to coming to a more widely shared appreciation of existing agroforestry activities in the region.

In the opening session, Jim Robinson spoke of the activities of the National Agroforestry Center and elaborated on the stateside testing of a model developed in New Zealand for predicting the returns when various silvopastoral options are chosen. P.K. Nair spoke of agroforestry at the international level with dozens of extraordinary examples from the tropics. Gene Garrett spoke on past and future agroforestry research at the Center for Agroforestry at the University of Missouri and Catalino Blanche showed several examples of the agroforestry (largely silvopastoral) research being conducted at the Dale Bumpers Small Farms Research Station in Arkansas.

In the mornings of the second and third day, 18 speakers gave examples of agroforestry systems that they had researched. What became apparent was that there were a couple of well studied silvopastoral systems which had been shown to be very successful and far more productive in economic terms than grazing alone. The Southeastern Coastal Plain (warm, humid, sandy-soiled) is the physiographic area which has been demonstrated to be conducive to these silvopastoral systems, but there were also indications that these, or similar systems, might also work in an adjacent physiographic region (low rolling hills-slightly cooler-clayier soils). It was estimated that millions, and perhaps even tens of millions of acres of the South might be apt for silvopastoral systems. A highlight of the conference was having Henry Pearson's strong participation; he has been a cornerstone for silvopastoral research in the SE for over 30 years.

Riparian management was another focus of attention. There are over 6,000,000 ha of riparian forests in the South and yet most of the streams of the region run brown after a good rain, an indicator that non-point source pollution is rampant and that more strategically-located forests are needed. Technical explanations were offered on why trees are useful in ri-

parian settings and how to best deploy them.

A large number of forest farming ideas appropriate for the Kentucky region were presented. From this presentation, it was apparent that forest farming options for the deep South have not been as exhaustively explored as in some other parts of the country.

Several alley cropping experiments were explained. Generally, alley cropping systems useful in the tropics, where the tree component is relied on to help improve soil fertility, control erosion, temper the microclimate, improve soil organic matter and reduce weed competition, probably would have little place in mainstream US agriculture because inexpensive chemical and mechanical means are available to confer many of these benefits. The exception would be where chemical-free organic farming is being practiced.

A variation of this alley cropping system is also being explored. In this sub-system, there is also a focus on producing high-value merchantable boles from the trees in the rows which separate the alleys. This sub-system is very similar to the alley cropping with walnut that has become so popular in the Lake States, except that, since walnuts are mediocre performers on most sites in the South, alternative high-value hardwood species are being screened.

The one "classical" agroforestry system which was not represented is that of windbreaks. It is not common to use windbreaks in the South since few benefits of doing so have been documented. However, there are millions of kilometers of property and field boundaries in the South, and most of these have trees and brush growing in them which are so poorly formed that their wood could not have a value greater than the going price of biomass. A case was made that in some of these lines, trees could be planted and cultivated to produce high value butt logs. The choice of species and cultivation techniques would be similar to the choices made for the trees in alley cropping arrangements.

The conference concluded with a brainstorming session on agroforestry extension needs for the South. An extension unit is badly needed to handle the tasks set forth by the conference participants. □

For further information regarding the conference or availability of the proceedings, contact Dr. Phil Cannon, Center for Forestry and Ecology, Alabama A&M University, PO Box 1208, Normal, AL 35762.

Silvopastoral Practices for Small Farm Management

By Terry Clason, Louisiana State University, Homer, LA

The financial potential and environmental impact of agroforestry practices are being evaluated on approximately 300 acres of land at the Hill Farm Research Station, Homer, LA. Currently, the land base is comprised of loblolly pine silvopastures, loblolly pine plantations, and open pastures.

Long-term objectives are to determine the potential for annual timber harvests and for maintaining livestock ownership through a timber production cycle. Intermediate objectives are to determine the impact of the interactive competition between the tree and forage crops on timber and livestock productivity.

Tree crop growth plays a pivotal role in the success of a silvopasture because tree to tree competition influences both timber and forage production. Reducing the number of trees, altering the spatial arrangement of the trees, and manipulating canopy size can control the competitive impact of the tree crop. Since the study area contains six different tree-age classes, five types of spatial arrangement and an array of pruning options, the impact of

timber management practices can be evaluated in a chronosequential manner. Tree crop establishment practices include planting density rates from 680 to 220 trees per acre and spatial arrangements of one, two and three row sets planted on 8, 12, 16, 24, and 32 ft. centers.

Intermediate harvests will reduce tree density to 50, 75, 100, or 150 trees per acre at ages 10 and 15, and final harvest are planned for ages 25, 35, and 45. Mechanical and chemical pruning methods are being used to manipulate canopy size at ages 4, 7, and 10. Tree growth rate and quality characteristics will be evaluated in response to annual N fertilization, reduced tree densities, and damage from hail and ice.

The influence of timber management practices on

the performance of perennial warm-season (bahia-grass, common bermudagrass, and Coastal bermudagrass) and annual cool-season forage crops (ryegrass and subterranean clover) will be evaluated at tree canopy densities of 0, 50, 75, 100, and 150 trees per acre for varying tree ages. Fertilization applications will include either N at 100 or 200 lbs. per acre combined with a basic pasture mix of P, K, and S, or broiler litter at 2 and 4 tons per acre.

Potential for alley crop hay production will be investigated in tree spatial arrangements of one, two, and three row sets planted on 16, 24, and 32 foot-centers. Electric fencing and portable watering systems are being used to develop rotational grazing systems

and to provide remedial riparian zones along streams and existing ponds.

Beef cattle production under a tree canopy is being evaluated by comparing cow/calf productivity on open pasture with silvopastoral productivity. Both open pastures and silvopastures are being managed to sustain 9 months of grazing by overseeding a

warm-season perennial forage with ryegrass and/or subterranean clover.

Both pasture types are being rotationally grazed at a stocking of 1 animal unit per acre and pasture productivity is being measured by cow weight changes, body condition scores, cow pregnancy rates, and calf weaning weights. Although weather conditions in 1998 limited stocking to 0.5 animals per acre, animal performance was similar on both pasture types. Cow weight changes, cow body condition scores, cow pregnancy rates, and 205-day calf weaning weights averaged +60 lbs, 5.7, 100%, and 540 lbs, respectively. In addition to beef cattle production, the study area will be used to evaluate the potential to background dairy heifers in a silvopastoral situation. □



Cattle graze in a silvopasture with loblolly pine at the Hill Farm Research Station near Homer, LA, a featured stop on the 6th Agroforestry Conference field tour. (Photo: T. Clason)



Tropical Agroforestry Newsletter

www.agroforester.com/overstory/

The Overstory is a free, biweekly e-mail newsletter for agroforesters, gardeners, researchers, professionals, and enthusiasts, reaching subscribers in 57 countries. Each issue focuses on practical concepts for tropical agricultural systems using trees and other perennial plants. Recent topics include: Nitrogen Fixing Trees, Multipurpose Palms, Agroforestry, Mycorrhizae, Understory Crops, and Perennial Leaf Vegetables. For a sampling of past issues, visit www.agroforester.com/overstory/osprev.html.

To subscribe (or unsubscribe) please send an e-mail to overstory@agroforester.com with the subject "subscribe" (or "unsubscribe") and in the body of the message: 1) your name, 2) e-mail address, 3) organization or project name, and 4) your location (country, state). For info, contact the Editors, Craig Elevitch and Kim Wilkinson, The Overstory, PO Box 428, Holualoa, Hawaii 96725 USA, Tel. 808-324-4427, Fax 808-324-4129.

National Resource Inventory Update

www.nhq.nrcs.usda.gov/NRI/1997update/

Every five years, NRCS conducts the NRI to provide a progress report of the land on national, state and local watersheds, or other sub-state levels. This report offers landowners, legislators and policy makers a record of the accomplishments that have been made in conservation as well as the problems that still exist.

This special report provides data taken from 6,000 sampling sites across the country, supplemented by data collected in 1995 and 1996. It gives information on changes in erosion, cropland use and conservation practices and is statistically reliable for national analysis. The full 1997 National Resources Inventory report, which will be released next year, covers 800,000 sample points and 170 data elements.

The complete 1997 "state of the land update" is also available in print from Resources Inventory Division, USDA-Natural Resources Conservation Service, P.O. Box 2890, Washington, D.C. 20013, Tel. (202) 720-1881. □



New in Print

Forest Pharmacy

Forest Pharmacy: Medicinal Plants in American Forests by Steven Foster traces the history of North American plant medicines, anchoring the discussion in a European and Asian context. It examines Native groups and colonial use of forest based medicines. The 57-page booklet identifies 120 trees, herbaceous plants and shrubs listed for their medicinal values. Another 14 plants are discussed in more detail with photos, including ginseng, goldenseal, Passionflower, mayapple, bloodroot, Pacific and English yews, foxglove, lobelia, evening primrose, echinacea, Mormon tea, sassafras, and saw palmetto. The booklet concludes with a discussion regarding the regulation of medicinals, patent laws, dietary supplements and challenges for the future.

Forest Pharmacy: Medicinal Plants in American Forests, Steven Foster. Send check for \$9.95, payable to Forest History Society, 701 Vickers Ave., Durham, NC, 27701, Tel. (919) 682-9319.

Income Opportunities on Private Lands

The proceedings of the *Natural Resources Income Opportunities on Private Lands* Conference, April 5-7, 1998, in Hagerstown, Maryland, are now available for purchase. The 288-page proceedings is divided into eight sections and covers the presentations made by 38 speakers, including landowners, consultants, Cooperative Extension staff, lawyers, foresters and others. Topics covered in the proceedings include: trends in recreation and policy, legal liability, marketing, evaluating the resource potential of your property, challenges, and management concerns, such as managing risk, insurance needs, estate planning, and taxes. Papers are included on specific enterprises related to recreational tourism, recreational access, and forest farming and utilization.

Make a check for \$20 payable to the Washington Co. Extension Advisory Council, and send it to: Conference Proceedings, Washington County Extension, 1260 Maryland Avenue, Hagerstown, MD 21740. □



Mark Your Calendar

Hybrid Poplars in the Pacific Northwest: Culture, Commerce and Capability, April 7-9, 1999 in Pasco, Washington. Sponsored by the Society of American Foresters. For information, contact Keith A. Blatner, Dept of Natural Resource Sciences, PO Box 646410, Washington State University, Pullman, WA 99164-6410, Tel. 509-335-6166, Fax 509-335-7862, Email dog1@cahe.wsu.edu.

Urban Riparian Buffer Conference, April 21-22, 1999, Hartford/Springfield, Connecticut. Sponsored by the Southern New England Chapter of the Soil and Water Conservation Society. For information, contact SWCS, P.O. Box 262, Storrs, CT 06268, Tel. 401-822-8829, Email jpashnik@prodigy.net.

Sixth Conference on Agroforestry in North America, June 12-16, 1999, Hot Springs, Arkansas. The theme will be "Sustainable Land-Use Management for the 21st Century." For information, contact Dr. Catalino A. Blanche, Dale Bumpers Small Farms Research Center, 6883 South State Hwy 23, Booneville, AR 72927-9214, Tel. (501) 675-3834, Email cblanche@yell.com, Web www.missouri.edu/~afta/afta_home.html (see Events Calendar).

Society of American Foresters National Convention, Sept. 11-15, 1999, Portland, Oregon. For information, contact SAF: Tel. 301-897-8720, Fax 301-897-3690, Email safweb@safnet.org, Web www.safnet.org/calendar/natcon.htm.



Call For Papers And Posters

Society of American Foresters 1999 National Convention

The Society of American Foresters working groups invite you to submit a proposal for a paper presentation for SAF's 1999 National Convention, September 11-15, 1999, in Portland, OR. The final decision on program and inclusion of topics will depend on response to the call and the availability of space.

Two working group sessions will be of particular interest to temperate agroforesters:

Research in Short-Rotation Woody Crops

This session will present applied research relevant to land managers using short-rotation woody crops. Papers should discuss the relationship and application of particular disciplines, such as agroforestry, entomology, genetics, pathology, physiology, silviculture, or soils, to short-rotation woody crop applications including riparian buffers, phytoremediation, and biomass.

Contact: Bruce C. Wight, National Agroforestry Center East Campus UNL, Lincoln, NE 68583-0822; (402) 437-5778, ext. 36; fax (402) 437-5712; bwight@telspec.itc.nrcs.usda.gov.

Management and Marketing of Nontimber Forest Products

This session will examine the effects of increased extraction and marketing of nontimber forest products on forest management, socioeconomic realities, and forest product utilization, processing, and marketing. Papers should explore international examples of management and marketing and determine procedures that lead to sustainable harvest and use and that are appropriate for application in North America.

Contact: Tom Hammett Virginia Polytechnic Institute and State University, Department of Wood Science and Forest Products, 210 Cheatham Hall, Blacksburg, VA 24061; (540) 231-2716; fax (540) 231-8176; himal@vt.edu.

Please submit a 250-word abstract by February 1, 1999, to the appropriate contact listed above. Include in your abstract: paper title, author name(s), proposed presenter(s), affiliation(s), and mailing address, phone, fax, and e-mail for all authors and presenters. Authors of accepted abstracts will be asked to confirm their commitment to participate in the working group technical sessions by March 1.



Association for Temperate Agroforestry Inc.
 The Temperate Agroforester
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Please make your check (U.S. dollars) payable to AFTA, and send along with your application and dues to AFTA, c/o Center for Agroforestry, 203 ABNR Building, University of Missouri, Columbia, MO 65211.