



The **Temperate Agroforester**

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October 1996

Black Walnut Agroforestry: 20 Years Experience in Missouri

By Miles Merwin

"Black Walnut, Agroforestry and Nut Production" was the theme of the 5th Black Walnut Symposium held in late July. Coinciding with the 27th annual meeting of the Walnut Council, several hundred participants gathered in Springfield, Missouri for the 4-day event.

The principal co-sponsor of the meeting was Hammons Products Co., the nation's largest producer of black walnuts, located at Stockton, MO. Jim Jones, Director of Forestry and Land Management, lead a tour of Hammons' "Sho-Neff" plantation where pioneering research on black walnut agroforestry began in the mid-1970's. The meeting presentations related to agroforestry are summarized below.

Pence Plantation

During the landowner "show and tell" session, Hugh Pence of Lafayette, Indiana, recounted his experience with alley cropping of black walnut. Starting in

1989, Hugh planted black walnut seedlings at 22.5 X 5 ft. spacing (based on a 6-row corn planter) in an existing corn field. The combination of corn and walnut proved to be mutually beneficial: the corn provided shelter for the young walnuts, and corn yields were increased due to more ears produced in the two outside rows of each group of six corn rows.

In retrospect, Hugh said that placing the tree rows 40 ft. apart, based on a 12-row corn planter, would have been better. The wider spacing would make planting and tillage operations for the corn more efficient. He has pruned, and plans to later thin the trees within the row to select the best-formed trees for the final wood crop.

Keynote Address

AFTA President and University of Missouri profes-

► **Black Walnut, p. 5**

Cornell to Host 1997 North American Agroforestry Conference

Cornell University at Ithaca, New York, will be the venue for the 5th North American Agroforestry Conference (NAAC), August 3-6, 1997. In a pre-announcement issued Sept. 18, preliminary information was released on the tentative program.

The theme for the 1997 NAAC will be "Challenges for Agroforestry in Changing Rural Environments." Tentative subject areas for paper and poster presentations are as follows: (1) Physiological and ecological processes in agroforestry systems; (2) Transitional landscapes as a context for agroforestry development; (3) Agroforestry management practices; and (4) Social, economic and institutional basis for agroforestry practices.

The conference will begin Sunday, Aug. 3 with an ice-breaker event and evening Opening Session. On

Aug. 4, there will be a full day of concurrent sessions with a poster session in the evening. The following day, 4-5 concurrent field trips will be organized, concluding with a picnic dinner in the evening. The conference will close Aug. 6, with a concurrent session in the morning and concluding remarks after lunch.

The first announcement and call for papers will be issued October 1. All current AFTA members will receive a copy of the announcement, either by mail or e-mail. Anyone interested in presenting a paper or poster at the NAAC will have until December 1 to respond to the invitation and submit an abstract. The announcement will also be posted after Oct. 1 to the temperate agroforestry web site. Look for it at gis.umn.edu/~hperry/agroforestry_home.html. □

The Temperate Agroforester

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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 \$15; Student \$10; Sustaining \$50;
Institutions \$20; Lifetime \$300

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, as a text file attached to an e-mail message, 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 mlmerwin@teleport.com

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President's Corner

By Gene Garrett, AFTA President

The summer of 1996 is behind us and AFTA continues to grow. Our organization co-sponsored the National Walnut Council meeting held in Springfield, Missouri during late July. Over 350 attended this event. For those of you who were unable to attend, the emphasis this year was on agroforestry.

My keynote address, entitled "Hardwood Agroforestry Practices in Temperate Climates", co-authored by Bill Rietveld of the National Agroforestry Center, was well received. Bill and I attempted to show how all five of the widely recognized practices, alley cropping, riparian buffer strips, windbreaks, silvopastoral management and forest farming, have application in the hardwood region. Our field trip took us to the "Sho-Neff" Plantation near Stockton where years of research have been conducted on alley cropping.

While in Springfield, the officers of AFTA met. Unfortunately, I received word just hours before our meeting was to convene that my father was critically ill. I returned home immediately and sat at his bedside for five days before I lost him. I miss him, but I will always cherish the memories. My many thanks for the cards and phone calls. Your caring words helped me and my family get through a difficult time.

The Board discussed a number of issues in their session. One of the most urgent related to the location of our 1997 biennial meeting. I am pleased that Cornell University has now consented to hosting it. Ithaca, New York is a lovely place and the folks at Cornell will make wonderful hosts. Discussions also focused on subjects such as how to increase our membership, the location of a permanent home for AFTA, and the creation of a network of individuals to funnel agroforestry information to Miles Merwin, our newsletter editor. It was a very good meeting and the Board will be bringing many of the issues discussed to the general membership when we meet in Ithaca.

One issue acted upon by the Board that merits a comment from me is the change in dues. Membership dues (for individuals and families) will increase after Dec. 31 from \$15 to \$25/year. In view of the costs associated with producing a quality newsletter and in general, running an organization, we felt that it was necessary to realign our dues structure. Through this realignment, we will be better able to serve our growing membership. (See back page for special membership renewal offer — Ed.) □

AFTA Directors Vote to Incorporate, Change Dues Rates

By Miles Merwin

The Board of Directors of AFTA held a regular meeting on July 29, 1996 at Springfield, Missouri. Directors present, constituting a quorum, were Joe Colletti, Michael Gold, Deborah Hill and Miles Merwin. The following is a summary of the major discussions and actions taken at the meeting.

Agroforestry Conferences

Three upcoming conferences related to agroforestry were discussed. Possible meeting dates were offered for the fifth North American Agroforestry Conference (NAAC) to be held (Aug. 3-6) in Ithaca, NY, hosted by Cornell University (see pre-announcement this issue). Mike Gold mentioned that Purdue University may host a Midwest agroforestry workshop next summer, although the dates are not yet finalized. He also suggested that AFTA co-sponsor the "Agroforestry for Sustainable Land Use" meeting next June 23-28 (see announcement this issue).

Directors also discussed the need to formalize a mechanism used to provide start-up funding for the North American Agroforestry Conference (NAAC) series. A suggested memorandum of agreement between AFTA and the conference host would stipulate that \$10 of each paid registration (minimum \$2000) be allocated to the next biennial conference.

President Elect

Every two years, the members of AFTA vote to elect a new President-Elect under the current Bylaws. The Board called for nominations of candidates for the position of President-Elect, who serves two years before becoming President. Any member who is interested in nominating themselves or another member to stand for the election should contact President Gene Garrett. A ballot for the election of the President-Elect will be mailed out in April 1997.

National Report

Comments were offered on a draft of an AFTA report currently in preparation entitled, "The Status, Opportunities and Needs for Agroforestry in the United States." The report, edited by Miles Merwin, summarizes the findings of nine regional assessments of the status of agroforestry that were commissioned two years ago by the National Agroforestry Center. It will include recommendations for research, informa-

tion development, education and public policy needed to advance agroforestry in the US. Publication is expected before the end of the year.

Newsletter

The Directors considered several proposals related to the AFTA's quarterly newsletter, *The Temperate Agroforester*. Miles Merwin proposed that the Board appoint a Newsletter Committee, consisting of correspondents from different regions of the US and Canada who would assist in gathering news and articles about agroforestry. Ideas were discussed on how to cover the production costs for the newsletter (currently about \$2000/year), through advertising and an increase in the number of members and subscribers. A policy on the notification of members who do not pay their membership dues on time was set, allowing them up to a maximum of six months to return their membership to good standing. Directors appointed Miles Merwin to a two-year term as Newsletter Editor.

New Membership Dues

Ideas were discussed on how to raise revenues to support publication of the newsletter and AFTA's other programs. It was agreed that the top priority is to recruit new members and institutional subscribers, and suggestions were offered on ways to pursue that goal. As an immediate step, the Directors considered raising the dues for members, as they are permitted to do by the Bylaws. The Board unanimously approved a motion to change the annual dues rates, effective Jan. 1, 1997, as follows:

- Individuals and families: 1 year \$25, 2 years \$45, 3 years \$60
- Corporate and institutions (non-voting): \$40
- Nonprofit organizations (non-voting): \$20

Current rates for full time student (\$10), sustaining (\$50) and lifetime (\$300) memberships will remain unchanged. Members and subscribers living outside the US will, for an additional fee after Jan. 1, have the option to receive their newsletter by airmail.

Agroforestry Systems

Michael Gold related to the Board discussions that he was having with Kluwer Academic Publishers, which produces the scientific journal, *Agroforestry Sys-*

► **Board Meeting, p. 8**

Landcare: An Australian Approach to Sustainable Land Use

By Miles Merwin

Landcare, a grass roots program which began in Australia, has successfully involved almost one quarter of that country's farming community in voluntary partnerships to implement more profitable and sustainable farming systems. Landcare provides a timely example of how private landowners, in cooperation with government and other local stakeholders, can address resource conservation issues on a regional or watershed scale.

Origins of Landcare

Australia is an ancient landscape and the productive capacity of its crop and rangeland is fragile. Farming and grazing methods introduced by the European settlers lead to the extensive clearing of native forest which, as an unforeseen by-product, created severe environmental problems. Not only has "land degradation" (e.g., soil erosion, compaction, and soil and water salinization) become more widespread in the last decade, farm profitability has greatly declined as production costs have risen and export price for wool and wheat have fallen.

Landcare was initiated by the state conservation department in Victoria in 1986. The aim was to leverage limited government resources by actively involving local community groups to plan and implement cost-effective solutions to the daunting land degradation problems facing rural Australia. The premise was, and remains, that locally-driven groups of land users can be successful in promoting the voluntary

adoption of more sustainable production practices.

It blossomed into a national program following an unprecedented agreement forged between Australia's two leading farm and environmental groups: the National Farmers Federation and the Australian Conservation Foundation. With strong political support from a broad range of interested groups, then Prime Minister Bob Hawke announced, in 1989, the "Decade of Landcare" and the formation of the National Landcare Program with initial funding of A\$340 million.

How Landcare Works

Although it started as a state government program, the fundamental basis of Landcare rests on more than 2000 groups of stakeholders nationwide which have formed through local initiative. Landcare groups share four key traits:

- **Local Control:** Each group sets its own agenda and activities to address the issues most important to its members. The direction and ownership of the program rests more with the group rather than outside interests (e.g., government departments).
- **Community Involvement:** A diverse cross-section of stakeholders from the local community is involved, including farmers, schools, businesses, nonprofit groups and public agencies.
- **Voluntary:** Groups work to plan, develop and implement a variety of voluntary measures to im-

► *Landcare, p. 8*

New CRP Continuous Sign-Up for Conservation Agroforestry

USDA announced Sept. 4, 1996 that eligible acreage may be enrolled in the Conservation Reserve Program (CRP) for certain practices on a continuous basis without waiting for specific sign-up periods.

Conservation practices which can be established on farmland eligible for the new continuous sign-up include these agroforestry practices: filter strips, riparian buffer strips, shelterbelts, field windbreaks, and living snow fences. Also included are grassed waterways, salt tolerant vegetation and shallow water areas for wildlife. Conservation practices under CRP contracts must be maintained for at least 10 years.

USDA's Commodity Credit Corporation (CCC) pays participating farmers an annual rental payment for

enrolled acreage, depending on site-specific soil productivity and prevailing local farmland lease rates. USDA may also provide an additional incentive (in the past, 10%) for acreage that will be planted exclusively to filter strips, riparian buffers, field windbreaks and grassed waterways, plus a per-acre payment for maintenance of eligible practices. In addition to these rental rates, CCC will also pay up to 50% of the costs of establishing a permanent cover.

For more information about CRP, contact your local office of the Farm Service Agency, Natural Resources Conservation Service, State Cooperative Extension Service, State Forestry agency or local conservation district. □

► **Black Walnut**

essor Gene Garrett presented the keynote address, "Hardwood Agroforestry Practices in Temperate Climates," co-authored with Bill Rietveld of the National Agroforestry Center. Gene foresees a great opportunity for agroforestry in the US, particularly among small farm operators and non-industrial private forest owners, to help meet the increasing demand for wood products. Agroforestry, he said, makes forestry profitable for farmers and private forest owners by providing saleable products, such as row crops, hay, livestock and specialty crops, during the early years of a long-term tree rotation. He provided examples of five agroforestry practices that combine production with conservation: alley cropping, silvopasture, windbreaks, vegetative buffer strips and forest farming.

Alley Cropping

Tamera Benjamin of Purdue University presented the results of a study on the biology and economics of a black walnut-corn alley cropping system. The Purdue trial looked at the effects of shading and trenching (root pruning) on corn yields. They found that shading decreased corn yields, but trenching significantly increased yields during the study period (1986-93).

The economics of four different walnut/corn alley cropping systems was also compared. Two planting densities (27 ft. between rows, 200 trees/ac versus 54 ft. rows, 140 trees/ac) were compared, each with and without trenching. Net present value (NPV) was higher at the wider spacing, and trenching also increased the internal rate of return (IRR) due to higher corn yields. A sensitivity analysis revealed that the most important variables determining NPV and IRR were, (1) spacing, (2) tree selection and management, (3) discount rate, and (4) future wood prices, products and markets.

Sho-Neff Plantation

Hammons Products Co. hosted a full-day trip for the Walnut Council to their Sho-Neff plantation, concluding with a tour of the black walnut processing

plant at Stockton, MO. Small groups were transported on hay wagons through the 790 acre site, stopping at nine stations along the way for presentations on different aspects of black walnut management.

Ken Hunt of the University of Missouri - Columbia (UMC) outlined the agroforestry research at Sho-Neff. In 1975, the first 380 acres of the plantation were planted by the original owner, and alley cropping research was initiated in cooperation with Hammons and scientists from UMC and the US Forest Service.

Several different alley cropping regimes were tested between the tree rows planted 40 ft. apart (10 ft. within the row). In one combination, annual crops such as soybeans and winter wheat were intercropped for the first ten years, followed by more shade-tolerant forage species (e.g., orchardgrass and red clover) for 5 years, and five years of grazing thereafter. Other options were to intercrop with forages for the first 15 years, followed by grazing, or to use grazing alone throughout the 60-80 year rotation. Although average nut production from the intercropped trees was lower than trees with clean tillage and soybean yields were less than in open fields, the total return from crops and nuts in combination was found to be greater than each alone.

UMC researcher Monte Curlee discussed current research on cattle grazing of forages grown between the trees (silvopasture). Both continuous and rotational grazing regimes are being used to test the yield and quality of forages grown under 20-year old black walnut trees. Results so far indicate that not only is the yield of interplanted shade-tolerant grasses (e.g., orchardgrass and timothy) equal to an open field, but late-season forage quality is also improved by tree shading.

More Information

Garrett, H., Kurtz, W. and Slusher, J., 1992, Walnut Agroforestry, MU Guide 5020, University Extension, University of Missouri, Columbia, MO 65211 (\$0.50).

Kurtz, W., Garrett, H., and Slusher, J., 1996, Economics of Agroforestry, MU Guide 5021, University Extension, University of Missouri (\$0.25). □



Annual crops were interplanted between the walnut trees during the first 10 years of agroforestry research at the Sho-Neff plantation. (Photo: G. Garrett)

Leyland Cypress: A Potential Fast-Growing Timber Tree

By Jim Carlson, Sylvan Options, Dillard, OR

Leyland cypress (*x Cupressocyparis leylandii*) is an evergreen tree closely resembling many cedar and cypress tree species. First discovered in the late 1800's in England, it is a hybrid cross between Alaska yellow-cedar (*Chamaecyparis nootkatensis*) and Monterey cypress (*Cupressus macrocarpa*). Leyland cypress is best known for its fast growth and tolerance of harsh sites. Potential uses in forestry include timber, windbreaks, shelterbelts, decorative foliage production and wildlife habitat.

The fast growth of Leyland cypress makes it attractive to small woodland owners who wish to produce merchantable volume within 20-30 years. Typical height growth is 2-4 feet per year. Since the species is reproduced entirely from cuttings, one can expect a high degree of uniformity even in small stands and windbreaks. Although there is some variation between the seven known clones, tree form is generally good. Most tend to be rather heavily branched – pruning may be required if the tree is grown for timber. On the other hand, the branching pattern coupled with fast growth make Leyland cypress an excellent species for windbreaks and visual screens. If such barriers are managed correctly, they may be pruned later and managed for timber also, as is widely practiced in New Zealand.

In limited testing in the Pacific Northwest, Leyland cypress has proven adaptable to harsh sites ranging from waterlogged clay pastures to dry brushy hillsides. A 15 year old stand on a hot, dry site IV hillside in Douglas County is now about 40 feet tall and eight to ten inches in diameter. Several landowners report that Leyland cypress is thriving on low lying, winter-flooded swales where no other conifer would grow. A one year old plantation on good agricultural soil near Roseburg is now about five feet tall. Frost tolerance is excellent – specimens in the Roseburg area have withstood minus 2 degrees F with no signs of damage.

There is considerable promise in the use of Leyland cypress for secondary forest products such as Christmas wreaths and other holiday and floral decorations. The foliage is very similar to that of Port Orford cedar (*Chamaecyparis lawsoniana*), for which there is considerable demand. Several bough buyers have shown strong interest in the foliage of Leyland cypress and indicate that it has good market poten-

tial. Limited testing indicates that the foliage responds well to various dyes and preservatives commonly applied to these crops. The combination of fast growth and attractive, marketable foliage create the possibility of positive cash flow only a few years after planting.

Given its nearly identical foliage and tree form, it is natural to consider Leyland cypress as a possible supplement to disease-ravaged stands of Port Orford cedar. There is a distinct possibility that Leyland cypress is resistant to *Phytophthora lateralis*, the root rot fungus responsible for the population decline. Dr. Everett Hansen of the Department of Botany and Plant Pathology at Oregon State University reports that in a greenhouse test several specimens of Leyland cypress withstood deliberate inoculation with the disease. However, he also notes that the test was quite limited in scope and the results should not be directly applied to field conditions. Landowners should proceed with caution when planting Leyland cypress in areas where *Phytophthora lateralis* is known to exist. More extensive testing is being planned.

There are factors limiting the use of Leyland cypress as a forest tree. Reproduction from cuttings is more labor intensive than from seed; consequently, planting stock is more expensive. Perhaps most daunting is the general lack of information. Although Leyland cypress has been in existence for over 100 years, its primary application has been in landscaping. Forestry-related factors such as correct tree spacing, volume growth tables, overall disease resistance and wood properties remain largely unknown. Some testing of wood properties is currently in progress at the Oregon State University Forest Products Laboratory. Tests made elsewhere in the world indicate that the wood is of very good quality. Both parent tree species are known for good to excellent wood properties.

Leyland cypress shows strong promise as a fast growing tree for small woodlands in the Pacific Northwest. Its adaptability and versatility allow landowners to use it under a wide range of management regimes. Further testing and trial plantations will continue to reduce the gaps in our knowledge of its various characteristics and pave the way toward more widespread commercial use of its many beneficial features. □



Tree-Crop Interactions: A Physiological Approach

This new book makes an important contribution to the better understanding of the interactions between trees and crops in agroforestry systems such as alley cropping. Edited by Chin Ong of ICRAF and Peter Huxley, it is a useful reference for researchers, students and practitioners in agroforestry and crop physiology. The following topics are included: quantifying the effects of tree-crop interactions, mixed cropping of annuals and woody perennials, models for optimum alley cropping design, light and water utilization, microclimatic modifications, water balance of tree-crop systems, form and function of woody/non-woody plant mixtures, tree-soil-crop interactions on slopes, and root distribution.

Tree-Crop Interactions: A Physiological Approach, C.K. Ong and P.A. Huxley, editors, 1996, CAB International, 416 pages, paperback (ISBN 0 85198 987 X), price \$45.

Making Farm Trees Pay

A national conference, "The Role of Trees in Sustainable Agriculture," was held in Australia in 1991. This new booklet, *Making Farm Trees Pay*, is the second in the series of workbooks to be published as a "farmer-friendly" version of the papers delivered at the 1991 conference. While much of the information is specific to Australia, it does provide a clear, concise and well-illustrated summary of how to produce commercial timber in farm plantations, timberbelts and

silvopastoral systems. Case studies of successful agroforestry regimes combining timber production and livestock grazing are included.

Making Farm Trees Pay, Rowan Reid, editor, 1995, Greening Australia, 60 pages, paperback (ISBN 1 875345 19 1). Postpaid price A\$13 (approx. US\$10.50) from Greening Australia Ltd., GPO Box 9868, Canberra, ACT 2601, Australia.

Agroforestry Notes: New Series from NAC

Agroforestry Notes is a new technical series published by the National Agroforestry Center. They are peer-reviewed technical papers written for the non-research oriented user to enhance understanding and application of agroforestry technologies. The series will cover topics in four major categories: (1) agroforestry principles; (2) conservation agroforestry, (3) production agroforestry; and (4) special applications of agroforestry technologies.

The first two publications in the *Agroforestry Notes* series are now available. *Agroforestry in the United States*, by Bill Rietveld and Kris Irwin, is a general overview of the major temperate agroforestry practices. *Outdoor Living Barn: A Specialized Windbreak*, by Kris Irwin and Jerry Bratton, focuses on designs for livestock windbreaks. More *Notes* will be released periodically throughout the year.

To order copies of these two *Agroforestry Notes*, or to add your name to the mailing list for future publications, write the National Agroforestry Center, East Campus-UNL, Lincoln, NE 68583-0822. □

Fourth NA Agroforestry Conference Proceedings Published

The proceedings of the 4th North American Agroforestry conference have been published. Entitled "Building a Sustainable Future," the conference was co-sponsored by AFTA and held in Boise, Idaho in July 1995. The proceedings were edited by University of Idaho faculty and conference organizers John H. Ehrenreich, Dixie L. Ehrenreich and Harry W. Lee. Within the 200+ pages of the proceedings are the text of presented papers in the following sections: agroforestry potential, biology of temperate agroforestry systems, economics of agroforestry, evolving systems for varying temperate conditions, agroforestry extension, riparian buffer strips, silvopastoral systems, alley cropping and intercropping, windbreaks and shelterbelts. Summaries of poster papers are included. Those who attended the agroforestry conference in Boise and paid the full registration fee will automatically receive one free copy of the proceedings. Copies may also be purchased directly from the conference organizers for \$40 (postpaid in USA), or \$50 postpaid for orders outside the US. Send a check payable to University of Idaho to John Ehrenreich, College of Forestry, Wildlife, and Range Sciences, University of Idaho, Moscow, ID 83844-1135 (tel. 208-885-7600, fax 208-885-5878, e-mail dixie@uidaho.edu). □

► Landcare

prove farm productivity and resource conservation.

- **Watershed Scale:** The scope of operation extends from individual farm properties to the larger watershed or region, addressing a variety of issues rather than single problems.

Group Activities

Local Landcare groups can apply for funding to the National Landcare Program and other public agencies. However, groups also draw heavily on the voluntary and in-kind resources of their diverse members. Extension agents, professional consultants and university scientists are involved as technical advisors or facilitators, although the focus is on empowering landowners to tackle their own land management problems rather than on following standard prescriptions.

Landcare groups undertake a variety of educational and research activities, often starting with the identification of production and natural resource issues that they perceive as being important in their own watershed. On-farm research and demonstration trials are organized in cooperation with extension agents, university scientists and private consultants. Groups also present field days and workshops, publish newsletters (print and electronic), and loan out equipment (e.g., tree planters) to members.

Along with work on individual farms, Landcare groups have successfully involved community members in monitoring the status of local natural resources. Through "land literacy" programs such as Saltwatch, Drainwatch and Watertable Watch, local school children regularly collect soil and water samples, perform simple analyses, and compile their find-

ings on school computers. After forwarding the data to a state government department, the school and other Landcare group participants receive regional maps of water quality, watertable depth, etc. These programs not only greatly assist with the monitoring of ecosystem health and create valuable tools for management planning, but also encourage community "ownership" of resource problems.

The fact that about 25% of Australia's farmers and ranchers actively participate in over 2000 Landcare groups may be attributed to the program's equal emphasis on improving farm productivity and healing land degradation problems. Whole farm planning is a major activity of Landcare groups, with the goal to improve production efficiency and profitability while encouraging the voluntary adoption of simple but effective conservation practices. The farm planning process shows where practices such as windbreaks, riparian revegetation and alley cropping, for example, can be profitably implemented.

While Landcare may not be the answer to all natural resource problems, it does show what can be achieved when local communities actively join with farmers, government and private industry to plan, research and implement locally-appropriate steps to achieve a "win-win" outcome: more productive and profitable farms and more sustainable management of natural resources.

Information Resources

Campbell, Andrew, 1994, Landcare: Communities Shaping the Land and the Future, Allen & Unwin, Sydney, 344 p.

Campbell, Andrew, 1995, Landcare: Participative Australian approaches to inquiry and learning for sustainability, *J. Soil Water Cons.* 50(2):125-131.

Curtis, A. & DeLacy, T., 1995, Evaluating Landcare groups in Australia: how they facilitate partnerships between agencies, community groups, and researchers, *J. Soil Water Cons.* 50(1):15-20. □

► Board Meeting

tems. If an agreement can be reached, there is the prospect that individual AFTA members could subscribe to *Agroforestry Systems* at a special, discounted rate. He said that discussions were also underway on the possibility of AFTA assuming editorial oversight for one issue per year (e.g., selected papers from the NAAC). However, he cautioned that no agreement has yet been reached on either proposal.

Incorporation

The Directors considered the need to find a permanent institutional home for AFTA, and to secure non-

profit status. The Board unanimously approved a motion to present to the membership for their approval the following proposals: (1) to establish a permanent home for AFTA at the University of Missouri - Columbia, and (2) to incorporate AFTA as a nonprofit organization in Missouri through the adoption of new Articles and amended Bylaws.

An Incorporation Committee, consisting of Gene Garrett, Deborah Hill and Miles Merwin, was appointed to draft new Articles and Bylaws, and, when approved by the membership, to pursue the necessary steps for incorporation and filing for tax-exempt status. □

Volunteer Needed for AFTA Webmaster

AFTA is seeking a volunteer to assist with the development and maintenance of its presence on the World Wide Web. AFTA has posted several pages on the Temperate Agroforestry web site at the University of Minnesota. In cooperation with AFTA officers and computer staff at UM, the AFTA Webmaster will help keep our web pages informative and timely. This will involve updating existing pages on at least a quarterly basis and creating new pages as the need arises. The Webmaster needs access to a computer with software for creating web pages, and a modem to transmit pages to the host server at UM. A basic knowledge of agroforestry and some experience with creating and managing web pages is desirable. If you are interested in volunteering for this important assignment, please send e-mail to Miles Merwin, AFTA Editor (mlmerwin@teleport.com).



Internet Resources

Updated Agroforestry Home Page

gis.umn.edu/~hperry/agroforestry_home.html

The Temperate Agroforestry site maintained by CINRAM at the University of Minnesota, which includes AFTA's home page, is constantly being updated. If you haven't visited lately, it's time for another look. The site is now divided into six major sections: Agroforestry Introduction and Information ("What is Agroforestry" and details on specific practices); Organizations (links to Minn. Extension Service, CINRAM, NRCS, NAC); Events Calendar (listings from the Sustainable Agriculture Network); Agroforestry Education Resources (listing of university research and academic programs); Outside Links (other related sites); and AFTA, which now includes the policy statement, "Agroforestry: Blending agriculture and forestry production and conservation practices."

Landcare Web Sites

The Landcare program (see story p.4) in Australia utilizes the Web to link local groups throughout the country and inform participants of training programs, research projects, community involvement opportunities and volunteer needs. The National Landcare Program (kaos.erin.gov.au/land/landcare/landcare.html) is a good starting point. Landcare Web (www.agfor.unimelb.edu.au/LCweb/LCweb.html) contains info about Landcare and links to local groups. Landcare groups in New Zealand also have a home page (www.landcare.cri.nz/landgrps/).

Sustainable Agriculture Network

www.ces.ncsu.edu/san/

The Sustainable Agriculture Network is the communications and outreach arm of the Sustainable Ag-

riculture Research and Education (SARE) program. Funded by USDA, SAN is dedicated to the exchange of scientific and practical information on sustainable agricultural systems. The site includes the Sustainable Agriculture Directory of Expertise, a searchable database of over 1000 individuals and 200 organizations (a recent search on the term "agroforestry" returned 59 "hits").

Small Farm Center

www.sfc.ucdavis.edu/

The mission of the Small Farm Center, based at the University of California at Davis, is to "enhance the viability of small and moderate scale agricultural producers by stimulating research and extension education in production systems, marketing and farm management." The Center's research and educational activities focus on specialty crops, alternative marketing and rural/community development issues. This web site includes an on-line newsletter, free publications, lists of sale publications, a calendar of workshops and other events, and contact information for UC farm advisors and specialists.

Southwest Riparian Directory

ag.arizona.edu/AZWATER/swexpdir/riparian.html

The University of Arizona Water Resources Research Center maintains a database of university, government and private researchers involved in riparian zone projects in the Southwest (AZ, CO, NV, NM, UT). The database may be searched by subject keyword, project location and/or state. Searches return a list of researchers meeting the criteria with their contact addresses, riparian zone projects, and organizational affiliations. □

International Agroforestry Workshop Set for France, June 1997

By Daniel Auclair, CIRAD/INRA, Montpellier, France

An international conference entitled "Agroforestry for Sustainable Land Use: Fundamental Research and Modelling, Temperate and Mediterranean Applications" will be held June 23-28, 1997 in Montpellier, France. It will be co-sponsored by the following organizations: Centre de cooperation internationale en recherche agronomique pour le developpement (CIRAD), Institut national de la recherche agronomique (INRA), International Union of Forestry Research Organizations (IUFRO), and European Society for Agronomy (ESA). Additional sponsorship is being sought.

Objectives

This workshop aims at providing a platform for the exchange of information between scientists involved in fundamental research and modelling in agroforestry. Extra emphasis will be given to examples from temperate and Mediterranean areas. The following topics will be addressed: (1) Agroforestry and environment: landscape, biodiversity, conservation; (2) Agroforestry as an alternative land use: modifications to agriculture and forest management systems, set-aside policy; (3) Biological interactions between tree / grass or crop (annual or perennial) / animal; (4) Socio-economics of agroforestry, legal, political & fiscal aspects, rural development; and (5) Modelling for agroforestry: tools, types of models.

Provisional Program

The conference will begin Monday, June 23, 1997 with registration, poster set-up, and the keynote session. Two sessions of papers will be held on Tuesday: (1) agroforestry and conservation, and (2) agroforestry as an alternative land-use. Field trip to agroforestry sites in Languedoc-Roussillon will happen on Wednesday. On Thursday, two more paper sessions will be presented: (3) Tree / grass or crop / animal interactions, and (4) Socio-economics of agroforestry. The final session (5) Modelling for agroforestry will be Friday, followed by the Synthesis and Conclusion session. On Saturday and Sunday, June 28-29, there will be software demonstrations and optional visits to CIRAD/INRA, and an optional excursion (depending on number of participants) to both traditional and innovative temperate agroforestry sites in the Massif Central, ending in Clermont-Ferrand.

Call for Papers and Posters

The workshop will be based on posters. In each session, discussions will be led by a specialist of the subject. Papers dealing with fundamental aspects of agroforestry research on the above mentioned topics are welcome. Some selected contributions will be published as full papers in a refereed publication.

A short informative abstract (250 words) should be submitted to the scientific committee before November 1, 1996. Authors will be notified whether their paper is selected by January 1, 1997. They will be asked to provide by February 15, 1997 a 2-page camera-ready abstract for inclusion in a book of abstracts, which will be available at the start of the workshop.

Workshop Venue

Montpellier is the capital of the French Languedoc-Roussillon region, by the Mediterranean coast. The workshop will take place at the 'Agropolis' center which provides all necessary conference facilities. Personal computers will be available during the workshop for software demonstrations. The field trip will offer participants the opportunity to discuss different aspects of modern on-farm agroforestry research and implementation. Official workshop languages will be French and English. It is hoped that funding will allow simultaneous translation during the plenary sessions.

Registration

If you wish to receive the second circular and additional information please contact the conference convener (address below) before November 1, 1996. Send your full name, address, telephone and e-mail details. If you wish to present a poster, enclose an abstract" (list author, title and session).

The deadline for early registration (reduced fee) and for the 2-page abstract is February 15, 1997. The final registration deadline for full registration is April 1, 1997. Please note that June in Montpellier is very popular, so early registration is recommended.

For registration and more 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. □



Mark Your Calendar

Third Annual Tree Farmer Convention, Oct. 24-27, Portland, OR. Sponsored by the American Tree Farm System. Agroforestry will be included among the Saturday field trips. For more information, contact Betty Denison, Oregon Tree Farm System, 3415 Commercial Street S.E., Salem, OR 97302-5158, tel. (503) 362-0242, fax (800) 603-0865, E-mail: bdenison@denilass.com.

Agroforestry Symposia, ASA, Nov. 3-8, Indianapolis, IN. Two symposia on agroforestry will be held during the annual meeting of the American Society of Agronomy, one focusing on temperate zone agroforestry and the other on tropical agroforestry. For program details, see the April 1996 *Temperate Agroforester*. For registration information, contact David Kral, Associate Executive VP, American Society of Agronomy, 677 S. Segoe Rd., Madison, WI 53711, tel. (608) 273-8080, fax 273-2021.

SAF Agroforestry Working Group, Nov. 11-12, Albuquerque, NM. During the Society of American Foresters annual meeting, the Agroforestry Working Group will sponsor a technical session dealing with the establishment, care and management of trees in agricultural land use systems. For information, contact Russell Hatz, USDA-NRCS, 101 SW Main, #1300, Portland, OR 97204-3221, tel. (503) 414-3235, fax 414-3277, e-mail hatzr@scsor.attmail.com.

5th North American Agroforestry Conference, Aug. 3-6, 1997, Ithaca, NY. Co-sponsored by AFTA and hosted by Cornell University, the theme will be "Challenges for Agroforestry in Changing Rural Landscapes" (see pre-announcement this issue). □



Networking Partners

Plains and Prairie Forestry Association

A new regional agroforestry group was formed last summer. The Plains and Prairie Forestry Association of North America aims to further the science, practice and public awareness of forestry and agroforestry in the plains and prairie regions of the USA and Canada. At a meeting of the Forestry Committee of the Great Plains Agriculture Council (GPAC) held in July in Oklahoma City, a core group of interested people voted to start the new independent organization, following the prior dissolution of GPAC.

Bruce Wight, NRCS Agroforester, is the Association's first President. Other officers are: Ed Miller (Oklahoma State Univ.), President Elect; Greg Sunde-


strum (NRCS, Colorado), Secretary; Jim Walla (North Dakota State Univ.), Treasurer; and two members at large, Bill Schroeder (PFRA) and Kurt Atkinson (Oklahoma Divn. of Forestry).

The group will hold an annual summer meeting with papers and field tours on topics related to forestry and agroforestry. The first annual meeting is planned for next summer in Rapid City, SD.

Anyone interested in forestry and agroforestry in the plains and prairie regions of the USA or Canada is welcome to join the Association. For more information, contact Bruce Wight, National Agroforestry Center, East Campus-UNL, Lincoln, NE 68583-0822. □



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Last chance to join or renew at the current rates!
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 Tell a colleague about AFTA. If they join, AFTA will extend your membership by 3 months. There's no limit; everytime you recruit a new member, we'll add 3 months to your membership. Be sure to ask the prospective member to write your name ("recruited by") on their application form. Individuals who recruit a new subscription from a library, business, government agency or non-profit organization will also earn an extension of their memberships.



Membership Application and Renewal

Membership in the Association for Temperate Agroforestry includes a subscription to our quarterly newsletter, a membership directory, discounts on publications of special interest, reduced registration fees for meetings sponsored by AFTA, and the opportunity to work with others to promote more productive and sustainable land management.

Annual Dues (UNTIL 12-31-96): Regular \$15; Student \$10; Sustaining \$50; Institutions \$20; Lifetime \$300

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