

The Temperate Agroforester

The newsletter of the Association For Temperate Agroforestry

Christof den Biggelaar, editor

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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 temperate agroforestry, with an emphasis on North America. Agroforestry draws upon, and synthesizes, ideas and techniques from agriculture, forestry, range management, environmental and social sciences. To foster integrated land management, the association intends to bridge existing gaps between these land use disciplines and organizations.

Goal

AFTA's goal is to catalyze technical innovation and adoption of agroforestry in the temperate zone through networking, information exchange, public education, and policy dialogue and development.

Objectives

- Develop a temperate-zone network of agroforestry practitioners, technical specialists, and researchers, through a newsletter, membership directory, and other information services.
- Promote applied interdisciplinary research to develop and test new or improved agroforestry technologies.
- Promote a policy environment conducive to agroforestry adoption.
- Sponsor a biennial North American conference on temperate agroforestry for practitioners, researchers and policymakers, as well as other meetings on regional and topical issues.
- Promote public awareness and education about agroforestry.

AFTA Steering Committee

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Editorial

Dr. Michael A. Gold - President, AFTA

We are now fast approaching our first milestone, the 100 member mark. With a serious publicity effort, it is not unreasonable to expect AFTA to grow to 500 members over the next two years and surpass 1000 members in five years. I believe this to be true because agroforestry has myriad roles to play in land use systems throughout North America, and cuts across a very wide array of traditional disciplines and landowner interests. Further, let us recall that the goal of AFTA is to help organize, catalyze, and promote temperate agroforestry for our collective benefit. If we are successful in fulfilling this goal, we should easily grow to 1000 members.

Following up on comments from the last newsletter, I wish to report that the Society of American Foresters (SAF) Forest Science and Technology Board met and decided against the proposed change of the SAF Windbreak Technology working group to the Agroforestry, Windbreak and Conservation Planting working group. Their rationale was that agroforestry conveys a much broader set of issues, including linkages to the social sciences, and transcends several current working groups. The Board is concerned, and correctly so, that agroforestry be viewed as much more than a single working group issue. Finally, the Board has requested the Windbreak Technology working group officers to present a more detailed explanation of the rationale for the contemplated change. This response from the SAF Forest Science and Technology Board serves to reinforce the need for AFTA, as AFTA was created to be cross disciplinary, transcending many diverse issues.

A conference on Agroforestry for Farm Diversity was recently held in Macomb, Illinois, on June 30 and July 1. The conference intended to bring together professionals such as foresters, conservationists, farm managers, various members of state and federal agencies, private forestry groups, farmers, researchers and educators. Diverse sponsors included the IL Division of Forest Resources, and IL SAF, IL Cooperative Extension Service, IL Society of Professional Farm Managers and Rural Appraisers, IL Soil and Water Conservation Society, IL Sustainable Agriculture Network, IL Walnut Council and the Prairie Hills Forestry Association. This conference is an excellent example of the growing interest in temperate agroforestry among farmers, land use agencies and professional associations.

As is evident from this newsletter, interest in temperate agroforestry stretches far beyond the U.S. and Canada. In addition to members from these two countries, AFTA now has members from an additional 14 countries. Major agroforestry research and/or outreach activities are ongoing in the U.K., Australia, and the People's Republic of China to name a few.

The International Union of Forest Research Organizations (IUFRO) has recently established a new working party focused on temperate agroforestry. I have accepted the offer to share the chair responsibilities of this working party with Dr. Alan Sibbald of the U.K. This should serve as an additional and effective link for AFTA to contribute to and learn from the activities of others active in temperate agroforestry.

On the Federal legislative front, Dr. Gene Garrett discusses the activities of the Agroforestry Center at the University of Missouri to secure funding for the Sub-Humid Agroforestry Research Program (SHARP). If funded, the activities proposed in SHARP will lend strong support to AFTA's efforts.

For those of you who are interested in reading up on the history of agroforestry, I highly recommend the book by Dr. J. Russell Smith, Tree Crops: A Permanent Agriculture. Speaking from personal experience, this was the single most influential book of my professional career in that it helped to define and crystallize my career interest in temperate agroforestry. In 1929 Smith outlined the concept of an agriculture based on trees and shrubs with the publication of the first edition of his Tree Crops book. Many of Smith's views were the direct result of his travels and scientific observations in the Mediterranean as an economic geographer with Columbia University. Smith documented the destructive results of erosion following cultivation on hilly, marginal lands, and he illustrated numerous scenarios in which tree crops could be used to help solve erosion problems, provide food for animals and humans, and serve as the foundation on which long-term (he speaks of the rise and fall of civilizations) ecological and social sustainability could be built. The second edition, published in 1950, is currently available from Island Press.

An outline of the program for The Third North American Agroforestry Conference, Ames, Iowa is included with this newsletter. A large turnout is now expected, in excess of 200 participants. Please note that AFTA will convene a business meeting on Tuesday evening, August 17, 1993 at the Third North American Agroforestry Conference in Iowa. Now that we have a logo, AFTA needs to discuss

the development of a more formal organizational structure and we intend to do this at the business meeting. Along these same lines, if any of our members have a legal background and are willing to do a little *pro bono* work on behalf of AFTA, please contact me.

SUB-HUMID AGROFORESTRY RESEARCH PROGRAM (SHARP)

Dr. Gene Garrett University of Missouri-Columbia, Missouri

In early 1992, the Agroforestry Center at the University of Missouri initiated a process to secure funding for agroforestry research in the eastern half of the United States. The effort came to be known as the SHARP proposal which has four primary objectives:

- Identify and address agroforestry research needs (biological, physical and social) in the subhumid United States east of the semiarid Great Plains.
- Collect, synthesize and organize relevant research, extension and policy literature relating to subhumid agroforestry into a database format which is easily accessible and useable by workers in each of these areas.
- Develop and apply an extension infrastructure designed to assess and draw upon local needs and capabilities to enhance the probability of adoption of agroforestry practices.
- Facilitate a networking capability for educators, researchers, extension personnel and policy makers with interest in subhumid, temperate zone agroforestry.

Through the efforts of Senator Christopher Bond of Missouri, this proposal has been considered for funding by the Department of the Interior by the Appropriations Committee of the U.S. Senate. During consideration, the U.S. Forest Service was asked to provide a critique. On March 22 of this year, Senator Bond received correspondence summarizing that critique. Key points from the evaluation are:

- There is agreement that many of the basic ideas presented and the scope of the proposal are good.
- There are a number of university forestry research programs interested in, and capable of, conducting agroforestry research and extension programs. Competitive processes are recommended as the most effective means to award agroforestry research grants.
- Grants of this type to universities are usually administered through the Cooperative State Research Service in Regional/National Impact Special Research Grants (P.L. 89-106).
- Within the Department of Agriculture, several agencies including the Forest Service, the Agricultural Research Service and the Cooperative State Research Service are involved with agroforestry. Existing expertise in these organizations could support SHARP activities.
- If such a program were launched, it would be important that it be a broad-based effort with leadership composed of experienced research personnel and that there be an open competitive process to ensure wide participation.

Future actions on the SHARP proposal are unknown at this time. However, the proposal has created a growing interest in agroforestry on the part of several members of Congress. In particular, agroforestry is being viewed, by some, as a potential solution to perceived problems associated with land coming out of the Conservation Reserve Program.

AGROFORESTRY IN VICTORIA, AUSTRALIA

The Victorian Government, through its Department of Conservation and Environment and Department of Agriculture has a number of complementary initiatives in place to encourage revegetation of rural Victoria including the promotion of agroforestry. The objective of Victoria's agroforestry program is to expand the use of agroforestry in Victoria. A Five Year Plan has been developed by the Victorian Government's Joint Agroforestry Management Committee to set policy directions and priorities for Government research and extension programs for the period 1991-1996.

The Five Year Plan provides landholders, funding bodies and government agencies with information about current agroforestry projects in Victoria and plans for agroforestry in the future. It includes:

- an outline of the benefits of agroforestry and its potential impact on agricultural productivity and timber supplies;
- a summary of Government policies and programs affecting agroforestry and an explanation of how the program is managed;
- information on the major agroforestry research and demonstration projects underway in Victoria and the level of resources currently committed to agroforestry;
- a summary of research priorities for the next five years;
- an assessment of the major barriers facing agroforestry and actions to overcome these barriers;
- Extension Strategies to ensure effective information transfer from researchers to landholders;
- · information on funding sources; and
- agroforestry targets for the next five years.

For more information contact:
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AFTA Business Meeting

Tuesday evening, August 17, 1993 at the Third North American Agreforestry Conference. Time and meeting room will be announced in the Conference program.

PLEASE ATTEND!!!!

AGROFORESTRY: A FAMILY FARM ALTERNATIVE

Henry Pearson, USDA ARS Booneville, Arkansas

The South Central Family Farm Research Center at Booneville, Arkansas, was established in 1980 to develop more efficient biological and economical family farm production systems. An agroforestry research and technology transfer program was initiated in fiscal year 1992 to integrate woody perennials into conventional farming systems that could provide additional income alternatives on interior highland and southeastern United States family farms.

Family farming, ranching and forestry (pulp, timber, firewood, etc.) enterprises undergird rural community development and food and fiber production for the nation. The U.S. demand for forest products will continue to increase with the South needing to supply much of the demand. Management practices to enhance two or more food and fiber commodities will affect each other beneficially in some cases and detrimentally in others. Providing multiple-commodity management alternatives requires quantification of the effects of these practices on all resources—trees, forage, livestock, wildlife habitat, recreation, and watershed—and the environment.

Factors influencing management of agroforestry systems include tree age, density, and species, vegetation competition, and animal damage. Judicious planning for use of forages by animals throughout tree rotations requires a thorough understanding of tree-forage-animal relationships and dynamics. Successful tree establishment in tame pasture is highly dependent upon competition control and livestock management. New markets and innovative marketing provides additional approaches to achieving economic stability for family farming operations in an ever expanding, competitive world market environment.

Existing and planned agroforestry research studies include: (1) tree establishment in improved pasture; (2) tree configuration; (3) alley cropping; (4) pine straw harvesting; (5) alternative agroforestry uses (riparian zone management, shiitake mushrooms, and beekeeping); (6) vegetation manipulations (biological, chemical, mechanical, and fire); and (7) integration of woodlands into pasture and other family farm systems. Initial reviews of the agroforestry systems research program by federal, state, and private organizations indicate a high interest in evaluating multiple-use and environmental consequences of new approaches to rearranged agricultural practices. Concurrently, a high interest exists in socioeconomic considerations of new approaches.

In summary, the agroforestry research and technology transfer program will devise and assess animal (livestock and wildlife), tree (pine, hardwood, and nut) forage (pasture and range), and row-crop family farm systems for biological and economical production efficiencies along with social and environmental compatibilities.

RIPARIAN ZONE RESEARCH AT THE UNIVERSITY OF GUELPH

Peter Williams
Department of Environmental Biology
University of Guelph

The Agroforestry Research Group (ARG) at the University of Guelph has been conducting research on riparian zone rehabilitation since 1985. Most work has been conducted at a site on Washington Creek near Washington, Ontario, but a number of research and demonstration projects have been established at other locations. The research can be grouped into three overlapping areas: tree growth potential in riparian zones, studies of wildlife populations/ecosystems (vegetation, birds and invertebrates), and nutrient levels and movement in riparian zones and waterways.

Researchers of the ARG will be making two presentations at the upcoming Third North American Agroforestry Conference in Iowa. The first will document results of a number of studies investigating tree and biomass growth comparing strip and block plantings, configurations for fuelwood and biomass production, and various tree species (poplar, ash, maple, oaks and shrub-form willow). The second will present the results from a M.Sc. thesis investigating the effects of stream bottom substrate on benthic fauna in a reforested stream.

Shrubs are a class of vegetation largely left out of much riparian research. Discussions at a recent riparian conference, for example, centered around the effectiveness of grassed vs. forested buffers, not recognizing the critical role of shrubs in bank stabilization and sediment control. Bioengineering principles, which rely heavily on shrub species for stabilizing streambanks, have tremendous potential for rehabilitating riparian zones. We are now beginning to incorporate some of these principles into our plantings and they are complementary to short rotation biomass production.

Despite problems in riparian zone research, it is one area of agroforestry where significant improvements in the environment and natural values can be made virtually overnight. In this respect, our findings are rooted to common sense approaches to managing riparian zones. Simple findings with a rapid payoff, which are easy to implement in the field, will be the most acceptable to landowners. This has been widely recognized in program development by various agencies in both the US and Canada which are encouraging landowners to establish buffer strips. In our program, it is the one area where we get the most requests for extension presentations. The research community must be able to provide recommendations to practitioners so that plantings recommended best suit the needs of the landowners and of society. Great advances have been made in the past decade in riparian zones research, but it will be a long time before we fully comprehend these complex, diverse and ecologically critical areas. I would like to encourage you to become more familiar with the literature on riparian buffers and to initiate research and demonstration projects in your region (NOTE: see PROCEEDINGS, p. 7)

LETTERS RECEIVED

Scott Josiah St. Paul, Minnesota

Thanks for the first edition of the AFTA Newsletter. It is quite interesting, informative and fills a critical gap in the exchange of information regarding temperate agroforestry. Though the Pence Walnut Plantation article was interesting, it clearly pointed out the need for rigorous examination of the economics and ecological dynamics of temperate agroforestry practices. For instance, the article did not mention the powerful effects of juglone as an inhibitor of germination, effects that will surely affect the integration of black walnut trees into corn or soybean agricultural systems. And will walnut trees be worth more in 40 years than 40 annual crops of corn? Personal experience and economic analyses from Haiti indicate that crops are worth a lot more than trees. Yet trees integrated into farming systems are important and popular because they serve to reduce risk, diversify income, and serve as "savings banks" that enable farmers to meet occasional high demands for cash.

Reply to Scott Josiah
Hugh Pence
The Pence Walnut Plantation
Tippecanoe County, Indiana

In regard to the effects of juglone on crop production. I am sure that the book has vet to be written on this subject. Everyone seems to know that juglone is an inhibitor of growth for many plant species with lesser or greater effects, depending on what plant you choose. I don't know of any serious study that scientifically identifies what plant species are adversely affected, but common knowledge from practical experience indicates that the potential is there for juglones to affect a lot of different plant species. To date, I have not seen any adverse effects at all from growing corn next to [4 year old] walnut trees. My observation tells me that the row next to the walnut trees is just as good as the row farthest from the trees. In my case I am running an anhydrous knife 15 inches away from the corn row and towards the walnut trees, and this simple act of running a knife 8-9 inches deep obviously cuts all tree roots growing towards the rows of corn. In my opinion, most agricultural crops which grow rapidly and have a prolific root system would not be adversely affected with my present farm management practices and my particular arrangement.

The verdict is not yet in as to which will be more profitable - growing continuous corn or growing walnut trees. One would only plant trees because one wants to grow trees; the economics of agroforestry is not whether you want to grow corn or trees, but the fact that you want to grow trees and have some income while the trees are maturing. Certainly I am no expert on the economics of farming in Haiti, but trees most likely cannot compete economically for land where intensively grown human food crops can be raised practically

year round. Growing trees and growing corn are two totally different types of investments, one very short term and one very long term. Thus, the actual economics develops into a totally different interpretation of income, costs, and return on investment. We can make all the predictions we want down the road as to how the trees will grow and what the price relationship will be between trees and corn, but obviously the potential is there for the trees to net a lot of money when they are mature. Only time will tell whether it was more or less profitable to grow corn between the trees for the same period of time.

Hector Black Hidden Springs Nursery, Cookeville, Tennessee

For the past 12 years or so, I have been working with Elaeagnaceae, primarily with autumn olive, but also with buffaloberry, sea buckthorn, goumi and russian olive. It was the study done in Illinois some years ago, interplanting black walnut with autumn olive, that caught my attention. I have interplanted autumn olive with chinese chestnut, pecan, honey locust (the large sweet podded cultivars from TVA), and more recently with fruit trees. I have some controls and the differences are quite impressive. The chestnuts are nearly twice as tall as the noninterplanted ones. This may be partly due to the trees having to reach higher for sunlight, but the total biomass is greater also. You know how kind of bushy most chinese chestnuts are -- well, my non-interplanted ones are like that, but the interplanted ones have long, straight and unbranched trunks for at least 9-10 feet. So the timber potential is much better, even though the nut bearing might have been slowed down by a year.

I started interplanting fruit trees with goumi (E. multiflora) about two years ago, so it is too early to report any results. The buffaloberry needs more sunlight than the others, and so would probably not be useful in this way. The same holds for sea buckthorn and russian olive.

A second factor of note was the value of the autumn olive and goumi fruits. We had several hundred seedlings of autumn olive from several sources and made selections of the larger, better tasting and more productive plants. They make quite a nice juice or jelly, and are wonderful when mixed with applesauce. And we also eat large quantities fresh.

TEMPERATE AGROFORESTRY RESEARCH ORGANIZATIONS

Institut de Développement Forestier France

The French Institut de Développement Forestier (IDF) is an organization that is fostering the collaboration between landowners, researchers and technicians. The institute was created in 1960 and is run by forest owners to research and develop solutions to the silvicultural management problems encountered in private forests. All techniques and (continued on page 6)

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Missouri Dept. of Conservation ATTN: State Forester 2901 West Truman Blvd. P.O. Box 180 Jefferson City, MO 65102-0180 PH: 314-751-4115

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(continued from page 3)

innovations are evaluated by study groups composed of farmers, forest owners, researchers and technicians before recommending them as solutions to particular problems. Over the years, IDF has gained experience and a greater understanding of broad leaved silviculture (oak, poplar, cherry, walnut, chestnut) and the production of high quality timber in widely spaced plantations. IDF also has developed a number of techniques governing the use of trees in parks, woodlots and linear plantings such as hedges and windbreaks. The institute publishes two periodicals (Forêt-Entreprise and Forêt-Loisirs) as well as thematic manuals summarizing IDF work; all publications are in French.

For more information contact: Institut pour le Développement Forestier 23 Avenue Bosquet 75007 Paris **FRANCE**

PH: +33 45 552349 FAX: +33 45 559854

The Agroforestry Research Trust United Kingdom

The Agroforestry Research Trust is a privately funded research charity promoting research into temperate agroforestry systems. They conduct both academic and practical research projects, and are in the process of acquiring land for long-term agroforestry trials in Britain. The Trust's interests lean towards tree crops and temperate forest garden The Trust publishes a quarterly systems. newsletter, Agroforestry News, which focuses on temperate tree crops and includes reports on agroforestry research, book reviews, articles on fruit and nut growing, native tree profiles, propagation techniques, forest gardening and useful ground covers. Also available are the following books: 'Ground Cover Plants,' 'Bamboos,' 'Timber Trees for Temperate Climates' as well as a 5 volume series entitled 'Useful Plants for Temperate Climates.'

For more information and for subcriptions to Agroforestry News, contact:

Martin Crawford Agroforestry Research Trust 17 Arden Drive Chelston, Torquai, Devon TQ2 6DZ United Kingdom

FURTHER READING

PUBLICATIONS

Muniz-Miret, Nuria & Julie Bournes. 1993. Directory of International Training Opportunities in Agroforestry. This directory contains a listing of long and short term educational opportunities in agroforestry offered around the world. It includes programs and courses focusing on agroforestry issues only as well as those incorporating agroforestry as a major component. For more information contact: **USDA** Forest Service International Forestry, RPE-L101 P.O.Box 96090 Washington DC 20090-6090

Rowan Reed & Geoff Wilson. 1986. Agroforestry in Australia and New Zealand: The Growing of Productive Trees on Farms. Victoria, Australia: Goddard and Dobson: Publishers

J. Russell Smith. 1987. Tree Crops: A Permanent Agriculture. New York: Island Press Publishers.

M.G. Thomas & D.R. Schumann. 1992. Seeing the Forest Instead of the Trees: Income Opportunities in Special Forest Products. A series of 16 technical papers on forest-based microenterprise ideas produced by the Midwest Research Institute in cooperation with the U.S. Forest Service. The papers are available separately or as a complete set.

For more information contact: Midwest Research Institute 425 Volker Boulevard Kansas City Missouri 64110 Phone (816) 753-7600

PROCEEDINGS

Bock, L. & J. Rondeux, eds. 1990. Marginal agricultural land and efficient afforestation. Proceedings of a workshop in the CEC land and water use research program entitled "The ecological options and socio-economic benefits of agroforestry in temperate zones," held in Gembloux, Belgium, October 20-21, 1988. EUR Report No. EUR 10481. Luxembourg: Office for Official Publications of the European Communities.

Proceedings of the International Walnut Council Meeting held at Tarragona, Spain, in October 1991 have been published in *Acta Horticulturae* Number 311 (March 1993).

For more information contact:

Secretariat

International Society of Horticultural Science (ISHS) Englaan 1

6703 ET Wageningen the Netherlands

Proceedings (forthcoming this summer) of a conference on Riparian Ecosystems in the Humid U.S.: Functions, Values and Management, March 15-18, 1993, Atlanta, Georgia.

For more information contact:

Dr. Richard Lawrence

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JOURNAL ARTICLES

Bandolin, T.H. & R.F. Fisher. 1991. Agroforestry systems in North America. Agroforestry Systems 16 (2): 95-118.

Bird, R. & C. Oldham. 1991. Agroforestry feature. A collection of 3 papers on agroforestry in Australia. Agricultural Science (Australia) 4 (5): 35-42.

Campbell, G.E., G.J Lottes and J.O. Dawson. 1991. Design and development of Agroforestry Systems for Illinois, USA: Sylvicultural and Economic Considerations. *Agroforestry Systems* 13 (3): 203-224.

Carruthers, P. 1990. The prospects for agroforestry: An EC perspective. Outlook on Agriculture 19 (3): 147-153.

Johnston, P.J.M., ed. 1984. Special issue: Agroforestry. *Queensland Agricultural Journal* 110 (1): 1-74.

McKeon, B., ed. 1991. Agroforestry feature. A collection of 8 papers on agroforestry in Australia. Agricultural Science (Australia) 4 (4): 15-40.

Thomas, T.H. 1990. Agroforestry - Does it pay? Outlook on Agriculture 19 (3): 161-170.

Thomas, T.H. 1991. A spreadsheet approach to the economic modelling of agroforestry systems. Forest Ecology and Management 45 (1-4): 207-235.

NEWSLETTERS & JOURNALS

Agroforestry Forum: Newsletter of the U.K. Agroforestry Research Forum. This newsletter is an informal journal to which people submit information and opinion prior to publication elsewhere. Articles in the newsletter concern current research results on agroforestry projects in the U.K., including silvopastoral and silvoarable research, above and below ground interactions, system modelling, farm forestry and tree species research. The newsletter is produced three times a year.

For more information or to subscribe, contact:

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The Citizen Forester: A Journal of Agroforestry.
For information contact:
The Citizen Forester Corporation
1021 Doerr Road
Mancelona MI 49659

UPCOMING EVENTS

Agroforestry for Farm Diversity Conference, June 30 - July 1, 1993, Western Illinois University in Macomb, Illinois. The conference is intended to show how agroforestry diversification in farming can work in support of agricultural production, resource conservation and human environments.

For more information contact:

David King, Coordinator

Prairie Hill Resource Conservation & Development

nc.

1020 E. Jackson Street Macomb, IL 61455 Phone: 309-833-4747 Fax: 309-833-4019

Fourth International Symposium on Windbreaks and Agroforestry, July 26-30, 1993, Viborg, Denmark. For more information contact:

Danish Land Development Service

P.O.Box 110 Klostermarken 12 DK-8000 Viborg

Denmark

Third North American Agroforestry Conference, August 15-18, 1993, Iowa State University, Ames, Iowa, USA. Final plans have now been made for this Conference. More than 75 papers and 25 posters will be presented over the three day period. Four concurrent sessions will be held on both Monday and Wednesday. The papers and concurrent sessions have been grouped into the following four topic areas: 1) Biology and Environmental Aspects of Agroforestry; 2) Agroforestry Systems; 3) Socio-economic Aspects

of Agroforestry; and 4) Other Topics.

Tuesday will be devoted to an all-day field trip which will include on-farm visits to an alley cropping systems, a riparian buffer strip, a shelterbelt cropping systems, and an energy plantation demonstration. A Sunday (August 15) preconference tour will visit two innovative farms featuring strip cropping, field paddock hog farrowing using crop strips sheltered by tree rows, and hybrid hazelnut trees set in numerous agroforestry settings. A proceedings will be published.

Registration is \$150 before and \$180 after July 1, 1993. This fee includes five meals, break refreshments, shuttle service from the Des Moines International Airport, motel to conference shuttle service, and Tuesday field trip transportation. A special student fee of \$80 is available for persons currently pursuing a degree.

For further information contact:

Synthea Maas
Department of Forestry
251 Bessey Hall
Iowa State University
Ames, Iowa 50011-1021
PH: 515-294-1167

FAX: 515-294-1337

Agroforestry and Sustainable Systems: Integrating Trees into Sustainable Agricultural Land Use Systems for the Semiarid West. August 7-10, 1994, Fort Collins, Colorado.

For more information contact:

Dr. W.J. Rietveld
Center for Semiarid Agroforestry
UN-L East Campus
Lincoln, NE 68583-0822
Phone: 402-437-5178

Fax: 402-437-5712

SECOND REQUEST

Slides Wanted

AFTA is seeking slides on temperate agroforestry practices in order to develop a slide set on this topic. The slide set (or sets) will be sold for use as teaching and promotional aids of temperate agroforestry practices in classrooms, extension programs, conferences, fairs etc. Donators/photographers will be acknowledged for their contributions. Please send duplicates (return of slides is not guaranteed) with a brief description of the practice depicted, location, year, and any other relevant information to:

Dr. Michael A. Gold, President

AFTA
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Michigan State University
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Please fill out the form below, and send along with your annual membership dues to:

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