



# NEWSLETTER

Association for International Agriculture & Rural Development

February 2005

## A Message from AIARD's President

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Tom Crawford

I would like to express appreciation on behalf of all AIARD members for the efforts of John M. Yohe, President of the Association for International Agriculture and Rural Development (AIARD), 2003 – 2004. Also to be commended are John's fellow officers, board members, committee chairs and committee members for the excellent job they did. Their efforts made AIARD's 2004 Annual Meeting and the Capitol Hill Forum 2004 very successful.

AIARD organized two well-attended meetings in 2004. The first was the Capitol Hill Forum 2004, details and photos are on our web site at: (<http://aiard.org/meetings/20004forum/program.htm>). The topic of the forum was, "The Critical Role of International Agricultural Development in the Fight against Undernutrition and HIV/ AIDS." Opening comments were offered by the 2003-2004 President of AIARD, John Yohe, and then-Congressman Bereuter. The Forum was held in the Cannon Caucus Room, and cosponsored by eleven organizations. We were privileged to have four knowledgeable and informative speakers: Michael Loevinsohn, Andrew Natsios, Geeta Rao Gupta, and Robert B. Horsch. Those of you who were not able to attend the Capitol Hill Forum 2004 may read the speakers' presentations on the AIARD website (click on the presenters' names on the program, this will direct you to the presenters' biographies, to which their presentations are linked).

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## Idaho's College of Agricultural and Life Sciences Celebrates 2004 International Successes

The University of Idaho's 113-year-old College of Agricultural and Life Sciences (CALs) celebrated its international programs for faculty, staff, and alums in its latest issue of *Programs & People* magazine, distributed twice a year to 13,000 Idaho legislators, business leaders, educators, and college alumnae.

In a series of articles titled "CALs Goes Abroad," the 32-page magazine devoted 10 pages to ways UI faculty and students connect Idaho to the world, ultimately benefiting the state's \$4 billion a year agricultural industries. Connections include are made through faculty participation in USAID farmer-to-farmer volunteer programs.

One story highlighted a new licensing agreement signed in October between UI CALs scientists and South Korea's LG Life Sciences, Ltd., to develop and market a vaccine CALs scientists patented to prevent mastitis in dairy cows. This infectious disease currently costs the U.S. dairy industry up to \$245 per cow per year, or \$2 billion a year industry-wide. The partnership is a result of relationships built between UI scientists, including Greg Bohach, now director of the Idaho Agricultural Experiment Station, and Korea's Yong Ho Park that started when Park was a graduate student at nearby Washington State University. He spent a lot of research time with UI's microbiology faculty members Bohach and Ken Bayles on dairy and other health issues. Scientific exchanges continued after Park became a professor at Seoul National University.

To see more, the on-line version of the magazine will be available by February 15, 2005, at [www.info.ag.uidaho.edu/magazine](http://www.info.ag.uidaho.edu/magazine).

For more information, contact Mary Ann Reese, Editor, Programs & People, at (208) 885-7430, [mreese@uidaho.edu](mailto:mreese@uidaho.edu).

Mary Ann Reese

## Idaho Alums Jim and Nan Hurst Spend Retirement Working on 20 Volunteer Projects in 14 Countries

Some people slow down after they retire. Not so for University of Idaho College of Agricultural and Life Sciences alums Jim Hurst and his wife Nan. Since retiring in 1990 from General Foods in Modesto, CA, Hurst has served as an agri-business consultant for four USAID-funded volunteer organizations.

Assignments lasting two to eight weeks have taken the Hursts to the fields, orchards, and homes of local farmers and entrepreneurs in Bangladesh, Egypt, Guinea, India, Kenya, Kyrgyzstan, Moldavia, Nepal, Russian Siberia, Tajikistan, Uzbekistan, Ukraine, and Zambia, to name a few.

During 20 assignments in 14 countries, Hurst has helped train managers for a consumer cooperative in Nepal, established a food processing factory in Bangladesh, evaluated and recommended improvements for a Siberian food processing plant, and shared food drying techniques with orchard growers in Kyrgyzstan. He also has made many friends.

His wife, who always accompanies him, finds her cross-stitch work is often a great icebreaker with women of all nationalities. She also documents their travels in e-mails home, so their grandchildren and other young students can follow their travels.

"Volunteer projects are great for anybody who likes to travel and wants to help people," says Hurst. "But you've to be flexible because you'll run into primitive conditions. And projects are rarely what the specs say they will be."

Hurst has volunteered for International Executive Service Corps, ACDI/VOCA, Winrock International, and Citizens Network for Foreign Affairs. For more about the Hursts volunteering, see the rest of their story, due up on the web at [www.info.ag.uidaho.edu/magazine](http://www.info.ag.uidaho.edu/magazine) by January 15, 2005.

Mary Ann Reese

## Soil Salinity Is a Growing Problem Worldwide In Irrigated Agriculture



*James Wittler* is one of the four students who received scholarships from AIARD to attend the 40<sup>th</sup> AIARD Annual Meeting held in Washington, D. C. James presented information about his M.S. research at the annual meeting of the American Society of Agronomy in Seattle. The article below explains the research he has been doing on a technique to measure soil salinity and its applications in international agriculture.

Soil salinity is a growing problem worldwide, especially in irrigated agriculture. Salinity has been traditionally measured in labs using a procedure that measures the electrical conductivity of a soil extract ( $EC_e$ ) and is based on the amount of soluble salts in solution. Scientists have identified the salinity thresholds for many agricultural crops thus allowing farmers to make cropping, management, and mitigation decisions based upon soil salinity levels.

In the past, salinity assessment for large scale monitoring was labor intensive. Soil samples needed to be collected and then taken back to the lab for processing and analysis. During the 1970s, researchers began to develop other techniques for doing *in situ* soil salinity assessment. In 1980, researchers at the United States Soil Salinity Laboratory began to work with an electromagnetic instrument, the EM-38, developed by Geonics, Ltd. of Ontario, Canada. The EM-38 allows users to make non-destructive, *in situ*, salinity measurements. The advantage of using the EM-38 is the fact that hundreds of data points per hour can be gathered by walking on foot. Additionally, if the instrument is mounted on a sled and drug through the field, a few thousand data points per hour can be gathered. Intensive sampling such as this allows one to build detailed salinity maps, and can be further integrated with GIS for use in precision agriculture. During the last 24 years EM-38 calibration models have been developed for measuring soil salinity in the U.S., Canada, Australia, and South Africa. The results of such work has been successful, and the agreement between salinity measurements made with the EM-38 and the four electrode probe [both of which measure bulk soil electrical conductivity ( $EC_a$ )] has been strong with coefficients of determination around

0.9. Research that has worked on developing calibration models for relating EM-38 measurements to  $EC_e$  has also been promising, but the relationships have been weaker with coefficients of determination between 0.55 and 0.75.

Most calibration models have involved calibrating the instrument at the field scale, with little work done to investigate the efficacy of the instrument on a broader and more regional scale. In January, 2003 I began my Masters degree at Colorado State University and became part of a research team whose goal was to model salinity in the Arkansas Valley, Colorado. As a graduate research assistant in the Soil and Plant Science Department, my job was to help develop a regional calibration model for EM-38 that related instrument measurements back to  $EC_e$ . The coefficients of determination of our models for the two regions (each approximately 50,000 ha) of the valley we surveyed were 0.60 and 0.70.

It is my conclusion that use of the EM-38 is appropriate for delineating qualitative salinity zones such as high, medium, and low. It can be successfully used wide with the caveat that a specific calibration model must be developed for the region where it is being used. The disadvantage to using the EM-38 is that a new instrument is approximately \$6,000 US and the development of a calibration model can be labor intensive. However, once a calibration model has been developed, salinity levels can be monitored and areas of high salinity can be identified with relative ease. This allows practitioners (governments, NGOs, etc.) to identify problem areas, to manage different areas accordingly, and to sample high salinity areas more intensively with traditional methods.

James Wittler

## A Message from AIARD'S President, Continued

Over two hundred people attended the Forum, among whom were members of Congress and Congressional staff. The topic of the Forum was chosen to build upon an important and recent AIARD resource publication, "The Agriculture, Nutrition, and HIV/ AIDS Connections in Developing Countries" (<http://aiard.org/communications/HIV-AIDS.htm>).

AIARD reached a milestone with our 40th Annual Meeting in Washington, D.C. on June 6 - 8, 2004. For details, web address: <http://aiard.org/meetings/2004annual/index.htm>. The theme of the meeting was "Progress in International Agriculture and Rural Development." The meeting was well attended, and many new members were present. Drs. Hugh Popenoe, Winfrey Clarke, and Sue Schram addressed the members at dinner on Monday, June 7, giving all present their perspectives on the past, present, and future of AIARD. I recommend that you read presentations at the AIARD website, to gain a deeper understanding of the past 40 years of AIARD's history.

Also notable was the presence of four outstanding students who were given scholarships to attend the annual meeting. AIARD's executive committee deemed their participation in the meeting a great success, and efforts are now being made by AIARD leaders to develop financial support to enable more students to attend the AIARD annual meetings in the future. Those attending the annual meeting heard insightful presentations from all the speakers, some of whom included Senator Chuck Hagel, Ambassador Edith Ssempera of Uganda, Principal Deputy Secretary of Bureau of Economic and Business Affairs, U.S. Department of State Shaun Donnelly. I would like to recognize the superb efforts of all the speakers and panelists who participated in the annual meeting.

Appreciation is extended to Secretary/Treasurer Joy Odom and others for the excellent logistical support they provided at the 40th annual meeting. The program of the 41st Annual meeting is presently being developed by President-Elect Mike McWhorter. The program promises to be excellent. I encourage all members of AIARD to attend the meeting in Washington, D.C., which is to be on June 5, 6 and 7, 2005. More information about the meeting will be forthcoming on the AIARD website in the coming months.

A key initiative being pursued by AIARD president-elect Mike McWhorter and AIARD's Education and Advocacy Committee, Membership Committee, and Finance Committee is to develop greater participation of young people in AIARD. The initiative includes developing a stable, long-term source of funding which will enable AIARD to offer scholarships for students to attend AIARD annual meetings. This will enable young people both to attend AIARD meetings and to visit agencies, companies, and organizations in Washington, D.C. that are involved in international agriculture and rural development to learn that career paths are available to them and other young people in international agriculture and rural development.

The Membership Committee of AIARD under the leadership of Sue Schram is conducting an energetic campaign to recruit new members. All AIARD members are encouraged to invite their colleagues who are not yet members to join. AIARD offers an excellent opportunity to become better informed on a wide range of issues on international agriculture and rural development and to network with others, in the field. Benefits of membership and information and application at the AIARD website (<http://aiard.org>).

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## MOZAMBICAN HUSBAND-AND-WIFE TEAM EARNS M.S. DEGREES AT UNL



Soares



Celestina

In August, 2001, Mr. Soares Xerinda, who is a member of AIARD, and his wife, Ms. Celestina Jochua arrived in Lincoln with six of their colleagues from Mozambique's Instituto Nacional de Investigação Agronómica (INIA, the Mozambican national agricultural research system) to begin studies of English as a second Language at UNL. Upon completion of their studies of English at UNL, the Mozambicans commenced their studies for a M.S. degree. Mr. Xerinda and Ms. Jochua chose to study at UNL, he beginning his studies in agronomy with a focus on plant nutrient management under supervision of Dr. Charles Wortmann in May, 2002, and she beginning her studies in plant pathology with Dr. James Steadman in September, 2002.

Soares Xerinda, who began his studies at UNL with experience having done research on soil and water management in Mozambique, graduated from UNL in September, 2004, after completing the requirements for a MS degree in agronomy. His research focused on starter fertilizer use for no-till row crop production in Nebraska. The title of his thesis is "No-till Corn and Grain Sorghum Response to Starter Fertilizer in Eastern Nebraska".

Soares returned to their home and two children in Chokwe, Mozambique, where he is beginning research on soil nutrient and water management at the Chokwe Agricultural Research Station of INIA.

Celestina Jochua began her MS program at UNL, committed to gaining knowledge and skills in plant protection and increasing her understanding of basic science. She has excelled in her coursework, including cellular and molecular plant biology and pathology. Celestina completed her thesis on phenotypic (virulence) and genotypic variation in the bean rust pathogen. Her research has led to identification of resistant bean on farms in southern Mozambique.

Celestina Jochua completed her MS studies in plant pathology December, 2004, and upon returning to Chokwe, she is beginning research on various aspects of plant pathology, particularly focusing on bean rust.

Both will be engaged in collaborative research with their former major professors of the International Sorghum/Millet Collaborative Research Support Program (INTSORMIL) and the Bean/Cowpea Collaborative Research Support Program, as well as conduct research oriented toward priorities of INIA. Soares Xerinda is a member of AIARD. We welcome others who are living outside the USA to join AIARD.

**Thomas W. Crawford, Jr.**

## Extension Reform for Rural Development

Case Studies of International Initiatives,  
Volumes 1-5, 2004

## Soybean Production in Afghanistan

Extension reform is in flux, and the reforms are moving extension toward institutionally pluralistic rural knowledge and innovation networks. However, in most cases these networks are not conceived with a clear understanding of the broader implications of such a system. The immediate challenge facing governments is to reform extension in ways that increase client-oriented services, while still responding to continually changing social goals and economic pressures.

For governments that have not undertaken extension reform, the challenge is to establish a strategic vision and build commitment within the public sector (in ministries of agriculture, finance, and among stakeholders throughout the system). They then have to identify local change managers and maintain realistic expectations of what can be accomplished in given periods of time.

The case studies contained in these five volumes richly illustrate many of the conclusions of the 2002 Extension Workshop hosted by the World Bank, USAID, and the Neuchatel Initiative (World Bank, 2002). Reforms in extension systems and services are ubiquitous, ongoing, and probably a permanent feature of the subsector's institutional and programmatic development. This concluding note highlights three general observations based on the case studies, summarizes twelve main findings drawn from the studies, and discusses a number of future challenges to extension and rural development.

(<http://1nweb18.worldbank.org/ESSD/ardext.nsf/11ByDocName/PublicationsExtensionReformforRuralDevelopment.htm>.)

Gary Alex and William Rivera, Editors

With some 22 million acres of land under cultivation, Afghan farmers grow a wide range of crops—wheat, corn, barley, cotton, nuts, fruits, and vegetables. One of the few crops they don't grow is soybean. AIARD member Dr. Oval Myers, professor emeritus of plant breeding and genetics at Southern Illinois University Carbondale, is serving as a production consultant with Nutrition and Education International, a California-based NGO focusing on improving nutrition in Afghanistan, in experiments with growing soybeans there as a high-quality protein source. In collaboration with Balkh University a demonstration trial was planted in 2004 near Mazar-e-Sharif, a city in northern Afghanistan. The Afghanistan Ministry of Agriculture and Animal Husbandry has shown interest in the initial results and have encouraged expansion of soybean production trials throughout the country.

SIUC supplied two soybean varieties and Stine Seeds supplied four varieties suitable for the latitude and climate. Like the Midwest, the region has hot, humid summers and cool winters. Dr. Myers was in Afghanistan in November 2004 where he presented seminars on soybean production to the Ministry of Agriculture and Animal Husbandry in Kabul and to a farmer audience in Mazar-e-Sharif.

For additional information, please contact Oval Myers at his mail address: [omyers@siu.edu](mailto:omyers@siu.edu).

**Oval Myers, Member of the Board of Directors**

## Call for Nominations for Three AIARD AWARDS

## Ask your Colleagues to Join Us and Become A Member of AIARD.

AIARD members are asked to nominate candidates for the AIARD awards for the categories: Distinguished Service, Special Service, and Young Professional. Nominations are made by submitting in digital form a letter of nomination, 3-5 support letters from objective individuals, and a one page biographical/professional contacting the nominee. Nomination packages should be submitted to [aetling1@unl.edu](mailto:aetling1@unl.edu) by April 1, 2005. The criteria for selecting award winners are as follows:

### AIARD Award for Distinguished Service—

- Demonstrated public service that has advanced AIARD's purposes;
- Innovative contributions to AIARD programs and Length of service in the international area and in AIARD.

### AIARD Award for Special Service –

- A career-long commitment to the goals of AIARD through active support for international agriculture and rural development initiatives over a professional career of at least 25 years;
- Significant contributions to international agriculture and rural development through research, teaching, practice, service, or leadership;
- A previous recipient of at least one other career recognition award from a public sector, professional, or civil society organization or a university;
- At least 45 years of age during the calendar year in which the nomination is made; and
- Not an AIARD member.

### AIARD Young Professional Award –

- Demonstrated public service that has advanced AIARD's purposes;
- Innovative contributions to AIARD programs;
- Commitment to international agriculture and rural development and to AIARD; and
- Recipients must have been under 40 years of age during the calendar year in which the nomination is made.

In order to maintain the integrity of these awards and to meet the goals of AIARD to recognize worthy individuals, we need nominations from all active members. If you have any questions, please contact the chair of the 2005 AIARD Awards Committee, Arlen Etling at the email address in the first paragraph above.

**Arlen Etling, Awards Chair**

## Call for New AIARD Members

We are making great progress this year on expanding our AIARD membership base and we will be posting an updated list on the website by the end of January. While we are sad to have lost many of our long time friends to retirement, we have also attracted many new young professionals and representatives from NGOs, universities, development agencies and the private sector.

The very best way to attract new members is through personal invitation from a current member, so please give us a hand. Our president, Tom Crawford, is showing great leadership in this regard! If everyone follows his lead we can add even more new friends to our ranks.

Recall that it is very easy to point prospective members to the website at <http://aiard.org> for information about the association and about membership. Use the pull-down menu under "**Who's Who**" and run off the form to be sent to Joy Odom, Secretary/Treasurer with a check for \$35 (professionals) or \$15 (students). For your reference, here is Joy's address:

Joy Odom, AIARD Secretary Treasurer  
Mississippi State University  
PO Box 5187  
Mississippi State, MS 39762

Thanks much for your help!

**Sue Schram, Membership Chair**