

CGIAR NEWS

CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH ■ OCTOBER 2000

CGIAR SCIENTISTS AWARDED MILLENNIUM WORLD FOOD PRIZE

Two CIMMYT scientists have been awarded the Millennium World Food Prize for three decades of ardent research effort to produce a higher yielding, more wholesome type of corn — quality protein maize — that is helping to meet the food and nutrition needs of millions of poor people. Dr. Evangelina Villegas, a Mexican biochemist, and Dr. Surinder K. Vasal, an Indian plant geneticist, received the \$250,000 prize at ceremonies October 12 in Des Moines, Iowa.



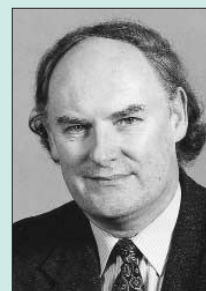
Dr. Villegas is the first woman ever to receive the World Food Prize.

“This is people-centered science at its very best, providing better nutrition while fostering economic growth for the world’s poor,” said CGIAR Chairman Ian

Johnson. “We salute our colleagues at CIMMYT for overcoming long scientific odds to develop, test, and distribute to developing countries varieties of high quality protein maize that are preventing malnutrition worldwide.”

Continued on page 2

NEW CGIAR CHAIRMAN



Ian Johnson, World Bank Vice President for Environmentally and Socially Sustainable Development, was named Chairman of CGIAR. He

takes on the CGIAR leadership role in addition to his regular responsibilities.

“Ian Johnson has the unique combination of substantive knowledge, passionate commitment to development, and leadership skills to head the CGIAR,” announced World Bank President James D. Wolfensohn. “A strong environmentalist, he has been an important member of my management team and was one of the architects of the Global Environment Facility. He brings to the task a deep understanding about the need to fight poverty by promoting rural development, improving natural resource management, and increasing poor people’s capacity to improve their own lives.”

“It is an honor to accept this appointment,” Johnson said. “The CGIAR is one of the best examples of a successful partnership to improve agricultural development in some of the world’s poorest, ecologically fragile areas.”

Continued on page 2

NEW CGIAR DIRECTOR APPOINTED

Francisco Reifschneider, currently Head of International Cooperation, Brazilian Agricultural Research Corporation (EMBRAPA) has been chosen as the new CGIAR Director to succeed Alexander von der Osten who will be retiring in November 2000.

Francisco has had extensive national and international experience, collaborating with FAO and the World Bank, and with several national institutes outside Brazil. He received Brazil’s highest award for major contributions to the develop-

ment of agriculture, the Frederico de M. Veiga Prize. He has been widely published. He was awarded his first degree, in agronomy, at the University of Brazil, and his Ph.D. in plant pathology, at the University of Wisconsin. At the CGIAR his connections are strong, having been associated with the Consultative Council, as member of the Finance Committee, and Vice Chairman of CIFOR’s Board of Trustees.



MILLENNIUM WORLD FOOD PRIZE

Continued from page 1

Ambassador Kenneth M. Quinn, Executive Director of the World Food Prize Foundation, praised the “painstaking scientific detective work that finally achieved the breakthrough discovery of how significant amounts of additional protein could be added to low nutrition maize.”

Quality protein maize looks and tastes like normal maize, but it contains twice the amount of essential amino acids, lysine and tryptophan. The nutritional value of quality protein maize approaches that of protein from skim milk. Children can meet 90 percent of their daily protein needs by eating only 175 grams. In rural Guizhou, China’s poorest province, the lives of poor people have been almost miraculously transformed after the introduction of quality protein maize as part of a government program to alleviate hunger.

Dr. Villegas, from Mexico, joined CIMMYT in 1967 and was named head of the General Services laboratory in 1972, a position she held until her retirement in 1989. She holds a doctorate in cereal chemistry and plant breeding from North Dakota State University.

Dr. Vasal, from India, joined CIMMYT as a post-doctoral fellow in 1970. He has held numerous research positions at the Center and in 1992 was promoted to the rank of distinguished scientist and Team Leader of CIMMYT’s Asian Regional Maize Program in Thailand. He earned university education and academic degrees from various institutions in India.

Six World Food Prize Laureates have been associated with CGIAR research: M. S. Swaminathan (IRRI), Robert F. Chandler (IRRI), John Niederhauser (CIP), Hans Herren (IITA), Henry M. Beachell (IRRI), and Gurdev S. Khush (IRRI).

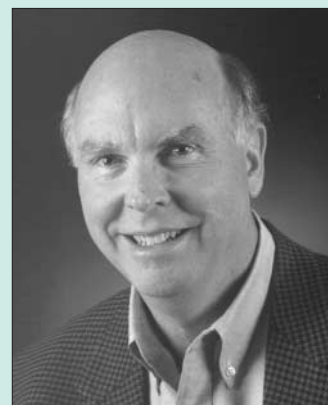


2000 Sir John Crawford Memorial Lecture

This year’s star speaker is Mr. J. Craig Venter, President, Celera Genomics, who will speak on “Genomics: From Microbes to Man” on Thursday, October 26, 2000 at 5:30 pm in the World Bank’s ‘H’ Auditorium.

Mr. Venter led the hugely-successful private sector effort to decode the human genome. A friend and ardent supporter of the CGIAR, he donated the entire proceeds of the prestigious 2000 King Faisal International Award to support ILRI’s collaborative efforts with The Institute of Genomic Research (TIGR), a private non-profit research institute to develop a vaccine for East Coast Fever.

The Sir John Crawford Memorial Lecture is sponsored by the Australian



Mr. J. Craig Venter

Government as part of CGIAR International Centers Week. Sir John Crawford was a distinguished civil servant, educator, and agriculturist who was one of the founders of the CGIAR.



NEW CGIAR CHAIRMAN

Continued from page 1

Ian Johnson joined the World Bank in 1980 as a Young Professional. Since 1998, he has been the World Bank Vice President for Environmentally and Socially Sustainable Development, one of the Bank’s largest departments responsible for rural and social development and the environment. Before that he held appointments as energy economist, principal economist, assistant CEO of the Global Environment Facility, and senior manager of the Bank’s Environment Department.

Johnson helped found the Global Environment Facility (GEF), which was established after the Rio Earth Summit to combat four critical threats to the global

environment: biodiversity loss, climate change, degradation of international waters, and ozone depletion. During 1992-1996, he served as GEF Administrator and Assistant Chief Executive Officer. Johnson, a British national, was educated at the University of Wales, University of Sussex, and Harvard University.

Johnson succeeds Ismail Serageldin, who led the CGIAR from 1994 until July 10, 2000, when he stepped down as World Bank Vice President and as CGIAR Chair.



INTERNATIONAL CENTERS WEEK 2000

IN THIS ISSUE

- 1** CGIAR Scientists Win World Food Prize
- 1** New CGIAR Chairman
- 1** New CGIAR Director Appointed
- 2** 2000 Crawford Lecturer: J. Craig Venter
- 3** International Centers Week 2000
- 4** Tapping into the CGIAR
- 6** Roots and Tubers: A Cornucopia of Crops
- 7** Top U.S. Official visits IITA
- 8** Seven Science Academies laud CGIAR research
- 10** New WARDA Rice
- 11** World Bank Support for CGIAR
- 11** Announcements

Editor: Sarwat Hussain
Issued by the CGIAR Secretariat
1818 H Street, NW,
Washington DC, 20433, USA
Tel: (1-202) 473-8951,
Fax: (1-202) 473-8110
www.cgiar.org
E-mail: cgjar@cgiar.org
Design: Iseman Creative, Inc.

Hundreds of CGIAR members, scientists, and agricultural researchers will attend CGIAR's International Centers Week (called ICW2000) from October 23 - 27, 2000 in Washington, DC. Titled "Charting the CGIAR's Future - Reshaping CGIAR's Organization," the meeting will be inaugurated by Ian Johnson, CGIAR Chairman and World Bank Vice President.

Building on the momentum of the Dresden Mid-Term Meeting, which unveiled a new vision emphasizing both the poverty aspect of CGIAR research and the opportunities offered by modern science, ICW2000 will discuss:


- Vision and Strategy, Organizational Structure and Governance issues;
- Long-term financing strategy, including proposals on a public awareness and resource mobilization initiative to support the strategy's implementation, and
- Continuing CGIAR business, including discussion and approval of the 2001 financing plan and 2002 research directions.

A special seminar "Frontier Science, Global Public Goods and the CGIAR," will be inaugurated by World Bank President James D. Wolfensohn on the afternoon of October 23, and will feature prominent speakers such as Jeffrey Sachs of Harvard University and Per Pinstrup-Andersen of IFPRI, among others. On October 24 morning, Robert Watson, World Bank Chief Scientist will present an update on climate change, and on October 25 afternoon, Hans Binswanger, the Bank's Sector Director for Rural Development in Africa will discuss the impact of HIV/AIDS on African agricul-

ture. The practice of holding a Centers' Forum - a series of Center presentations under a unifying theme and spread out across ICW - will be continued. This year's Forum will run from October 24 to 27, and highlight Center efforts and impacts in mobilizing frontier science to produce global public goods that benefit all.

Other highlights include a special session on October 25 "The CGIAR in the New Millennium: From Renewal to Rebirth" to honor former CGIAR chairman Ismail Serageldin,. The traditional Sir John Crawford Memorial Lecture will be held on October 26 and this year's star speaker is J. Craig Venter, President, Celera Genomics, who will speak on "Genomics: From Microbes to Man."

A special exhibit built around the overarching theme "Science and Technology for Development" will be held in the impressive, 13-story high Atrium of the World Bank's main complex building. Chairman Johnson and Robert Thompson, World Bank Rural Development Director and CGIAR Cosponsor representative, will launch the event with a ribbon-cutting as part of opening day ceremonies. A large number of Bank staff, visitors, and international development professionals are expected to view the exhibit and see how CGIAR efforts are helping to improve the lives of farming communities worldwide.

Additional information and registration materials are available at www.cgiar.org. 

TAPPING INTO THE CGIAR

Ian Johnson hasn't wasted any time tapping into the heart of the CGIAR system. A week after taking office in mid-July, Johnson and World Bank Rural Development Director Robert Thompson visited CIMMYT, the flagship CGIAR Center located outside Mexico City. The visit allowed Johnson to observe first-hand how agricultural science is promoting rural development and reducing poverty. The two World Bank officials (Thompson also serves as the Bank's CGIAR cosponsor representative) spent two days in the fields and laboratories at CIMMYT headquarters.

Birthplace of the Green Revolution that has transformed tropical agriculture, CIMMYT has mobilized quality science to help the poor in low-income countries develop more profitable, productive, and sustainable systems for growing maize and wheat. The importance of these two crops cannot be underestimated: they provide 25 percent of the total food calories consumed in poor countries and are an important source of income for poor farmers. Development of a higher yielding, more wholesome type of quality protein maize recently won CIMMYT scientists the Millennium World Food Prize (see accompanying story). During the Chairman's visit, the scientists demonstrated how they are using science to create:

- maize and wheat varieties that can thrive in drought-ridden soils;
- pest-resistant maize that prevents large-scale losses in Africa, and
- apomictic maize that reproduces asexually, enabling farmers to recycle even hybrid seed without incurring yield losses.

"I truly believe in your mission and the centrality of your work for human well-being in the new century," said

"Our farms have been sleeping and they need awakening, and we need research.

We need help in awakening our farms."

— Damaris Akonya Abednego

Johnson at a special convocation of CIMMYT scientists and staff. In his broad outline of the challenges and themes - human and environmental - that will influence the performance of research in the next two decades, Johnson emphasized management of both natural resources, a "measure of whether we really are going to have a planet where our children and their children can have a better life," and social capital, an "important determinant of social, economic, and political stability." He suggested that the CGIAR would play an increasingly significant role with respect to each.

In September, World Bank Chief Scientist Robert Watson and Kenya Country Director Harold Wackman joined Johnson and Thompson for a four-day visit to the Nairobi-based ILRI and ICRAF. Scientists at both Centers discussed their laboratory research and hosted an all-day field trip to western



ICRAF's Chin Ong demonstrates a root experiment to CGIAR Chairman Ian Johnson, Rural Development Director Robert Thompson and Chief Scientist Robert Watson



Kenya. The trip gave the visitors a powerful impression of how poor African farmers are grappling with serious soil infertility, livestock health problems, and crop pests and disease that threaten their livelihoods and the future of their children.

ICRAF-in collaboration with the Kenya Agricultural Research Institute, Kenya Forestry Research Institute, and other African organizations-has adopted innovative approaches to pressing problems of poverty in the densely populated rural highlands of western Kenya. Instead of imposing their own ideas about how on-farm trials should be managed, the researchers are tapping the farmers' capacity for experimentation. A specific goal is to anchor research and development in the local community and to empower local groups to conduct these activities.

In the Emuhaya Division of the Vihiga District, women farmers who have been wrestling with striga, a harmful weed highly damaging to maize crops, welcomed the Bank group with lively songs about the challenges they face. One farmer, Damaris Akonya Abednego, warmly thanked the guests for their support with a special poem she wrote:

*“Our farms have been sleeping
and they need awakening,
and we need research.*

We need help in awakening our farms.”

Said Wackman, “These are first class examples of research being applied to improving productivity and increasing the incomes of farmers.”

The all-day field trip gave the Bank officials an opportunity to learn about ICRAF's work in several locations. At Lake Victoria, ICRAF scientists discovered a plume of sediments causing eutrophication, one of the major causes of the



The visitors view an ICRAF inter-cropping experiment

ILRI scientists often work with 'urban farmers' outside Nairobi. Shown here (L to R) are Chege Njoroge and his wife Grace Wairimu who jointly manage an urban homestead of 2 acres; and Priscilla Ndegwa the local agricultural extension officer.



environmental demise of the world's second largest freshwater lake and the chief reservoir of the Nile River. In Luero Village, the scientists are working with local farmers to test and deploy a powerful combination of technologies to enhance soil fertility.

At ILRI, the Bank officials were briefed on progress in eradicating tropical livestock disease. In collaboration with The Institute for Genomic Research (TIGR), based in Rockville, Maryland, ILRI seeks to sequence the DNA of one of Africa's

Continued on page 9



ROOTS AND TUBERS: A CORNUCOPIA OF CROPS ESSENTIAL FOR FOOD AND INCOME SECURITY

Root and tuber (R&T) crops are undergoing a resurgence, and by the year 2020, well over two billion people - many living in the poorest parts of Africa, Asia, and Latin America - will depend on them for food, feed, or sources of income.

A new report, "Roots and Tubers in the Global Food System: A Vision Statement to the Year 2020," jointly prepared by five Centers - CIAT, CIP, IFPRI, IITA, and IPGRI - takes an in-depth look at the role of R&T crops in sustainable agriculture. Its principal conclusion: R&T crops will play increasingly important roles, both in human diets and in promoting the welfare of poor farming communities worldwide.

Cassava, potato, sweet potato, and yams are some well known R&T crops. Agronomically robust and physiologically adaptive, the inherent hardy traits of R&T crops allow them to grow on marginal lands and produce harvests when other crops have failed. They are also abundant sources of dietary energy and nutrients. And extremely efficient in producing large amounts of edible plant matter: 85 percent of the potato plant is edible, compared to only 50 percent for cereals. During 1995-97, farmers in developing countries harvested nearly half a billion metric tons of the major R&T crops, with an estimated annual value of \$41 billion, nearly one-fourth the value of the major cereals.

"Acre for acre, R&T crops offer poor farmers opportunities to link with emerging markets, providing a diversified range of high-quality, competitive products for food, feed,

and industry," says Mark Rosegrant of IFPRI, and co-author of the report, "and what is more, many of the developing world's poorest look to these crops as an important source of food, nutrition, and cash income."

Multiple roles, steady growth rates

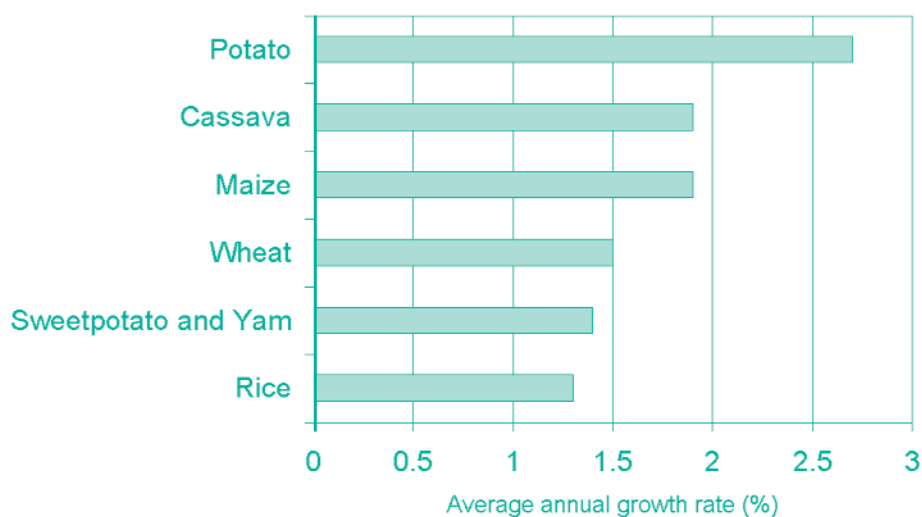
R&T crops will be many things to many people by 2020. Their adaptation to marginal environments, vital role in promoting food security at the household level, and their flexibility in mixed farming systems make them preferred crops of choice, both by farmers and consumers, and an important component of strategies to improve welfare of the rural poor.

The report's projections for R&T crops were generated using IFPRI's

IMPACT model. The simulations of the economic value of R&T crops take into consideration the production of nearly all the major commodities in the global food system, including cereals, soybean, and meat. The share of R&T crops in the total value of these products is projected to remain at roughly 11 percent.

The projected annual growth rates in output are particularly strong for potato (2.7 percent) and yam (2.9 percent). Production of cassava and sweetpotato is expected to expand at a more modest pace - 1.95 percent and 1.0 percent per year respectively. These projected growth rates actually represent a slowdown compared to recent rates of expansion for these crops. More importantly, future growth rates for cassava, potato, and yam are expected to exceed those for rice and wheat (see figure).

Projected production growth rates for major food crops in developing countries to 2020





TOP U.S. OFFICIAL VISITS IITA

Contribution of the CGIAR

Agricultural research - of the sort at which the CGIAR system excels - can help tackle the various challenges facing improvement of R&T crops. CGIAR contributions cover the entire food chain, from production through to utilization and policy. CGIAR's particular strengths include well-characterized germplasm collections, plant varieties with value-added traits, collections of the major pests and pathogens and the beneficial organisms that control them. The CGIAR has accumulated knowledge spanning the entire production-to-consumption continuum, and has developed innovative research approaches that range from high-tech laboratories to community meeting halls in tiny villages, from the latest techniques in molecular biology to the newest methods of farmer participation in research.

In 1998, CGIAR activities on R&T crops were conducted by five Centers through some 35 projects at an approximate cost of \$44 million. This amounts to 14 percent of the total CGIAR budget, and a series of impact studies have shown that these investments have paid very high rates of return.

Given the projected importance of R&T crops in developing countries to 2020 and beyond, it is essential to retain these crops as an integral part of a global strategy to increase food production and utilization in Africa, Asia, and Latin America in the decades ahead. CGIAR research efforts will continue to play an important role in ensuring the availability of R&T crops for the two billion plus people who rely on them for food and livelihoods. 🌱



Ango Abdullahi, Nigeria's Presidential Adviser on Agriculture and Food Security, shows a Maruca-rearing cage to Secretary Glickman (center) and Gus Schumacher (left).

U.S. Secretary of Agriculture, Dan Glickman recently visited the Ibadan campus of the International Institute of Tropical Agriculture (IITA) as part of a week-long trip to Africa to learn about hunger, infrastructure and health care issues facing the continent.

"I want to shine a spotlight on the desperate urgency of the development challenges in Africa," Secretary Glickman had said before embarking on the trip. At IITA, he saw first-hand how agricultural research was helping to alleviate hunger and malnutrition in Africa. From sampling food products made from maize, cassava, and soybean, to seeing how molecular sciences are being deployed in the fight against Maruca (a serious pest of cowpea plants), to visiting IITA's genebanks where 40,000 plant samples are stored, the distinguished visitor got a

close-up look at how IITA scientists are helping tackle some of the most pressing agricultural development problems facing Sub-Saharan Africa.

The high-level delegation included the Governor of Oyo State; Ango Abdullahi, Presidential Adviser on Agriculture and Food Security; August "Gus" Schumacher, Jr., Under Secretary for Farm and Foreign Agricultural Services; Shirley R. Watkins, Under Secretary for Food, Nutrition and Consumer Services; Jill L. Thompson, Under Secretary for Rural Development, and Tom Hobgood, Country Director USAID. Highly impressed with IITA research efforts, Secretary Glickman promised to continue to seek ways through which the United States could expand its support to IITA and to agricultural research and development for Africa.





CGIAR'S ROLE IN ALLEVIATING WORLD HUNGER AND POVERTY LAUDED BY WORLD'S TOP SCIENCE ACADEMIES

Agricultural research has been an important driver of technological change, boosting agricultural productivity and making modern day agriculture the most productive in human history. However, relentless pressures - burgeoning population growth, agriculture's growing 'ecological footprint' on the natural resource base, and rising rural and urban poverty - are combining to make the task of improving agriculture ever more urgent. Recent spectacular advances in biotechnology such as the decoding of the human genome, mapping of the rice genome, the development of beta-carotene enriched rice, and others have raised hopes that modern science can tackle and accelerate the fight against age-old problems of hunger, malnutrition, and poverty.

In a major development, seven prestigious academies of science from around the world, including five from developing countries (Brazil, China, India, Mexico, and Third World Academy of Sciences), the venerable Royal Society of London, and the U.S. National Academy of Sciences recently released a White Paper - "Transgenic Plants and World Agriculture" - that spells out the promise of agricultural biotechnology for alleviating hunger and poverty in developing countries.

"The revolution in molecular biology provides the developing world with some important new tools for feeding and caring for its people," says Bruce Alberts, President of the U.S. National Academy of Sciences. "It will be critical to use the best science to make wise choices with respect to the application of these technologies." Mr. Alberts is no stranger to the CGIAR and was a member of the CGIAR Third System Review Panel led by Maurice Strong.

"The revolution in molecular biology provides the developing world with some important new tools for feeding and caring for its people. It will be critical to use the best science to make wise choices with respect to the application of these technologies."

— Bruce Alberts

In a direct reference to the important role of agriculture in reducing hunger and poverty - important pillars of CGIAR research - the report notes "It is essential that we improve food production and distribution in order to feed and free from hunger a growing world population, while reducing environmental impacts and providing productive employment in low-income areas. Key to moving forward is responsible research, development, and implementation of genetic modification (GM) technology for widespread agricultural use.

GM Technology and World Agriculture

According to the paper, most GM technology has not been developed with Third World needs in mind. Rather, these techniques were developed primarily for large-scale agriculture in the industrialized world. There are concerns that a growing backlash against GM technology will completely overshadow all the promise that the technology offers. The paper urges governments to base their decisions regarding biotechnology on sound science, and strongly encourages private sector corporations and research institutions to share their technology with scientists and farmers in developing countries who desperately need it.

On the important issue of achieving balance between public and private sector roles, the report points out that funding for agricultural research in general, and GM technology in particular, has shifted from the public sector to private corporations, with an eye toward creating profitable products. Concurrently, public and non-commercial research efforts have waned. Private companies today can obtain plant varieties - free of charge - from farmers and non-commercial institutions such as the CGIAR, add one or more proprietary traits, and then release seed with a variety of forms of legal or technical protection against copying, farm retention, and farm-to-farm transmission. GM technology intensifies the dilemma because of the high level of skill and infrastructure that it requires. To compensate, the report argues that public sector research, as practiced by the CGIAR and by farmers and national agricultural research systems, needs to be strengthened and provided with increased resources and attention.

Among the White Paper's significant recommendations:

- Governments should fully recognize that there will always be public interest/goods research requiring public investment even in the market-driven economy;
- It is imperative that public funding of research in this area is maintained at least at its present level both in the CGIAR and in national research institutions;
- Governments, international organizations and aid agencies should acknowledge that plant genomics research is a legitimate and important object for public funding and that the results of such research should be placed in the public domain;
- Innovative and vigorous forms of public-private partnerships are urgently required if the benefits of GM technologies are to be brought to the world's people;
- Incentives are needed to encourage commercial research companies to share with the public sector more of their capacity for innovation, and
- Care should be taken so that research is not inhibited by over-protective intellectual property right regimes.

As the debate about the safe and equitable use of biotechnology intensifies, it is clear that the CGIAR's research efforts will serve as important examples of how quality science can be brought to bear on the problems of tropical agriculture for the ultimate benefit of all.

The White Paper is available on the Web at:

<http://www.nap.edu/catalog/9889.html>



TAPPING INTO THE CGIAR *Continued from page 5*




Harold Wackman, World Bank Country Director for Kenya, Pedro Sanchez, ICRAF Director General, Wilfred Mwangi, Kenya Ministry of Agriculture and Rural Development, and Hank Fitzhugh, ILRI Director General review the field trip to the highlands and Lake Victoria

most destructive cattle parasites. East Coast fever threatens 24 million head of cattle; in Africa, a cow dies of the disease every 20 seconds. A vaccine would “inject” up to \$300 million annually into the economies of the 11 countries where the disease is widespread and could have enormous implications for malaria and cancer research.

ILRI's work on dairy-processing options and marketing was in evidence during a visit to a peri-urban farm just outside Nairobi. The farm's owners, Chege Njoroge and Grace Wairimu, are part of the informal or “raw” milk markets that dominate the dairy sector in developing countries. Of the 16 liters of raw milk that Njoroge and Wairimu get from their cows daily, they sell approximately 14 liters in informal markets, by far the most profitable enterprise on their 2 acre plot. ILRI research has shown that Kenya's informal dairy industry employs two to three people full time for each 100 liters of milk handled daily. Wages earned through milk vending are 50-100 percent higher than the national average and well over the minimum wage.

“What I learned from these small farmers has made a deep impression on me,” Johnson reported at a seminar at ICRAF. “The world will depend on dramatically increasing public investment in agricultural sciences and agricultural research. As I have learned on this trip, rural development will take more than just pure research. It is about credit, rural infrastructure, getting products to market, and the health and well-being of farmers. We need comprehensive rural development - agriculture alone can't solve rural poverty.”

Watson and Thompson echoed Johnson's comments. At a seminar on the ILRI campus, Watson said that he was “impressed by the CGIAR's ability to take science from the laboratory all the way to poor farmers' fields.”

“Farmers are the backbone of Africa's economies,” Thompson said. “We have seen striking examples at these CGIAR Centers of how to involve farmers and assure two-way communication between farmers and researchers.” 



WARDA'S NEW RICE WINS CGIAR'S KING BAUDOIN AWARD

The 2000 CGIAR King Baudouin International Agricultural Research Award goes to WARDA for developing a new strain of rice that is transforming agriculture in a large portion of West Africa, potentially benefiting 20 million rice farmers – mostly women – of the region, and helping reduce crippling rice import bills.

Dubbed NERICA (for NEw Rice for AfriCA), the new rice combines the ruggedness of local African (*Oryza glaberrima*) rice species with the phenomenally high productivity traits of Asian rice (*Oryza sativa*) that was the mainstay of the Green Revolution.

The development of NERICA is fueled by the rapid advances in agricultural science. WARDA scientists overcame a series of disappointing failures when they succeeded in crossing the two species using a technique called “embryo rescue.” The new rice, the product of an ‘interspecific hybrid cross’ in sciencespeak, smothers grain-robbing weeds like its African parents, resists droughts and pests, and is able to thrive in poor soils. The trait of higher productivity conferred by the Asian rices mean that with a few additional inputs, farmers using NERICA rice can double production and raise incomes.

“Food means rice for many people in West Africa today, and demand for rice is spiraling. NERICA is helping to meet multiple needs – food, nutrition, and income – for millions of people in the humid tropics of West Africa,” says Kanayo Nwanze, director general of WARDA. “The new strain of rice is helping us move toward sustainable agriculture in some of the most ecologically fragile areas of the world.”

“NERICA is helping to meet multiple needs – food, nutrition, and income – for millions of people”

— Kanayo Nwanze

NERICA rice is a ‘designer plant’ in the best sense of the term. A progeny of African-Asian crosses, NERICA’s owe their wide, droopy leaves that help smother weeds to African parentage. The important trait of high productivity is gained from the Asian rices, allowing NERICA panicles to hold up to 400 grains compared to the 75-100 grains that is the norm in African rice species. Further improvements in the plant’s architecture – longer panicles with forked branches, strong stems, and panicles that hold grain tightly and prevent shattering – allow the new rices to outyield others, and produce bountiful harvests with modest fertilization. The new rices mature 30 to 50 days earlier than traditional varieties, allowing farmers to grow extra crops of vegetables or legumes.

The King Baudouin International Agricultural Research Award is keenly coveted. Conferred in the form of a scroll and cash prize of \$10,000, the biennial prize rewards “persons or organizations, irrespective of nationality, which have made a significant contribution to the

development of the Third World, as also to solidarity and good relations between industrial and developing countries and between their peoples.” For the 2000 award, the Technical Advisory Committee led by Emil Javier evaluated submissions from seven CGIAR Centers.

Participatory research is at the core of the NERICA success story. A symbiotic relationship between scientists and farmers was a key ingredient, as was a virtuous cycle of communication. Through a mechanism called “Participatory Varietal Selection” (PVS), a communication dynamic was established and allowed farmers to grow several varieties and provide valuable feedback to scientists. In turn, the scientists were able to learn about the traits that were of most value to the farmers and incorporate those preferences in breeding strategies.

CIAT, IITA and IRRI partnered with WARDA in the NERICA effort. Other partners included a broad range of stakeholders, from farmers, to national agricultural research programs in 17 African countries, China’s Yunnan Academy of Agricultural Science, and scientists at advanced research institutions such as Japan’s International Research Center for Agricultural Science (JIRCAS), The University of Tokyo, France’s Institute for Research and Development, UK’s John Innes Centre, and Cornell University. Generous support from The Rockefeller Foundation helped WARDA’s rice breeders to achieve success.

More information on WARDA’s efforts to improve rice production in West Africa is available at www.cgiar.org/warda 

World Bank Approves Support for CGIAR

Helping people to help themselves, sharing knowledge, building capacity, and forging international partnerships are hallmarks of the World Bank's strategy to 'fight poverty with passion and professionalism for lasting results.' In pursuit of its developmental mission, the Bank's Development Grant Facility (DGF) provides grant financing to support selected global and regional development initiatives that are of significant value for the Bank's borrowers, but cannot be adequately assisted through country lending operations alone. Through the DGF, the Bank assists a broad range of programs focusing on environmental, rural, and social development, health, education, finance, governance, and economic management.

On August 1, 2000, the World Bank's Board approved \$146.9 million to support 47 programs in the coming year, including \$50 million for the CGIAR. "Our contribution to the CGIAR helps to catalyze partnerships, build coalitions, and encourage innovation in the fight against hunger," said Motoo Kusakabe, World Bank Vice President for Resource Mobilization and Cofinancing. Other prominent programs receiving DGF support include the Consultative Group to Assist the Poorest (CGAP, a microfinance facility modeled along the lines of the CGIAR), the Post Conflict Fund, the Onchocerciasis Program, the Convention to Combat Desertification, the Critical Ecosystems Partnership Fund, and the Millennium Ecosystem Condition Assessment among others.

All DGF-supported programs have strong financial backing from other partners. It is expected that the Bank's contribution to these programs will help to catalyze, with others, more than \$1 billion in additional funds. The CGIAR acknowledges with gratitude the continued support of the World Bank.

In Memoriam: Mmes. Bichapu Gandamma, Peta Pentamma, Lalitha Ramdas, Mukkera Salamma, and Gulli Suguna

On August 23, 2000, five female temporary farm workers - Mmes. Bichapu Gandamma, Peta Pentamma, Lalitha Ramdas, Mukkera Salamma, and Gulli Suguna - lost their lives in a rescue attempt when flash floods inundated large parts of ICRISAT's Patancheru campus. The torrential rains also severely affected the neighboring city of Hyderabad, causing the worst flooding in more than 50 years.

David Elliott Bell

David Elliott Bell, a Harvard University emeritus professor and friend of the CGIAR passed away on September 6 in Cambridge, Mass. He was 81. David's career spanned five decades, and in the 1960s he served as director of the U.S. Budget Bureau and then of the Agency for International Development (AID). "The Bell Report" is widely acknowledged to have laid the foundations of a culture of rigorous evaluation and review that permeates the CGIAR.

Robert Kerr Cunningham

Robert Kerr Cunningham passed away on June 22. He was 77. Bob was a CGIAR aficionado, and highly respected throughout the international agricultural development community. He served on the boards of IITA, IRRI, ISNAR, and WARDA.

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CGIAR CENTERS

- **International Center for Tropical Agriculture (CIAT)**
Cali, Colombia
Phone: (57-2) 4450000
Web: <http://www.ciat.cgiar.org>
- **Center for International Forestry Research (CIFOR)**
Bogor, Indonesia
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Web: <http://www.cgiar.org/cifor>
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Web: <http://www.cipotato.cgiar.org>
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- **International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)**
Patancheru, Andhra Pradesh, India
Phone: (91-40) 3296161
Web: <http://www.cgiar.org/icrisat>
- **International Food Policy Research Institute (IFPRI)**
Washington, DC, United States
Phone: (1-202) 862-5600
Web: <http://www.cgiar.org/ifpri>
- **International Institute of Tropical Agriculture (IITA)**
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Phone: (234-2) 2412626
Web: <http://www.cgiar.org/iita>
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Web: <http://www.cgiar.org/ipgri>
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Phone: (31-70) 3496100
Web: <http://www.cgiar.org/isnar>
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Web: <http://www.cgiar.org/iwmi>
- **West Africa Rice Development Association (WARDA)**
Bouaké, Côte d'Ivoire
Phone: (225) 634514
Web: <http://www.cgiar.org/warda>