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BAR invests P2M for Nueva Ecija fruits & vegetables seed center

As a move to demonstrate its commitment to strengthen the research and development capacity of the R&D institutions, the Bureau of Agricultural Research (BAR) recently pledged a P2 million institutional development support to the Nueva Ecija Fruits and Vegetables Seed Center for the establishment of a modernized seed production and supply system.

The approval of the grant is a vital step in the development of a seed production system for high value commercial vegetables and fruits of the region.

According to the project proponents, many improved varieties of fruits and vegetables have been developed, but the country still fails to meet the growing demand for seeds. This is due to lack of sustainable and modernized technologies for the production, distribution, and utilization of quality seeds and planting materials. The project specifically aims at preserving and providing stable supply of seeds and seedlings of fruits such as mango, jackfruit, and cashew and selected vegetables such as eggplant, grafted tomato, and *ampalaya*. Also, the project will help strengthen the research capability of the Center on the development of improved management techniques for rapid multiplication of planting materials.

The grant is for the procurement of necessary laboratory and field equipment, farm production inputs (seeds, fertilizers, growth hormones) and materials needed to construct nurseries and seedbeds. Part of the grant will be used as honorarium for fruits and vegetables experts in the training of the Center's technical and support personnel.

The Nueva Ecija Fruits and Vegetables Seed Center has 10 ha sprawling land devoted to fruit bearing tree species and vegetables endemic in the region. The project is expected to be fully operational in the first quarter of 2003 and will be finished in 2005. *(Mary Charlotte O. Fresco).*

INSIDE...

EPMR evaluates NaRDSAF members' performance and effectiveness

The Bureau of Agricultural Research (BAR) will begin evaluating the effectiveness and performance of the National Research and Development System in Agriculture and Fisheries (NaRDSAF)-member institutions through the External Program Management Review (EPMR). This review covers the Department of Agriculture (DA) R&D units and centers, and national programs funded by BAR.

The EPMR, to be conducted every five years, seeks to provide a means of transparency and accountability to stakeholders of the NaRDSAF by determining the level of effectiveness of R&D centers in accomplishing their mandates and goals. In so doing, the EPMR presents an impartial and thorough evaluation of the research management process of the R&D centers.

To be assessed are the R&D centers' and institutions' mission,

see BAR evaluates NaRDSAF, page 3

SCIENCE SCOPING

Putting a face to the rural poor

I write about the rural poor and not rural poverty. This is because I want to put a face to the 70 percent we, people in development, always say is the focus of our efforts. Rural poverty is general, embracing the condition where agriculture or fisheries is the main source of livelihood and the income is not enough to provide for the basic necessities for the family. Rural poor is the individual or the family deprived of the basic necessities in life. How do they look and how different are they from the rest of the Filipinos – the other 30 percent? Unless we know how they look then they remain the imagined breed that RDE and other government services try to help. Lest we perceive the rural area as all poor, this is not so especially in Region I where the income distribution is characterized by a tall pyramid. But whatever is the income distribution, the face of the poor is the same throughout.

It was noontime and I was caught at the middle of the barangay where I was doing research on population knowledge of Filipino youths in a farming community. I could not get out for lack of vehicle. Besides, it was too hot and dusty. I sought temporary shelter in the only house around, a one-room cogon hut supported by spindly wood posts and that had rickety bamboo floor. The bony 70-year old looking man who owns the hut could hardly move as he invited me inside. I told him what I was doing in their barangay and asked his permission to eat my 'baon' in his place. He told me he was also going to eat his "brunch. "I got inside a filthy and sooty kitchen separated from the one room hut by a little space just above the three-step stairs made of bamboo poles tied together by bamboo splits. He brought out from an earthen pot a lump of cold rice, then from a coconut shell a broiled rock salt. That was his brunch. He was profuse in his thanks when I shared with him my 'baon' and left him what we were not able to finish.

Earlier that morning as I got inside the barangay, I met a group of skinny school children with sallow skin and unseeing gaze, dragging their feet as they walked, dressed in cast away clothes that looked too big or too small. And had I looked into their well-worn bags that had seen better days with the original owners, then I could have seen their 'baon' of rice and one 'tuyo' or molasses. Later when I was no longer a teacher, I remembered that these were the very kind of children I scolded for being listless in class and who could not answer my questions because they were more listening to the grumbling of their stomach or feeling the hunger pang than to the use of the present or the past tense in English which they would never use in their lifetime. And I never understood them for it was only then that I could put meaning to poverty in real terms. Then I felt so guilty that I wanted to go back to teaching and be a 'feeling' teacher and hoped that I would be forgiven.

As I got deeper into the community later in the afternoon, I faced more realities. It is as if children were the only things they could be freely gifted with to further share in the poverty of the family. And yet they were happy. Maybe what they lack materially is compensated spiritually.

Poverty has no choice. Poor people do not eat what they want. At times they do not have anything to eat at all or from three meals they only have two. If they do not have rice, then they panic because this is the food that sustains them. Rice to them is life. And there must also be salt. Salt to them is the spice of life. To the more resourceful, then they plant vegetables at their backyard or wherever there is space and the rural areas have plenty of this resource. One malunggay tree, I have read, is equivalent to one cow to provide the protein requirement for the family in a lifetime.

*Poverty means having an income level that does not allow an individual to cover certain basic necessities, taking into account the circumstances and social requirements of the environment, says one writer. This means that poverty presents different faces at varying circumstances. The problem is, what if the family has no income at all? And there are families with this condition. Who of the 70 percent of the rural poor should we start to serve? Poverty eradication is one of the main goals of development. With the existing conditions, could this be attained in a lifetime? **VAD** ■*

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Alcala leads the rubber industry development program of RP

Dr. Eugenio Alcala, professor of the University of Southern Mindanao and the national team leader of the Research Development and Extension Network for plantation crops, was appointed recently by Department of Agriculture Secretary Leonardo Montemayor as the coordinator of the Rubber Industry Development Program(RIDAP) of the DA.

As the coordinator, Alcala will provide technical expertise in the implementation of programs of the Department of Agriculture for the rubber industry in the country.

Rubber is one of the industrial tree crops that the Philippines has a comparative advantage. Our soil and climate is favorable for its production and we have the area and manpower needed to be able to develop and sustain the production of this cash crop.

If we are able to expand and rehabilitate our rubber plantations found mostly in Mindanao, we can increase our share in the global market for natural rubber. Eighty percent of the world's supply of natural rubber can only come from ASEAN countries where rubber is mostly found.

RIDAP is part of the Ginintuang Masaganang Ani (GMA) High-Value Crops Program of DA. GMA provides the national directions and framework for harmonizing local initiatives that promote the development of high value crops and provide the market orientation on developing the industry.

Part of Alcala's duties is to

synchronize the activities and initiatives of DA regional offices, bureaus, and attached agencies that are related to the improvement of rubber production with the Ginintuang Masaganang Ani High-Value Crops national program. *(Ma. Rowena S.A. Briones)*

EPMR evaluates NaRDSAF...

strategy and priorities based on the AFMA priorities and strategies; the quality and relevance of the science undertaken, the effectiveness, efficiency and quality of management; and the overall accomplishment and impact of the centers' research programs in the attainment of AFMA goals.

A number of participants will conduct the EPMRs. These are the EPMR Panel and members; the BAR Group, which includes management and staff, the Research and Development Monitoring Committee, the Senior Scientists Advisory Committee and the Governance, Impact Evaluation and Policy Division, which is also the Secretariat; members of the R&D centers' management and staff; external consultants; and the R&D centers' local, national and regional partners. The EPMR Panel is composed of at least five members who are experts in program and management areas significant to the R&D center or institution being evaluated.

The EPMR involves visits to the centers' major operations so as to obtain a holistic and realistic view of the centers' field operations, working conditions and relations with other agencies. The BAR Secretariat shall help coordinate the visits and accompany the panel members when required by the Panel chair. An EPMR Report that includes the four areas of evaluation mentioned earlier and recommendations will be submitted to BAR at the end of the review, which should last for six months at the most. *(Thea Kristina M. Pabuayon)*

Philippine agriculture and fisheries R&D gets wired

by Likha C. Cuevas

Interested in agriculture and fisheries updates? That research information is just a click away. Agriculture and fisheries research and development (R&D) is going hi-tech by getting wired through the Agriculture and Fisheries Research and Development Information System (AFRDIS).

The Bureau of Agricultural Research (BAR) coordinates the institutionalization of a sound and responsive R&D information system and sustainable communication strategies for agriculture and fisheries. AFRDIS is an information network composed of state universities and colleges in agriculture and fisheries, attached agencies and regional field units of the Department of Agriculture (DA) and other institutions engaged in R&D. At present, it is composed of four clusters: Northern Luzon, Central Luzon, Eastern and Central Visayas, and Central Mindanao. Communication, information sharing and dissemination among partner-institutions are faster and systematized through information technology (IT).

Strategy

One of the major tasks of AFRDIS is to establish a local area network (LAN) among partner-institutions to facilitate the efficient R&D information exchange among them. These institutions are then interconnected through the Internet.

Before going through all these, AFRDIS needs sustainable partnership with R&D institutions. These AFRDIS partners or member institutions are: DA-attached agencies like Philippine Rice Research Institute (PhilRice), Bureau of Postharvest Research and Extension (BPRE), and the Philippine Carabao Center (PCC); DA – Integrated Agricultural Research Centers in Ilocos (ILIARC), Eastern Visayas (EVIARC), Central Visayas (CENVIARC), and Central Mindanao (CEMIARC); and state universities and colleges like Mariano Marcos State University (MMSU), Central Luzon State University (CLSU), Leyte State University (LSU), and University of Southern Mindanao (USM). BAR encourages these AFRDIS partner-institutions to use the same information system employed by the Bureau for standardized sharing of information.

AFRDIS components

One of the components of AFRDIS is the R&D Information Management System wherein a web-enabled system serves as virtual repository of information on technologies, on-going researches, and projects. With just a click of the mouse, the needed research information can be accessed. Another component is the Financial Management Information System, a computerized processing and monitoring of financial transactions and status of projects. Now, scientists and researchers can keep track of their project's financial status.

There is also a system for storing relevant information on research and support personnel (Human Resource Inventory System) and a system for managing the storage and retrieval of information related to equipment, laboratories, and other physical resources used in projects (Physical Resource Inventory System). Through these systems, one can easily

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pinpoint the person to contact and the place where the needed information can be obtained.

The Geographical Information System establishes a common set of base maps needed to support the conduct of R&D. It serves as a tool for analyzing issues on investment, technology impact, and agricultural trends. BAR Online, the website for the National R&D System for Agriculture and Fisheries (NaRDSAF), is capable of hosting the database of completed research, discussion forum and sites of the national research, development, and extension (RDE) networks.

BAR support

To be able to join the fast-paced information highway, BAR provides training on Information and Communication Technology (ICT) needs assessment, LAN installation and configuration, network administration and management, software engineering, and web development. The Bureau also gives advice on ICT infrastructure and software application and assists in systems customization.

These efforts transform the agricultural information delivery system from resource-based to technology-based. This paves the way for a more focused and rational information transfer as envisioned in the Agriculture and Fisheries Modernization Act (AFMA). ■

CGIAR ANNUAL GENERAL MEETING 2002

October 28-November 1
Manila, Philippines

Tips from the pro

by Likha C. Cuevas

Writing agricultural news is his cup of tea.

Mr. Rudy Fernandez, the known agricultural columnist and journalist for various broadsheet newspapers like the Philippine Star, met with the Knowledge Products and Services Division (KPSD) and the Public Affairs and International Relations and Communication Division (PIRCD) of the Bureau of Agricultural Research (BAR) on August 20, 2002 at the BAR Annex Building.

He was invited to talk and give tips on how to write and send press releases to the media, especially the print medium.

Fernandez said that before writing, writers should categorize news items according to subject and nature: breakthroughs, researches, events, infrastructure projects, human interest, etc. to have a clear idea what kind of news it would be. Second tip he gave was, "when writing a story, think of the newspaper page that you are going to write for." Examples of these are the agricultural page, education page, and the people/events pages. He cited that the news about the NaRDSAF scholars that the BAR Chronicle published a few issues ago could be sent to the education page of a certain newspaper. The Consultative Group of International Agricultural Research Annual General Meeting (CGIAR AGM) that will be held for the first time here in the Philippines in October to November can be published in the People/Events section and the Agriculture section of the newspaper.

The veteran journalist also reminded the BAR writers and public relations (PR) staff members to keep track of the beat reporters' movements. For example, one should be aware of who is still covering the agriculture beat, who has already moved to another paper, who has already retired, and so on. This awareness would help writers and the PR staff in accessing the media, especially on special or important events.

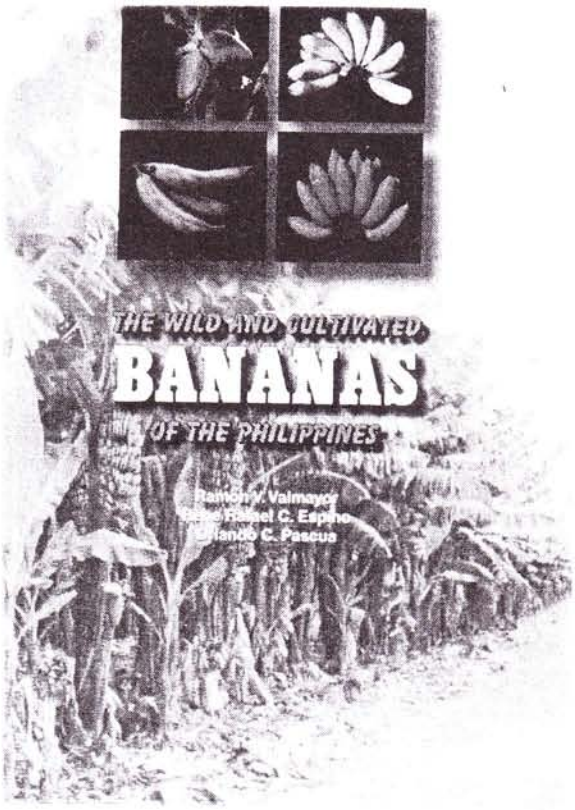
An anecdote related by Fernandez illustrated an instance where good public relations and extensive media contact somehow ensures the news items' publication. He also said that newspaper editors rehash/rewrite news items submitted to them depending on how badly or how well the articles were written.

"I can teach you things that you didn't learn from journalism school. These are the things that I've learned hands-on through the years as a journalist. But I can't cap it on one sitting with you," he said. It was, therefore, suggested that a workshop to be conducted by him should be given to the KPSD and PIRCD staff.

Tips from the pro could go a long way for the young and fresh writers of the Bureau. ■

A wealth of banana info

by Virginia A. Duldulao



For the first time, we have a monograph that assembled a wealth of scientific literature as well as innovative approaches and analytical thinking on the characterization and classification of wild and cultivated bananas in the Philippines, says Dr. Fernando Bernardo, deputy director general of the International Rice Research Institute (IRRI).

He is referring to the book, "The Wild and Cultivated Bananas of the Philippines" authored by Drs. Ramon V. Valmayor, Rene Rafael Espino, and Mr. Orlando C. Pascua. Funded by the Bureau of Agricultural Research (BAR), this book was launched this month at the Bureau .

Banana is native to Southeast Asia and the Philippines is within its center of origin and diversity, according to the authors. It was introduced to Africa and Latin America where they became popular and contributed to the economy of these continents.

There are two species of edible bananas in the Philippines, *Musa paradisiaca* or cooking banana and *Musa sapientum* or dessert banana; two wild seedy species, *Musa acuminata* and *Musa balbisiana*. Even the abaca (*Musa textiles*), the country's premier fiber crop is a banana species. Other species include four popular ornamental bananas and a "virgin" banana, named so for being monocarpic and non-suckering so that propagation is by seed only.

There are currently 91 banana cultivars in the Philippines classified and characterized by the authors that are primarily of local origin. Forty-one of these are described for the first time. Majority of these cultivars are found only in isolated areas, nine of which are grown by hill tribes and their fruits do not even reach local village markets .

The authors distinguished the characteristics of selected commercial and exotic banana cultivars in the Philippines and Indonesia. The popular cultivars in the Philippines for domestic trade include *latundan*, *lakatan*, *bungulan*, and *saba* while the favorites among banana collectors are *morado* (red color), *pitogo* (fingers that are spherical), *inabaniko* (fused fingers like a fan), and *tindok* (fingers 24 to 28 cm long). The exotic cultivars of banana in Indonesia have unique characteristics. The *Pisang Kates* are papaya-like bananas with solitary fruit per hand while P*isang Seribu* is a thousand fruited banana. The *Pisang Tongat Langit* is a banana whose fruits are upright as if reaching for the sky while the *Pisang Rojo Uter* has a single and continuous "hand" of fruits that spiral around the fruit bunch.

The senior author, in his seminar during the launching of the book, differentiates banana and plantain. He said that these terms arose in countries outside their center of diversity. In the banana's center of origin that is Southeast Asia, the foreign term plantain applies only to a specific subgroup of cooking bananas while the term banana covers both the dessert varieties and all the cooking bananas including the plantains. Therefore, all plantains are bananas but not all bananas are plantains.

The monograph has four parts. The first part contains the Classification of Wild and Cultivated Bananas of the Philippines. It describes the Philippine *Musaceae* as an indigenous and exotic germplasm, the past and present classification schemes, and the classification under current rules of botanical nomenclature. The second part is on morphological and horticultural characteristics of Philippine banana cultivars. The

see next page

Red-fleshed watermelon is rich in lycopene

*by Cecilia J. Baquireza**

Red-fleshed watermelons can contain as much or more lycopene than tomatoes.

Lycopene gives the flesh of watermelon and tomato their characteristic red color. But most important about lycopene is its role as a powerful antioxidant or as cancer fighter. It is one of the approximately 600 known carotenoids or chemicals responsible for the red, orange and yellow color in fruits and vegetables.

Dietary consumption of lycopene has been associated with a lower risk of prostate cancer and heart diseases. In the body, lycopene is deposited in the liver, lungs, prostate gland, colon and skin. Its concentration in the body tissues tends to be higher than all other carotenoids. Some organs such as the testes and adrenal glands store higher levels of lycopene than do other organs or tissues.

Red-fleshed watermelon is also a source of B-carotene although in smaller amounts than lycopene.

According to scientists, lycopene content of watermelons may vary widely among cultivars and types.

But findings indicate that a cup and a half of watermelon contains about 9 to 13 milligrams of lycopene. On the average, watermelon has about 40 percent more lycopene than raw tomatoes.

Lycopene content of watermelon is bioavailable. This means that the human body can use it without the aid of fats. This was revealed in the studies of the Phytonutrients Laboratory in the US.

Aside from lycopene and B-carotene, watermelon is naturally low in saturated fat, total fat and cholesterol and a beneficial source of vitamins A, B6, C and thiamin. Since lycopene gives watermelon its red color, more likely, the redder the watermelon the more lycopene it contains.

Research works are in progress in the Agricutural Research Service at the South Central Agricultural Research Laboratory (SCARL) in Lane, Oklahoma, and at the Phytonutrients Laboratory in Beltsville, Maryland, USA. ■

Source:
http://www.ars.usda.gov/is/AR/archive/jun02/lyco0602.htm and http://www.okstate.edu/ag/agedcm4h/ag_news/ag@osu http://www.americaheart.org/FoodCertification

***Author was head of KPSD before going for her PhD program at Oklahoma State University.**

A wealth of...

third part is on the Philippine banana cultivar names and synonyms while the last part is on banana cultivar names and synonyms in Southeast Asia.

While the book is a scientific monograph, the colorful and detailed illustrations and pictures make it understandable to any kind of reader. As Dr. Bernardo said in the Foreword of the monograph, any layman would enjoy browsing through the assembly of colorful photographs of popular varieties, as well as detailed illustrations of morphological and horticultural characteristics of many cultivars.

This monograph was principally sponsored by BAR with the following as co-sponsors: International Network for the Improvement of Banana and Plantain (INIBAP); Department of Agriculture (DA); Philippine Council for Agriculture, Forestry and National Resources Research and Development-Department of Science and Technology (PCARRD-DOST) and the Philippine Agriculture and Resources Researcch Foundation, Inc. (PARFI).

While late in coming, this monograph spans the year when banana was first noted by Padre Manuel Blanco, the country's foremost botanist in 1837 to the present. This knowledge product is indeed a veritable wealth of knowledge on banana. ■

MANILA CALLING

The Government of the Philippines is hosting the CGIAR 2002 Annual General Meeting (AGM02) in Manila, October 30-November 1, 2002. Highlights of the meeting include:

October 28	Philippines Day
October 29	IRRI Day
October 30 & 31	CGIAR Stakeholder Meeting
November 1	CGIAR Business Meeting

Following the AGM, ICLARM will host a "Fish for Alll" Summit on November 3, 2002 in Penang, Malaysia. Please mark your calendars. For a detailed program, click on *www.cgiar.org*

Former ICRAF Dir-Gen wins 2002 World Food Prize laureate

Dr. Pedro Sanchez, former director-general of the International Centre for Research in Agroforestry (ICRAF), now known as the World Agroforestry Centre, was awarded the 2002 World Food Prize. This was announced by the President of the World Food Prize Foundation and Former US Ambassador to Cambodia Kenneth Quinn during the opening plenary session of the 26th International Horticultural Congress on 11 August 2002 held in Toronto, Canada.

Photo courtesy of www.orgchange.org

The award is the highest international prize given to an individual for achievements in improving the world's food supply and reducing hunger. Norman Borlaug, who is also known for his contribution in world agriculture and won the 1970 Nobel Peace Prize, established the World Food Prize in 1986.

Dr. Sanchez is a pioneer in the field of tropical soils and agroforestry at Berkeley where he also teaches as a visiting professor on tropical resources at the Berkeley's College of Natural Resources. He is a senior research fellow at Berkeley's Center for Sustainable Resource Development and chair of the United Nations Task Force on Hunger.

The 61-year old laureate served ICRAF for 10 years (1999-2001) where he led in providing the smallholder farmers the means to replenish crucial nutrients in exhausted soils by promoting agroforestry.

ICFRAF is an autonomous, international research organization that aims to improve human welfare by alleviating poverty, improving food and national security, and enhancing the environment in the tropics through the use of trees. The development and promotion of agroforestry has provided the farmers with economical and natural ways to fertilize their soils.

His wide contribution in the field of soil sciences has been recognized through various awards like the 1993 International Soil Science Award and the 1993 International Service in Agronomy Award from the American Society of Agronomy. His latest award was a honorary doctorate given by the Catholic University of Leuven in Belgium on February 2001. For the past 25 years, his leadership improved food security in Latin America, Africa, and Southeast Asia.

Dr. Sanchez joins the past World Food Prize awardees, namely, Dr. Per Prinstrup-Anderson who enabled several governments to reform their food subsidy programs and dramatically increased food availability to poor countries; Dr. Hans Herren who developed and implemented the biological control project for cassava mealy bug that nearly wiped out the entire African cassava; and Dr. M.S. Swaminathan who introduced the high yielding varieties of wheat and rice to Indian farmers.

Dr. Sanchez will receive $250,000 as part of the award during the official ceremony, which is scheduled on 24 October 2002 at Des Moines, Iowa during the World Food Prize International Symposium. To present the prestigious award are Mr. John Ruan, chairman of the World Food Prize Foundation, and Dr. Norman Borlaug, referred to as the father of the World Food Prize. *(Rita T. dela Cruz with information from the ICRAF press release. For more information please contact Dennis Garrity, World Agroforestry Centre director-general at United Nations Avenue, P.O. Box 30677, 00100 GPO, Nairobi, Kenya or through his e-mail at d.garrity@cgiar.org)*

Web NEWS

Scientists predict winter wheat crop will be key to a food-secured Afghanistan
http://www.futureharvest.org

El Niño is here
http://www.da.gov.ph

Looters destroy Afghanistan's seed collections
http://www.futureharvest.org

AFIC: Asians favor GM crops
http://www.afic.org/article.asp?Searchmethod= IndexPage&ArticleID= 266 &PageName= default&CollectionType= 5

Developing countries should adopt biotech, says UN panel
http://www.isaa.org

New book examines globalization's impact on the rural poor
http://www.futureharvest.org

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