Department of Agriculture
Bureau of Agricultural Research

BAR Chronicle

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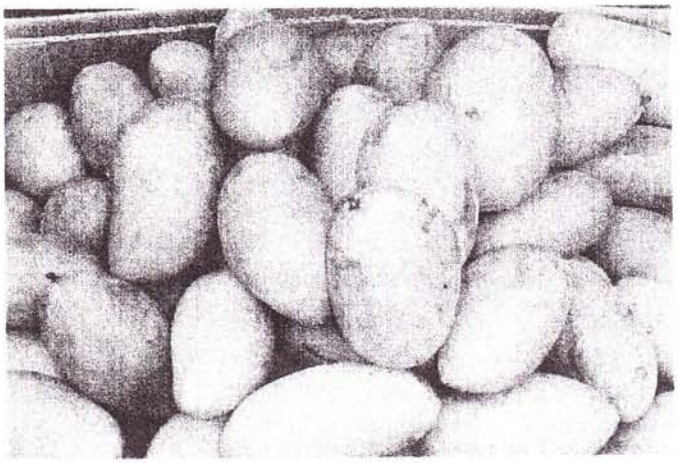
USDA okays Guimaras mangoes



Soon the Americans will be feasting on our luscious Philippine mangoes.

The Animal and Plant Health Inspection Service (APHIS) of the United States Department of Agriculture (USDA) lifted the import ban on carabao mangoes from Guimaras effective 14 June 2001 with the condition that the mangoes be subjected to the prescribed vapor heat treatment (VHT).

The ban was lifted after the US Department Agricultural Research Service confirmed that Guimaras is free from mango seed weevil. However, concerns about the incidence of two fruit fly species--*Bactrocera philippinensis* and *Bactrocera occipitalis* led them to require the VHT for mangoes.

Initial and confirmatory tests done by the USDA and the Philippines National Mango Research and Development Center (NMRDC) showed that the eggs and larvae of both fruit fly species could be wiped out by the standard VHT temperature of 46° degrees Celsius in 10 minutes.

Most mango producers in Guimaras and elsewhere in the country rely on VHT against anthracnose, stem-end rot and fruit fly damages. It is a treatment acceptable to Japan and other markets.

In addition, the USDA specified seven conditions governing importation of the carabao mangoes. First, the mangoes must have been grown in the island of Guimaras only. According to Dr. Hernani Golez, head of the NMRDC, Guimaras is the only province capable of meeting strict export standards since it is currently implementing a full quarantine policy.

The second condition is for the VHT prescribed by the USDA to mitigate the risk of fruit flies. The treatment must be conducted in the Philippines under the supervision of an inspector. Third, is for the mangoes to be inspected by an APHIS inspector either in the Philippines or at the port of first arrival in the United States.

Another condition is proper labelling and that each shipment of mangoes be accompanied by a phytosanitary certificate issued by the Philippines' Department of Agriculture (DA) stating that the

See US okays, page 4

BAR bags SANDIGAN Award

The Bureau of Agricultural Research received this year's SANDIGAN Award from Visayas State College of Agriculture (ViSCA). The award is given annually in commemoration of ViSCA's Foundation Day.

According to Mr. Rodolfo Escalada, Chairman of the Awards Committee, the Sandigan Award is in recognition of BAR's support to ViSCA's institutional development efforts that led to the upgrading of ViSCA facilities and equipment; research and development in rootcrops, abaca and other agricultural commodities; and standardizing of ViSCA's Information Technology and Geographic Information System.

Through Sandigan, ViSCA also acknowledges BAR's instrumental role in designating the college as the lead agency in the National Root Crops Network and National Abaca Task Force and as one of the national universities coordinating the DA-RIARCS in Region 7, 8 and CARAGA *(Maria Rowena Briones).*

Challenges, imperatives, and a call for partnership

by: **Hon. Leonardo Q. Montemayor**
Secretary, Department of Agriculture

Let us form partnerships for the development of the agricultural sector. The challenges we face can only be overcome if we are united by a common vision of equitable development.

There are three basic concerns that I would like to share with you: 1) the challenges we face in agriculture; 2) the imperatives that we must focus on; and 3) the necessary partnerships that we must build for a sustainable development in the agriculture sector.

The challenges

Referring to 1990 as the base year, our over-all agriculture productivity has grown at barely over one percent annually while Thailand and Vietnam achieve six to eight percent growth per year. The pressures of rapid population growth, declining agricultural land and stagnant productivity have forced us to import larger amounts of rice. But despite the added supplies arising from imports, the rice prices faced by Filipino households are about two times higher than those paid by Thai or Vietnamese households. Hence, crushing poverty remains particularly in the countryside and in our urban slums.

The problems of the agricultural sector have resulted from long-running neglect. There are no magic solutions or quick fixes for these. The government cannot solve these problems single-handedly either, especially now that its resources and management skills are very limited.

The imperatives

To address these challenges, our actions should not only lay the impetus for sustained growth but should also respond to poverty and need. Where do we start?

We must start with the codified mandate by which we will pursue our vision and goals: we must implement R.A. 8435—the AGRICULTURE AND FISHERIES MODERNIZATION ACT—in full. AFMA is the framework by which we shall achieve sustainable food security and a modernized agriculture: revitalized productivity for a more abundant food supply, coupled with more efficient deployment of resources, and the building of genuine partnerships between government and the private sector.

To cope with short-term pressures and urgencies, we have initiated the Targeted Rice Distribution Program (TRDP) in cooperation with the National Food Authority(NFA), Department of Social Welfare and Development (DSWD), National Anti-Poverty Council (NAPC) and selected LGUs and NGOs. Under this program, the generalized subsidies being provided by NFA are now aimed at specified communities of the poorest of the poor. We are addressing here household food insecurity caused by the large gap between domestic and imported food prices.

To enhance the ability of the agricultural bureaucracy to react to problems, demands, and opportunities, I intend to place substantial authority and resources in the hands of the DA Regional Offices to encourage local collaboration with NGOs, POs, businessmen and farmers. I have also instructed the DA agencies and units to ensure that farmers and fisherfolk are represented in their governing boards.

We will also reduce or eliminate DA regulations that stifle initiative and opportunities of all stakeholders, that result to higher costs of food and agricultural inputs and restrict access to more productive technology.

Public and private partnership for agricultural development

I appeal for your support, talents and resources to meet the challenges. The government cannot do it alone.

We need your advocacy for the full implementation of the AFMA.

I appeal to all businessmen to render direct assistance such as funding the provision of basic agricultural facilities (water impounding dams, pumps or pipes, landing wharves, training rooms or courses for technology transfer, high yielding seeds and basic tools and equipment) to the poorest farming and fishing communities.

I hope the business community will look upon the various aspects of agriculture as business opportunities and a social responsibility. The private sector initiative and ingenuity are badly needed in productive technology and extension.

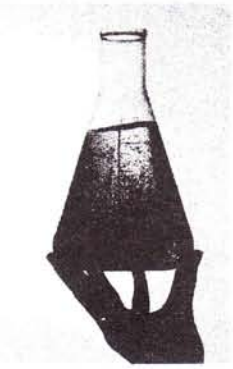
A final and urgent area of partnership among government, business and civil society is in the formulation and execution of appropriate global agricultural trade policy to attain our vision of an

See Challenges, page 7

News Feature

Too much ado over biotechnology? Visiting US prof answers why

by: Laarni C. Anenias



Why has agricultural biotechnology become a lightning rod for conflicting discourses?

Guest speaker Dr. Napoleon K. Juanillo Jr., started with this intriguing question as he tackled the topic "Frames of Public Discourse on Agricultural Biotechnology." Dr. Juanillo is an assistant professor at the Department of Human and Community Development, University of Illinois at Urbana-Champaign. His seminar, held on 11 July 2001 at the BAR Conference Room, was part of the Bureau's R&D Seminar Series.

Shifting frames of discourses: from process to product

Dr. Juanillo's study examined the communication dimension by which biotechnology has been presented to the public. He noted a shift in the type of discourse or manner by which biotechnology, and science in general, has been presented. This shift is from the forensic or empiricist to what he termed as "celebratory" type of discourse.

Forensic or empiricist frame is the traditional frame of discourse. This style puts emphasis on methodology, tables, figures, pictures, and other representations that can serve as evidence to the scientist's findings. Celebratory, on the other hand, emphasizes on breakthroughs, advances, contributions, applications, and benefits of scientific discoveries.

The celebratory style, according to Dr. Juanillo, is "communicating scientific reports and findings in ways that would make sense to the larger, lay audience and requires that scientific information is adjusted to meet the lay audience's already held values and assumptions." Coining the term "golden rice" for a genetically modified rice grain is an example of a celebratory manner of presenting a scientific finding to make it more appealing to the general public.

Dr. Eliseo Ponce (left) and Dr. Napoleon Juanillo (right) during the wrap-up session of the seminar

"Indeed," according to Dr. Juanillo, "there is a change from a discourse of methods and processes to a discourse that gives a final answer."

Clashing sound bytes

It would seem that the celebratory discourse may work well, especially in this era with diminishing audience attention span. Creative phrases such as "grain of hope" or "golden rice" easily catch attention, and at the same time proclaim scientific accomplishments and its potential benefits. But what happens when scientists "fight fire with fire?" When anti-biotechnology groups come out with equally mind-grabbing terms as "frankenfood" and "terminator genes?"

Dr. Juanillo said this only gives more confusion to the audience. "While this strategy may be convenient, what the public gets at the end of the day, however, is simply a clash of sound bytes."

While the celebratory discourse makes scientific findings more relevant and appealing to the lay audience, it all but foregoes many important details and the exact standards of the forensic type of discourse, Dr. Juanillo said.

Critical evaluation of assertions

Scientific assertions have a rightful niche in the public sphere, according to Dr. Juanillo. However, he said that "these scientific claims must be laid down for evaluation side by side with other assertions."

Dr. Juanillo pointed out the critical role of the mass media in moderating the scientific and lay discourses in biotechnology. More than risk analyses and assessments given by experts and scientists, audiences rely on the risks and benefits provided by the mass media.

Biotechnology, and its risks, according to Dr. Juanillo, do not just emerge as issues for the public according to their intrinsic importance. It is highlighted by the manner by which the mass media frame, construct, and define biotechnology and its risks ■

(Source: Dr. Napoleon Juanillo Jr., in his paper titled, "Frames of Public Discourse on Biotechnology," presented at the National Agricultural Biotechnology Council Congress held in Chicago, USA, 22 May 2001)

7 NaRDSAF members avail of scholarship grant

The DA-BAR National R&D System for Agriculture and Fisheries (NaRDSAF) Scholarship Committee recently approved the application of seven from member institutions for the DA-BAR. The new scholars will be given financial assistance to pursue master's (MS) or doctorate degree (PhD) in the universities of their choice but approved by the Committee.

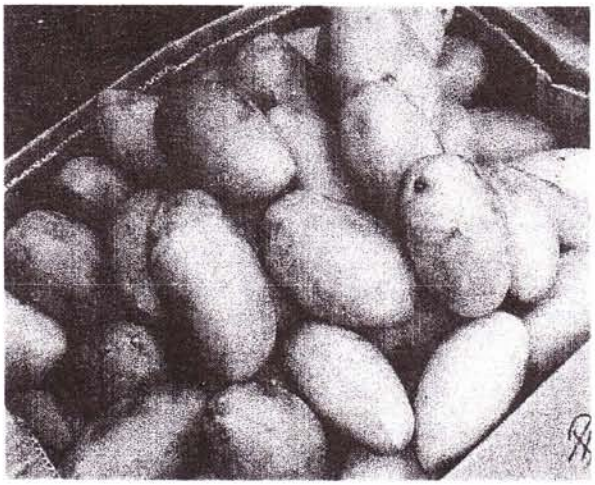
The three scholarship grantees for the MS degree are: Emily E. Victorio (Soil Science – UP Los Banos (UPLB), Manioba M. Dumaot (Aquaculture – Mindanao State University (MSU), and Yusuf A. Socul (Microbiology- UPLB).

The four grantees for the PhD include: Fernando S. Doroy (Horticulture – Visayas State College of Agriculture (ViSCA), Jose Nestor M. Garcia (Environmental Science- UPLB), and Magdalena T. Wanawan (Rural Development- Central Luzon State University (CLSU).

The grant covers a monthly stipend, matriculation and other school fees, thesis and dissertation support, book allowance, graduation fee, relocation allowance, salary retention, and other benefits extended by their respective mother agencies.

The scholarship degree program is under the BAR's manpower development program for R&D staff and researches. It aims to develop a pool of highly competent experts in agriculture, fisheries and other related fields. *(Mary Charlotte O. Fresco)*

US okays...



Guimaras mangoes for export

mangoes were grown in the island of Guimaras and have been treated for fruit flies.

The last two conditions are the Trust Fund Agreement and that the USDA assumes no responsibility for any damage sustained through or in the course of the vapor heat treatment.

The Trust Fund Agreement states that mangoes that are treated or inspected in the Philippines may be imported into the United States only if the Philippines' DA has entered into a trust fund agreement with APHIS. The agreement requires the DA to pay, in advance at each shipping season, all costs that APHIS might incur in providing inspection services in the Philippines during that shipping season.

Production of fresh and processed mangoes is a leading industry in Guimaras, an island roughly the size of Singapore with a 1997 population of 130,000. The 60, 000 hectare island is planted to some 130,000 mango trees.

The Bureau of Agricultural Statistics (BAS) reported that Guimaras exported a combined volume of 12,714 metric tons to Hong Kong, Japan, Singapore, Brunei, Switzerland, United Kingdom and France in the first quarter of 1999. *(Junelyn S. de la Rosa; Source: Federal Register/Vol.66, No. 115/Rules and Regulations)*

NSIC...

environment yields 2.68 tons to 4.54 tons per hectare.

UPLB-bred rice variety Lian is good for drought-prone areas and yields 2.68 tons to 4.54 tons per hectare.

In the last ten years the three agencies have been at the forefront of the breeding community by producing a number of rice hybrids that are more suited to the rough growing conditions in the country. DA-PhilRice, IRRI and UPLB have reportedly bred 64 rice varieties. Among these varieties, 25 are suited for irrigated areas, 17 for rain-fed areas, 11 for adverse field conditions, 8 for cool elevated areas and 3 for upland conditions.

Oryza Market Report claimed that the improved varieties are a major reason for the country's increased paddy rice production, which has gone from 5 million tons in 1970 to 11 million tons in 1997 at an average annual rate of 2.6 percent. It has been estimated that the country could significantly decrease its rice importation in the coming years by encouraging more farmers to plant the new high-yielding rice varieties. *(Junelyn S. de la Rosa)*

News Feature

Production technologies now available for off-season vegetables

by: Rita T. dela Cruz

Due to unfavorable conditions such as high temperature, abundant rainfall and high humidity affecting the productivity of vegetables, particularly those that are off-season, the Asian Vegetable Research and Development Center (AVRDC) through its Philippine Outreach Program has recently recommended the adoption of production technologies that could enhance the productivity and reduce the seasonality of some vegetables. These technologies are the result of a three-year study entitled, New Technologies for Off-Season Leafy Vegetables and Tomato Production led by Supervising Agriculturist and Project Director Adoracion A. Virtucio of AVRDC, under one of the outreach programs of the Philippines.

The general objective of the study is to stabilize production of leafy vegetables and tomatoes in the peri-urban production areas of the country. Specifically, it aims to identify new leafy vegetable crops adapted to a year-round production and to compare combined effects of different off-season production technologies on leafy vegetables and tomatoes. Aside from enhancing vegetable productivity, the study also aims to reduce the use of pesticides and inorganic fertilizers in vegetable production.

Technologies used for the leafy vegetables include: line sowing, application of rice straw compost, application of triple 14 fertilizer as basal and twice foliar spray of liquid fertilizer at 10 and 20 days after seeding, raised beds, installation of tunnel type net structure, and monitoring of pests before pesticide spray. To compare the effect of these production technologies are the traditional farmer's practices which include: broadcasting of seeds, application of compost (chicken dung and rice hull) and fertilizing ammonium sulfate as basal and urea as top dressing, use of flat bed, absence of net shelter, and continuous chemical spraying without monitoring.

Using these recommended technologies for off-season production, off-season vegetables were tried under different environments. Some of the off-season vegetables included petchay, mustard, kangkong, choy-sum, Chinese kale, and non-heading Chinese cabbage.

On the other hand, the production technologies used in tomato is grafting. This was applied to three varieties of tomatoes, which are abundant locally such as, FMTT-22 (salad type), CHT 261 (cherry), and CL 143 (determinate fresh market varieties). These tomatoes were grafted to the eggplant (EG-203).

Results showed that adopting the production technologies to some off-season vegetables showed good results under local conditions.

The recommended technologies produce high yields for the off-season leafy vegetables except for kangkong which can produced good yield even in a n open field since it is not a host of diamond back moth and cabbage web worm.

Using line sowing and flat beds, the yield of pechay is higher compared to those that were harvested through traditional seed broadcasting on raised beds. Meanwhile, highest yield of about 48% was observed in vegetables treated with rice straw compost, triple 14 basal fertilizer and foliar sprays compared to those traditional application of fertilizers. The application of net shelter provided a 34% increase in yield on the leafy vegetables because the pest population is minimal.

For tomato, the three cultivars that are grafted had a better yield when sprayed with tomatotone, a hormone sprayed to the tomatoes. BPI-Tm9, a fresh market determinate variety of tomato increased yield by 26% when grafted. The application of net shelter, providing trellis, mulching, and spraying of fruit hormone also contributed to the increased in yield.

The project is part of the BMZ-Germany project entitled, "Development of peri-urban vegetable production system for sustainable year round supplies to tropical Asian cities." It is coordinated by AVRDC, Taiwan in collaboration with the Technical University of Munich (TUM), Central Luzon State University (CLSU), and Bureau of Plant Industry-Los Banos National Crop Research and Development Center (BPI-LBNCRDC)■

(For more information, please contact Adoracion A. Virtucio, Supervising Agriculturist and Project Director, Asian Vegetable Research and Development Center-Philippine Outreach Program)

Counting on Ma'am Connie

by Ma. Rowena SA Briones

Dr. Ma. Concepcion Lizada's decision to assume the post as director of BAFPS surprised her colleagues because she was "your typical scientist who loves the thrill of teaching and doing research more than doing administrative tasks." How could she have done that?

'I felt then that I could do something... I felt this sense of mission and accountability. I just could not say no to it ,' Dr. Lizada revealed.

Falling in love with science while still young, Dr. Lizada pursued an undergraduate degree in chemistry at College of Holy Spirit-Manila. She then proceeded to the United States for further studies in biochemistry at the University of California-Davis. She plunged into teaching and research at the University of the Philippines afterwards, pioneering researches on ethylene and post harvest technologies. She led the ASEAN Postharvest Training and Research Center at UPLB when she assumed the directorship of a newly created DA agency, the Bureau of Agriculture and Fisheries Product Standards(BAFPS).

Dr. Lizada's staff describe her as a principled and hard-working director who gamely took on the cudgels of building the BAFPS, providing it direction and enhancing its programs. BAFPS then was understaffed and working on a very tight budget but these did not keep Dr. Lizada from spearheading trailblazing programs on food safety, animal and plant related health standards. She steered BAFPS through the difficult task of implementing these programs and strengthening the regulatory functions of the Department of Agriculture.

And when it rains it falls, Dr. Lizada became the National Team Leader of the Post Harvest , Food Science and Nutrition Research, Development and Extension Network. The network aims to promote profitable postharvest and food-handling technologies. It is one of the efforts of Bureau of Agricultural Research to improve research and development governance.

After three years of working as BAFPS director, Dr. Lizada returns to UP Los Baños, to classrooms and laboratories where she 'can have my much-needed break and more flexibility and leverage.'

BAR Director Dr. Ponce, during the Thanksgiving Party at BAR held in honor of Dr. Lizada, shared his impression of Dr. Lizada thus: 'she speaks her mind, fights for her principles and ensures that things get done. We will surely miss her but I am not really sad because I know she will still be around.'

Dr. Lizada quipped, 'You can count on that.'■

Philippines...

The Philippines recently took part in the 6th Extraordinary Session of Commission on Genetic Resources for Food and Agriculture (CGRFA) where member countries aim to attain consensus on contentious issues on the guidelines as to how countries can utilize and conserve genetic resources. The guidelines are in the final stage of revision and once unanimously approved, will legally bind countries that are members of the United Nation's Food and Agriculture Organization.

According to Dr. Nestor

Challenges...

intelligent, entrepreneurial and profitable commerce in the international context.

We face a large market for high-value commodities —particularly in meat, horticulture, aquaculture and processed agricultural products. Yet, we face serious competitive challenges to our traditional commodities: rice, corn, sugar and coconut.

How do we take advantage of the international opportunities and at the same time, assist in the transition of our traditional crops to more profitable ventures and protect the impoverished farming sector from more harm?

The government must not be left to answer these questions alone. The business sector must be vigilant and willing to contribute positively to debates. We must bond together to shape negotiating strategies that will assure sustainable benefits to our people.

Let me end by reiterating my call to partnership. Feel free to propose viable rural and agricultural businesses, enterprises and ventures. Please participate in various sectoral and regional committees of the National Agriculture and Fisheries Council (NAFC) which is in-charge in formulating agricultural policies and strategies. The NAFC and the Agribusiness and Marketing Assistance Service (AMAS) are ready to provide business linkages, organize trade fairs and help you navigate and tap the bureaucracy.

The constraints in partnerships are dictated only by limits we impose in our imagination, commitment and courage to take part in nation-building.

* This is a condensed version of DA Sec. Montemayor's speech delivered during the Annual Membership Meeting of the Makati Business Club . Complete copy of the speech can be accessed at: *http://www.bar.gov.ph*

More rice hybrids for the 21st century

To feed the growing millions of Filipinos in the 21st century, breeders and scientists from the International Rice Research Institute (IRRI), Department of Agriculture- Philippine Rice Research Institute (DA-PhilRice) and the University of the Philippines Los Baños made significant contributions to the rice germplasm in the country by developing new rice varieties.

The National Seed Industry Council (NSIC) recently approved nine rice varieties for commercial planting. Of the nine varieties, IRRI developed five, DA-PhilRice three and UPLB one variety. Three of the IRRI varieties--locally known as Sagada, Hungduan and Ibulao are suited to cool elevated areas. These varieties have average yields of 3.6 tons to 8.6 tons per hectare. The fourth variety—Mamburao is drought-tolerant and has an average yield of 2.34 tons to 4.48 tons per hectare. The fifth variety developed by IRRI was a stopgap variety against tungro- one of the most destructive rice diseases that has been a constant headache to rice farmers.

Similarly- DA-PhilRice developed one saline-tolerant variety, one upland rice variety and one drought-tolerant variety. Saline-tolerant Buguey yields an average of 3.4 tons to 4.29 tons per hectare while Banahaw gives an average yield of 2.99 tons to 4.05 tons per hectare. Finally, Santiago which thrives under rainfed transplanted or drought-prone

See NSIC, page 4

Web NEWS

Global consortium to sequence banana genome
http://www.futureharvest.org

After a century of what farming Canadian farmers turn to tropical chickpeas
http://www.futureharvest.org

27 Jailed for cutting down coconut trees
http://www.da.gov.ph

Palm oil industries eyed to complement coconut
http://www.da.gov.ph

It's official---Mindanao is internationally recognized as foot-and-mouth disease (FMD) free
http://www.da.gov.ph

Philippines takes part in drafting PGR guidelines

The Philippines recently took part in the 6th Extraordinary Session of Commission on Genetic Resources for Food and Agriculture (CGRFA) where member countries aim to attain consensus on contentious issues on the guidelines as to how countries can utilize and conserve genetic resources.

revision and once unanimously approved, will legally bind countries

whether the Commission has the authority to 'call upon' International Agricultural Research Centers (IARCs) to enter into agreements with CGRFA.

The Philippine delegation, headed by Dr. Teresita Borromeo, also a professor from UPLB and

to CGRFA meetings took the position agreed upon during the meeting held at BAR. Experts in

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GMA allocates P2 billion for R&D

President Gloria Macapagal Arroyo, in her State of the Nation Address, affirmed the crucial role of the agriculture and fisheries sectors in her vision of eradicating poverty. Acknowledging the need to focus on optimizing the country's resources, in the next 12 months, she assured the implementation of the Agriculture and Fisheries Modernization Act (AFMA). " Most of the impoverished Filipinos are in the rural areas. Thus, we will help them by working on agriculture and fisheries development," President Arroyo signified.

The President envisions a transformed Philippine agriculture, from a resource-based to a technology-based venture. This will not only enable the farmers to increase and improve their yield but will also assure them of market for their produce. Furthermore, the President guarantees that the agriculture sector will generate one million jobs and increase in investments within a year.

She believes that installation of irrigation and postharvest facilities nationwide, together with the annual distribution of 200,000 hectares of farmlands to farmers under the agrarian reform program, will help achieve this goal. She vowed to "make agricultural modernization socially equitable.. we will approach this with a sense of urgency. I want a timetable. I want to identify accountabilities. I want milestones."

Not neglecting the pivotal role of research, no less than two billion pesos will be allocated every year for research and development (R&D) in agriculture and fisheries. With the AFMA as a blue print in the move to transform agriculture in its most vigorous and competitive form, R&D will be an organized partnership of government agencies, state colleges and universities, private sectors, and farmers and fisherfolk themselves.

In response, Bureau of Agricultural Research Director Eliseo Ponce, directed all national team leaders of commodity- and discipline-based networks to prepare their plans for the additional budget starting this year until 2005.

Part of the two billion budget includes BAR's grant funds and MOE budget provided to the Department of Science and Technology and state colleges and universities. The 1.3 billion balance will support direct research cost, improvement of laboratories and experimental stations, scholarships, on-farm researches and establishment of provincial technology verification centers.

BAR coordinates all agriculture researches and ensures that these are in accord with the needs of the farmers, fisherfolk, and the market. By achieving research relevance, R&D becomes a tool in realizing the vision of empowering the farmers and fisherfolk and laying the solid foundations for a modernized agriculture.

The President banks on BAR to supervise the agriculture-related research programs of state colleges and universities. She wants timelines of R&D activities that will be undertaken and concrete results of these activities vis-a-vis their budgetary requirements.

To clearly demonstrate that the President is bent on pursuing her promise, she declared, "I will hold office at the Department of Agriculture until I get a clear and demonstrable picture of our agricultural accomplishments for our first 100 days." She pledged to stay until she gets assurance that " the program for one million jobs get off the ground and short-term goals are in sync with the goals of farmer groups and agribusiness."agribusiness."*(Ma. Rowena SA Briones/Virginia A. Duldulao)*

RCPCs train on Biocon-based IPM

As we enter the threshold of the 21st century, scientists and environment experts have called for the adoption and widespread use of more environment-friendly technologies to reduce the rampant use of chemicals and pesticides in agriculture and conserve our fragile resource base.

Four months after conducting a seminar on Biocon-based Integrated Pest Management (IPM), scientists from the National Crop Protection Center (NCPC) of the University of the Philippines at Los Baños (UPLB), Laguna, and other experts from the Crop Protection and Corn RDE Networks conducted a training on the mass rearing, field releases and conservation of natural enemies of the Asian Corn Borer (ACB) at the Agricultural Training Institute-National Training Center (ATI-NTC), Los Baños, College, Laguna on 23-27 July, 2001.

The new technology is the output of a high impact project (HIP) of the National Corn RDE Network by Dr. Belen Morallo-Rejesus, a professor of the Department of Entomology, UPLB-CA, entitled "Development of biological control-based IPM for Asian Corn Borer". The other researchers of the study were Dr. Pio A. Javier (NCPC, UPLB-CA), Ms Marcela Navasero (Department of Plant Pathology, CA-UPLB), and Dr. Gloria Camarao (UP Mindanao-CA).

The study used four biocontrol agents, namely: Earwigs *(Euborellia annulata),* Orius *(Orius tantillus),* Trichogramma and some larval-pupal parasitoids against Asian Corn Borer *(Ostrinea furnacalis),* the most destructive insect pest of corn in the Philippines and in other Southeast Asian and Pacific countries.

The ACB is dreaded by all corn farmers since it attacks corn in the early part of the mid whorl stage, directly affecting corn ear quality. Young ACB larvae begin feeding on the leaf around the egg mass and later within the whorl while older larvae bore into the stalk behind the leaf sheath. Infestation starts as early as four weeks after planting and lasts until harvest---reducing yields by as much as 20 to 80%.

Thirty staff from the various Regional Crop Protection Centers (RCPC) in the country attended the training.

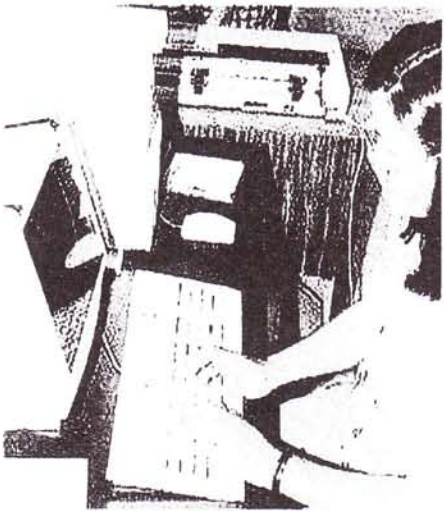
The five-day training consisted of lectures, practicum/laboratory work and field visits. The topics tackled were: 1) Principles and methods of biological control, 2) Biology, ecology and control of ACB, 3) Biology and behavior of earwig, 4) Setting-up of laboratory for mass production of earwigs, 5) Biology and behavior of Orius, Mass rearing of Orius, 6) Setting-up of laboratory for mass production of Orius; and 7) Importance of natural enemy conservation, methods of conserving the natural enemy population, staggered planting, maintenance of weed refuge, minimum tillage and other methods.

The participants are expected to be able to set up rearing laboratories for Euborellia and Orius and to lead in the mass production and conservation of both insects in their respective RCPCs.

The training was supported by the Bureau of Agricultural

See NCPC, page 5

GMA vows support for ICT



One of the cornerstones of President Gloria Macapagal-Arroyo's State of the Nation Address (SONA) held recently is the development of information and communication technology (ICT). The President dubbed ICT as "one of the fast-growing industries where high value jobs are plentiful." In fact, she said that the country has been cited as one of the budding centers of software development and data communication within the decade.

With this, the President declared "technology as a foundation of future economic development." "ICT," she continued, "will jumpstart our old stalling economy and make it leapfrog into the new economy."

To do this, the President called for high-speed, low-cost connectivity among ICT media to increase its use. "Our rules will promote rather than regulate ICT," according to President Arroyo. She likewise asked Congress to "enact laws to address internet privacy and security, allow for multimedia convergence, and create a Department of Telecommunications and Information Technology."

Meanwhile, at the Bureau of Agricultural Research (BAR), a similar endeavor to complement this Presidential imperative is in the middle of implementation: the Agriculture and Fisheries Research and Development Information System (AFRDIS). AFRDIS is a network composed of attached agencies and regional field units of the Department of Agriculture. One of the major tasks of AFRDIS is to establish a local area network (LAN) among the partner-institutions to facilitate the efficient R&D information exchange among them. These institutions will then be interconnected through a wide area network (WAN).

To date, partner institutions in the Central Luzon cluster of AFRDIS are now establishing a WAN. Activities are underway for the interconnection of the Visayas and Mindanao clusters. Moreover, a training on geographical information systems (GIS) was conducted in the early part of July 2001 for partner-institutions in the Luzon cluster to prepare them for the establishment of GIS facilities in their respective institutions.

Lately, the AFRDIS, through the leadership of the Bureau's Information and Communication Technology Division (ICTD), launched an in-house seminar series to update the ICT knowledge among partner-institutions. Seminars on documentation of the Bureau's LAN

See GMA, page 4

Philfruits...

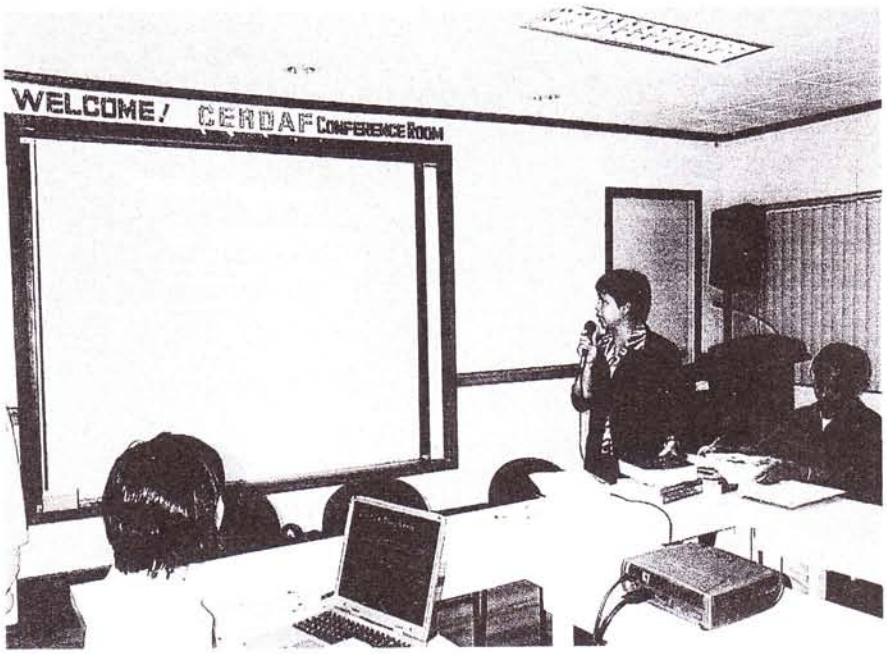
gradually transform the industry into a highly productive, profitable and competitive business.

The synergy among the different DA regional research centers, state colleges and universities, and the private sector, will make this goal happen. The Bureau of Plant Industry (BPI) will manage PhilFruits. It will be established at the BPI's 4,775,000 - square meter compound at Bago Oshiro, Davao City.

PhilFruits' establishment is being proposed for funding under the Grant Aid program of the Japan International Cooperation Agency (JICA). Last 26 July 2001, a workshop was conducted to plan and prepare the requirements for the establishment of PhilFruits. Representatives from SCUs and DA agencies participated in the event. These included BPI Assistant Director Ceferino Baniqued, Dr. Violeta Villegas (UPLB-IPB), Architect Renato Bajit (PhilRice), Dr. Johnny Sangalang (UPLB Horticulture), and selected BAR and BPI staff. Dr. Saturnina Halos of BAR and Asst. Director Baniqued presided over the workshop, wherein the participants were divided into three groups: programs, institutional development and OMF (organization, management and finance). The output of the workshop will provide the information needed in the JICA's application for a grant aid .

Databanking of Southeast Asia plant resources

by: Ma. Rowena SA Briones



Dr. Del Rosario discusses PROSEA program.

Do you know that Southeast Asia has 6,500 economically useful plants but only 15 percent of this is utilized?

Thus, Dr. Beatriz del Rosario, director of the Plant Resources of Southeast Asia (PROSEA), asked the audience in the seminar showcasing PROSEA Programs and Directions.

'But log on to prosea.net and data banks and the list of handbooks featuring these plants will be at your fingertips,' Dr. del Rosario said further.

PROSEA databanks showcase a checklist of more than 6,200 species, photographs of these species and references to literature and institutions, as well as plant resources specialists. The Network had also published 19 handbooks on edible plants, essential oils for dyeing and tan-producing plant's. The handbooks have details on a plants' uses, botany, ecology, agronomy, genetic resources, breeding, prospects and literature.

PROSEA is an international non-profit agency that documents plant resources, puts up and maintains databank for these information or publish them into multi-volume handbooks categorized by commodities. However, Dr. del Rosario averred, 'more than capturing and documenting these resources, we would like the information to be used not just by scientists but by common folk.'

At present, PROSEA is preparing to disseminate the wealth of information it was able to gather since 1987. Handbooks will be translated in local languages and mass media will be tapped to disseminate these useful information on plant resources and hopefully catch the audience's attention. Furthermore, PROSEA will link with the research and development system of Indonesia, Malaysia, Papua New Guinea, Thailand, Vietnam and Philippines--countries that are part of this network.

Data on Southeast Asian plant resources are just waiting to be tapped as source of food and livelihood, alternative medicines and new technologies. It is well worth the effort, Dr. Del Rosario asserts, 'since a thorough knowledge of plant resources help us manage our resources optimally and derive maximum benefits from them in a sustainable manner.'

GMA...

and computer troubleshooting were conducted, with ICTD technical staff serving as resource speakers.

For August 2001, preparations are underway for the next in-house seminar on webpage development, which will coincide with the launching of the new BAR logo.

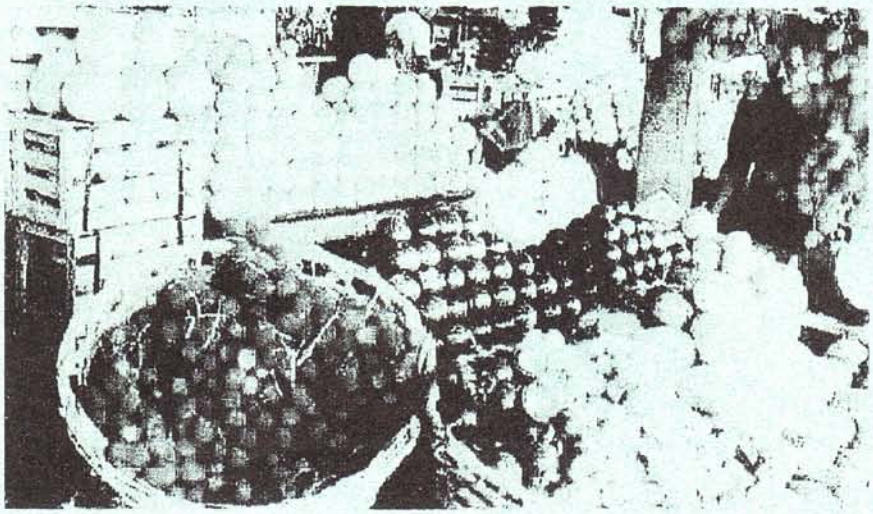
Another training on GIS is in the offing, this time for Visayas and Mindanao partner-institutions, to be held at the University of Southern Mindanao (USM).

Hopefully, these efforts will transform the information delivery system from resource-based to technology-based, thereby paving the way for a more focused and rational transfer of information, as envisioned by the Agriculture and Fisheries Modernization Act. (*Laarni C. Anenias*)

The Philippine Tropical Fruits Research Institute

Philippine fruits for healthy worlds

by: Carmela B. Brion



The carabao mango, Efren "Bata" Reyes and Boracay beach have things in common: they are all from the Philippines, and they are ALL world class.

The Philippines has a tropical climate, giving it an edge over other countries in producing a wide array of exotic tropical fruits, such as the carabao mango also known as Manila Super Mango, cavendish banana and cayenne pineapple.

Fruits are amazing products of nature, because of their various shapes, multiple colors and delectable sour-sweet flesh. Aside from their aesthetic and market values, fruits are now used as the main ingredient in commercial products, from fiesta fruit cocktails to shampoos and lotions, and yes, even in medicines. Undeniably, fruits are packed with vitamins and minerals important for human health.

With these identified competitive advantages, our local fruit growers can benefit from the growing demand for tropical fruits here and abroad, which have penetrated even the reluctant market of Australia and other Western countries.

The signing of Administrative Order No. 4, Series of 2001, supported further the promotion of our fruit industry, through the establishment of the Philippine Tropical Fruits Research Institute (PhilFruits).

"Philippine fruits for healthy worlds", sums up the vision of PhilFruits. The Institute aims to develop a viable and dynamic national fruit R&D program that will strengthen, improve and modernize the national fruit industry. This will

See Philfruits, page 3

RDMC...

solutions to address the identified problems and; 3) identify important concerns brought to the attention of DA management.

The Committee is composed of administrators and heads of the Department of Agriculture (DA) staff bureaus and attached agencies. Acting as the lead agency is BAR since it is the lead orchestrator of the R&D system in agriculture and fishery in the country. The main responsibility of the Bureau is to summarize important concerns and provide the DA for information and action. *(Rita T. dela Cruz)*

NCPC...

Research (BAR), Agricultural Training Institute (ATI) and the Department of Agriculture (DA).

Finally, Dr. Rejesus emphasized the effectiveness of these biocon agents. She said: "if the use of Trichogramma, earwigs and Orius will be aggressively pursued, pesticide use could be minimized and the balance between the pest and natural enemy complex could be preserved." *(Junelyn S. de la Rosa)*

BAR welcomes its new Asst Dir

Nick Eleazar

3rd National Mango Congress

A bright future looms for RP mango industry- LQM

With the continued and strengthened commitment of various agencies involved in harnessing our mango industry, a bright future looms for the RP mango.

This was underscored by Department of Agriculture Secretary Leonardo Q. Montemayor in his speech that formally opened the celebration of the 3rd National Mango Congress held at the Manila Midtown Hotel, Manila on 25-26 July 2001.

This special gathering of various mango industry players served as venue to showcase and highlight the opportunities and challenges facing the Philippine mango industry and to harness these opportunities and competitive edge for both the domestic and international markets.

Secretary Montemayor also pointed out the recent victory of RP mangoes and its entrance to two new international markets: Australia and the United States.

In addition, he commended the research endeavor contributed by the Bureau of Plant Industry-National Mango Research and Development Center (BPI-NMRDC), which enabled the Philippine mangoes to pass the US Department of Agriculture-Animal and Plant Health Inspection Service (APHIS).

"Mangoes destined for the US market must come only from Guimaras, and these will undergo vapor heat treatment," he added.

He also pointed out the role of Research and Development (R&D) in developing and generating technologies on varietal improvement, cultural and pest management, post harvest handling, socio-economics and marketing, and policy advocacy to support the mango industry.

He stressed the pivotal role of the DA-Bureau of Agricultural Research (BAR), as the backbone of R&D system in the country in orchestrating various R&D programs and activities.

"The DA-BAR has funded a total of P6.8 million for the four mango research projects of BPI-NMRDC in Guimaras through its Fruits Research Development and Extension (RDE) network. In the last two years, we have also provided BPI-NMRDC an Institutional Development Grant (IDG) worth P4 million for infrastructure and manpower development," he elaborated.

Through the promotion and adoption of various technologies, it is envisioned that the area planted to mango will increase considerably. It is also expected that the country can surpass last year's volume of mango export that reached almost 54, 250 metric tons.

"With the efforts of the industry's key players and pioneers, our Philippine super mango has achieved a secure footing in the global market," he concluded.

The Congress was highlighted with around 50 exhibit booths that showcased products, technologies, information, equipment and services from various sectors of the mango industry.

It was spearheaded by Agri-Aqua Network International (AANI) Mango Industry Network (AMIN) Foundation, Inc., in cooperation with Philippine Mango Industry Development Council, DA, Department of Trade and Industry, Department of Science and Technology and other agencies. (*Mary Charlotte O. Fresco)*

RTDs, RIARCs assess RDE status

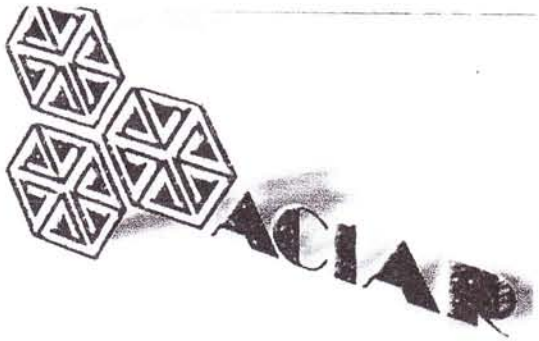
The Bureau of Agricultural Research (BAR), being the central coordinating body of the Department of Agriculture (DA), recently convened all Regional Technical Directors (RTDs) for R&D, Regional Integrated Agricultural Research Center (RIARC) managers and assistant managers for a consultation meeting at the Visayas State College of Agriculture (ViSCA), Baybay, Leyte on 27-30 July 2001.

The meeting assessed the status of the Regional Research, Development, and Extension (RDE) networking, program implementation, and formulated measures to improve the networks activities and implementation.

Specifically, this second meeting aimed to review the evaluation guidelines and endorsements of regional programs; re-evaluate Key Results Areas (KRAs) of the RIARCs; determine appropriate actions that may be undertaken to address identified problems on the implementation of OFRs (On-Farm Researches) and use of Institutional Development Grant (IDG) and; discuss issues and concerns on the operation and maintenance of regional RDE networks.

Also attending the consultation meeting were staff from BAR headed by the Regional Programs Division, and staff from the Eastern Visayas Integrated Agricultural Research Center (EVIARC). *(Rita T. dela Cruz)*

ERP...



regional and provincial level in the orchestration of various programs and activities.

He pointed out the need of delivering extension support services to the provinces especially through the Local Government Units (LGUs) who are directly involved in the transfer of technologies to farmers and fisherfolk.

He also reiterated the major reasons why research and extension have not moved forward, among which are: history (issues on the past structure and management); weak governance (weak research-extension linkages and local government extension system); and lack of resources (lack of investment and public expenditures in agricultural research).

"To effectively implement national programs at all levels, the DA should shift the commodity-focused national programs to "thematic" functional approach," he further elaborated.

This strategy, according to him, puts greater emphasis on strategic opportunities for the farming and fishing communities by focusing on their strategic needs. This also allows the DA to better respond to market opportunities for long-term growth, productivity and profitability of the agriculture and fishery sectors.

Accompanying the two experts were Professor Nelson Querejero and Dr. Wilfredo B. Carada, department chairman of the Institute of Development Management and Governance, College of Public Affairs, UP Los Baños. The team is visiting several institutions undertaking policy research on agriculture.

ACIAR is a statutory authority whose mandate is anchored on mobilising Australia's research capacity to help solve agricultural research problems of developing countries through bilateral development-related research collaboration.

Several BAR division heads and technical staff also attended the meeting. (*Mary Charlotte O. Fresco*)

Web NEWS

Global consortium to sequence banana genome
http://www.futureharvest.org

Preserving wild progeny of conquistadors horses
http://www.cnn.com

Scientists: Biotech corn still not safe
http://www.cnn.com

EPA issues rules for gene-altered crops
http://www.cnn.com

Stem cells help heal paralyzed
http://www.cnn.com

ERP briefs ACIAR on DA governance

There is a need for the whole DA to come together as a well-integrated system to make it fully responsive to the needs of the farming and fishing communities, at the same time achieve a higher efficiency in its operations.

Thus, stressed by Bureau of Agricultural Research (BAR) Director Eliseo R. Ponce as he briefed the two experts from the Australian Center for International Agricultural Research (ACIAR) on issues of bureaucracy and governance.

Drs. Jeff Couts and Sandy Cuthbertson's visit was in line with the development of a project proposal on " Assessment of Reform in Philippine Agriculture Governance and Bureaucracy."

Dr. Ponce emphasized the importance of decentralization in the bureaucracy considering the pivotal role of regional and local government units (LGUs) in the over-all operations. Both the national and regional levels should integrate R&D activities and programs according to functions.

He clarified this concept on agricultural research and extension to present a comprehensive overview on how the Department of Agriculture operates from the national down to

See NSIC, page 7

RDMC discusses five major R&D issues

Members of the Research Development Management Committee (RDMC) met for a two-day briefing at the Sugar Regulatory Administration (SRA), La Granja, La Carlota City, Negros Occidental on 24-25 July 2001 to discuss five major issues that the Committee must decide on. These are: statistical systems on agriculture productivity, employment, income and productivity; proposed Administrative Order (AO) on the germplasm and seed systems program; national network of community-based pest surveillance and forecasting; R&D calendar of events for the third quarter CY 2001; and the proposed AO on fiscal autonomy and income retention.

RDMC Chair and Bureau of Agricultural Director (BAR) Eliseo R. Ponce, who opened up the discussion by presenting the National R&D System for Agriculture and Fisheries System (NaRDSAF) Medium Term Development Plan (MTDP), attended the fifth meeting of the Committee along with Drs. Romeo Recide and Minda Mangabat of the Bureau of Agricultural Statistics (BAS) and Mr. Ceferino Baniqued of the Bureau of Plant Industry (BPI).

RDMC was borne out of the need to consolidate all the issues and concerns in the implementation of all R&D programs in the country. Created through Special Order (SO) No. 721 Series of 2000, the Committee is responsible to: 1) assess the progress and identify issues in the implementation of R&D programs; 2) determine appropriate

See RDMC, page5

Chronicle
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