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2003 Gawad Oscar Florendo Awardee for Outstanding Information Tool for Print
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RDMIC inaugurated; DA Sec. Yap reveals plans for agri

The Research and Development Management and Information Center(RDMIC) that houses the Bureau of Agricultural Reseach (BAR) was inaugurated with Department of Agriculture Secretary Arthur C. Yap as guest of honor, November 11, 2004.

The event was attended by Philippines Rice Research Institute (PhilRice) Executive Director Leocadio Sebastian, ICRISAT Director General William DAR, and BAR employees.

BAR Director William Medrano thanked those responsible for the conception and creation of BAR's new home, and dedicated the Center to the Filipino scientists, researchers extension workers, agriculturists, academicians, and to the Bureau's ultimate masters, the farmers and fisherfolk.

"A few months ago, we were still occupying a borrowed office at the Agricultural Training Institute. Today, we feel so lucky that this dream of BAR, after 17 long years, to have a home of its own was realized.," Dr. Medrano said.

Secretary Yap conveyed his hopes for BAR under his administration, along with President Gloria Arroyo's vision to create two million jobs by opening two million hectares of the country's land area

see DA Sec. Yap...page 5

Unveiling the marker are DA Secretary Arthur Yap (center) with ICRISAT Director-General William Dar (left) and BAR Director William Medrano (right)

INSIDE...

BAR wins another Gawad Oscar Florendo

The Bureau of Agricultural Research (BAR) *R&D Digest* (formerly *BAR Today*) won the 13th Gawad Oscar Florendo for print (magazine category). The award is given annually by the Public Relations Organization of the Philippines (PROP) to the year's outstanding programs and projects in the field of public information. The awarding ceremonies were held on 17 November 2004 at the AFP Commissioned Officers' Club, Camp Aguinaldo, Quezon City.

BAR R&D Digest is a quarterly magazine that contains the latest researches and technologies generated by National Research and Development System for Agriculture and Fisheries (NaRDSAF)-member institutions. The Knowledge Management Division of the Bureau produces the magazine.

All the submitted entries for the Gawad underwent preliminary screening conducted by the Gawad Technical Working Group, composed of PROP Executive Board of Officers to make sure that all the necessary requirements were complied with. There is also a multi-sectoral Board of Judges, chaired by Philippine Information Agency (PIA) Director-

see BAR wins...page 4

FEATURE

Robust and greener lettuce with *Nitroplus*

Junelyn S. dela Rosa

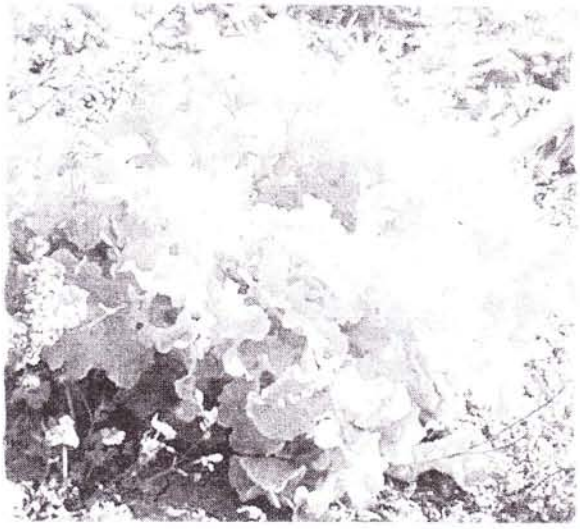
For salad lovers, nothing is more disheartening than soggy or sorry-looking lettuce in your salad or even in your favorite hamburger. An excellent salad or sandwich needs to have crisp and flavorful lettuce leaves. Today, salad lovers have something to smile about.

Recently, scientists from the National Institute of Molecular Biology and Biotechnology (BIOTECH) at UP Los Baños have found a new method of growing more robust and greener lettuce by using *Nitroplus* with the farmers' practice of using organic manure. The scientists said that they harvested 81% more leaves and they are optimistic that the new method could help boost lettuce production locally.

Lettuce: King of vegetable salads

Lettuce, called the "king of salad plants" has rounded leaves and stem that contain a milky juice. Varieties of lettuce differ in leaf color, size, and texture. The color of leaves ranges from light to dark green with darker leaves containing more vitamins. Lettuce can be divided into two kinds: the loose-leaf lettuce whose leaves hang on all sides and the true head-lettuce that resembles a cabbage with the leaves drawn together. Scientists say that the loose-leaf variety contains higher nutrients since it has the advantage of being more exposed to sunlight compared to the cabbage-like variety.

Lettuce is rich in vitamins, especially the antiscorbutic vitamin C. It is bulky, low in food value but high in health value. It is rich in mineral salts especially alkaline elements. Fresh lettuce contains dietary fiber, protein, carbohydrates, vitamins A and C, calcium, iron, magnesium, and potassium. These nutrients keep the blood clean, the mind alert, and the body in good health.



When buying lettuce, it is important to select fresh, crisp, and green-leafed. The leaves should be free from wilt, rot, and rust.

What is *Nitroplus?*

Nitroplus is a microbial inoculant developed by BIOTECH that is used for legumes such as soybean and cowpea to increase their yields. *Nitroplus* contains *Rhizobium* sp., a bacterium that forms nodules on the roots of the plants and fixes nitrogen in the air, hence increasing plant growth and yield. Studies have shown that soybean inoculated with *Nitroplus* showed a 124% yield increase. Using *Nitroplus* inoculant also reduces the amount of fertilizer needed by the plant and that nitrogen in the soil is conserved for other crops.

Growing lettuce with *Nitroplus*

In the study, the scientists tested the effect of the *Nitroplus* inoculant using the Grand Rapid lettuce variety during the 2002 wet season. The inoculant was applied on the seeds at the rate of 1g/ gram of seeds. The researchers found that *Nitroplus* for soybean (*Bradyrhizobium japonicum* strain USDA 110) and for garden pea (*Rhizobium leguminosarum* bv *viciae* strain pea Bag) increased the yield of lettuce by 16 and 24 %, respectively. Upon harvest, leaf yield increased by 81% using both *Nitroplus* and the usual farmers' practice of applying manure.

Benefits and uses of lettuce

Lettuce offers lots of benefits and it has a variety of uses. For instance, magnesium in the lettuce juice is good for muscular tissues, the nerves and the brain. It is also a remedy for common ailments

see Robust...page 7

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INIBAP-PROMUSA reelects Medrano as RP rep

Dr. William C. Medrano, director of the Bureau of Agricultural Research (BAR) was re-elected Philippine representative to the International Network for the Improvement of Banana and Plantain-The Global Programme for *Musa* Improvement (INIBAP-PRO*MUSA*) during the recently concluded Annual General Meeting of CGIAR in Mexico City.

PRO*MUSA* is a broad-based program that aims to involve all key players in *Musa* improvement. It was developed as a means to link the work carried out towards addressing the problems of export banana producers, with the initiatives towards improving banana and plantain production at the subsistence and smallholder level.

Meanwhile, INIBAP provides the secretariat to PROMUSA, which is a mechanism to further maximize the outputs and accelerate the impact of the overall *Musa* improvement effort.

The PROMUSA Support Group is composed of major donors and stakeholders and comprises of representatives from donor agencies such as countries, International Fund for Agricultural Development (IFAD), *Coordinador Proyecto Cacao* (CFC), United Nations Development Programme (UNDP), World Bank, Foundations, private sector); other relevant organizations (e.g. FAO and the Inter-governmental Group on Bananas); representatives of Agricultural Research Institutes (ARIs), International Agricultural Research Centers (IARCs) and National Agricultural Research Systems (NARS). The Support Group provides visibility, guidance and support to the program. It endorses the overall direction and strategy of the program and contributes to identifying and providing additional funding and other resources as necessary. *(Rita T. dela Cruz)*

ICRISAT DG is incoming CDC chair of CGIAR

Dr. William C. Dar, director general of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), an international organization based in India, was recently appointed incoming chair of the Centers Directors Committee (CDC), the Alliance of Future Harvest Centers under the Consultative Group of International Agricultural Research (CGIAR). The appointment was announced during the recently concluded CGIAR Annual General Meeting hosted by the Government of Mexico on 25-29 October 2004.

Dr. Dar will assume his position in January 2005. Dr. Kanayo Nwanze, director general of the West Africa Rice Development Association (now known as The Africa Rice Center) is currently the chair of the Committee.

The Alliance of Future Harvest Centers is an important body that helps strengthen the CGIAR System by providing support and perspective on system-wide issues and on technical and management concerns. Moreover, the Alliance governs the collective work of individual centers, establishes mechanisms for conflict resolution and speaks a common voice to raise the visibility of issues. The Alliance also reinforces existing linkages and brings on new partnerships and collaboration among members of CGIAR.

In the acceptance speech of Dr. Dar he said, "As I take up the challenge of chairing the Alliance in 2005, I seek not only the support of my colleagues but also those of all CGIAR co-sponsors, members and stakeholders. We must always remember that our primary allegiance is, and will always be, for the poor in the developing countries. We must therefore empower them for a food secure and better world for all."

Established in 1971, the CGIAR system is a strategic alliance consisting of co-sponsors, members, committees, international agricultural research centers, center committees, and a virtual systems office. At present, the CGIAR has 63 members. Over the last 30 years, the CGIAR has made a major contribution to poverty reduction and food security in developing countries, and has achieved outstanding rates of return on investment.

ICRISAT is one of 15 centers belonging to the CGIAR System. Guided by the theme, "Science with a Human Face," ICRISAT harnesses the power of technology for development, food security, poverty alleviation and environmental protection, to empower the poor rural families of the semi-arid tropics.

Before joining ICRISAT, Dr. Dar was former director of the Bureau of Agricultural Research (BAR), secretary of the Department of Agriculture (DA), and presidential adviser on rural development. Moreover, in recognition of his achievements in managing and turning ICRISAT into a pro-active institution in helping farmers in the semi-arid countries, Dr. Dar was given another five-year term by the ICRISAT Governing Board also starting in January 2005. Dr. Dar is the first Filipino that ever held such positions. *(Rita T. dela Cruz)*

NEWS

PSAI holds reunion and forum on resource generation

PSAI officers headed by Dr. William C. Medrano of DA-BAR handing over the plaque of appreciation to Dr. William D. Dar of ICRISAT for keynoting the forum.

To acquaint participants of priority programs for funding by major funding institutions, the Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD) Scholars Association, Inc. (PSAI) held a one-day forum on resource generation, 9 November 2004, BSWM Convention Hall, Visayas Ave., Diliman, Quezon City.

Dr. William D. Dar, director general of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) keynoted the forum citing the challenges and opportunities in resource generation at the global level.

The agenda of the activity were: to mobilize participants in the implementation of S&T plan in agriculture and related sectors by packaging proposals for local and external funding and to serve as reunion of graduated scholars to forge camaraderie and share actual experiences in enhancing RDE activities and management for sustainable development.

This year's theme, "Enhancing Resource Generation for Sustainable Agri- and Forestry-based Enterprise," highlighted the need to provide impetus or drive among graduated scholars to work for the enhancement of the whole R&D activities.

In his speech Dr. Dar emphasized that "there is always funding for good research proposals" and by "good" he meant those researches that are pro-development with special focus on the rural poor. He said that, "proactive researchers of today must do away with 'research for research sake' and be more creative because the complexities are already there. Researchers must therefore relate agriculture with other key aspects like health, environment, and poverty." This, according to him, is the key to packaging a good proposal.

Among the critical challenges that he mentioned as important in resource generation include: global poverty and food insecurity; rapid globalization; new ways of research; re-examination of traditional relationship; and dynamic private sector overshadowing the public sector.

Other key officials who attended the forum were: Dr. Patricio S. Faylon, executive director of PCARRD; Dr. William C. Medrano, director of the Bureau of Agricultural Research (BAR) and president of PSAI, and Mr. Daniel F. Pabellon, director of the Information Technology Coordination Staff of the National Economic Development Authority (NEDA). *(Rita T. dela Cruz)*

...BAR wins...from page 1

General Renato S. Velasco.

The Board evaluated and chose the final entries, based on the following criteria:

For the grand Gawad outstanding **public information program**: 25% is given for *audience* and this includes the ability of the program to clearly define the audience, the clarity of problem stated, and measurability of objectives. Another 25% for *message*, in which the programs were judged for their capacity to address problems and if they can suggest appropriate solutions and actions by using simple but catchy messages. Twenty-five percent is also given to *channels* wherein the programs were evaluated based on the use of appropriate channels, their effort to harness organizational capabilities, and the ability to utilize audience participation and available channels. This also included the channels' ability to harness partnership with government and non-government organizations. The last 25 % is given to effects wherein *feedback mechanisms* are given weight. Programs are assessed on their proficiency to monitor and evaluate the audience reached, the program's effects on them, the experiences they have gained and the lessons learned.

The criteria for outstanding **print materials** and electronic materials are: 25 % for audience; 25 % for message; 25% for material; and 25 % for effects, with a total of 100%.

The Gawad is in honor of Brig. Gen. Oscar M. Florendo, then AFP spokesman and former PROP President who established the communication lines between government and insurgents before he died in line of duty in Tuguegarao, Cagayan. *(Likha C. Cuevas)*

Techno-demos provide options to Mindanao farmers

(top photo) Techno-demo at Brgy. La Union, San Isidro Davao Oriental; (above) Participants at Banbanon, Laak, Compostela Valley interact after field day

The Southern Mindanao Integrated Agricultural Research Center (SMIARC) of the Department of Agriculture (DA) with funding support from DA-BAR's Community Participatory Action Research (CPAR) projects recently conducted two technology demonstrations showcasing important technologies on crop-livestock farming systems and new varieties of hybrid corn.

The techno-demos were held at Brgy. La Union, San Isidro, Davao Oriental and Banbanon, Laak, Compostela Valley. Both techno-demos were attended by about 200 farmers. Aside from the farmer-cooperators who presented their technologies, representatives from financing institutions, seed companies, local government units (LGUs), business sector, legislators, and researchers/scientists from the academe and other DA regional offices attended the activity.

Corn+mango+goat farming system

This demonstrated technology of integrated farming aimed to provide farmers a sustainable source of income. By integrating mango in corn-based farms and raising goats on the same piece of land provided farmer-cooperators with additional sources of income and improve soil fertility since goat manure can be used as fertlizers.

Mr. Noel T. Estellena, regional RDE corn coordinator and project leader explained that, goat was preferred in the project due to the insufficient supply of goat meat. Goat meat commands high price compared to other animals raised for meat. To expand the project and provide other farmers the same benefits, each farmer-cooperator was obliged to pay back two kids for every doe given him.

Farmers were encouraged to incorporate new technologies in their farming practices and to work with the local government units. The municipal government plays a crucial role in the success of technology demonstrations as it serves as the driving force to hasten programs extended to farmers, the project leader remarked.

So far, this project consists of three farmer-cooperators only but the municipality of San Isidro plans to expand the project to include 300 more farmer-cooperators in the future. If the 2-kid payback scheme continues, the project will be carried over to other areas of San Isidro and hopefully in the whole DavaoOriental.

Super hybrid corn

Like the first techno-demo conducted, the second also promises increased production and income by planting the seeds found adaptable in a particular area. The techno-demo showcased superior hybrids that catered to farmers' preference. Six seed companies extended assistance for the demonstration, namely: Pioneer Philippines, Inc., Asia Hybrid Seed Technologies, Inc., Monsanto Philippines, Inc., Bioseed Research Philippines, Ghen Seeds, and Syngenta Philippines.

Using this seed technology, production increased from 4-8 t/ha to 6-8 t/ha. With this technology demonstration, the farmers can choose the right kind of seeds to be planted after the different seed companies have demonstrated their products/seed varieties. *(Rita T. dela Cruz)*

DA Sec. Yap ...from page 1

to agriculture, and to increase agricultural productivity.

Secretary Yap said that the Bureau comes in on the second vision, which is to increase productivity. He hopes that the output of the research and development investments of the government through the Bureau would translate into increased productivity and income of the farming communities.

In a nutshell, Secretary Yap gave his vision of a happy farmer by saying that he hopes to see a farmer employing the services of mobile communication technology. This, he said, is a more fitting measure of the change we effected in the lives of our farmers and fisherfolk. He also revealed his plans of conducting three critical summits to address issues on land use and soil management, promoting the potential of agriculture by encouraging agri-business, and what he calls the "agri-leader" summit where an information campaign on critical issues in agriculture are discussed by former heads of DA. *(Ma. Lizbeth J. Baroña)*

NEWS FEATURE

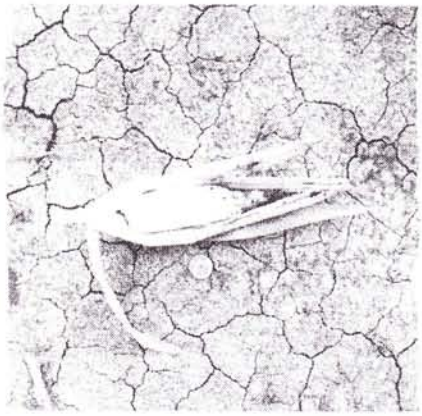
DA readies for El Niño

by Lizbeth J Baroña and Virginia A. Duldulao

The Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) has detected a weak El Niño that is currently taking place in the country today. PAGASA reports that the phenomenon will continue to prevail through the next 5-6 months as observed by global climate prediction centers. PAGASA said in its latest El Niño update said that recent rainfall observation and analysis showed below average conditions in most areas in Luzon for the past two months. PAGASA also reports that based on the latest rainfall trends and weather patterns in the country, there is a potential rainfall deficit in Regions 1, II, III, and the Cordilllera Autonomous Regions (CAR) in the coming months.

Naturally, the expected decrease in rainfall will have adverse impacts on agriculture and water resources.

But Department of Agriculture Secretary Arthur Yap, in a report from the department's web portal said that, the Department is ready for the phenomenon. Secretary Yap further said that the expected decrease in production in the areas affected will be made up for by production output from areas that are not affected by El Niño, by exploiting opportunities in crop diversification and farming of idle wetlands.



DA is expecting a dip in corn production by 164,785 MT where Regions XII and CAR being the most affected areas. Rice production is also expected to drop in Northern Luzon, Eastern Visayas, and Southern Mindanao by almost 400,000 MT.

Nonetheless, DA said that these cuts in production output will be remedied by intervention measures by the Department to boost production in unaffected areas through water management, cloud-seeding, hybrid seed and fish fry assistance, construction of shallow tube wells and pumps for open-source irrigation, and a program teaching farmers to practice prudence in the use of fertilizer. DA also reported that the National Water Resources Board assured continuous water supply for the current 4000 ha of standing rice crops and the 13,000 MT dry-season crop.

According to Bureau of Soil and Water Management director Rogelio Concepcion, the phenomenon presents an opportunity to use the country's idle wetlands.

An El Niño under Philippine conditions could easily be observed through a drier-than-normal weather condition. This can last for one or more seasons, causing drought. One can imagine the impact of this phenomenon on agriculture, which the DA tries to mitigate.

With an El Niño occurrence, the annual water inflows in major reservoirs are decreased, ;eading to inadequate domestic water supply and irrigation water. Consequently, there is a decreased irrigated farm production. At the industry level, there is less power generated by the hydroelectic power plants. But the impact is not strongly felt because there are other sources of power such as geothermal and coal.

3D View of the El Niño Phenomenon

One service that PAGASA offers to cushion the effect of El Niño is its Drought Early Warning and Monitoring System (DEWMS). It provides timely assessments of weather conditions and other information needed by various end-users, particularly policy decision-makers, economic planners, and other people concerned with crisis management regarding food security, water and energy resources, and others. An example of DEWMS is the El Niño advisories that are regularly disseminated.

Sources

- *FAO.org at http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/004/w6413e/w6413e00.HTM, November 24, 2004*
- *PAGASA-DOST at http://www.pagasa.dost.gov.ph/pressrelease.shtml#update_elnino, Novemver 24, 2004*
- *DA.com.ph at http://www.da.gov.ph, November 23, 2004*
- *Jose, Aida M. ENSO Impacts in the Philippines. PAGASA, Quezon City, Philippines*

World Rice confab presents latest research

The world's top rice scientists, researchers, and experts gathered in Japan this month to discuss the latest information on rice production, livelihoods, and other issues and concerns for Asia and the rest of the world.

The World Rice Research Conference (WRCC) took place in the science city of Tsukuba, Japan on 5-7 November after an opening ceremony in Tokyo on 4 November.

A climactic event of the United Nations' International Year of the Rice (IYR), the conference brought together leading rice researchers from all over the world to present papers on the latest scientific knowledge in four key areas: a) innovative technologies for boosting rice production; b) perspectives on the place of rice in healthy lifestyles; c) adaptable rice-based systems that help improve everybody's livelihoods; and d) the role of rice in environmentally sustainable food security.

New technologies such as improved, higher-yielding rice varieties have already saved thousands of hectares of Asian rainforests from conversion into rice farms. However, environmental sustainability continues to be a crucial issue affecting Asia's future food security.

Under the leadership of the Japanese Ministry of Agriculture, Forestry, and Fisheries (MAFF), the conference was jointly organized by the National Agriculture and Bio-oriented Research Organization, National Institute of Agrobiological Sciences, National Institute for Agro-Environmental Sciences, National Institute for Rural Engineering, National Food Research Institute, Japan International Research Center for Agricultural Sciences, the ministry's Policy Research Institute, and the International Rice Research Institute (IRRI).

Knowledge shared in the WRCC is fundamental in helping the international community achieve the UN's Millennium Development Goals because of the huge numbers of poor people that depend on rice, not only for food security but also for their livelihoods. *(Likha Cuevas and IRRI press release)*

NEWS

...Better...from page 2

such as constipation, diabetes, anemia, and insomnia. Studies have shown that lettuce contains a sleep-inducing substance called "lectucarium". In fact, the sedative effect of lettuce juice has been compared to opium minus the excitement.

Lettuce is also good for pregnant and lactating mothers since it contains folate which prevents megaloblastic anemia and makes babies' immune system strong.

Before using lettuce in a salad, the leaves should be washed and cleaned thoroughly leaf by leaf. When thoroughly clean, they should be dried with a clean towel.

A bright future

Since the country joined the World Trade Organization in 1996, local markets have been flooded with cheap vegetable imports crippling the local vegetable industry. In 1996, vegetable imports multiplied seven times to 3,900 metric tons; 27,500 MT in 2002 worth $6.37 million. The largest imports were garlic, onion, carrots, cauliflowers, broccoli, lettuce, cabbage, tomato, and shallots.

This year, however, Basic Necessity Inc. (BNI), the country's largest lettuce producer, started exporting lettuce this September to supermarkets in Hong Kong. With the backing of the government and using technologies such as *Nitroplus*, local producers can therefore hope for better times ahead and salad lovers can look forward to greener and crunchier lettuce in their salads. *(Junelyn S de la Rosa)*

Source:

1) *Torres, Fe and Ma. Lourdes Sison. "Legume inoculant Nitroplus improves the seedling growth of lettuce". National Institute of Molecular Biology and Biotechnology (BIOTECH) at UP Los Baños, College, Laguna. June 2004.*
2) *Aguiba, Melody. RP exports lettuce to Hong Kong. Retrieved from Manila Bulletin. www.mb.com.ph*

SMIARC, PREC-Tagum City strengthens R&D

The Southern Mindanao Integrated Agricultural Research Center (SMIARC)-Central Experiment Station (CES) of the Department of Agriculture Regional Field Office XI (DA-RFU 11) new administration building and other institutional development projects funded by the Bureau of Agricultural Research (BAR) were inaugurated on 21 October 2004, Davao City. Also inaugurated were the new Provincial Research and Extension Center (PREC) building and R&D facilities.

SMIARC is the nerve center for research, production, and training activities for agricultural development and extension in Region XI. BAR supports SMIARC in streamlining the RDE services and capabilities of its regional centers.

From 1999 to 2002, BAR funded a total of Php 18.6 M-IDG projects of SMIARC. This was spent for the procurement of communications facilities, farm, laboratory, and office equipment, and the renovation of station facilities to strengthen the research capabilities and improve the research environment of SMIARC.

Among the important technologies/ information generated by SMIARC include: SMIARC#2 potential durian hybrid, production of off-season durian fruits, hypocolyl grafting technique in durian, recommended fertilization for durian, new varieties of cooking bananas, pruning technique for grafted mango, lengthening shelf-life of mangosteen using clingwrap plastic, IPM for tomato bacterial wilt disease, and improved grasses and legumes for ruminants.

Attending the activity were Dr. Santiago R. Obien, DA-BAR institutional development consultant, and Mr. Rolando Labios, DA-BAR head of the institutional development division (IDD). *(Rita T. dela Cruz)*

6th National Mango Congress tackles industry concerns

The Philippine Mango Industry Federation Inc., Provincial Government of Tarlac, Tarlac Mango Estate Council, Tarlac Mango Growers Multi-Purpose Cooperative, and the Tarlac College of Agriculture held the 6th National Mango Congress on 25-27 November at the Ninoy Aquino Center, Luisita, Tarlac City.

The Congress, with the theme, *"Quality mangoes to enhance local and export markets,"* was organized by the Philippine Mango Industry Federation, Inc in cooperation with the Department of Agriculture (DA), Department of Trade and Industry (DTI), Department of Science and Technology (DOST), Department of Environment and Natural Resources (DENR), Department of Tourism (DOT), and the Department of Foreign Affairs (DFA)

Dr. Steeve Godilano, Bureau of Agricultural Research (BAR) technical expert on Geographical Information System (GIS), gave a lecture on Mango Sustainable Mapping using GIS on the first day of the Congress.

Other topics discussed were inputs of production, cultural management, processing, post harvest handling, credit and export procedures. Foreign participants had the opportunity to know the price, volume, source, variety of mangoes produced, and also saw personally the mango groves during the congress. They also held dialogues with the participants and panelists and presented their products, such as fertilizers, cardboard and plastic containers, processing equipments, refrigerated containers and other possible agricultural products they wish to export to the Philippines.

This National Mango Congress aimed to unite the growers and update industry players on the latest mango technologies; demonstrate the use of processing equipment; inform participants of export processes; encourage foreign participants for possible business deals; and discuss other matters affecting the industry. Participants of the congress included members of the regional mango associations, mango growers, members of the academe, students, foreign businessmen, government officials, and other industry stakeholders. *(Likha C. Cuevas)*

Web news

Firm to develop plantation in philippine technology park *(http://www.mb.com.ph/BSNS2004103021506.html.)*

Denmark opens doors to food biotech *(http://foodproductiondaily.com/news/ng.asp?id=55974&n=dh315&c=ljsjuezwvsuqhgn)*

Bloom extract may reduce cholesterol, study claims *(http://www.biotecheast.com/twbiotechnews_22bOct04.html)*

Digestion study on pigs shows gm corn safe *(http://www.thesouthern.com/rednews/2004/11/07/build/business/BIZ005.html)*

Papaya experience recounted in paper *(http://www.agbioforum.org/v7n12/v7n12a07-gonsalves.htm*

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