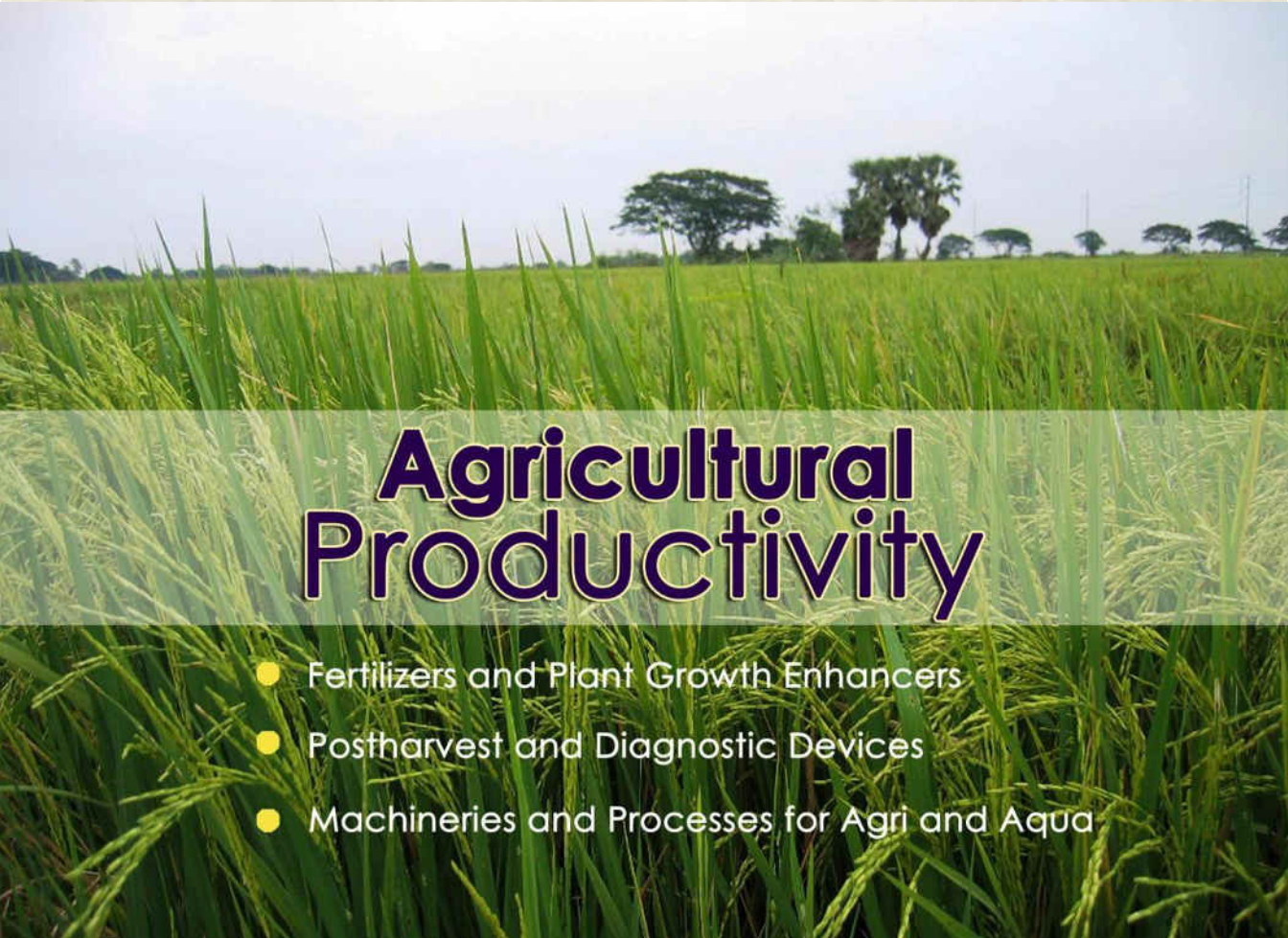

Agricultural Productivity

- Fertilizers and Plant Growth Enhancers
- Postharvest and Diagnostic Devices
- Machineries and Processes for Agri and Aqua

Fertilizers and Plant Growth Enhancers

AP-1
Technology: BioGroe ™

Description: BioGroe™ is a microbial fertilizer containing plant growth promoting bacteria (PGPB), which enhances root and vegetative growth, promotes better absorption of nutrients and helps increase crop yield at lower production cost.

Technology Generator:
Mr. Ronilo P. Violanta and
Dr. Erlinda S. Paterno
University of the Philippines Los Baños
(049) 536 1620

AP-2
Technology: Carrageenan Plant Growth Promoter

Description: Carrageenan plant growth promoter is produced from processed natural polymers extracted from seaweed. Field tests showed application of carrageenan PGP can increase rice yield up to 60%. It also promotes resistance of rice crops to tungro virus and bacterial leaf blight.

Contact Details:
Dr. Alumanda M. Dela Rosa
Philippine Nuclear Research Institute
(02) 929 6011

Fertilizers and Plant Growth Enhancers

AP-3
Technology: MykoPlus

Description: MykoPlus is a biofertilizer containing mycorrhizal fungi and beneficial bacteria that help plant roots absorb more nutrients and water from the soil, helping to enhance crop growth and yield.

Technology Generator:
Dr. Joy Zarate
University of the Philippines Los Baños
(049) 536 1620

AP-4
Technology: Nano-encapsulated Plant Growth Regulator (NANO-PGR)

Description: Environment-friendly NANO-PGR is derived from naturally occurring bacteria in plants and is proven to enhance germination and rooting. It is suitable for crops growing in stressed environments and is more cost-efficient than commonly used plant growth stimulants.

Contact Details:
Dr. Lilia M. Fernando
University of the Philippines Los Baños
0918 592 7625

Postharvest and Diagnostic Devices

AP-5
Technology: Nanocomposite Coatings

Description: The liquid nanocomposite coatings can be sprayed or brushed on high-value fruits like mango and papaya to prolong post-harvest shelf life. The edible coatings are developed from bio-materials extracted from pineapple crown leaves, mango peel and nata de coco.

Contact Details:
Dr. Hidelisa P. Hernandez
University of the Philippines Los Baños
(049)536 2220

Postharvest and Diagnostic Devices

AP-6
Technology: Electrochemical Sensor for Fish Freshness Monitoring

Description: The electrochemical sensor is a cost-effective, handy and compact device integrated with a metal oxide-based sensor that can check the freshness of fish to ensure safe consumption.

Contact Details:
Dr. Armando S. Somintac
University of the Philippines Diliman
(02) 920 9749

AP-7
Technology: Andali™ RT-LAMP Test Kit

Description: The Andali™ RT-LAMP Test Kit allows for fast, timely and inexpensive diagnosis of Porcine Epidemic Diarrhea (PED) virus infection in pigs using loop-mediated isothermal amplification (LAMP). This can help reduce swine mortalities associated with PED.

Contact Details:
Dr. Clarissa Yvonne J. Domingo
Central Luzon State University
0905 811 3912

Postharvest and Diagnostic Devices

AP-8
Technology: LAMP Diagnostic Kit for White Spot Syndrome Virus in Shrimp

Description: Loop-mediated isothermal amplification (LAMP) is a new molecular technique for quick, accurate and convenient detection of white spot syndrome virus in shrimp. Using LAMP, the diagnostic kit is 10 times more effective than conventional methods and can produce results within an hour.

Contact Details:
Dr. Mary Beth B. Maningas
University of Santo Tomas
(02) 732 7486

AP-9
Technology: Genome-Based Lateral Flow Strip Biosensor Kit

Description: The genome-based lateral flow strip biosensor kit is an affordable and convenient device for quick detection of white spot syndrome virus and other pathogens in shrimp. Its test strips are field-ready, with an extraction and mobile device kit for first-level screening of pathogens on site.

Contact Details:
Dr. Erwin P. Enriquez
Ateneo de Manila University
(02) 426 6001

Machineries and Processes for Agri and Aqua

AP-10
Technology: Compact Ultra Impeller Rice Mill

Description: The ultra impeller rice mill allows for regular continuous production of white rice, as well as brown rice, on a demand or order basis through minor adjustments at the flick of a switch. Its compact, easy-to-operate design also has a bran and hull discharge system to control dust.

Contact Details:
Dr. Michael A. Gragasin
Philippine Center for Postharvest Development and Mechanization
(044) 456 0213 or 0920 249 5916

AP-11
Technology: Semen Extender for Goat

Description: The semen extender for goat is an affordable formulation using soybean lecithin to provide nutrients for goat spermatozoa and to protect goat semen against changes in pH and cold shock when stored in a chilled state.

Contact Details:
Ms. Aubrey Joy Balbin
Isabela State University (ISU)
0915 717 8561

Machineries and Processes for Agri and Aqua

AP-12
Technology: Hybrid Dryer for Sea Cucumber

Description: The easy-to-use dryer can help fisherfolk produce premium-grade dried sea cucumber with reduced microbial content, improved shelf life and no foul odor versus traditional drying. The hybrid dryer can be operated using solar heat, biomass burner or electricity.

Contact Details:
Dr. Kevin F. Yaptenco
University of the Philippines Los Baños
(049) 536 0407

AP-13
Technology: Package of Technologies for Mango Production

Description: The package of technologies for mango production makes use of integrated crop management technologies, such as pruning, nutrition and water management, flower induction, and pest and disease management. It also involves post-harvest quality management technologies on fruit handling, trimming and delatexing, sorting and grading, and packaging.

Contact Details:
Dr. Oscar S. Opina
Dr. Elda B. Esguerra
University of the Philippines Los Baños
(049) 536 3259
0917 511 0946 (Dr. Opina)
0949 156 3329 (Dr. Esguerra)

Machineries and Processes for Agri and Aqua

AP- 14
Technology: Handtractor-Attached Rice Transplanter

Description: Unlike commercially available transplanters which are self-propelled and dedicated machines, the hand tractor attachment can be readily mounted to and dismounted from a common hand tractor unit, improving the utilization of the farm hand tractor.

Contact Details:
Engr. Isidro D. Millo
Metals Industry Research and Development Center
(02) 837 0431

AP-15
Technology: Hydroseeder

Description: The hydroseeder has a 1,500-liter slurry tank and pump system which mixes seeds, fertilizer and water together with cellulose binder mulch. It then discharges the slurry via high pressure, allowing seeds to be distributed even in hard-to-reach slopes.

Contact Details:
Dr. Dominic S. Guevarra
Metals Industry Research and Development Center
(02) 837 0431

Machineries and Processes for Agri and Aqua

AP-16
Technology: Pelletizing Machine for Goat Feeds

Description: The pelletizing machine helps ensure continuous availability of high-protein, low-cost feeds for goats. The machine compresses a mixture of plant material such as ipil-ipil, rice bran, copra and molasses into bite-size pieces before these are sundried and stored as feeds.

Contact Details:
Dr. Edgar A. Orden
Central Luzon State University
(044) 456 0698
0908 885 5548

AP- 17
Technology: Milkfish Fry Counter

Description: The automatic counter addresses the problem of laborious and inaccurate manual counting of milkfish fry. It uses a laser light source, phototransistor receptor and an Arduino-UNO processor to carry out the counting process, with 95% accuracy based on latest trials.

Contact Details:
Dr. Crispino A. Saclauso
University of the Philippines Visayas
(033) 315 8090
0917 302 2447