

## WORKING COMMITTEES

<b>Secretariat/ Registration</b>	Ms. Charito L. Samsam	-	Chairman
	Ms. Araceli J. Badar	-	Co-chair
	Ms. Ma. Concepcion B. Birginias		
	Ms. Diana Marie O. Pitpitan		
	Ms. Milen M. Inocencio		
	Mr. Don Carlo C. Batara		
	Ms. Maria Cristina P. Pammit		
Ms. Ruby Rose A. Sablot			
<b>Program/ Invitation</b>	Ms. Evangeline S. Galacgac	-	Chairman
	Ms. Lea C. Agbigay	-	Co-chair
	Ms. Diana Marie O. Pitpitan		
	Mr. Mario I. Remolacio		
	Mr. Erle Stanley G. Damaso		
Ms. Maria Cristina P. Pammit			
<b>Documentation/ Multimedia Presentation</b>	Ms. Lea C. Agbigay	-	Chairman
	Ms. Mary Ann B. Gorospe	-	Co-chair
	Ms. Leah M. Tute		
	Mr. Rodel C. Cabugon		
Ms. Nataliza L. Llapitan			
<b>Awards/Certificate</b>	Ms. Leah M. Tute	-	Chairman
	Ms. Corazon Diana A. Pastor	-	Co-Chair
	Mr. Constante B. Julian		
	Ms. Rosalinda Q. Santiago		
<b>Food</b>	Ms. Rosalinda Q. Santiago	-	Chairman
	Ms. Corazon C. Sugui	-	Co-chair
	Mr. Pio G. Belen, Jr.		
	Ms. Marylis A. Nalundasan		
	Ms. Maricel G. Billiones		
	Ms. Christine B. Quiapo		
<b>Hall/ Stage Preparation and Demolition</b>	Engr. Rodel T. Utrera	-	Chairman
	Dr. Susan G. Aquino	-	Co-chair
	Mr. Rodel N. Bañez		
	Engr. Joemel G. Agreda		
	Engr. Psalm David A. Pastor		
	Engr. Sherwin B. Bartolome		
	Mr. Benito B. Balneg		
	Mr. Jeremy Christian Q. Santiago		
Mr. Eleazar O. Grande			
<b>Moderators/ Facilitators</b>	Dr. Criselda M. Balisacan	-	Chairman
	Dr. Dionisio S. Bucao	-	Co-chair
	Ms. Noralyn T. Legaspi		
	Ms. Menisa A. Antonio		
	Mr. Constante B. Julian		
<b>Rapportuers</b>	Ms. Marissa I. Atis	-	Chairman
	Ms. Leticia A. Lutap	-	Co-chair
	Ms. Zenaída S. Pugat		
	Ms. Aleta E. Dumaoal		
	Ms. Alecsis G. Villarin		
	Ms. Maigeline B. Vivit		
Ms. Josefa S. Pugat			



MARIANO MARCOS STATE UNIVERSITY  
RESEARCH DIRECTORATE  
City of Batac, Ilocos Norte



# 2017 AGENCY IN-HOUSE RESEARCH REVIEW

for AGRICULTURE, FISHERIES,  
FORESTRY, NATURAL RESOURCES,  
ENVIRONMENT, ENGINEERING, &  
RELATED SCIENCES

August 01-02, 2017, 8:00 AM

MMSU, CRL-OSIS

*You're invited*

# PROGRAM OF ACTIVITIES

## PART 1: OPENING PROGRAM

August 01, 2017 (Tuesday)

8:00 — 8:30 REGISTRATION

8:31 — 10:00 OPENING PROGRAM

Prayer  
Ms. Marissa I. Atis  
*Education Program Specialist I*

National Anthem  
& MMSU Hymn  
Ms. Cecille A. Gaoat  
*Science Research Assistant*

Welcome Remarks  
& Rationale  
& Guidelines  
of the In-House  
Review  
Dr. Marilou P. Lucas  
*Director, Research*

Message  
Dr. Prima Fe R. Franco  
*VP, Academic Affairs  
Director, ILAARRDEC*

Dr. Nathaniel R. Alibuyog  
*VP, Research and Extension*

Introduction of the  
Evaluators  
Dr. Criselda M. Balisacan  
*Asst. Director, Research*

Ms. Cristina P. Pammit  
*Science Research Assistant  
Master of Ceremonies*

## PART III. CLOSING PROGRAM

August 02, 2017 (Wednesday)

Prayer  
Mr. Pio G. Belen, Jr.  
*Science Research Specialist I*

Awarding of Best Presenter  
Chairman, Panel of Evaluators

Concluding Remarks  
Dr. Marilou P. Lucas  
*Director, Research*

Dr. Dionisio S. Bucao  
*Supervising Education Program Specialist  
Master of Ceremonies*

### **PANEL OF EVALUATORS**

**MS. BETHZAIDA M. CATUDAN**  
*Supervising Science Research Specialist*  
Philippine Rice Research Institute

**DR. AIDA D. SOLSOLOY**  
*Affiliate Faculty/Scientist I*  
CAFSD, MMSU

**SCIENTIST-ENGR. SAMUEL S. FRANCO**  
*Associate Professor IV/Scientist II*  
COE, MMSU

**DR. EPIFANIA O. AGUSTIN**  
*Professor*  
CAFSD, MMSU

11:01-11:20	Reusability, recovery and viability of indigenous nipa yeast under batch fermentation for bulk production/ <i>Shirley Agrupis, Jayson Cariaga</i>
11:21-11:40	Identification and characterization of stress tolerant yeasts and microbial community profiling of nipa sap fermentation from Pamplona, Cagayan/ <i>Shirley Agrupis, James Paul Madigal</i>
11:41-12:00	Nipa ( <i>Nypa fruticans</i> Wurmb) sap collection and bioethanol production in Currimao, Ilocos Norte in support to village-scale bioethanol production/ <i>Shirley Agrupis, Eleazer Grande</i>

## LUNCH BREAK

01:01-01:20	A capacity building framework for a village-scale bioethanol production in Pamplona, Cagayan/ <i>Marlyn Cacatian, Fides Bitanga, Marjorie Garcia</i>
01:21-01:40	Perceptions and acceptability of bioethanol production technology in Pamplona, Cagayan/ <i>Marilou Lucas, et.al.</i>

### ◆ LIVESTOCK

01:41-2:00	Phenotypic characterization of cattle population in Ilocos/ <i>Peter James Icalia, Don Carlo Batara, Mae Ann Batuyong, Jeremy Christian Santiago</i>
02:01-02:20	Genetic diversity analysis of cattle population in Ilocos by single nucleotide polymorphism/ <i>Peter James Icalia, Don Carlo Batara, Mae Ann Batuyong, Christian Jeremy Santiago</i>
02:21-02:40	HW disequilibrium of Ilocos bovine population for growth related genes/ <i>Peter James Icalia, Don Carlo Batara, Mae Ann Batuyong, Jeremy Christian Santiago</i>

## PART II: PRESENTATION PROPER

August 01, 2017 (Tuesday)

### ◆ ENVIRONMENT

10:01-10:20	Climate risk vulnerability assessment of Ilocos Sur/ <i>Rodel Utrera, Nathaniel Alibuyog, Dionisio Bucao, Constante Julian</i>
10:21-10:40	Climate resilient agriculture practices and adaptive capacity indices of LGU's in Ilocos Sur/ <i>Constante Julian, Dionisio Bucao, Nathaniel Alibuyog, Rodel Utrera</i>
10:41-11:00	Environmental awareness of households in the Quaioit River Watershed/ <i>Floramante Pastor, Nathaniel Alibuyog, Rodel Utrera, Roseller Ayson, Virgilio Julius Manzano, Jr., Grace Pajinag, Josabette Tolentino, Kristine Agcanas</i>
11:01-11:20	Stakeholder analysis of the Quaioit River Watershed/ <i>Floramante Pastor, Nathaniel Alibuyog, Rodel Utrera, Roseller Ayson, Virgilio Julius Manzano, Jr., Grace Pajinag, Josabette Tolentino, Kristine Agcanas</i>
11:21-11:40	Assessment of the sustainable livelihood capital/assets of the Quaioit River Watershed/ <i>Floramante Pastor, Nathaniel Alibuyog, Rodel Utrera, Roseller Ayson, Virgilio Julius Manzano, Jr., Grace Pajinag, Josabette Tolentino, Kristine Agcanas</i>
11:41-12:00	Biodiversity assessment of the Quaioit River Watershed/ <i>Roseller Ayson, Floramante Pastor, Nathaniel Alibuyog, Rodel Utrera, Virgilio Julius Manzano, Jr., Grace Pajinag, Josabette Tolentino, Kristine Agcanas</i>

## LUNCH BREAK

1:01-1:20	Vulnerability assessment of agricultural resources in Paoay, Ilocos Norte to flood/ <i>Nathaniel Alibuyog, Alex Kevin Marc Alonzo, Rodel Utrera, Mark Bryan Valeriano, Josefa Pugat, Remy Rose dela Cruz</i>
1:21-1:40	Effects of different nursery techniques on the growth and survival of selected dipterocarps and other timber species using wildlings as planting material/ <i>Charito Samsam</i>

## ◆ CROPS

August 02, 2017 (Wednesday)

1:41-2:00	Enhancing rice-based productivity through the utilization of high yielding drought resistant and need-based technology/ <i>Dionisio Bucao, Nathaniel Alibuyog, Sherlyn Nicolas, Mercy Gaño, Wendivie Rebutin, Franklin Sagsagat, Bella Gervacio, Menisa Antonio, Evangeline Galacgac</i>
2:01-2:20	Evaluation of the physical and chemical properties and biological activities of Ilocos Norte black garlic/ <i>Shirley Agrupis, et.al</i>
2:21-2:40	Documentation, evaluation and improvement of storage method for shallot onion/ <i>Maria Luisa Gabriel, Marissa Atis, Aleta Dumaoal, Ressurrection Bernadette Imbat</i>
2:41-3:00	Garlic bulbils as alternative source of clean planting material in garlic seed production/ <i>Marissa Atis, Araceli Badar, Maria Luisa Gabriel, Ressurrection Bernadette Imbat, Lucrisia Conchita Cocson</i>
3:01-3:20	Land suitability assessment with the garlic growing areas in Region 1/ <i>Dionisio Bucao, Rodel Utrera, Evangeline Galacgac, Nathaniel Alibuyog</i>
3:21-3:40	Population structure of garlic varieties in the Philippine using sequence repeats ((SSR)/ <i>Peter James Icalia, Don Carlo Batara</i>
3:41-4:00	Supply chain of garlic in Region I/ <i>Marilou P. Lucas, et.al.</i>
4:01-4:20	Improved cultural management practices in the production of garlic seed bulbs/ <i>Marissa Atis, Araceli Badar, Maria Luisa Gabriel, Ressurrection Bernadette Imbat, Lucrisia Conchita Cocson</i>
4:21-4:40	Verification of the developed pest management products for vegetable production in Ilocos/ <i>Leticia Lutap, Alecsis Villarín, Jonathan Ramos</i>
4:41-5:00	Varietal evaluation and development of corn/ <i>Mario Remolacio, Constante Julian</i>

08:01-08:20	Evaluation of promising sweet potato varieties/accessions in the Ilocos/ <i>Artemio Alcoy, Pio Belen, Jr., Marissa Atis</i>
08:21-08:40	Utilization of organic fertilizer sources to enhance sweet potato production/ <i>Artemio Alcoy, Pio Belen, Jr., Marissa Atis</i>
08:41-09:00	Sand-cooked peanuts: A promising enterprise in Ilocos/ <i>Leticia Lutap, Jonathan Ramos, Leah Ballesteros, Corazon Sugui</i>
09:01-09:20	Evaluation of the agronomic performance of traditional upland rice varieties in rainfed-lowland areas of Batac/ <i>Araceli Badar, Menisa Antonio</i>

## ◆ FISHERIES

09:21-09:40	Pilot scale application of aquashade to reduce water temperature and enhance seed production in hatchery system for tilapia/ <i>Veronica Grande, et.al.</i>
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## ◆ ENGINEERING

09:41-10:00	Design and calibration of a digital soil moisture meter/ <i>Artbelson Mamuri, Jason Manuel, Willen Manzanas, Thomas Ubina</i>
10:01-10:20	Design and testing of a solar pump controller/ <i>Thomas Ubina, Willie Manzanas</i>

## ◆ BIOETHANOL

10:21-10:40	Physico-chemical and biological characterization of the nipa stands in Pamplona, Cagayan/ <i>Joselito Rosario, Estrella Domingo, Flordeliz Estira</i>
10:41-11:00	Bioremediation activity of aquatic plants on nipa spent distillate/ <i>Henedine Aguinaldo</i>