



# RISE

The Official Newsletter of the BASC Research, Extension, Production and Development Office

## 4K: first RDE program on rabbit kicks off



“Karne ng Kuneho para sa Kalusugan at Kabuhayan,” also known as 4K, commenced this September 2021. With the release of the first tranche budget of Php 2,073,000 out of the four million pesos total funding from CHED, 4K Program team is related to finally be able to implement the first integrated research, development and extension program with external funding that is dedicated to the promotion of rabbit meat.

Dr. Honeylet Nicolas, the program leader, submitted the proposal in response to CHED’s 2018 call for proposals in the NAFES

National Agriculture and Fisheries Education System) Extension grant. The proposal was shortlisted among the hundreds of proposals, and underwent several revisions and delays in budget release due to various factors.

The general objective of the 4K Program is to increase the awareness of Filipinos on the benefits of rabbit meat, and to make more people engaged in the profitable venture of rabbit production. Among the specific objectives of the two-year program are the production of rabbits for technology demonstration; creation of

>>PAGE | 2

## BASC holds 19th Agency In-House Review

The Bulacan Agricultural State College – Research, Extension, Production and Development office successfully held its 19th Agency In - House Review of Completed and On-going Research and Extension Projects with the theme “Navigating the New Normal: Viable Innovations, Research and Extension Work” on August 25, 2021 via Zoom and was aired lived thru the Facebook page of the REPD.

Fourteen papers were presented in the agriculture research category, 11 in social research, and 11 papers in the extension

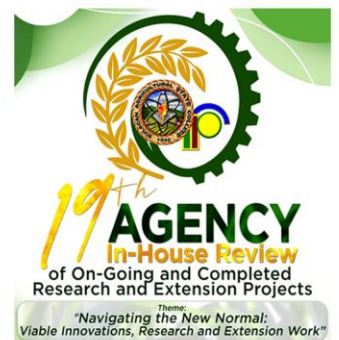
category.

The virtual event was officially opened by Dr. Jameson H. Tan with his opening remarks. He said that “the BASC 19th AIHR is not just about the celebration of research and extension distinction, but it also encourages more young faculty to engage in research and extension. Let us mentor these young minds who will carry on the torch that will bring more breakthroughs and good will to all.”

The introduction of the Keynote Speaker by Dr. Honeylet J. Nicolas followed. The speaker was Dr.

Eufrocina Atabay, Scientist II of the Philippine Carabao Center (PCC). She shared the best practices of PCC in research and encouraged BASC faculty and staff to level up their researches toward commercialization.

The papers were evaluated by esteemed evaluators. For the agriculture and technical research category, Dr. Nenita Dela Cruz, a retired CLSU professor, and Dr. Mary Grace Gatan, Research Director of PSAU, served as the evaluators. Dr. Philip Baldera, a Graduate School Professor of the National Teachers College, Dr. Maximo Muldong,



also a Graduate Professor of the La Consolacion University of the Philippines, and Dr. Lauro S. Nuñez, Dean of the Institute of Arts and Sciences were the evaluators for the social research category. For the extension category, three CLSU professors were invited

>>PAGE | 5

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>>FROM PAGE | 1

awareness and appreciation for meat-type rabbits using both traditional and IT-based IEC materials; and capacitating farmers, agricultural extension workers (AEWs), agripreneurs, and other interested parties on rabbit enterprise management through trainings, farm visits, and learning-by-doing activities.

The program will also focus on the distribution of breeder rabbits and assisting beneficiaries in the overall management of their rabbit enterprise; developing new rabbit

products for registration and commercialization; linking farmers to institutional buyers and market outlets; and determining the project impact on the knowledge, skill and attitudes (KSA) of beneficiaries on rabbit farming, as well as on their psycho-socio-economic profile.

The 4K is a tri-partite program involving the academe, industry and government. The program team has already forged a memorandum of agreement with the two largest groups of rabbit farmers, the

Association of Rabbit Meat Producers, Inc. (ARaMP) and the New Alliance of Rabbit Breeders Association (NARBA). The team has also given drafts of MOA to the Bureau of Animal Industry (BAI), National Meat Inspection Service (NMIS), the Provincial Government of Bulacan through its Provincial Veterinary Office, and the Municipal LGUs of San Ildefonso, San Miguel, and San Rafael, Bulacan through their Municipal Agriculture Offices (MAO).

With the outstanding

traits of rabbit, such as healthy meat, high prolificacy and adaptability, low production inputs, non-reliance on grains for feed, great variety of by-products, and being environment-friendly, the program team believes that 4K will help in realizing the potentials of rabbit as a livestock species for meat production in the country. The core program team also includes Dr. Cecilia Santiago, Erlinda Palmario, Joanna Marie Bradecina, Nerilyn Victoria and Kathlene Dionisio.



*The President and Secretary of the Association of Rabbit Meat Producers (ARaMP), Mr. Artemio Veneracion and Mrs. Angelina Veneracion, met with the BASC President, Dr. Jameson Tan, and the 4K Program Leader, Dr. Honeylet Nicolas twice in September 2021 for the MOA signing and discussion on a possible rabbit slaughterhouse in BASC.*

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### “RISE: Research and Innovation Stories and Events”

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## IP training rouses CA to register assets

To have better grasp on intellectual property along with its registration and maintenance, the College of Agriculture (CA) in collaboration with the Intellectual Property Office (IPO), held an in-service training titled, "Capacitating College of Agriculture Faculty through Understanding Intellectual Property" at the Farmers' Training Center on July 29.

The training was part of the faculty development activities of CA Faculty to increase the College's IP outputs towards universityhood. Moreover, the training was aimed to intensify the CA Faculty's involvement in the BASC's accreditation and certification in various quality management systems' accrediting bodies like International Organization of Standardization (ISO), Accrediting Agency of

Chartered Colleges and Universities in the Philippines (AACUP), and Institutional Sustainability Assessment (ISA).

The speaker, Engr. Joselito D. Tucit, the IPO Director, discussed trademarks, trademark registration and maintenance, and the role of BASC IPO in the maintenance of BASC trademarks. Another speaker, BASC's IP Officer, Engr. Leslie Joy M. De Jesus, tackled the different types of IPs, the duties and responsibilities of BASC-IPO, copyright registration, maintenance and copyright infringement.

An open forum as held for each topic. Among the highlights were the feasibility of copyright registration for the information, education and communication (IEC) materials for fermented plant and fruit juices,

vermitea, guanotea and rabbitea developed by the CA faculty members, and the trademark application of the two income-generating projects of CA which are the fresh carabao milk and vermicompost.

At present, the CA-IP Coordinator, Ms. Evelyn Q. Alera has started collecting documents for the logos

and products produced by the different production projects in the CA in preparation for IP registration.

College of Agriculture Dean, Dr. Julita P. Mendoza, CA Dean, has high hopes the CA will have IP registered and approved products and logos before the AACUP accreditation next year.



*Engr. Joselito Tucit, Director of Intellectual Property Office served as main speaker in the IP training.*



*Faculty members of College of Agriculture posing with their certificates of participation during the closing program of the training, along with the speakers.*

## BASC spearheads PAFES rapid appraisal of Bulacan LGUs



With the aim of assessing the resources and capabilities of Local Government Units (LGUs) in implementing the Province-led Agriculture and Fishery Extension Services (PAFES), the Bulacan Agricultural State College (BASC) spearheaded the conduct of rapid appraisal to determine the readiness of Bulacan LGUs for PAFES implementation next year.

The project formally started through an inception meeting with Dr. Arthur D. Dayrit of DA-RFO 3, Ms. Veronica V. Esguerra of DA ATI-RTC 3, Mrs. Ma. Gloria S.F. Carillo of Provincial Agriculture's Office (PAO), Dr. Jameson H. Tan, BASC President, City/Municipal Agriculturists/Agricultural Officers of Bulacan and members of the project

team held virtually last July 21, 2021 via Zoom App Conferencing.

The rapid appraisal study employs triangulation approach to obtain a clear and precise picture of the conditions of the local extension system in Bulacan. Series of Focus Group Discussions (FGDs) are facilitated with the agriculture office personnel of the 21 municipalities and three component cities of Bulacan from August to September, 2021. Key Informant Interviews (KIIs) were also conducted to the farmer and fisherfolk leaders and other stakeholders of agriculture and fishery sectors in order to gather relevant information from them. Likewise, desk reviews of available secondary data from various sources were

done in order to capture the complete picture of agri-fishery extension system in the province.

The Department of Agriculture-Central Office (DA-CO) provided the funding for the said study amounting to P1,000,000.00 for the original duration of only two months. However, due to the limitation on mobility, COVID-19 infected respondents and project team members and strict implementation of modified enhanced community quarantine (MECQ) in Bulacan from August to September, the duration is extended until November, 2021 to give ample time to the project team and target respondents to provide and gather all the needed data

to produce a comprehensive report.

The said study is being conducted because Bulacan was chosen as one of the 16 pilot provinces in the country where PAFES will be initially implemented next year. It targets to provide valuable information on how the Bulacan LGUs will handle additional funds from the national government through the implementation of Mandanas-Garcia Supreme Court ruling which is also set to be enforced next year.

Dr. Imee D. Esguerra, Extension Director, led the project team with the help of eight project members and eight project staff who are all faculty researchers from BASC.



*Dr. Susan C. Santos, VP-REPD and project member as she facilitates the conduct of FGD to MAO-Baliuag personnel last August 2, 2021.*

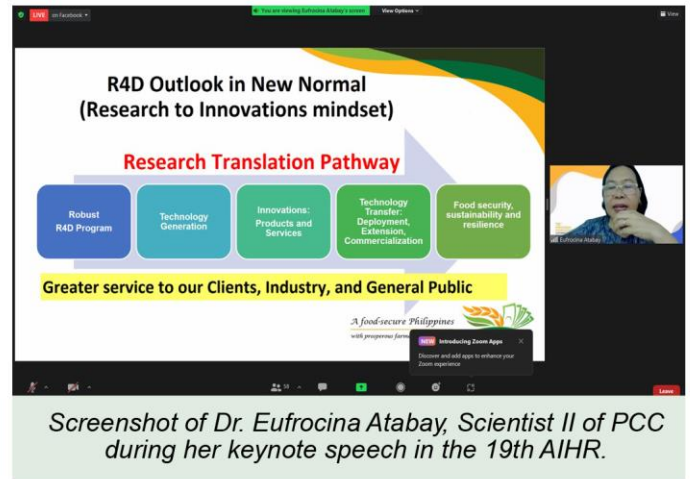


*Dr. Imee D. Esguerra, Project Leader led the project team virtual meeting held via zoom app conferencing last August 13, 2021 to finalize the strategy to be used or conducting serves of FGDs, KIIs and desk research for gathering data needed in the project.*

# BASC holds 19th Agency In-House Review **>>FROM PAGE | 1**

namely Dr. Jonathan L. Galindez, current head of the RM-CARES, Professor Janet O. Saturno, Director of the University Gender and Development Office, and Prof. Janet L. Saturno, Chief of the Applied Communication Division of

the Extension University Center. After the awarding of winners, Dr. Susan C. Santos, VP-REPD, concluded the event with her closing remarks acknowledging all the participants, presenters and evaluators.



*Screenshot of Dr. Eufrocina Atabay, Scientist II of PCC during her keynote speech in the 19th AIHR.*

## REPD Council holds 3rd Quarter Meeting

The REPD Council held its 3rd Quarter Meeting on July 6, 2021 at the BASC Administration Building Conference Room. Dr. Jameson H. Tan, the College President, presided the meeting and the approval of the agenda of the meeting.

Also present during the meeting were Dr. Susan C. Santos, VP-REPD; Dr. Cecilia S. Santiago, VP-AA; Dr. Ronald Reagan T. Alonzo, VP-AFBA; Dr. Honeylet J. Nicolas, Research Director; Dr. Imee D. Esguerra, Extension Director, and Engr. Joselito Tucit, Intellectual Property Director, which all composed the REPD Council.

The first agenda was the approval of the new research and extension project proposals which were previously evaluated by the TWG members. A total of 19 proposals were approved for internal funding of the College, subject to revision based on the comments and suggestions of the REPD council.

Dr. Honeylet Nicolas



*Members of the REPD Council (above) and some research and extension project proponents (right) during the meeting on July 6, 2021.*



presented the proposed Policy for Graduate Research and Teaching Assistantship, the new international research journal of BASC (Southeast Asian Journal of Agriculture and Allied Sciences), and the initial draft of policy for research ethics, which

were all part of the second agenda. Dr. Jameson H Tan, together with the other members of the council, approved the proposed policies presented by Dr. Nicolas, with minor revisions from the members.

# Abstract of 19th Agency In-House Review Winners

## AGRICULTURAL AND TECHNICAL RESEARCH CATEGORY



### Best Paper

*"Identification of Gastrointestinal Parasites in Meat- Type Rabbits at BASC Rabbit Project through Fecalysis Procedures"*

state college through floatation and sedimentation procedures of fecal analysis. Floatation technique separates the eggs from fecal debris by floating them on a variety of solutions, whereas sedimentation technique allows heavier parasite eggs to sink to the bottom of the solution. Both procedures were conducted on 53 rabbits of varying ages. Eggs of intestinal coccidia were found on all rabbits, having a prevalence of 100%. Eggs of hepatic coccidia (*Eimeria stiedae*), and tapeworm (*Taenia* sp.) were found at 15% and 7.5% prevalence, respectively, among all the rabbits. *Eimeria stiedae* and *Taenia* spp. were only found only in young rabbits aged two months old and below, at a prevalence of 66.67% and

33.33%, respectively for this age group. The parasites were seen using the floatation technique, whereas only coccidia were seen in sedimentation technique. Results revealed that mixed infection of intestinal coccidia with hepatic coccidia, and intestinal coccidia with tapeworm, occurred in young rabbits only. The rabbits did not show clinical signs related to the parasites discovered, owing to the low amount of parasitic load, and to the low pathogenicity of the parasites. Implications for rabbit farm hygiene and sanitation, and for rabbit health management were discussed for rabbit producers in the country. Based on the results and recommendations of the study, IEC materials in the form of a pamphlet and a learning module were made

*Study team: Honeylet J. Nicolas, DVM, Ph.D., Celso S. Sto. Domingo, DVM, Anthony Ferrer, Ph.D., Sara Tuesday Waminal, DVM, Joanna Marie S. Bradecina, Erlinda DL. Palmario, & Marivic A. Capalad*

Meat-type rabbits are relatively new compared to

other livestock raised for meat in the Philippines. In this regard, the occurrence of parasites is not yet well-documented among rabbit farms in the country. This study determined the presence and identity of gastrointestinal parasites of rabbits farmed inside a

## SOCIAL RESEARCH CATEGORY

### Best Paper

*"Lived Experiences among Bulacan Agricultural State College – Expanded Students Grants-in-Aid Program for Poverty Alleviation (ESGP-PA) Graduates"*

*Study team: Eiffel S. Nunez, Gretchen M. Mendoza, Ariane Manuzon, & Esmeraldo Jr. Valmores*

As the Philippine government agencies ceaselessly search, plan and implement various programs to combat the relentless cycle of poverty, the academe is seen as one of

the most effective channels to capitalize on. This paper assesses how the iExpanded Students' Grants-in-Aid Program for Poverty Alleviation (ESGP-PA) was carried out by the Bulacan Agricultural State College. Through convenience sampling, there were 44 scholar-graduates of 2017 and 2018 who participated in the research.

Various research instruments were used to determine the level of satisfaction, extent of use of the skills the ESGP-PA graduates have acquired

nurtured in the College to their present jobs, and trainings needs for them to be more competitive in the labor market. Results revealed that BASC satisfactorily implemented the program particularly how the faculty and administration catered to the ESGP-PA grantees' needs. Also, the lived experiences of the scholar-graduates capture the efficiency, commitment, and transparency the College showcased in implementing the scholarship grant. However, the areas that the College need to im-

prove on include the facilities, screening process for the scholarship grant, and creation of linkages for the graduates to have improved job opportunities. Considering that sustainability is the most reliable measure as to whether the program has ultimately achieved its objective, it is significant to focus on the capability of the graduates to utilize their knowledge and skills for the advancement of their professional careers but also, in broader sense, for the increased quality of their and families' lives.



**EXTENSION AND DEVELOPMENT CATEGORY**

**Best Paper**

*“Rice-based Farming System Integrated with Free-Range Chicken Production for Small-Hold Farms*  
 Project team: *Dr. Imelda SA. Navarro, Dr. Honeylet J. Nicolas, James D. Letcher, Evelyn Q. Alera, Donaida B. Ramos*

The project aimed to promote FRC production in small-hold farms to increase their productivity and profitability. To meet this, the project pursued the establishment of FRC techno-demo farm, FRC dispersal to selected farmers, capacity enhancements, development of IC materials, and provision of financial assistance. The

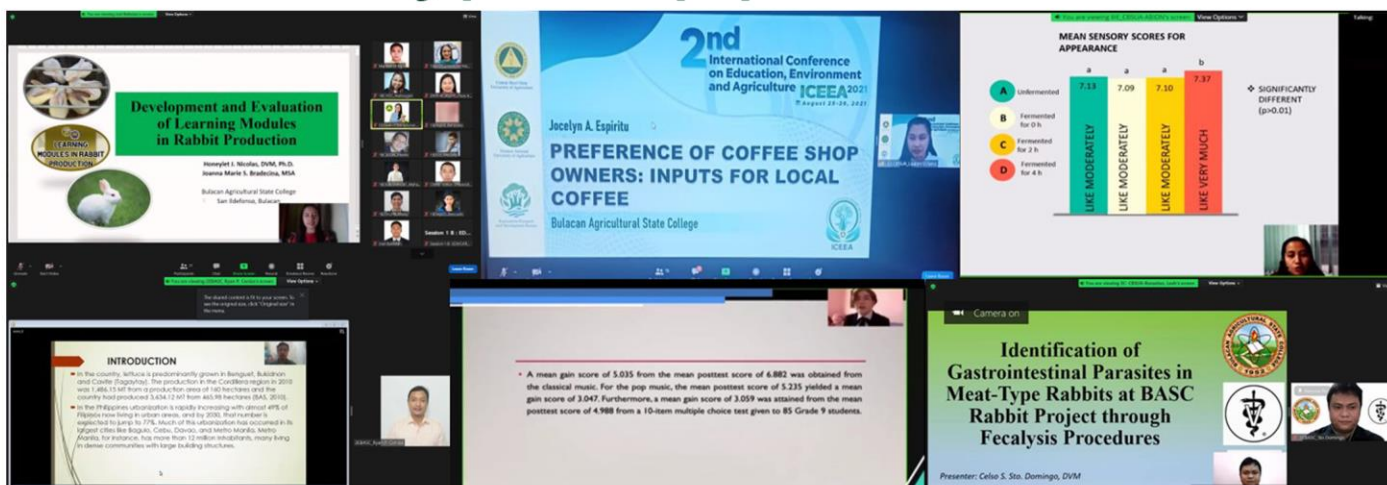
techno-demo farm was established at Brgy. Malipampang, San Ildefonso, Bulacan. A total of 2,470 pullets were dispersed to 72 small-scale farmers from San Ildefonso, San Miguel, San Rafael, Pandi, and Norzagaray, Bulacan. Four trainings focused in FRC management were conducted to capacitate the farmers. Financial assistance was also provided through a loan with a maximum of Php 10,000 with 1% interest and payable for 6 months. Monthly monitoring and evaluation was implemented to determine the FRC management approach of the farmer cooperators, identify problems



encountered, and assisted them in their concerns. Upon monitoring, several problems are encountered by farmers including health (mortality, flu, heat stroke etc.) and egg production (small size, double yolk, shell break-age etc.). In terms of net

income, monitored farmer had obtained an income of P5,870.00 (51% RO1) with 70% average production rate. It is therefore conclude that FRC production is sustainable and can be an additional income source to small scale farmers.

**Six faculty present papers in int’l confab**



Some screenshots during the presentation of BASC faculty in ICEEA 2021.

Six research papers were presented internationally during the 2nd International Conference on Education, Environment and Agriculture (ICEEA 2021), organized by the Central Bicol State University of Agriculture (CBSUA) held on August 25-26 via Zoom.

The conference was divided into three categories - Education, Environment and Agriculture, wherein breakout sessions via

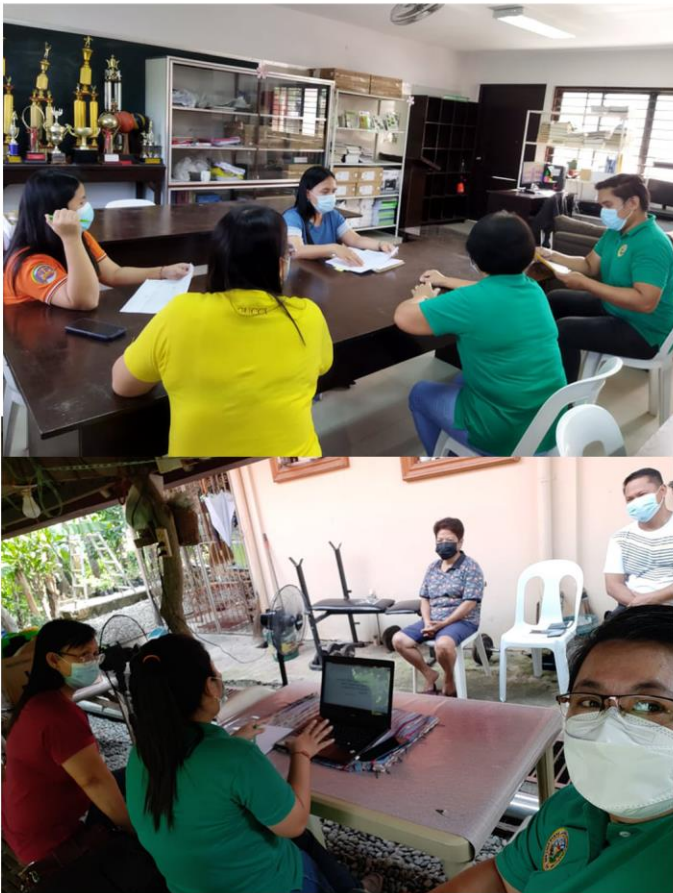
Zoom were utilized, and under these three categories, four out of six BASC papers were presented under the agriculture category, and two were presented under the education category.

Dr. Celso Sto. Domingo’s paper entitled “Prevalence and Identification of Gastrointestinal Parasites in Meat-Type Rabbits through Fecalysis Procedures”, Mr. Ryan P. Ceniza’s

“Performance of Lettuce as Influenced by Various Levels of Rabbit Manure Tea and Snap Solution in Hydroponic System”, Ms. Joy Christine Sta. Cruz’s paper “Effect of Fermentation Time on Lapan (Rabbit Meat) Jerky Processing”, and Mrs. Jocelyn A. Espiritu’s paper entitled “Preference of Coffee Shop Owners: Inputs for Local Coffee”, were all presented in the Agriculture

Category. Meanwhile, Dr. Honeylet J. Nicolas’ paper entitled “Development and Evaluation of Learning Modules in Rabbit Production”, and the paper of Mr. Amerigo B. Ramos, Jr. entitled “Effects of Background Music (Classical Jazz and Pop) on Students’ Performance in Science 9 in Akle High School” were presented under the Education Category.

## BASC embarks on new free range chicken project



*One of the project team meetings (above) and project orientation with one of the farmer-cooperators (below), both held in September 2021.*

The BASC team of the project “Establishing a Viable Enterprise Using Free Range Chicken Production Technology in Bulacan” has received their Php 5M funding this September 2021. The aim of the project is to conduct pilot testing of the commercialization of smart science based free range chicken production in the province.

Led by Mrs. Joanna Marie Bradecina and Dr. Honeylet Nicolas of the College of Agriculture, the project will adopt the packages of technology that were developed in Tarlac Agricultural University. Through this project, BASC will set up community multiplier farms to produce chickens for dispersal to farmers, and to showcase technology packages that will help to strengthen

adoption by smallhold farmers. It will also provide training and support mechanisms on integrated FRC enterprise management, and help secure marketing channels for FRC eggs.

Other SUCs are also recipients of similar grant for FRC commercialization from the Agricultural Competitiveness Enhancement Fund (ACEF). The proposal evaluation process was facilitated by the Bureau of Agricultural Research of the Department of Agriculture (DA-BAR).

Other members of the project team are Dr. Julita P. Mendoza, Mrs. Erlinda Palmario and Mr. Jeric Angelo Sapiendante of the College of Agriculture, and Mrs. Nerilyn Victoria and Mrs. Aisanne Marie McNatt of the Institute of Management.

## REPD establishes peri-urban garden

With the willful leadership of its Vice President, Dr. Susan Santos, the REPD Office has successfully established the BASC Peri-Urban Garden in 2021.

The peri-urban garden is composed of net houses, aquaponics system, and vegetable production area.

One of the researches to be conducted in the peri-urban garden is the research entitled “Low Temperature Wastewater on the Growth of Lettuce in an IBC Tank – Nutrient Film Technique (IBC-NFT) Aquaponics System (APS),” which was proposed by faculty members from the Institute of Engineering and Applied Technology.

The word ‘aquaponics’ comes from “aqua” for aquaculture and “ponics” for hydroponics. This system can be set-up on any flat surface, produce fish away from natural bodies of water, and produce crops even if they are not in season provided the environment can be controlled. It is more environment-friendly than most aquaculture systems since the wastewater from growing the fish fertilizes the plants and the plants with the aid of bacteria (Nitrosomas & Nitrobacter) removes the nitrogen in the water before returning it to the fish tank.

