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RESEARCH AND INNOVATION STORIES AND EVENTS

RISE



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



3rd Best Paper
(Research Category)



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

“RISE: Research and Innovation Stories and Events” is published two to four times a year by the Research, Extension, Production and Development Office, Bulacan Agricultural State College, Pinaod, San Ildefonso, Bulacan 3010 Philippines.

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VISION

*A globally-engaged
higher education institution
of agriculture and
allied disciplines.*

MISSION

*Provide excellent instruction,
conduct relevant research, and foster
community engagement that produce
highly competent graduates necessary for
the development of the country.*



BASC Researchers Earn Recognition at the 36th Regional R&D Symposium

 MARICARR Y. LUSTRE

On December 5, 2025, the Central Luzon Agriculture, Aquatic and Natural Resources Research and Development Consortium (CLAARRDEC), in partnership with the Department of Agriculture-Philippine Center for Postharvest Development and Mechanization (DA-PHiMech), successfully hosted the 36th Regional Symposium on Research and Development Highlights. The event took place at the DA-PHiMech Training Hall in Science City of Muñoz, Nueva Ecija, under the theme: “Excellent R&D Outputs: Key to Sustainable, Climate-Resilient, and Food-Secure Central Luzon.”

The program opened with warm and inspiring messages from Dr. Evaristo A. Abella, CLAARRDEC RRDCC Chair and CLSU President, followed by Dr. Dionisio G. Alvindia, Director of DA-PHiMech. Both leaders underscored the importance of strong partnerships and continuous research in strengthening the region’s agriculture sector. Adding depth to the discussions, keynote speaker Dr. Glenn B. Gregorio, National Academy of Science and Technology Academician, emphasized the critical role of science and technology in improving agricultural productivity and achieving sustainable, long-term growth.

Photos from: [CLAARRDEC Consortium](#)



Ms. Evelyn Q. Alera

During 36th Regional R&D Symposium



One of the event's proud moments was the recognition of BASC and BPSU's collaborative study, "*Synergistic Effects of Water and Nutrient Management with Biochar Amendment on Rice Production Under Field Conditions for Wet Season.*" Led by Ms. Sheryll De Leon, Ms. Evelyn Q. Alera, Mrs. Veronica T. Rivera, along with research assistants Mr. Jonathan Manuel, Mr. Marco Cruz, and Mr. Jonathan E. Lacayanga, the team earned the 3rd Best Paper Award in the Research Category. Their work contributes valuable insights to sustainable rice production—especially at a time when climate challenges continue to affect farmers across the region.

To close the event, Dr. Emmanuel M. Vera Cruz, CLAARRDEC Director and CLSU Vice President for R&E, expressed heartfelt appreciation to all participants, researchers, and partner institutions. He highlighted the importance of continued collaboration to ensure that the region remains resilient and food secure in the years ahead.

The symposium reaffirmed the vital role of science, research, and shared commitment in achieving a sustainable and climate-resilient Central Luzon.

Excellence and Innovation on the Global Stage: BASC Researchers at Five Intl. Conferences

Engr. Tucit Highlights MSME Innovation at IRCSD 2025

 HARVINE JAY P. VIOLA

At the **2nd International Research Conference on Sustainable Development (IRCSD 2025)** held virtually on November 30, 2025, **Dr. Joselito D. Tucit** presented his research paper titled *"IP4MSME: Empowering MSME Innovation*

through Intellectual Property in Bulacan (Phase II)."

The study highlighted the role of intellectual property in strengthening Micro, Small, and Medium Enterprises (MSMEs) by promoting innovation,

competitiveness, and sustainable economic growth in Bulacan. The paper was well received by conference evaluators for its practical relevance and contribution to sustainable development initiatives.

BASC Researchers Shine at International Agricultural Conference

The **Agusan Del Sur State College of Agriculture** and Technology successfully hosted the **International Conference on Agricultural Research and Innovation (ICARI 2025)** from December 1–3, 2025, under the theme "Agricultural Innovation for a Resilient and Sustainable Future."

Representing BASC, Mr. Alonzo Reagan T. Alonzo and Mr. Celso S. Sto. Domingo presented research highlighting

key developments in the rabbit industry and animal health. Mr. Alonzo's paper, *"Rabbit Industry Analysis in Bulacan Using Porter's Five Forces Framework,"* examined market structure, competitive dynamics, and growth potential, offering insights for policymakers and entrepreneurs. Mr. Sto. Domingo's study, *"Coccidiosis in Rabbits in San Ildefonso, Bulacan: Prevalence, Species Diversity, and Risk Factors,"* addressed a critical livestock health issue, providing

valuable strategies for disease management.

Both presentations were well-received by participants and reviewers, earning commendation for their relevance, depth, and contribution to sustainable agricultural development. Their work underscores **BASC's dedication to advancing research, innovation, and resilient agriculture on the international stage.**

Collaborative AI Study Presented at ICAITE 2025 in Japan

2nd International Conference on Artificial Intelligence and Teacher Education (ICAITE) 2025 held in Kyoto, Japan on December 7 to 9, 2025, Mr. Joseph Q. Calleja of FEU-Institute of Technology presented a collaborative research study entitled "Microsoft Pilot as an AI Teaching and Learning Assistant: Advancing Accessible Coding Education for SDG 4."

The study, conducted in collaboration with Myrtel S. Bernardo and other research team members, examined the use of artificial intelligence to support accessible coding education aligned with Sustainable Development Goal 4 (Quality Education). The conference, organized by IEEE Japan and Ritsumeikan University, featured discussions on AI and teacher education,

software engineering in education, intelligent systems, and predictive learning technologies.

Keynote speaker Prof. Jayfus Tucker Doswell highlighted the importance of developing culturally competent and ethical AI educators, reinforcing the responsible integration of artificial intelligence in education.

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Extension Services: October 2025 Comprehensive Milestone Report

✍️ ANGELITO Y. GARCIA

Throughout the month of October 2025, the Bulacan Agricultural State College (BASC) demonstrated its unwavering commitment to community empowerment and rural development through a series of high-impact extension projects. These initiatives, spanning multiple municipalities, were designed to bridge the gap between academic research and practical, hands-on application, specifically targeting the growth and resilience of farming households across the province of Bulacan.

Empowering Women through Specialized Farm Management Training

The month opened with an intensive capacity-building circuit under the DOST-PCAARRD-funded project, "Expanding Women-Led Integrated Backyard Farming in Bulacan through the S&T Community-Based Farm (STCBF) Modality." From October 1 to October 3, women farmers and backyard producers in Brgy. Inaon, Pulilan; Brgy. Calantipay, Baliwag City; and Brgy. Tambubong, Bocaue, participated in one-day training sessions focused on Basic Recordkeeping and Farm Financial Management. Led by Project Leader Dr. Imee D. Esguerra, alongside team members Mrs. Aisanne Marie S. McNatt and Mr.

Denvir E. Godoy, the curriculum emphasized that a farm's success is measured not just by its harvest, but by its data. Participants engaged in lecture-discussions on documenting farm activities and managing financial resources to track production costs accurately. To support these new skills, the team distributed copies of "Talaan ng Gastos at Pakinabang," specialized ledgers for poultry and vegetable production, ensuring that every participant left with the tools to transition from traditional backyard growers to organized small-scale managers.

Advancing Urban Gardening and Organic Innovation

In San Ildefonso, the focus shifted toward environmental stewardship and urban agricultural innovation through the project "Greening the Community: Urban Gardening for Sustainable Neighborhoods." Held at BASC Farmers' Training Center, this session brought together beneficiaries from Brgy. Poblacion and Brgy. Pinaod, alongside 68 Bachelor of Elementary Education students. Under the technical guidance of Mr. Denvir E. Godoy, the group participated in a hands-on

workshop focused on the formulation of organic concoctions. By utilizing biodegradable materials such as fish innards, plants, and fruit peels, participants learned to create bio-pesticides and natural fertilizers. This initiative not only promoted soil health and plant productivity but also educated the younger generation and local homemakers on how to reduce household waste and minimize reliance on expensive, synthetic chemical inputs.



Livelihood Enhancement and Value-Adding in Pandi

On October 15, 2025, BASC collaborated with the Municipal Agriculture Office of Pandi to conduct a "Food Processing Skills Training" as part of the project "Sustainability of Diversified and Integrated Rice-Based Farming System." This session engaged 20 Palayamanan farmers and rural

women in the art of transforming raw harvests into high-value commodities. Ms. Joy Christine V. Sta. Cruz facilitated technical sessions on food safety, hygiene, pickling, and sugar preservation. The participants successfully developed products such as ginger and turmeric tea, various

vegetable chips, and pickled bitter melon (ampalaya). By learning these value-adding techniques, the farmers are now better equipped to reduce post-harvest losses and create supplemental income streams through small-scale food enterprises.



Strategic Distribution of Farm Inputs and Infrastructure

To solidify the knowledge gained in the training sessions, the STCBF project team conducted a wide-scale distribution of farm inputs from October 13 to 15. A total of sixty women beneficiaries across Pulilan, Bocaue, and Baliwag City received comprehensive kits containing high-quality seeds (okra, patola, kalabasa, sitao, pechay, upland kangkong, corn, papaya, tomato, pepper, and eggplant.) Aside from the seeds, organic soil enhancers like vermicompost and molasses, as well as critical equipment including knapsack sprayers, garden rakes, shovels, hoes, and weighing scales were also distributed. Furthermore, materials for farm structure improvement, such as bamboo fencing and netting, were provided to help new beneficiaries establish secure

and productive integrated backyard farms.

The transition of the project participants from subsistence growers to organized "agri-preneurs" highlights that recordkeeping is the most vital tool in a farmer's arsenal, as it allows them to identify waste and maximize profit margins.

The emphasis on organic concoctions reveals a critical economic insight: local waste—such as fish and plant scraps—can be successfully upcycled into high-quality fertilizers, effectively insulating small-scale farmers from the volatile prices of commercial inputs while protecting the local ecosystem. The inclusion of food processing training adds another layer of resilience, proving that shelf-

stable, value-added products (like teas and pickles) can protect a household's financial stability when fresh crops face market gluts or spoilage.

Finally, the month underscored the importance of institutional continuity and mentorship. As Dr. Imelda S.A. Navarro prepares for retirement, her collaboration with Dr. Joanna Marie S. Bradecina ensures that the project's mission remains stable. By empowering women with science-and-technology-based interventions, BASC has demonstrated that agricultural innovation is the most effective path toward creating self-reliant, food-secure, and economically empowered communities in the modern era.



Extension Services: November 2025 Comprehensive Milestone Report

ANGELITO Y. GARCIA

Building on the successes of the previous month, the Bulacan Agricultural State College (BASC) expanded its outreach throughout November 2025. This month showed the transition toward diversified livestock integration, specialized waste management, and the formalization of new partnerships that broaden the college's impact from the field to digital mental health support.



Advancing Farm Waste Management and Sustainability

November 7, 2025 – The DOST-PCAARRD-funded project, "Expanding Women-Led Integrated Backyard Farming in Bulacan," conducted a specialized Training on Farm Waste Management and Vermicomposting in Brgy. Tambubong, Bocaue. Facilitated by Dr. Joanna Marie S. Bradecina and led by resource speaker Mr. Rodelio T. Alejo, Jr., the initiative taught women farmers the biological

processes of composting to improve soil fertility and minimize environmental waste. The session was followed by a strategic meeting with the Juanang Pangkabuhayan ng Bocaue association, where members discussed the practical challenges of maintaining vermicomposting bins and planned for the expansion of their group-led organic fertilizer production.

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Educators Shine at International Research Conference in Thailand

Two distinguished educators demonstrated research excellence at the 15th Multidisciplinary Research Conference held in Thailand on December 18–22, 2025, organized by the International Cross-Cultural Exchange and Professional Development (ICEPD). The conference carried the theme “Functional Literacy in the 21st Century: Innovations for Inclusive and Lifelong Learning.”

Dr. Santiago earned First Place as Best Research Presenter (Education Category) for her paper, “*Expanding Horizons of Educators on Action Research Writing*,” which highlighted strategies to strengthen educators’ competencies in action research and classroom-based inquiry.

Dr. Maria Krisvie Abigale F. Mendoza also presented her study, “*Professional Development Needs of Pre-Service Science Teachers: Basis for a Capacity Building Program*,” emphasizing targeted training to enhance future science teachers’ professional competencies.

The international conference gathered scholars from diverse disciplines, promoting cross-cultural collaboration and innovation in education. The achievements of Dr. Santiago and Dr. Mendoza underscore the global impact of educational research and a shared commitment to academic excellence.



RFID Innovation in Livestock Management Featured at Global Research Conference

Ma. Melanie A. Cruz presented her research titled “*RFID Technology in Ruminant Management*” during the 49th World Conference on Applied Science, Engineering and Technology (WCASET 2025) held on December 18–19, 2025. The international conference was conducted through an online presentation, with Bangkok, Thailand serving as the host venue.

Her study focused on the application of Radio Frequency Identification (RFID) technology to improve efficiency, traceability, and animal welfare in ruminant production systems. The research highlighted how RFID-based monitoring can enhance livestock management practices, support data-driven decision-making, and ensure better health and welfare outcomes for animals.

The paper gained positive attention for its relevance to modern agricultural and livestock systems. Notably, the research is set to be published in a Scopus-indexed publication, marking a significant academic achievement and contributing to the global body of scientific knowledge.

Ms. Cruz’s participation in WCASET 2025 underscores the growing involvement of Filipino researchers in international scientific forums and reflects their commitment to advancing innovative, technology-driven solutions in agriculture and animal production.



Diversifying Livelihoods through Poultry Integration

In mid-November, the college shifted its focus to livestock as a tool for economic resilience under the project "Sustainability of Diversified and Integrated Rice-Based Farming System." On November 14, farmers in Brgy. Maronquillo, San Rafael, received intensive training on Free-Range Chicken Production and Management. The program, led by Dr. Bradecina and consultant Dr. Imelda S.A. Navarro, covered

everything from breed selection and housing to health protocols and cost-return analysis. To ensure immediate application of the technology, the team distributed starter stocks of free-range chickens and Pekin ducks to beneficiaries.

A second leg of this training was conducted on November 18 for the farming community of Brgy. Kaypian, San Jose del Monte City. Supported

by the local government and Supervising Agriculturist Engr. Helene Grace Evangelista, the session reinforced the concept of poultry as a "safety net" enterprise for rice farmers. Participants, including members of the Palayamanan Project, were provided with technical lectures and live poultry stocks to help them establish integrated backyard systems that diversify their food sources and income streams.

Formalizing Strategic Partnerships and Digital Innovation

The month reached a significant administrative milestone on November 26, 2025, with the signing of two new Memorandums of Agreement (MOA) at the BASC Office of the President. The first agreement launched "METS LEVEL UP 3.2," a project specifically designed for the women and Rural Improvement Club (RIC) members of Brgy. Bulusukan, San Ildefonso. This project introduces a unique blend of "Donut Commercialization"

and sustainable subsistence gardening, providing women with both a marketable culinary skill and a reliable source of household nutrition.

The second agreement marked the birth of "Project Sidekick," a pioneering digital mental health and abuse support platform. Developed by the BASC Psychology faculty in collaboration with the Rotaract Club of San Miguel de Mayumo, this project leverages social

media to provide accessible psychological assistance and safe communication channels for individuals in distress.

The activities of November 2025 provide a roadmap for modernizing rural agriculture through the concepts of "Circular Farming" and "Livelihood Diversification." A key insight gained this month is that farm waste should no longer be viewed as a disposal problem but as a biological asset.





CLAARRDEC Holds Writeshop to Finalize DBM-Funded ItikPINAS Program

 HARVINE JAY P. VIOLA

The Central Luzon Agriculture, Aquatic and Natural Resources Research and Development Consortium (CLAARRDEC) held a Writeshop on the Finalization of the Department of Budget and Management (DBM)-funded ItikPINAS Program on December 11, 2025, at the University Extension Program Office (UEPO) Farmer's Conference Hall of Central Luzon State University (CLSU) in the Science City of Muñoz, Nueva Ecija.

The writeshop gathered around 25 participants from eight State Universities and Colleges (SUCs) across Central Luzon to review and harmonize program proposals aimed at strengthening the

regional ItikPINAS industry. Representatives came from various SUCs across the region.

Representing BASC were Mrs. Joana Marie S. Bradecina and Mrs. Erlinda D. L. Palmario, who took part in the proposal discussions and review sessions throughout the activity.

The program opened with a welcome address by Dr. Aldrin E. Badua, Technology Promotion Cluster Coordinator of CLAARRDEC and Director of the CLSU Extension Program Office, who emphasized the importance of sustained collaboration among SUCs. This was followed by a presentation from Mr. Armando C. Lagasca of UEPO-CLSU, who outlined the

required components and output flow of the ItikPINAS proposal to ensure consistency and alignment among participating institutions.

A key highlight of the writeshop was the presentation and critique of proposal packages from the SUCs, allowing participants to refine their implementation strategies. The activity concluded with an inspirational message from Dr. Emmanuel M. Vera Cruz, Director of CLAARRDEC and Vice President for Research and Extension of CLSU, who underscored the value of collective effort in advancing agricultural and livestock development initiatives in Central Luzon.



REPD General Meeting

November 5, 2025 | Farmers' Training Center, BASC Main Campus

MARICARR Y. LUSTRE

REPD Office General Meeting Sets Research and Extension Directions for 2026–2030

On November 05, 2025, the REPD Office convened a general meeting attended by Deans, Research Coordinators, and faculty researchers and extensionists to align institutional efforts with the College's research, development, and extension priorities. The meeting served as a venue to clarify directions, review targets, and reinforce key policies supporting effective implementation of research and extension programs.

The first part of the meeting focused on research matters and was led by Ms. Nikki Ann V. Macabontoc, Director for Research. An

overview of the functions and responsibilities of the Research Office, was presented. Central to the discussion was the formal introduction of the BASC RDE Agenda 2025–2030, known as L.I.N.A.N.G., which was established as the guiding framework for the College's research and extension initiatives over the next five years, with a scheduled review in 2027. Priority provincial commodities, including goat, milkfish, and bitter melon, were identified, alongside potential collaboration with the Bureau of Fisheries and Aquatic Resources to strengthen aquatic resource-related initiatives.

Research Office targets for 2026 were also presented, highlighting expectations on

completed research projects, paper presentations in various academic forums, and the utilization or adoption of research outputs. This was followed by a review of the ISO process flow, reiterating standard procedures for proposal submission, paper presentation and publication, and requests for financial and official time support. Improvements in communication and dissemination were emphasized, noting that official letters and printed materials will complement online platforms to ensure wider reach. Key policies on financial and official time support, submission timelines, and journal publication assistance were likewise clarified.

Extension-related discussions were then facilitated by Dr. Imee D. Esguerra, Director for Extension. Emphasis was placed on proper project implementation and monitoring, particularly the strict observance of reporting requirements. The importance of aligning beneficiaries with project objectives and strengthening collaboration with Local Government Units to enhance project impact was underscored. Updates on impact assessment guidelines from the Central Luzon Agriculture and Resources Research and Development Consortium (CLAARRDEC) were shared, and faculty

members were encouraged to coordinate with designated focal persons to ensure compliance. While extension targets for the year were reported as achieved, sustained participation was encouraged to meet future goals. Faculty members were also invited to submit completed studies to the Southeast Asian Journal of Agriculture and Allied Sciences (SAJAAS), the College's official journal.

The meeting concluded with key reminders from Dr. Honeylet J. Nicolas, Vice President for REPD. She reiterated that evaluations for the Search for Best Faculty

Researcher and Extensionist will be based solely on submitted documentation and reminded faculty to convert training outputs into modules. Faculty members were also encouraged to involve students as co-proponents in future research and extension proposals to foster collaboration. Updates on ETL points were provided, noting that final computations have been forwarded for dissemination to the respective colleges and institutes. The meeting ended with a shared commitment to pursue the College's research, development, and extension goals for the coming year.



BASC Joins the 2025 National Extension Conference at Cavite State University

ARIANA LOUISE G. DELOS SANTOS

BASC attended the 2025 National Extension Conference held on October 8–9, 2025, at Cavite State University in Indang, Cavite. The two-day event, themed “Food, Health, and Nutrition Extension: Implications for Community Transformation and the Economy of the Future,” highlighted the important role of extension work in creating healthier and more resilient communities.

BASC was represented by extensionists who are members of the DOST-PCAARRD-funded extension project team, led by Dr. Imee D. Esguerra, Director

for Extension Services and project leader. She was joined by Dr. Imelda S.A. Navarro and AProf. Denvir E. Godoy from the College of Agriculture, Mrs. Aisanne Marie S. McNatt from the College of Management, and Ms. Ashlee M. Viagedor, the project’s technical assistant.

The conference brought together extension leaders, researchers, and implementers from across the country to share ideas and experiences on improving nutrition education, strengthening food systems, and promoting community well-being. Through keynote addresses, research presentations, and collaborative

discussions, the event emphasized the advancement of sustainable community development and future-ready local economies.

The conference was organized by PhilEASNet, the Philippine Association of Extension Program Implementors, Inc.–CALABARZON, and Cavite State University, in partnership with ATI, DOST-PCAARRD, and the DA–Philippine Carabao Center. It served as a valuable platform for learning, collaboration, and partnership-building among extension professionals nationwide.



Advancing Scientific Writing and Building Grantsmanship Expertise in BASC-NRCP Workshop

✍ ARIANA LOUISE G. DELOS SANTOS

BASC, in partnership with the National Research Council of the Philippines (NRCP) Division of Veterinary Medicine (XIII), successfully wrapped up the two-day Advanced Scientific Writing and Grantsmanship Training on November 18–19, 2025. Conducted under the CASCaDe Program, the activity gathered NRCP members, faculty, and researchers for two days of learning, collaboration, and skills-building focused on scientific writing and grant proposal development. The training opened with a welcome message from Dr. Jameson H. Tan, President of BASC, who encouraged participants to take full advantage of the opportunity to learn, share ideas, and strengthen their research capabilities.

Day 1 centered on scientific writing and publication. Participants explored how emerging technologies and artificial intelligence can support research writing, as discussed by Professor Harvie P. Portugaliza, DVM, Ph.D. The importance of ethics in research was highlighted by Dr. Gerry A. Camer, DVM, Ph.D., while Dr. Adrian Ybanez, Chair of NRCP Division XIII, shared practical tips on publication strategies and responsible authorship. The day ended on a hands-on note, with mentoring sessions where participants presented their

work and received helpful feedback from the speakers.

On Day 2, the focus shifted to grantsmanship and proposal development. Professor Portugaliza led another engaging session on using AI tools for grant applications. Ms. Mary Charlotte O. Fresco, Senior Science Research Specialist of DOST-NRCP, walked participants through the NRCP membership application process, while Dr. Ybanez discussed the National Integrated Basic Research Agenda (NIBRA) of DOST. An open forum and mentoring sessions followed, giving participants the chance to ask questions, refine their proposals, and prepare them for submission.

Overall, the training provided a meaningful space for learning, mentoring, and collaboration, strengthening the research community and reaffirming BASC's and NRCP's commitment to supporting quality research and innovation.



Transforming Research into Intellectual Property: IPTBMO Accomplishments for the 4th Quarter of 2025

ENGR. ARIANE G. MANUZON

Driven by the spirit of innovation and the pursuit of excellence, the Intellectual Property and Technology Business Management Office (IPTBMO) of Bulacan Agricultural State College (BASC) proudly presents its notable accomplishments for the 4th Quarter of 2025. These applications and registrations stand as direct products of faculty-led research, underscoring BASC's role as a center for knowledge creation, technology development, and sustainable advancement in agriculture and allied fields.

One of the key achievements is the successful patent application for the Biscuit Cracker

with Meat Bits, innovated by Dr. Jocelyn A. Espiritu of the College of Management. Filed on November 7, 2025 under Application No. 1/2025/050872, this invention introduces a functional baked snack made from squash flour dough enriched with rabbit meat bits. The product is nutrient-dense, protein-rich, and low in fat, offering a healthier alternative to conventional crackers while promoting sustainable food practices through the novel integration of rabbit meat and squash flour.

Another milestone is the copyright registration of the RFID Technology in Ruminant Management System,

created by Dr. Melanie A. Cruz of the Institute of Computer Studies. Officially registered on October 23, 2025 under Registration No. 2025-05613-N-TCCR and classified under the category N-Computer Programs, this system employs radio frequency identification to automate livestock identification, tracking, and monitoring. By equipping animals with RFID tags, farmers can efficiently manage health records, breeding data, and traceability. The technology reduces manual labor, enhances accuracy, and supports timely interventions, thereby empowering farmers with digital tools for smarter herd management.

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Further strengthening BASC's innovation portfolio, Dr. Cruz also filed a utility model application for the Radio-Frequency Identification and Blockchain Integrated Animal Management System on November 3, 2025 under application No. 2/2025/051494. This research-based system integrates RFID with blockchain technology to secure and streamline animal management. It features a central database for animal records, genealogy modules for family tree

generation, blockchain encryption for secure health and breeding data, and analytics for predictive reports on disease risks, breeding potential, and herd sustainability. By combining traceability with blockchain security, the model sets a new benchmark for livestock management systems, ensuring transparency, resilience, and sustainability in agricultural practices.

These accomplishments for the 4th Quarter of 2025

highlight the IPTBMO's vital role in transforming scholarly outputs into protected intellectual properties with practical applications. By safeguarding innovations and promoting their potential for commercialization, the IPTBMO continues to advance BASC's mission of fostering interdisciplinary collaboration, supporting inclusive agricultural development, and strengthening the institution's reputation as a leader in sustainable and research-based innovation.