



## DOCTOR OF PHILOSOPHY IN AGRICULTURAL SCIENCES

Majors in Animal Science,  
Crop Science, Crop Protection

# PERFORMANCE OF GRADUATES

*Accrediting Agency of  
Chartered Colleges and  
Universities in the  
Philippines, Inc.  
(AACUP)*

September 02-04, 2025



## **AREA II: INSTRUCTION**

### **2.1 EMPLOYABILITY AND WORK PERFORMANCE OF THE DOCTOR OF PHILOSOPHY IN AGRICULTURAL SCIENCES MAJOR IN ANIMAL SCIENCE (2018-2023)**

Table 1 presents the employability and work performance of PhD Agricultural Science major in Animal Science graduates. Notably, all of them landed good jobs in several government and private institutions of the country. In particular, majority of the graduates are employed as faculty in State Universities and Colleges (SUCs) such as University of Southern Mindanao (USM), Davao del Sur State College, Davao de Oro State University, Cotabato State University, Marawi State University –Maguindanao, Agusan del Sur State College of Agriculture and Technology and Cotabato Foundation College of Science and Technology. Additionally, one is currently working as Regional Veterinary Quarantine Officer under DA- Bureau of Animal Industry. In terms of tenure, all (100%) are permanent. Of the 21 graduates, five have retired from government service while 16 are currently active in service and some are holding key positions in the government. One prominent graduate is a college president of the Davao del Sur State College, two are SUC Vice Presidents while others are directors, deans and unit heads in their respective agencies. In terms of current positions, specifically, in instruction, PhD Agricultural Science major in Animal Science graduates are holding positions ranging from Instructors, Assistant Professor I to Professor VI. Thus, the data shows the high employability and good work performance of PhD Agricultural Science graduates in their respective agencies or institutions. This trajectory highlights both stability and upward mobility, confirming the program's alignment with national higher education and agricultural development needs.

**Table 1. Employability of 2018-2025 PhD Agricultural Sciences graduates.**

<b>Major in Animal Science</b>				
1. Atok, Geoffray R.	2013	University of Southern Mindanao	Permanent	Associate Professor V
2. Belon, Alimudin	2025	Upi Agricultural School	Permanent	TVI Focal/Assistant Vocational Administrator II
3. Clapano, Misael	2018	Davao Oriental State University	Permanent	Associate Professor IV
4. Dinopol, Estrella	1999	Agusan del Sur State College of Agriculture and Technology	Permanent	Professor 1
5. Ele, Julius Jerome Ele G.	2013	Univesrity of Southern Mindanao	Permanent	Professor VI
6.Fuentes, Augie E.	2009	Davao del Sur State College	Permanent	President
7. Ferrer, Precious Amor B.	2025	University of Southern Mindanao	Permanent	Instructor III
8. Flores, Vrenelie II	2025	University of Southern Mindanao	Permanent	Asso Prof V
9. Mantuang, Kuagan	1999	Mindanao State University	Permanent	(Retired)
10. Migalbin, Josephine R.	1998	University of Southern Mindanao	Permanent	Professor VI
11. Moreno, Delfin	1998	Cotabato Foundation College of Science and Technology	Permanent	(Retired)
12. Navarra, Geraldson	2025	Department of Agriculture	Permanent	Director
13. Oliva, Vic Laurence P.	2025	University of Southern Mindanao	Permanent	Associate Professor I
14. Olanday, Pelagio Jr.	1999	University of Southern Mindanao	Permanent	Professor V (Retired)
15. Pahm, Kundo Jr	2016	Cotabato State University	Permanent	Professor VI
16. Pasaol, Perla	2015	Cotabato State University	Permanent	Professor 1
17. Rama, Mary Ann B.	2025	University of Southern Mindanao	Permanent	Assistant Professor I

18. Sabaani, Satra	2018	Tawi-Tawi Regional Agricultural College	Permanent	Associate Professor III
19. Sabutan, Manuel	1999	University of Southern Mindanao	Permanent	Professor VI (Retired)
20. Tabora, Estrella	1999	Mindanao State University - Maguindanao	Permanent	Professor VI
21. Vergara, Eulalio	1999	University of Southern Mindanao	Permanent	Associate Professor V (Retired)

### Prominent Graduates and Leadership Roles

The tracer data also highlights the remarkable achievements of graduates who have risen to positions of influence. Among them:

- Dr. Augie E. Fuentes - College President of Davao del Sur State College, recognized for steering institutional growth and regional contributions.
- Dr. Julius Jerome G. Ele - Professor VI, former Dean of the College of Agriculture at USM, and current Director of SOXAARRDEC, influencing regional R&D priorities.
- Dr. Geoffray R. Atok - Associate Professor V, recently appointed Center Director of the Philippine Carabao Center at USM and former Vice President for Academic Affairs.
- Dr. Josephine R. Migalbin - Professor VI, with significant leadership stints as former Dean of the College of Agriculture, Director of SOXAARRDEC, and key administrator at USM.
- Dr. Misael B. Clapano - Vice President for Research, Innovation, and Extension at Davao Oriental State University.
- Dr. Kundo E. Pahm Jr. - Vice President for Academic Affairs at Cotabato State University, overseeing institutional accreditation and quality systems.
- Dr. Geraldson Navarra - now a Regional Veterinary Quarantine Officer under DA-BAI.

Their appointments to executive and high-level technical positions demonstrate the program's success in producing scholar-leaders who contribute significantly to education, research, and policy at both regional and national scales.

## EVIDENCE

### PhD Agricultural Sciences major in Animal Science

<p>Republic of the Philippines</p> <p><b>DAVAO ORIENTAL STATE UNIVERSITY</b></p> <p><i>A university of excellence, innovation, and inclusion</i></p> <p>OFFICE OF THE HUMAN RESOURCE DEVELOPMENT SERVICES</p>	
<p><b>CERTIFICATE OF EMPLOYMENT</b></p>	
<p>TO WHOM IT MAY CONCERN:</p>	
<p>This is to certify that <b>MR. MISAEL B. CLAPANO</b>, was employed in this State University as an Associate Professor IV with a Permanent status from June 16, 1999 to present.</p>	
<p>This certification is issued upon the request of <b>Mr. Clapano</b> for whatever legal purpose this may serve him best.</p>	
<p>Issued this 6<sup>th</sup> day of November 2023 at DOeSU, Guang-Guang, Dabacan, City of Mati, Davao Oriental.</p>	
<p> <b>ANGELITO S. DAVID, MPA</b> <i>Director, Human Resource Dev't. Services</i></p>	
<p>NOT VALID WITHOUT SEAL</p>	
<p>Davao Oriental State University Guang-guang, Dabacan, City of Mati, Davao Oriental, 8200 Republic of the Philippines</p>	<p>website: <a href="http://www.dorsu.edu.ph">www.dorsu.edu.ph</a> phone: +63 (087) 3883 195 e-mail: <a href="mailto:op@dorsu.edu.ph">op@dorsu.edu.ph</a> facebook: <a href="https://www.facebook.com/dorsuofficial">@dorsuofficial</a></p> <div></div>



Republic of the Philippines  
**COTABATO STATE UNIVERSITY**

Sinsuat Avenue, Cotabato City

Tel/Fax No. 064-421-5146/552-1810

Website: [www.cotsu.edu.ph](http://www.cotsu.edu.ph)

Email Add: [csu@cotsu.edu.ph](mailto:csu@cotsu.edu.ph)

**OFFICE OF THE UNIVERSITY PRESIDENT**

**MEMORANDUM ORDER**

No. 126 s. 2023

TO: **ALL CONCERNED**  
This University

DATE: May 22, 2023

SUBJECT: **CSU NEW KEY OFFICIALS**

**COTABATO STATE UNIVERSITY**  
OFFICE OF THE UNIVERSITY PRESIDENT

**RELEASED**

Date: 5-22-23 Time: 2:53 PM

By: FATIMA D. KASAN

Secretary

In accordance with Paragraph a, Section 1, Article 33, Chapter 6 of the University Code, the following faculty members are hereby designated effective immediately today to the following position/s or office/s opposite to their names, to wit:

ADMINISTRATION	DESIGNATION/POSITION/OFFICE
1. Kundo M. Pahn, Jr., PhD	Vice President for Academic Affairs
2. Teng A. Alm, PhD	Vice President for Research, Extension, and Production
<b>DIRECTORS</b>	
1. Zainodin M. Kusin, PhD	Director, NSTP
2. Norodin D. Salam, PhD	Director, External and International Linkages
3. Norkaina C. Samama, PhD	Director, Research Services
<b>CHAIRPERSONS</b>	
1. Ma. Rhodora V. Javeliano, PhD	Chairperson, Graduate School-Public Administration Programs
2. Dr. Maria Estela Monette M. Flauta	Chairperson, Graduate School-Business Administration Program
3. Mohamadin L. Datu, PhD	Chairperson, Graduate School-Agriculture Program
4. Jeddalyn U. H. Alimudin	Chairperson, Graduate School- MAEd Language Program (Con-current)

As such, the designated new officials are tasked to perform the duties and responsibilities inherent to their designation/s as explicitly stated in the University Code or in Manual of Operation and to perform other tasks that maybe assigned by the University President. Further, all assets, office facilities, and documents shall be turned-over to the new officials.

As a matter of privilege, they shall be entitled to grant of leave credits in accordance with the Civil Service policies and release of teaching load in accordance with the provisions of the University Code.

Furthermore, all memoranda relative and inconsistent herein are deemed revoked.

## **2.2 PROMINENT GRADUATES OF THE DOCTOR OF PHILOSOPHY IN AGRICULTURAL SCIENCES MAJOR IN ANIMAL SCIENCE (2018 – 2025)**

The Doctor of Philosophy in Agricultural Sciences major in Animal Science graduates (2018–2025) have held high and important designations and positions and have notable achievements after their graduation from their doctoral degree.

The high positions held by the PhD in Agricultural Sciences graduates include President, Vice President for Research, Innovation and Extension, and Vice President for Academic Affairs, Deans, Senior Science Research Specialist, Department Chairpersons, Associate Dean, Program Heads, Assistant Campus Director, College Research Coordinator, OJT Coordinator, and Directors. Most of the graduates have held administrative designations (Table 1).

Prominent graduates in the Doctor of Philosophy in Agricultural Sciences with research endeavors have studies in biofertilizers, disease management, sheep nutrition, Halal plant-based extracts, Sustainable forage production systems for ruminant livestock and other agri-related commodities (Table 2).

### **Research Productivity and Scholarly Publications**

Graduates are also distinguished by their active research engagements. Their projects span critical areas such as:

- Sustainable forage systems for ruminant livestock,
- Biodiversity corridor management,
- Shrimp and native chicken genetic characterization,
- Halal food standards and plant-based extracts,
- Capacity-building for agricultural technologists, and
- Knowledge management hubs for regional R&D.

Graduates of the PhD in Agricultural Sciences have published in scientific and refereed journals. Their scientific outputs were published in national and international journals which include Journal of Agricultural Research, Development, Extension and Technology, Asian Journal of Fundamental and Applied Sciences and International Journal of Sciences: Basic and Applied Research (IJSBAR)(Table 3).



The graduates in the Doctor of Philosophy in Agricultural Sciences have served as experts and consultants and members of regional/national technical working group members. They are members in different consultancy and expert services such Consultancy for Agricultural Productivity Enhancement (CAPE) Program, Japan International Cooperation Agency (JICA), Korea International Cooperation Agency KOICA and the Food and Agriculture Organization of the United Nations (Table 5).

One of the graduates in the Doctor of Philosophy in Agricultural Sciences major in Animal Science , Dr. Augie E. Fuentes rose from the ranks to a College President of the Davao del Sur State College. She has been recently reappointed to another term. During her stint . DSSC has been considered as one of the SUCs in Region 11 who have contributed to the education agenda and economic upliftment in the region.

With the mentioned prominent graduates of the Doctor of Philosophy in Agricultural Sciences and their high positions and great achievements, they are continuously involving themselves in instruction, production and research, extension and innovation activities for the improvement of the community, region and the nation.

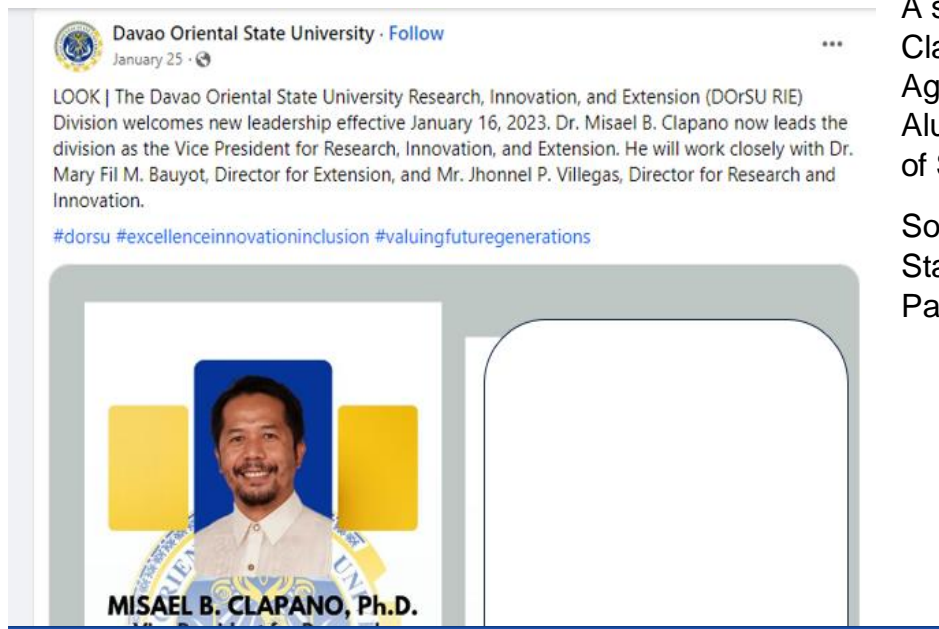
Table 1. Prominent Graduates in the Doctor of Philosophy in Agricultural Sciences with High Positions/Great Achievements (2020 – present).

<b>Name of PhD Agri. Sci. Graduate – Animal Science</b>	<b>Year Graduated</b>	<b>Agency</b>	<b>Position</b>	<b>Important Designation Held(Term)</b>
1. Geoffray R. Atok	2013	University of Southern Mindanao	Asso Prof V	Center Director , Philippine Carabao Center @ USM (December 2023 - Present) Vice President for Academic Affairs, USM (January 2022 - December 31, 2023) Member, USM Board of Regents (2017-2022)



2. Misael B. Clapano, PhD	2019	Davao Oriental State University	Associate Professor IV	Vice President for Research, Innovation and Extension (January 16, 2023 – present) Director for Research and Director for Extension – October 18, 2022 – January 15, 2023
3. Julius Jerome G. Ele	2013	University of Southern Mindanao	Professor VI	Director – SOCCSKSARGEN Agriculture, Aquatic & Natural Resources Research and Development Consortium – (SOXAARRDEC) August 16, 2024 – present Dean – College of Agriculture, University of Southern Mindanao (August 1, 2021 – July 31, 2023)
4. Augie E. Fuentes	2009	Davao del Sur State College	College President	College President - 2020 to present
5. Josephine R Migalbin.	1998	University of Southern Mindanao	Professor VI	Former Director – SOCCSKSARGEN Agriculture, Aquatic & Natural Resources Research and Development Consortium – (SOXAARRDEC) Former Dean – College of Agriculture, University of Southern Mindanao Former Director- USM Extension Services

				Former Director, USM Human Resource and Development Training
6. Kundo E. Pahm Jr., PhD	2018	Cotabato State University	Associate Professor V	Vice President for Academic Affairs; Director, Quality Management Systems Office (oversees the Institutional Accreditation and compliance of the University to ISO standards); College Dean
7. Geraldson Navarra, DVM, PhD	2025	DA- Bureau of Animal Industry	Regional Veterinary Quarantine Officer	Rose from the raanks to what he is now as Regional Veterinary Quarantine Officer



March 31, 2022

A screenshot of Dr. Misael Clapano. PhD in Agricultural Sciences Alumnus of the University of Southern Mindanao

Source: Davao Oriental State University Facebook Page



DIGOS CITY, Mar. 31 (PIA) – Commission on Higher Education (CHED) Commissioner Aldrin A. Darilag has formally proclaimed Dr. Augie E. Fuentes as the first president of the Davao del Sur State College (DSSC) in the investiture rites held recently at the Davao del Sur Coliseum in Digos City.

Dr. Fuentes has been appointed as DSSC president in 2020, but her appointment was made formal only last March 17 due to the restrictions caused by the COVID-19 pandemic.

The formal proclamation highlighted the institute's accomplishments ever since they started as a state college, and not anymore as a sister campus of the Southern Philippines Agri-Business and Marine and Aquatic School of Technology (SPAMAST) of Malita in Davao Occidental.

A screenshot from the PIA Davao Region webpage featuring the Investiture of Dr. Augie E. Fuentes, an alumna of the PhD in Agricultural Science program, major in Animal Science, as President of Davao del Sur State College.

Source: Philippine Information Agency - Davao Region



Republic of the Philippines  
**UNIVERSITY OF SOUTHERN MINDANAO**  
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email address: op@usm.edu.ph  
**OFFICE OF THE PRESIDENT**



**Special Order No. 621G**  
Series of 2024

**TO: DR. JULIUS JEROME G. ELE**

**SUBJECT: Designation as DIRECTOR OF SOCCSKSARGEN AGRICULTURE AQUATIC AND RESOURCES RESEARCH AND DEVELOPMENT CONSORTIUM (SOXAARRDEC)**

**DATE: Tuesday, July 16, 2024**

In the exigency of the service and for the best interest of the University, you are hereby designated as **DIRECTOR OF SOCCSKSARGEN AGRICULTURE AQUATIC AND RESOURCES RESEARCH AND DEVELOPMENT CONSORTIUM (SOXAARRDEC)** in addition to your appointive position.

As such, you are hereby directed and expected to perform the following functions:

1. Manage the day to day activities of the consortium, including carrying out the consortium goals and policies;
2. Serve as ex officio member and secretariat of the RRDC and the Executive Board;
3. Attend all RRDC meetings, report and answer questions on the progress of the Consortium;
4. Develop systems to improve financial management of the Consortium (i.e. timely liquidation of DOST PCAARRD fund releases and high fund utilization);
5. Prepare invitations or notice of meetings and keep the minutes of meetings of the RRDC and Executive Board;
6. Serve as custodian for Consortium documents;
7. Facilitate and lead in the development of regional plans, programs, identification of Regional RDE activities, and packaging of programs on identified regional priorities aligned with the Regional Development Council;
8. Coordinate the conduct of Annual In-house Review, Regional Symposium and Consortium meetings;
9. Assist DOST-PCAARRD in monitoring and evaluating RDE programs/projects implemented by CMIs;
10. Consolidate all quarterly reports submitted by the cluster coordinators;
11. Submit quarterly reports to RRDC and DOST-PCAARRD;
12. Cascade information to all concerned personnel;
13. Attend to various programs and meetings related to this work assignment and designation;
14. Attend seminar-workshops, trainings, and conferences; and,
15. Perform such other related functions as may be directed by the SOXAARRDEC RRDC Chair and other competent higher authorities.

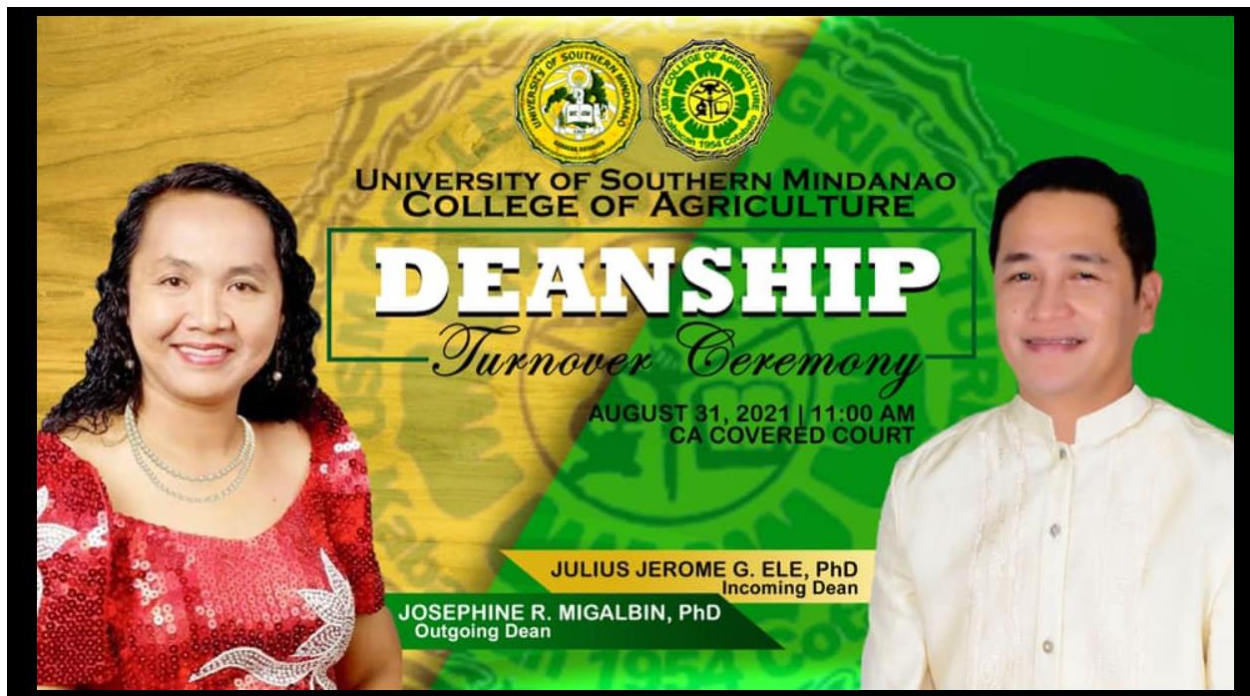
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**"UNITY IN DIVERSITY AND  
SUSTAINABLE DEVELOPMENT IN  
MINDANAO THROUGH QUALITY AND RELEVANT EDUCATION."**

USM-SYS-F70-Rev 3, 2020.07.14



Scanned copy of the Special Order of Dr. Julius Jerome G. Ele, a graduate of PhD AgSci - Animal Science in his designation as Director of SOCCSKSARGEN AGRICULTURAL AQUATIC AND RESOURCES RESEARCH AND DEVELOPMENT CONSORTIUM (SOXAARRDEC)



Screenshot of the Deanship Turnover Ceremony between Josephine R. Migalbin, PhD, and Julius Jerome G. Ele, PhD, both alumni of the PhD in Agricultural Science, major in Animal Science

Source: Julius Jerome Ele Facebook Page

Table 2. Prominent Graduates in the Doctor of Philosophy in Agricultural Sciences with **Research Endeavors** (2020 – present).

Name of PhD Agri. Sci. Graduate – Animal Science	Year Graduated	Agency	Position	Research Endeavors (2020 – present)
Geoffray R. Atok	2013	USM	Asso V	Sustainable Forage Production Systems for Ruminant Livestock at USMARDC
Misael B. Clapano		DOrSU		<p>Integrated Approach in Management of Major Biodiversity Corridors in the Philippines” or BD Corridor Project – Eastern Mindanao Biodiversity Corridor” <i>(Funded by UNDP-GEF, on-going)</i></p> <p>Profiling of Coffee Farmers along the Economic Buffer Zone of Mt. Hamiguitan</p> <p>Assessment of the Resources and Capabilities of the Local Government Units (LGUs) in Providing Agriculture and Fisheries Extension Services (PAFES) in Davao Oriental</p> <p>A Smart and Sustainable Approach to Empower Communities Through Science and Technology (SMART-CEST), at San Isidro, Davao Oriental”</p> <p>Community Empowerment through Science and Technology in the Municipality of Boston for the Marginalized Communities and Sustain Interventions for Existing CEST Communities in the Entire Province of Davao Oriental</p> <p>Community Empowerment through Science and Technology in the Municipality of Tarragona for the Marginalized Communities and Sustain Interventions for Existing CEST Communities in the Entire Province of Davao Oriental</p> <p>Vulnerability Assessment of Pacific Whiteleg Shrimp (<i>L. vannamei</i>) and Associated Species Through the</p>



				<p>Fisheries Value Chain: Enhancing Inclusivity Through Social, Economic Participation and Sustainability.”</p> <p>Conservation and Sustainable Utilization of Native Chicken in Davao Region: Multi-location Trials of Developed Davao Native Chicken Strain”</p> <p>Magsasaka-Siyentista –Led Community-Based Banana (Cardaba/Saba) Farming System in Davao Oriental,”</p> <p>Improving Coconut Farm Productivity Through Organic Farming: A Community-Based Science and Technology-Based (CBSTBF) Farm Approach”.</p> <p>DBP-DOSCST Agro-reforestation of Mati Protected Landscape”.</p>
Julius Jerome G. Ele	2013	USM	Prof VI	<p>Regional Intellectual Property and Technology Business Management (IPTBM) in SOCCSKSARGEN through the RAISE Program.</p> <p>CA-CARE: Capacity and Resiliency Enhancement for Agricultural Technologists of Cotabato Province</p>
Augie E. Fuentes		DSSC	College President	<p>Enhancing Imbao Fisheries in Davao Region</p> <p>Conservation and Sustainable Utilization of Native Chicken in Davao Region</p>
Josephine R. Migalbin	1998	USM	Prof VI	<p>Establishment of Regional Knowledge Management (KM) Hub in SOCCSKSARGEN through the RAISE Program.</p> <p>Development of Protocols and Identification of Halal Critical Control Points (HalCCP) Towards Establishment of Philippine National Standards (PNS) for Halal Sheep and Vegetable Production</p>



				Utilization of Corn Sprouts as Fodder for Livestock Production
				Volume and Availability of Water Lily in Liguasan Marsh for “Productivity and Commercialization” and “Utilization of Water Lily as Feed Ingredients in Total Mixed Ration for Meat Type Dairy Goats.”

Table 3. Prominent Graduates in the Doctor of Philosophy in Agricultural Sciences major in Animal Science with Publications.

Author/Co-Author	Title	Name of Journal	Scope
Misael B. Clapano	Sustainability in Small-Scale Coffee Farming: Agricultural Practices, Women’s Role, and Climate Change Adaptation Along the Buffer Zone of Mt. Hamiguitan, Davao Oriental, Philippines. Sustainability 2025,	An Open Access Journal by MDPI.	International
	Physico-chemical Analysis of Water in Litopenaeus vannamei Ponds in Dahican, City of Mati, Davao Oriental, the Philippines.	Philippine Journal of Science 154 No. 1: 135-147.ISSN 0031 - 7683	National
	Phenotypic Characterization of Mottled Native Chicken in Davao Region, Philippines.	American Journal of Pure and Applied Biosciences. ISSN 2663-6913.	International
	Typology of Small-Holder and Commercial Shrimp (Penaeus Vannamei) Farms, Including Threats and Challenges in Davao Region, Philippines.	Preprints 2022, 2022030137 (doi: 10.20944/preprints202203.0137. v2)	National
	Vulnerability assessment of	Sustainability 2022, Volume 14,	International

	Pacific whiteleg shrimp ( <i>Penaeus vannamei</i> ) farms and vendors in Davao, Philippines using FishVool.	Issue 8 , 4541. An Open Access Journal by MDPI.	
	Environmental and Socioeconomic Impacts of Shrimp Farming in the Philippines: A Critical Analysis Using PRISMA.	Sustainability 2022, Volume 14, Issue 5, 2977. An Open Access Journal by MDPI.	International
Augie E. Fuentes	Phenotypic Characterization of Mottled Native Chicken in Davao Region	American Journal of Pure and Applied Biosciences, 4(4), 55-64, 2022	International
	Experiences of Personnel in Accreditations in Higher Educational Institution: Concerns and Actions	Asian Journal of Education and Social Studies, 2021, Vol. 16 (1)	International
	First Record of the Cosmopolitan Terrestrial Slug ( <i>Deroceros laeve</i> (O.F. Muller) (Gastropoda, Agriolimacidae) in the Philippines		International
	Preliminary Assessment of Water-Related Policies and Plans in Davao, Philippines		Regional
	Phenotypic Characterization of Mottled Native Chicken in Davao Region	American Journal of Pure and Applied Biosciences, 4(4), 55-64, 2022	International

Experiences of Personnel in Accreditations in Higher Educational Institution: Concerns and Actions	Asian Journal of Education and Social Studies, 2021, Vol. 16 (1)	International
A Case Study of Insect Pests and Disease-Causing Microorganisms in Mangrove Saplings in Davao Occidental, Philippines	Journal of Marine Science: Research & Development, 2021, Vol. 11 (10)	International
Free-Living Nematodes in the Intertidal Area of Davao Gulf, Philippines	ASSCAT Research and Development Journal (CHED-JAS Category B)	National
Enhancement of Organic Demo and Training Farms for the Marginalized Seaweed Farmers in Davao Region	SPAMAST Research Journal (Refereed), Vol. 4 (1), 2016	Regional
Agri-Waste Organic Formulation: Nutrient Composition and Fertilizer Potential of Coco Dust and Banana Peel	SPAMAST Research Journal (Refereed), Vol. 3 (1), 2015	Regional
Performance and Sensory Characteristics of Broiler Fed Diets Supplemented with Herbal Plants	SPAMAST Research Journal (Refereed), Vol. 2 (1), 2014	Regional
Performance of Corn to the Application of MBOF	SPAMAST Research Journal (Refereed), Vol. 1 (1), 2013	Regional
Herbal Plants as Potential Additive in Broiler Diets	SPAMAST Research Journal (Refereed), Vol. 7 (1&2), 2013	Regional

Herbal Plants as Potential Additive in Broiler Diets	International Journal of Science & Clinical Laboratory, Vol. 4, June 2013	International
Herbal Plants as Potential Additive in Broiler Diets	USM Graduate Research Journal, Vol. 11 (1), June 2009	Regional
Response of Corn to the Application of Mudpress-base Organic Fertilizer	SPAMAST Research Journal, 2008	Regional
Goat Production & Marketing Practices in Davao del Sur	SPAMAST Research Journal, 2008	Regional
Strengthening of Three Marine Protected Areas in Sta. Cruz to Support the Establishment of MPA Network in Davao Gulf	SPAMAST Research Journal, 2008	Regional
Collaborative Efforts to Enhance the Seaweed Production in Region XI	SPAMAST Research Journal, Jan–Jun 2005	Regional
Economics on the Use of Betelnut for the Control of Internal Parasites in Goats	SPAMAST Research Journal, Jul–Dec 2004	Regional
A Collaborative Project on Seaweed Research and Commercialization in Southern Mindanao	SPAMAST Research Journal, Jul–Dec 2004	Regional

Table 4. Prominent Graduates in the Doctor of Philosophy in Agricultural Sciences with Patent/Copyright/Utility Model/Developed Applications (2018 – present).

Name of PhD Agri. Sci. Graduate – <b>Animal Science</b>	Year Graduated	Agency	Position	Patent/Copyright/Utility Model/Developed Applications (2020 – present)
<b>Julius Jerome G. Ele,</b> Jalaloden B. Marohom	2013	University of Southern Mindanao	Prof VI	ADC- Animal Diet Calculator FeedmixJR 2022-01304-n-tccr March 19, 2022
Julius Jerome G. Ele	2013	University of Southern Mindanao	Prof VI	USM Foods Chicken Patel Registration No. 4/2022/00531800  USM Foods Chicken Flakes 1 Application Number 42023500555
Fuentes, Augie E.	2009	Davao del Sur State College	College President	Patent Invention - Bleaching and Deodorizing Composition for Producing Food Grade Seaweeds Using Starfruit ( <i>Averrhoa Carambola</i> L.) and Bilimbi Fruit ( <i>Averrhoa Bilimbi</i> L.)  UTILITY MODEL (Patent) - Process of Formulating Feed Additives for Broiler Diets  Herbal Feed Additive for Broiler Diets  Process for preparing Betel Nut ( <i>Areca catechu</i> ) as Anthelmintic for Animals  Technical Efficiency of Swine and Broiler

				Production in Davao del Sur Forecasted Demand of broiler Meat in Region XI
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Table 5. Registered Trademarks of PhD Agricultural Sciences – Animal Science Research Outputs

### Trademarks

Faculty	Cert No. or Application No.	Title	Validity
Julius Jerome G. Ele Jalaloden B. Marohom	Registration No. 4/2022/00531800	USM Foods Chicken Patel	Term: 10 years (until 04/07/33)
Julius Jerome G. Ele	Application No. 42023500555	USM Foods Chicken Flakes 1	
Julius Jerome G. Ele	Application No. 42023500553	USM Foods Chicken Flakes 3	
Fuentes, Augie E.	1/2018/000323 B1 – September 7, 2021	Bleaching and Deodorizing Composition for Producing Food Grade Seaweeds Using Starfruit (Averrhoa Carambola L.) and Bilimbi Fruit (Averrhoa Bilimbi L.)	
	Utility Model #22016000530	Herbal Feed Additive for Broiler Diets	
	Utility Model #2-2009-000384	Process for preparing Betel Nut (Areca catechu) as Anthelmintic for Animals	
	Copyright Registration No. O2015-2170	Technical Efficiency of Swine and Broiler Production in Davao del Sur	

	Copyright Registration No. O2015-2168	Forecasted Demand of broiler Meat in Region XI	
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Table 6. Prominent Graduates in the Doctor of Philosophy in Agricultural Sciences with Expert and Consultancy Services and Regional/National Technical Working Group Members (2020 – present).

Name of PhD Agri. Sci. Graduate – <b>Animal Science</b>	Year Graduated	Agency	Position	Expert and Consultancy Services and Regional/National Technical Working Group Members (2018 – present)
Geoffray R. Atok	2013	USM	Asso Prof V	Consultancy for Agricultural Productivity Enhancement (CAPE) Program
Julius Jerome G. Ele	2013	USM	Prof VI	Consultancy for Agricultural Productivity Enhancement (CAPE) Program
Josephine R. Migalbin	1998	USM	Prof VI	Consultancy for Agricultural Productivity Enhancement (CAPE) Program Japan International Cooperation Agency Korea International Cooperation Agency Food and Agriculture Organization of the United Nations

Table 7. Prominent Graduates in the Doctor of Philosophy in Agricultural Sciences with Interviews in National Agricultural Issues and Regional/National Policies Implemented (2018 – present).

Name of PhD Agri. Sci. Graduate – <b>Animal Science</b>	Year Graduated	Agency	Position	Interviews in National Agricultural Issues and Regional/National Policies Implemented (2018 – present)
Augie E. Fuentes	2009	Davao del Sur State College	College President	RDC XI Resolution No. 92 Series 2018 - Enjoining Davao Region's Local Government Units to Formulate Zoning



				<p>Policy and Designate Clean Water areas for Seaweed Farming - this is based on the research findings and policy brief on DOST PCAARRD-Funded project entitled “Seaweed GIS- Based Mapping as Production Support System for Seaweed Farming in the Philippines” implemented from October 2014 – March 2016</p> <p>RDC XI Resolution No. 101, s. 2019 - Approving the policy recommendations of the Study on Enhancing Imbao (<i>Anodontia sp.</i>) Fisheries in Davao Gulf – this is the adoption of research recommendations on Imbao Conservation through rotational harvesting.</p> <p>Utilization of the registered Utility Models (Patents) listed below by the Nationally renowned Magsasakang Siyentista, Mr. BENJAMIN R. LAO, in his farm level Native Chicken Production &amp; Management located in Brgy. Eman, Bansalan, Davao del Sur.</p> <p>UTILITY MODEL (Patent) - Process of Formulating Feed Additives for Broiler Diets (Utility Model #22014000747)</p> <p>UTILITY MODEL (Patent) - Herbal Feed Additive for Broiler Diets (Utility Model #220160005</p>
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Table 6 reveals that Doctor of Philosophy graduates in Agricultural Sciences are actively contributing as experts, consultants, and members of regional and national technical working groups from 2020 to the present. The listed prominent graduates—Drs. Josephine R. Migalbin, Geoffray R. Atok and Julius Jerome G. Ele are involved in important consultancy roles in national

and international organizations that influence agricultural policies and productivity programs. They also serve as consultants for the Agricultural Productivity Enhancement (CAPE) Program, demonstrating their pivotal role in advancing agricultural practices and innovation.

## **Conclusion**

### **Employability Outcomes**

The tracer study confirms that graduates of the Doctor of Philosophy in Agricultural Sciences major in Animal Science demonstrate consistently high employability rates. Most are absorbed into permanent positions within reputable state universities and government agencies. Recent cohorts, in particular, have achieved rapid career progression, reflecting both the program's responsiveness to institutional demand and its effectiveness in preparing graduates for stable and impactful careers.

### **Leadership Roles**

A significant proportion of graduates have advanced into leadership and administrative positions such as deans, program chairs, and research directors. These roles are central to shaping the academic and research priorities of higher education institutions in the Philippines. Their leadership trajectories affirm that the program not only equips graduates with advanced technical expertise but also cultivates visionary leaders capable of guiding institutions toward excellence in agricultural sciences.

### **Research Productivity**

Graduates consistently exhibit strong research productivity, actively engaging in funded research projects, scholarly publications, and extension undertakings. Their research contributions emphasize innovation, sustainability, and context-specific solutions to agricultural challenges. The consistent output of peer-reviewed works, along with meaningful community-oriented projects, underscores the program's robust research culture and its alignment with national development priorities.

### **Innovation and Policy Contributions**

The program has produced graduates who translate scientific knowledge into tangible innovations, as evidenced by patented utility models and the development of market-ready products. Moreover, many alumni are actively involved in consultancy work and serve as members of national technical working groups. Their influence on agricultural development policies and programs highlights the program's relevance in shaping science-driven and evidence-based policy frameworks for the country's agricultural sector.

**Overall Impact**

Taken together, these findings affirm that the PhD program in Agricultural Sciences major in Animal Science goes beyond academic credentialing. It develops scholar-leaders who advance scientific knowledge, foster technological innovation, and contribute directly to socio-economic progress. By producing graduates who strengthen food security, promote sustainable farming practices, and uplift rural livelihoods—particularly in Mindanao—the program secures its role as a cornerstone in national agricultural development.