

AgriCQUEST



The Faculty of Agriculture Newsletter

DECEMBER 2020

SULAM: Service-based Learning

REAL LIFE, REAL EXPOSURE – is the slogan adopted by the Faculty of Agriculture in accepting the challenge from the Ministry of Higher Education in Service-based Learning - University for Society (SULAM) programme. SULAM is a newly introduced programme that bridges the knowledge between students in the university and the community, where each party must be involved in the exchange of knowledge. In 2018, Dr. Juju Nakasha Jaafar from the Department of Crop Science initiated the 'Agriculture Moves Beyond Extraordinary' (AMBER) program, with the intention to develop and enhance the soft skills among students. AMBER was conceptualized to flourish systematically into an International program based on the 5 scales of involvement as shown below:



AMBER, incidentally met the criteria for SULAM, hence adopted to fulfil the Ministry's requirement. "Putra Kasih Bersama Komuniti P. A. Seri Perlis II" was the brand name used for the recent SULAM program. It was executed successfully, involving 74 students from the Bachelor of Horticulture Science, 150 community members and agency partners, such as the Department of Agriculture, Royal Malaysia Police, Kuala Lumpur City Hall, Department of National Unity and National Integration, Desatim Sdn. Bhd., Public Health Department (Titiwangsa), and the Federal Agricultural Marketing Authority. This unique program commenced for 3 days and 2 nights, requiring students to stay with their foster parents, where they were exposed to real urban agriculture and were engaged in the knowledge transfer on sustainable agriculture techniques with the community. The highlight was the 'Agri-Transfer Knowledge' activity, where the students demonstrated sustainable agriculture techniques. In the process of event planning, soft skills, i.e., communication, leadership and teamwork were enhanced. The program aided in nurturing holistic, entrepreneurial and well-rounded graduates and instilled a culture of happiness, love and mutual respect, as aspired by the Ministry of Higher Education. This program was recognized as a highly impactful SULAM project, and has been selected to represent UPM at the Ministry of Higher Education.

Foreword from Dean

On behalf of the Faculty of Agriculture, I am delighted to welcome you to experience the Faculty and its recent developments through its newsletter, AgriCQuest. "Agriculture is Life", realizing this the faculty strives towards academic excellence, research and development and professional services. It has only been 2 months since my appointment as the dean and the responsibility is huge, but I am confident, when we work together as one solid unit, everything can be achieved! I would like to take this opportunity to thank Prof. Dato' Dr. Abdul Shukor Juraimi, the former Dean for holding the realm for 8 years, ensuring the progress of the faculty. It is now my responsibility to steer the faculty to greater heights.

The newsletter is a great way of being in touch and is a marketing channel that disseminates information on what we do and how we can be relevant to the community and industry. Hence, I am committed to ensure consistent issuance of our newsletter biannually, under under the editorial team headed by Prof. Dr. Uma Rani Sinniah. Hope that you enjoy knowing us through AgriCQuest.

Assoc. Prof. Dr. Nur Azura Adam
Dean
Faculty of Agriculture





Continuous Operating System
for Microalgae culture
Optimized for Sustainable
Tropical Aquaculture

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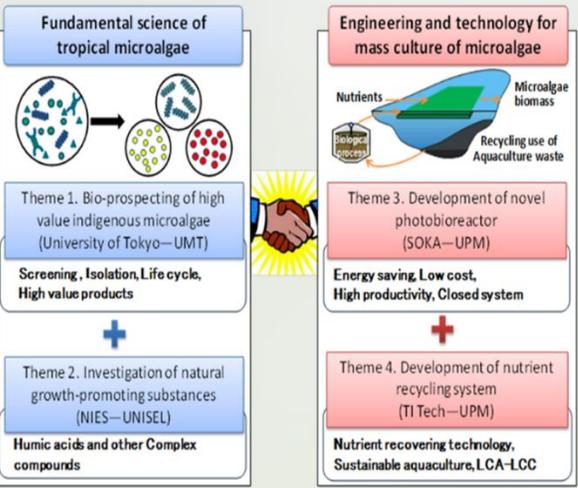
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AGRI RESEARCH



SATREPS-COSMOS (JPMJSA 1509) (Continuous Operation System for Microalgae Production Optimized for Sustainable Tropical Aquaculture)

JAPAN-MALAYSIA RESEARCH COOPERATION: SATREPS-COSMOS (2016-2022)



SATREPS (Japan Science Technology Research Partnership Strategy) is a Japanese government program that promotes joint research internationally with emphasis on global issues. The program is a collaboration between the Japan Science and Technology Agency (JST), which provides competitive research funds for science and technology projects, and the Japan International Cooperation Agency (JICA), that provides development assistance (ODA) to the international partner.

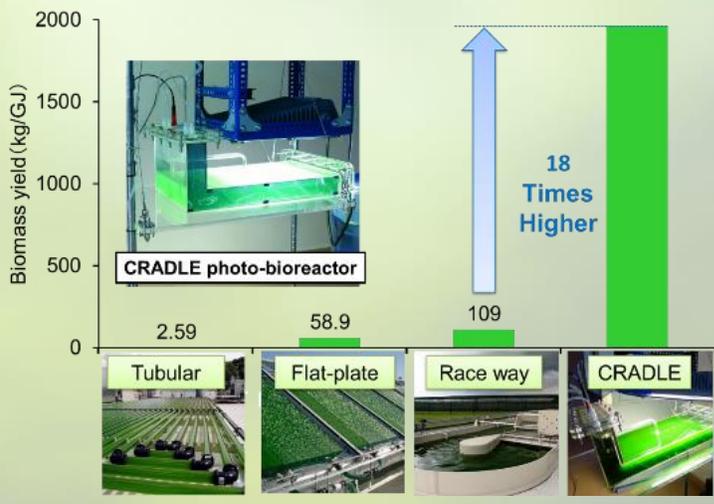
A project entitled “Development of Sustainable Aquaculture Industry through Recycling of Wastes for Bioresource Production’ was secured based on a novel idea on the use of interstitial water from aquaculture pond bottom to culture microalgae (Yusoff et al. 2001)*. This project later known as COSMOS (Continuous Operating System for Microalgae culture Optimized for Sustainable Tropical Aquaculture), is headed by Prof. Dr. Fatimah Md Yusoff, from the Faculty of Agriculture, who is also a research associate of IBS.

(*Yusoff, F.M. H.B. Matias, K. Zarina and S.M. Phang. 2001. Culture of microalgae using interstitial water extracted from shrimp pond bottom sediments. *Aquaculture*. 201 (3-4): 263-270.)

SATREPS-COSMOS aimed to innovate novel photobioreactors for large-scale cultivation of high value microalgae containing carotenoids, flavonoids and polyunsaturated fatty acids that can be utilized in food, cosmetic, pharmaceutical, nutraceutical and aquaculture industries. Technologies to acquire nutrients from recycling of aquaculture pond sludge will also contribute to reducing environmental pollution. The results promise social and economic benefits not only for the aquaculture sector in Malaysia, but also in aquaculture-based countries, especially in the Asian Region. This project involved four Japanese (SokaU, Utokyo, NIES and TiTech) and three Malaysian research universities (UPM, UMT, UNISEL), involving 80 scientists (60 from Malaysia and 20 from Japan), with the goal to develop a large-scale culture system efficient for high-value microalgae by using nutrients from the recycling process of aquaculture pond sediments.

The Japan International Cooperation Agency (JICA) provided an allocation of USD 4.0 million for equipment and training, while JST and MOHE (the Ministry of Higher Education Malaysia: RM7,552,575.00) provided research fund for Japanese and Malaysia Universities/Institutions, respectively. As of August 2020, about 80% of the objectives have been achieved. By 2022, the project should graduate 17 PhD and 17 MSc students, publish 45 Q1/Q2 and 40 CIJ papers, produce 17 IPs and establish collaboration with 9 related industries/communities.

CRADLE photo-bioreactor



The project patented photobioreactor produced the highest biomass yield compared to conventional methods



AGRI RECOGNITIONS

YBhg. Prof. Datuk Dr. Mad Nasir Shamsudin, appointed as Permanent Member of the National Agricultural Advisory Council (MPPN) 2020-2021

The Ministry of Agriculture and Food Industry (MAFI) has appointed YBhg. Prof. Datuk Dr. Mad Nasir Shamsudin as one of the 12 Members of the National Agricultural Advisory Council (MPPN) for the 2020-2021 session. The MPPN acts as the highest advisory body to the Minister of Agriculture and Food Industry, responsible to identify issues related to food security and the agro-food sector, identify appropriate intervention measures, and propose new directions for the agriculture and food industry sector according to developments and current needs, holistically.

Datuk Nasir is a professor of Agricultural and Resource Economics. He has been teaching primarily in International Agricultural Trade, Agribusiness Economics, and Environmental Economics. His research areas include International Agricultural Trade Policy, Commodity Market Analysis, and Agro-environmental Economics. To date, he has authored and co-authored more than 230 publications in book, book chapters, and journal articles, and presented more than 170 papers in both local and international seminars in his area of expertise. His research outputs have made a significant contribution to the understanding and advancement of agricultural and resource economics. He has served the University in various capacity, holding eminent positions such as Head of the Agricultural Economics Department, Head of the Agribusiness and Information Systems Department, Deputy Dean, School of Graduate Studies, Dean of the Faculty of Environmental Studies, Dean of the Faculty of Agriculture, Dean of the Faculty of Forestry and Environment, and Deputy Vice Chancellor (Academic & International), Universiti Putra Malaysia.



The SEARCA Regional Professorial Chair Grant was established in 2012 to acknowledge outstanding Southeast Asian experts in academia who Accelerate Transformation through Agricultural Innovation (ATTAIN) in their respective disciplines. These include, but are not limited to agriculture, social sciences, marine and fishery sciences, environmental sciences, economics, and rural development-oriented fields. Since its establishment, the SEARCA Regional Professorial Chair grant has been awarded to 44 individuals. For the academic year 2020-2021, six recipients have been awarded with the grant and one of them is Dr. Norsida Man, an Associate Professor and Head of Agriculture Technology Department. She was awarded a grant worth USD 5,000 for her extensive contributions in the field of Agricultural Extension and Development.

As a recipient of the SEARCA Regional Professorial Chair Grant, Dr. Norsida hopes to influence others to contribute to agriculture through her work in the university. She will also use the grant to expand knowledge sharing, research dissemination, student mentoring, capacity building, and creating networks in her field. As part of the grant, Dr. Norsida will deliver a public lecture on "The Role of ICT-driven Tools and Technologies to Spread Innovation for Adaptation to Climate Change". She will discuss the issues, problems and challenges faced by the agriculture sector and the role of ICT tools and technologies in adapting to climate change in the context of Malaysia and the world. This is in line with SEARCA's priority areas for its 11th Five Year Plan, specifically in enhanced agriculture and rural development (ARD) towards climate resilience.

SEARCA Regional Professorial Chair Grant awarded to Associate Professor Dr. Norsida Man





YBhg. Prof. Dato' Dr. Zulkifli Idrus elected as a fellow of Academy of Sciences Malaysia (ASM)

Academy of Sciences Malaysia (ASM) recently elected YBhg. Prof. Dato' Dr. Zulkifli Idrus, UPM's Deputy Vice Chancellor (Research and Innovation) as a fellow of ASM (FASc) in conjunction with its 25th Annual General Meeting (24 October 2020).

Being known worldwide for his expertise in poultry science, stress biology and animal welfare, and his significant contributions to the field of science, technology and innovation at both national and international levels, his election as the fellow of the Academy in the Biological, Agricultural and Environmental Sciences category is eminently a well-deserved recognition. Prior to the distinguished appointment, he was listed among the World Top 2% Scientist (subject-wise) by Stanford University, USA, in the discipline of Dairy and Animal Science.

He (born in 1965) began his academic career in Universiti Pertanian Malaysia (now UPM) in 1992 as a tutor at the Department of Animal Science, Faculty of Veterinary Medicine and Animal Sciences. In 1994, he was appointed as a lecturer, promoted to associate professor in 1999 and became a professor in 2004. For the past 28 years, he devoted his professional career to the advancement in poultry and livestock through teaching and research. Inspired by the work and scientific philosophies of the late Dr. Hans Selye (the grandmaster of stress research), he pursued his interest in animal stress biology and welfare, especially in poultry. His contribution to poultry welfare research has earned international recognition from Food and Agriculture Organisation for the United Nations (FAO) (Rome, Italy) and World Organisation for Animal Health (OIE) (Paris, France).

Prof. Dato' has been involved in more than 30 research projects with RM17.6 million worth of research grant and consultancies awarded from various national and international institutions and industries. His research findings have been published in more than 200 peer-reviewed journal articles. One of his key contributions is based on his research entitled "Enhancing the competitiveness and sustainability of the poultry industry through improved feedstock", where the use of palm kernel cake was adopted in a policy paper by the Ministry of Agriculture and Agro-based Industry in its strategic plan for 2019-2020.



The above mentioned is just a small fraction of his numerous contributions to UPM. The Faculty of Agriculture proudly congratulates Prof. Dato' Zulkifli Idrus on his prestigious recognitions and hopes that he will continue to contribute tremendously to the nation.

Congratulations

The faculty would like to congratulate YBhg. Prof. Dr. Abdul Shukor Juraimi on being conferred the Dato' Paduka Mahkota Selangor (DPMS) carrying the title Dato' in conjunction with the 75th Anniversary of the Selangor Sultan, DYMM Sultan Sharafuddin Idris Shah Alhaj Ibni Almarhum Sultan Salahuddin Abdul Aziz Shah Alhaj.



AGRI ENGAGE

Remedy to reduce water stress in crops: UPM and UASB India collaboration

Water shortage is not a new problem in India and also in Malaysia. Plants need sufficient water to keep the stems, leaves and roots fresh. Dr. Daljit Singh, from the Department of Land Management, Faculty of Agriculture, Universiti Putra Malaysia (UPM), was on a six-month attachment at the University of Agricultural Sciences Bengaluru (UASB), India to conduct collaborative research on the sustainable management of rice harvest waste, specifically to increase corn production while maintaining growth during water shortage or drought. According to Dr. Daljit, many farmers reuse agriculture waste on their farm, and it can affect the environment negatively if not done correctly and sustainably. A sustainable way to manage rice waste is by converting it to biochar.

“The process of rice husk heated with a lack of oxygen is known as biochar, and this product can help increase the efficiency of nutrient uptake by plants”. The use of biochar could help decrease the use of chemical fertilisers while allowing recycling of waste into wealth. UASB Plant and Soil Nutrition expert, Prof. Dr. Prakash N.B., said the special feature of rice husk is its high content of silica minerals, which helps to strengthen the leaves and stems of the plant even under water shortage conditions. The research was part of the long-term research sponsored by the Federation of India Chambers of Commerce & Industry (FICCI). The use of rice waste biochar on corn showed that the available silicon content in the biochar helped in maintaining turgidity of corn stems and leaves, hence facilitating photosynthesis. This technology can be adopted by other Asian countries, Asia being the continent with the largest rice plantation and production area in the world; therefore contributing to the zero wastage concept in agriculture.



UPM-FELDA MoU

The appointment of YB Dato 'Seri Haji Idris bin Jusoh as the chairman of FELDA in 2020, also marked the initiation of collaboration between UPM and FELDA. The visit by the team from FELDA to UPM on the 5th June 2020, later materialized into a formal Memorandum of Understanding (MoU) signed on the 26th June 2020 by Universiti Putra Malaysia (UPM) and the Federal Land Development Authority (FELDA) to strengthen, nurture and expand research cooperation between the two parties based on equality and mutual benefit.

The MoU stipulates UPM's role in providing advisory services, research and knowledge transfer in the field of food security and plantation, development of settlers' communities, corporate governance and other relevant areas. The signing ceremony commenced at the Faculty of Agriculture, the anchor for this MoU and was attended by YB Dato' Seri Haji Idris bin Jusoh, Chairman of FELDA, Prof. Datin Paduka Setia Dato 'Dr. Aini Ideris, Vice-Chancellor of Universiti Putra Malaysia, Dato' Dr. Othman Haji Omar, Director General of FELDA, as well as the senior officers from both agencies.

UPM, with expertise in the agricultural sector, can help FELDA by providing professional services, research collaboration and/or industrial placement for students and staff. Among the projects under discussion are Entrepreneurship Development, Settlers' Sustainable Garden Management, Crop Diversity Program, FELDA Herbal Initiative, Increase in Oil Extraction Rate (OER), and the Application of Smart Agriculture to increase productivity. The execution of the proposed projects will be led by the Faculty of Agriculture, supported by the other faculties namely Faculty of Biotechnology and Biomolecular Science, Faculty of Veterinary Medicine, Faculty of Educational Studies, Putra Business School and Institute of Plantation Studies.

UPM is always looking for strategic collaborations with local and international industries. This MoU will help UPM achieve its goal of improving Industry and Community Network Services and strengthening UPM as an Agricultural Centre of Excellence. Research conducted by UPM experts in collaboration with the industry players will help the industry solve their problems in the field.





Advanced Closed House for Broiler Chickens

Universiti Putra Malaysia (UPM) launched its first advanced poultry research facility at the Faculty of Agriculture in December 2019. The advanced closed poultry house was the outcome of a strategic Memorandum of Understanding (MoU) made between UPM, Malayan Flour Mills Berhad (MFM) and AGSO GSI (M) Sdn. Bhd. The RM750,000 poultry house construction was fully funded by MFM, whereas AGSO GSI (M) Sdn. Bhd. sponsored the facility of the house entirely.

The 62× 12 meter building can hold up to 7500 broiler chickens and is fully equipped with sensors that automatically control the temperature at 24 to 28°C and humidity inside the closed house, providing an ideal environment for the performance and growth of broiler chickens.

Furthermore, the chicken feed is delivered from a silo in the feed store into the closed house through a feed-chain channel. The house also includes finishes such as raised floor, feeders, pens, drinkers and three-tiered cages. Also, the chickens' droppings would be turned into a 'Black Gold' compost by the Faculty of Agriculture's Organic Unit as a means to bring revenue to the university.

The purpose of this high-end facility is to provide access for UPM's students and researchers to conduct research in controlled environmental conditions within the university campus, mimicking the real industry environment.





IN ACTION



An hour with the agriculture expert

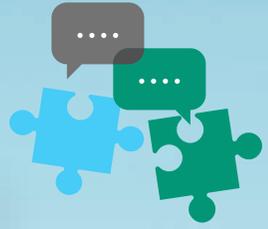
“An hour with the agriculture expert” program is an initiative by the Faculty of Agriculture, Universiti Putra Malaysia (UPM) in an effort to share knowledge and transfer of technology with the industry players, community and institutions that have interest in the agricultural field. Unfortunately, due to the global COVID-19 pandemic, all sharing sessions were held virtually where the participants interacted with the lecturers, researchers, and officers from the Faculty of Agriculture via online platforms such as Facebook and Webex application. The sharing sessions covered topics related to agriculture from crop science, livestock, aquaculture, agricultural technology, marketing and current issues in the agricultural sector. The aim of the program was in line with the goals of UPM and National AgroFood Policy (DAN) to boost industrial and community networking services, to empower UPM as the centre of agricultural excellence, to equip individuals with vision and knowledge in the agricultural field and provide excellence in agricultural support services.

Based on the 4 topics that have been delivered, live sessions have been shared 59 times on an average. Besides that, this program also succeeded in increasing the followers of the official Facebook page of the Faculty of Agriculture by 31.5% to 3593 followers on 30th November 2020 compared to 2731 followers in January 2020. Nonetheless, this program also yielded a positive impact in promoting our experts from various agricultural fields.

Overall, positive feedback was given by the participants on this knowledge sharing program. This could also be seen when the recording of each broadcast session was played by visitors and followers of the official Facebook page of Faculty of Agriculture, UPM.



AGRI YOUTH



Inbound Student Mobility Program from Ningbo University, China



The Department of Aquaculture, Faculty of Agriculture welcomed post-graduate students from Ningbo University, here for a three-month mobility program.



The program was an opportunity to allow and provide these students with a conducive working experience at our laboratory while experiencing the rich and diverse Malaysian culture.



All 14 of them were assigned to 5 different groups with their primary focus of research in each group on bioremediation techniques in aquaculture, microalgae culture, ultrasound-based vaccination, assessment of fish feeding habits and the production of floating fish pellet.



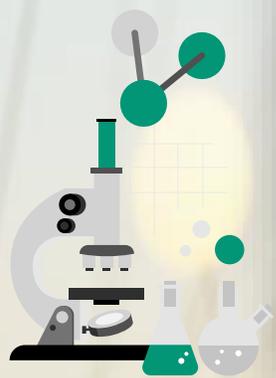
At the end of the program, the students finished their research and the Department of Aquaculture arranged for them to visit a few places in Perak like Arowana Farm at Bukit Merah, Taiping Zoo, Taiping Town and Ipoh's 120-Year Old Alley of Concubines.



Students also took the opportunity to view the infrastructure near UPM's proximity and experience the gastronomical food that Malaysia has to offer. Students enjoyed a variety of local cuisine and delicacy such as Nasi Lemak, Tom yam, and the King of fruit, the Durian.



This program not only allows the growth of teamwork, open and international mindedness through the interaction and exchange of culture between two nations amongst the students, but also as a reminder to educators on the essence and joy of knowledge sharing.



ASEAN Service-Learning Program (SLP)



ASEAN Service-Learning Program (SLP) is an annual mobility program that serves as a real learning exposure and immersion for university students in ASEAN with its focus on agriculture extension. The program was first held in 2017 at the Institut Pertanian Bogor (IPB), Indonesia and participated by students from the host university, Universiti Putra Malaysia (UPM) and Rajamangala University of Technology Thanyaburi (RMUTT), Thailand. In 2018, IPB was re-selected as the host for the second consecutive year.

In 2019, the Faculty of Agriculture was given the opportunity to organize the third ASEAN SLP from July 11-24. The program was participated by 23 students from the IPB and 11 from UPM. In this fourteen-days program, various activities were arranged for the students including Training of Trainers (ToT) talks on urban agriculture, organic farming, hydroponics, drone applications; workshops on terrarium and Kokedama; cultural experience activities (traditional fish catching at paddy field, batik drawing, dodol preparation) and study visit to Malaysian Agriculture Research and Development Institute (MARDI) as well as leisure visits. The ToT talks and workshops were held at Koperasi Wawasan Tani Sungai Besar while cultural experience activities were arranged by Homestay Kampung Sungai Haji Dorani. The restrictions on public events due to coronavirus resulted in SLP-2020 being canceled. It is our hope that the pandemic will soon end and allow the SLP program to continue in years to come.



Stay updated and stay informed with our latest and upcoming activities, log on:

 [facebook.com/FakultiPertanian/](https://www.facebook.com/FakultiPertanian/)

 <https://agri.upm.edu.my/>

Business Unusual: PERKASA PUTRA during Coronavirus (COVID-19) pandemic

This year the Faculty welcomed **265** students (including 6 international students) to pursue six degree programs

	Bachelor of Agricultural Science with Honours	Σ 69	♂ 29	♀ 40
	Bachelor of Horticultural Science with Honours	Σ 42	♂ 24	♀ 18
	Bachelor of Science in Agribusiness with Honours	Σ 42	♂ 20	♀ 22
	Bachelor of Science in Aquaculture with Honours	Σ 44	♂ 25	♀ 19
	Bachelor of Agriculture in Animal Science with Honours	Σ 46	♂ 31	♀ 15
	Bachelor of Science in Plantation Management with Honours	Σ 22	♂ 0	♀ 22



The PERKASA WEEK is a special orientation week designed to introduce new students to the administration structure, academic system, campus life and most importantly it provided an avenue for the new students to meet their peers.

Business Unusual: PERKASA PUTRA during Coronavirus (COVID-19) pandemic



Transforming to digital platform

The Office of Academic, Students Affairs and Alumni transformed everything digitally from the Welcoming Ceremony, Academic Briefing, Alumni Talk, Excellent Student's sharing.




The faculty ensured that the information and the experience was not compromised despite the new approach.

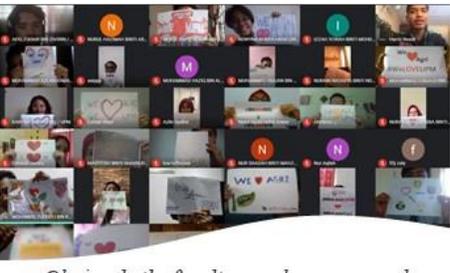
Students were facilitated at each and every step of the way via:

- Informative website specific for newbies;
- Internal blogs, in which current information was communicated in a structured manner;
- Frequently asked questions and best practice AHEPA provide Virtual Counters during the registration to answer questions real-time.



It was not easy to adapt to this new norm of operations

NEW NORM



Obviously the faculty members managed to connect to the students judging by the "We Love UPM" statement conveyed in a very artistic way towards the end of the program.

Below are some comments from the new students:

"Health should be a priority but learning should not be neglected. Make constraints as strengths, make weaknesses as guidelines."

--[Muhammad Hafiz Aiman bin Mohd Khairuddin]

"The sun will rise again, so don't be afraid of the endless night"

--[Melissa Lok Mei Teng]



AGRI HIGHLIGHTS

QS WORLD UNIVERSITY RANKINGS 2021

CONGRATULATIONS!
UNIVERSITI PUTRA MALAYSIA
 is Ranked **132nd** IN THE WORLD

Year	Ranking
2016	331 st
2017	270 th
2018	229 th
2019	202 nd
2020	159 th
2021	132 nd

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Ensure food supply chain stays resilient against disruptions

Ensuring the resilience of the food supply chain is a top priority for the Ministry of Agriculture, Food and Fisheries (MAMFA) as the country continues to recover from the impact of the COVID-19 pandemic. MAMFA is committed to ensuring that the food supply chain remains resilient against any future disruptions.

Perkukuh pautan IPT, industri jamin sekuriti makanan

The Ministry of Agriculture, Food and Fisheries (MAMFA) is committed to strengthening the link between higher education institutions (IPT) and the industry to ensure food security. This involves providing training and research opportunities for students and staff in the agricultural sector.

Ejen pengembangan tani sokong jaminan makanan

The Ministry of Agriculture, Food and Fisheries (MAMFA) is committed to supporting agricultural development agents to ensure food security. This involves providing training and resources to help farmers improve their productivity and resilience.

Jangan panik, bekalan makanan mencukupi walaupun PKP ditamatkan

The Ministry of Agriculture, Food and Fisheries (MAMFA) is committed to ensuring that the food supply remains sufficient even after the end of the Movement Control Order (MCO). This involves monitoring the food supply chain and ensuring that there are no shortages of essential food items.

Ubah masa depan pertanian

The Ministry of Agriculture, Food and Fisheries (MAMFA) is committed to changing the future of agriculture. This involves adopting modern technologies and practices to improve productivity and sustainability in the agricultural sector.

Transformasi sektor pertanian guna IR4.0

The Ministry of Agriculture, Food and Fisheries (MAMFA) is committed to transforming the agricultural sector using Industry 4.0 (IR4.0) technologies. This involves adopting automation, artificial intelligence, and other advanced technologies to improve efficiency and productivity in agriculture.

Waspada ancaman kumbang merah palma

The Ministry of Agriculture, Food and Fisheries (MAMFA) is committed to being vigilant against the threat of the red palm weevil. This involves monitoring and controlling the spread of this pest to protect palm trees and other agricultural crops.



Tebuan boleh sengat berkali-kali: Pakar

Experts warn that bee stings can be fatal if not treated properly. It is important to seek medical attention immediately if stung by a bee, especially for those with allergies.

MukaSepuluh
Cekap pengurusan atasi isu makanan

The Ministry of Agriculture, Food and Fisheries (MAMFA) is committed to efficient management to address food issues. This involves implementing effective policies and programs to ensure food security and stability.

Pokok pun jadi mangsa 'fitnah'

The Ministry of Agriculture, Food and Fisheries (MAMFA) is committed to addressing the issue of 'fitnah' (rumor) in the agricultural sector. This involves providing accurate information and education to farmers and the public to prevent the spread of false rumors.

Trend penurunan belum konsisten

The Ministry of Agriculture, Food and Fisheries (MAMFA) is committed to ensuring that the trend of food price reduction is consistent. This involves monitoring market conditions and implementing measures to stabilize food prices.

UI-GREENMETRIC WORLD UNIVERSITY RANKINGS 2020

CONGRATULATIONS!
UPM RANKED

Region	Ranking
Malaysia	1 st
Southeast Asia	2 nd
Asia	3 rd
World	28 th

FOR 11 CONSECUTIVE YEARS

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AGRI ACHIEVEMENTS



LRGS

RM 4,115,860

Sustainable production of superior coconut planting materials towards improvement of socioeconomic well-being of smallholders

Prof. Dr. Uma Rani Sinniah

Smart aquaculture broodstock selection via non-invasive In-Situ Surface Enhanced Raman Spectroscopy System (NI-SERS)

Dr Annie Christianus

TRGS

RM1,215,200




PRGS

RM 138,000

Sustainable control of major rice disease using formulated Streptomyces in rice field

Prof. Dr. Wong Mui Yun

11 FRGS Projects from Prof. Dr. Mohd Salleh Kamarudin, Prof. Dr. Uma Rani Sinniah, Assoc. Prof. Dr. Murni Marlina Abd Karim, Assoc. Prof. Dr. Md Kamal Uddin, Dr. Ali Tan Kee Zuan, Dr. Eric Lim Teik Chung, Dr. Martini Mohammad Yusoff, Dr. Norazua Zakaria, Dr. Nurul Nadia Ramli, Dr. Syaharudin Bin Zaibon, and Dr. Tan Ngai Paing

FRGS

RM 1,411,560

