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USM SUCCESS STORY IN KNOWLEDGE TRANSFER: USING PROBIOTICS TO KEEP CHICKENS HEALTHY



PENANG, June 2015 - A group of final year undergraduate students from the Universiti Sains Malaysia (USM) School of Industrial Technology (PPTI) has successfully used probiotics (friendly/good bacteria) as a replacement for antibiotics in food supplements to produce healthier chickens for human consumption.

USM Vice-Chancellor Professor Dato' Dr. Omar Osman said the success of this project owed very much to the collaboration of various parties involving students, academics, commercial poultry farmers and industry.



"It is a very good model of what we called an academia-industry-community collaboration and I am delighted that this project allows the transfer of knowledge back to our society and community in tandem with USM APEX's agenda, to transform education for a sustainable tomorrow.

"This is also the first time such a research has been carried out in a natural laboratory - poultry farm - providing the 30 undergraduate students with first-hand experience of being involved in a community engagement project.

"Nowadays more and more people are aware of the detrimental health problems associated with consuming chickens that are fed with antibiotics (to promote growth of chickens), therefore there is increasing interest in finding alternatives to antibiotics for poultry production; it seems that probiotics is a very feasible replacement for antibiotics," he commented during a special press conference to highlight this USM-Industries-Community Joint Project: Collaborations Toward Impactful Outcomes For The Benefits Of Society here recently.



Omar added that USM has always provided opportunities for students to explore new innovations and projects, demonstrating the university's emphasis and long term commitment to helping the industry and the local community.

Meanwhile according to the Programme Advisor Associate Professor Dr. Liong Min-Tze, through studies conducted, it was found that 60 chickens that were fed with probiotics for 42 days showed positive results especially in terms of the chickens' health.

"From the data gathered, it also showed that chickens that were given probiotics as growth promoter were more active, recorded lower deaths and yielded meat of better quality compared to those fed with antibiotics.

"In fact, the mortality rate dropped sharply about three times lower than the chickens given antibiotics over the same time period (42 days), hence improving poultry production," she added.

Min-Tze, who won the 2007 L'Oreal Malaysia Fellowship for Women in Science award said, the use of probiotics can ward off the bad bacteria in the intestinal tract and keep the chickens healthy.



"I believe this discovery is extremely beneficial to the community in making them aware of the importance of eating healthy foods as well as educating the society on food safety and hygiene," she further explained.

She added probiotics are widely used in commercial poultry industry in many countries such as South Korea and Indonesia, but the main problem is its high cost compared to using antibiotics.

USM was grateful as the probiotics used in this study were sponsored by ProBionic Corporation of South Korea which has also been using probiotics obtained from Korean kimchi for dermo-cosmetic products.

Min-Tze also mentioned that besides ProBionic, other industrial partners who contributed towards the success of the project were Teroka Jaya Farm in Balik Pulau which sponsored the chickens and farmland to run the project; Premier Diagnostics Sdn Bhd and 3M Malaysia Sdn. Bhd. sponsored analytical consumables for testing purposes.



Also present were Director of Research Creativity & Management Office USM Prof. Dr. Lee Keat Teong; Dean of PPTI USM Professor Dr. Azhar Mat Easa; Founder of ProBionic Corporation Professor Dr. Park Yong-Ha; Managing Director of Teroka Jaya Farm Farizal Hamidon; Managing Director of Premier Diagnostics Sdn. Bhd. Soh Kim Pong; Assistant Manager of Professional Services 3M Malaysia Sdn. Bhd. Chandraprasad S. Rajangan and PPTI final year project students.

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