Aquaculture boon for UPM students

Lobster farming initiative offers exposure on maintaining water quality and identifying signs of disease

SERDANG: A simple freshwater lobster farming initiative at Universiti Putra Malaysia (UPM) has blossomed into an inspiring model for experiential learning, entrepreneurship and sustainable aquaculture.

Launched last month at the Tan Sri Aishah Ghani residential college, the project involves about 20 students and six tanks housing 30 to 35 lobsters each.

Although still new, it is already showing promise as a hands-on platform to teach sustainability and business skills.

The project idea originated after a group of UPM students attended a three-day freshwater lobster farming course in Kota Kinabalu, Sabah, in January.

One of them, Muhammad Alif Haikal Mahadi, 22, a Human Development Science student from the Faculty of Human Ecology, said the course was a turning point.

He said the broodstock (mature crustaceans used in aquaculture for breeding purposes) at their project site would start producing eggs within four weeks.

Once the eggs hatch, it takes about three to five months for the lobsters to reach maturity and be ready for harvesting.

He added that it cost about RM7,000 to buy the necessary equipment such as tanks and oxygen pump, and lobster stock and other essentials to get the project going.

"The hands-on course provided a solid foundation in both theory and essential practical skills. We were given crucial exposure to managing pH and ammonia levels in the water, as well as how to care for lobsters."

They were also taught how to maintain water quality and identify signs of disease in lobsters so that immediate action can be taken, Bernama reported.

In aquaculture, one of the biggest challenges is sustainable water management.

"The most difficult part is balancing water quality to ensure the lobsters stay healthy and disease-free while keeping water usage to a minimum," said Muhammad Alif Haikal.

Ammonia, which builds up from waste and uneaten feed, is also a common issue.

He said only if there is no drop in the ammonia level will half the water in the tank concerned be replaced.

Muhammad Alif Haikal added that they also practise biofloc techniques to help conserve water and feed by recycling nutrients in the tank.

Lobster waste is converted into microorganisms, which then serve as a natural food source, thus reducing reliance on antibiotics and chemicals.

"We could also be a freshwater lobster producer in the long term, given the wide market potential."

On current market prices, he said wholesale prices of freshwater lobster from farms range from RM60 to RM80 per kg, depending on size and grade.

He said in end-user markets such as seafood restaurants, cooked freshwater lobster could fetch RM15 to RM25 per 100g, making it a high-value product.

Muhammad Alif Haikal also said the course in Sabah gave them a strong foundation in both theory and hands-on aquaculture skills, including learning to identify diseases and maintain water quality.

The course also covered broodstock selection, feeding and disease prevention.

"We used to think that aquaculture was only viable on a large scale, but now we realise it can also be done on a small scale with a systematic and effective approach."

UPM deputy vice-chancellor Prof Dr Arifin Abdu said the project is a strategic move to empower students beyond academics.

"Students are directly exposed to the process of cultivating, caring for and managing lobster farming systems, which involve various technical and operational challenges."

The freshwater aquaculture sector in Malaysia has economic promise but faces issues such as water quality and sustainability and Arifin believes the project is a way for students to address such issues.

"Our project is not only focused on lobster production but also opens up opportunities in shrimp seed production, alternative feeds and downstream products such as frozen prawns and prawn-based ready-to-eat meals."