ENVIRONMENTAL SUSTAINABILITY Report 2022

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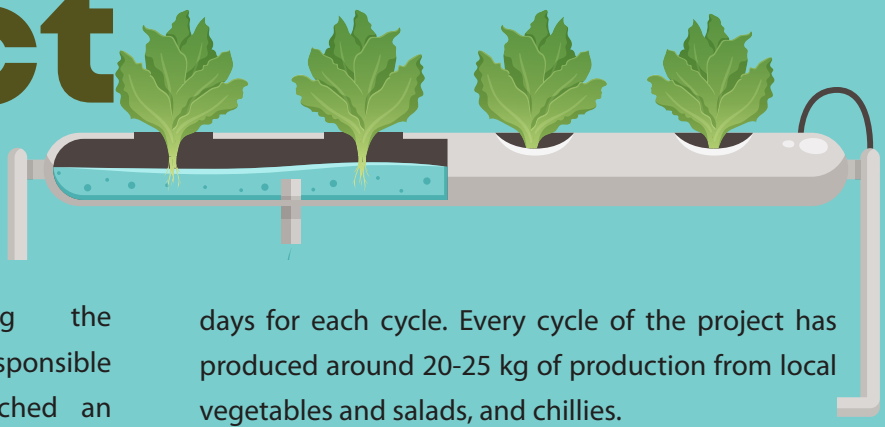
Aquaponic Project



In relation to supporting the environmentally friendly effort and responsible consumption, UiTM Sarawak has launched an eco-friendly farm project in the Farm Unit, UiTM Mukah Campus as shown in Figure 8.18. The project was conducted to support the aspiration of UiTM Sarawak in implementing SDG in their practices by promoting relevant goals associated with the activities. For eco-friendly hydroponic projects, UiTM Mukah Campus has established a hydroponic farm for chillies and local salads. The project was supervised by Mr. Abg. Shawn Fendi Abg. Keprawi, Assistant Farm Officer with the aid and participation of Farm Unit's staff.

Tilapia fishes are kept in tanks in an aquaponic system, and their waste is pumped to plants in gravel-filled grow beds as shown in Figure 5.18. The principal advantages of hydroponic controlled environment agriculture (CEA) include high-density maximum crop yield, and crop production where no suitable soil exists, a virtual indifference to ambient temperature and seasonality, more efficient use of water and fertilisers, minimal use of land area, and suitability for mechanisation, disease, and pest control. Hence, an effort to reduce the pollution impact from the plantation activity is carried out by promoting hydroponic activities. The project is conducted in 3 cycles with the duration of 30-40 days for each cycle. Every cycle of the project has produced around 20-25 kg of production from local vegetables and salads, and chillies.

The hydroponic system was built in a greenhouse, located at the Farm Unit in UiTM Mukah Campus and it consists of 2 units of hydroponic system with 108 pots to plant the vegetables. The hydroponic system includes the rotation unit for water usage to be used in the pots. This hydroponic system reduces the emission of greenhouse gases by eliminating the usage of chemical and organic compounds in the production. In addition, the local production of vegetables by UiTM Mukah Campus was marketed to the public to promote the organic consumption of local products.

As one of the agendas in supporting SDG UN, UiTM Sarawak has fully utilised its strength of mass land to promote responsible consumption by commissioning local production activities. The hydroponic project is expected to last for 40-50 days for every cycle and is continuously run by the respective unit. At present, UiTM Mukah has completed around 5 cycles of hydroponics since it was first initiated in 2018.

Editorial Board Members

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