Japan International Cooperation Agency

Report

Course Title: Duckweed-microbe interaction, Amino acid analysis and Duckweed vertical farming

Ms. Hathaipat Thongthung

23 October 2022 – 26 November 2022

Knowledge Co-Creation Program (Country Focus) under JICA Technical Cooperation Project Science and Technology Research Partnership for Sustainable Development (SATREPS) entitled “The Project for Development of the Duckweed Holobiont Resource Values towards Thailand BCG Economy (Be-HobiD)”

Trainee Report of Ms. Hathaipat Thongthung at Hokkaido University, Japan

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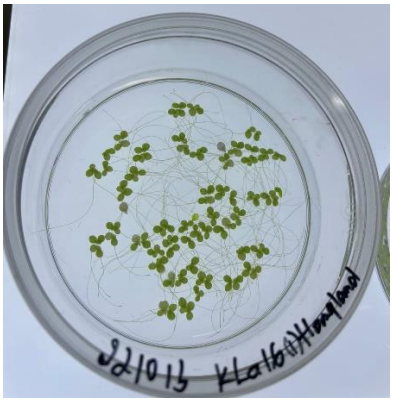
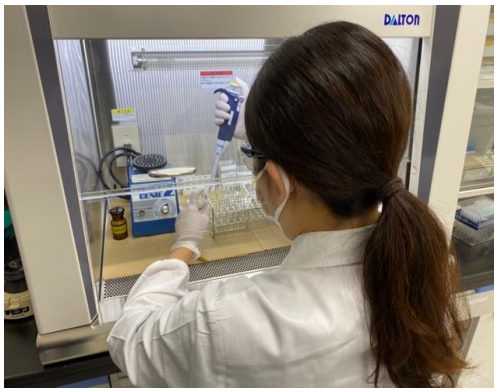
1. To learn a series of techniques and knowledge for duckweed-microbe interaction

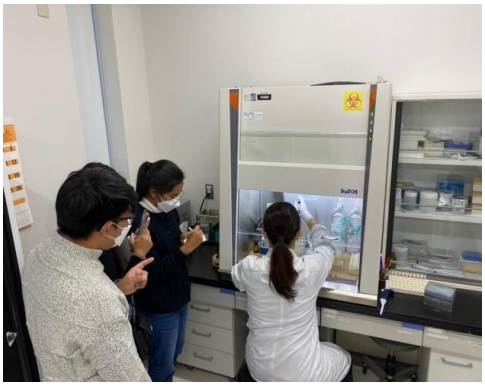
Trainees leaning about the plant growth promoting bacteria (PGPB) in laboratory. Trainees leaning about the evaluate effect of duckweed-microbe co-culture from non-sterile condition and sterile condition.



2. To learn a series of techniques and knowlage for amino acid analysis

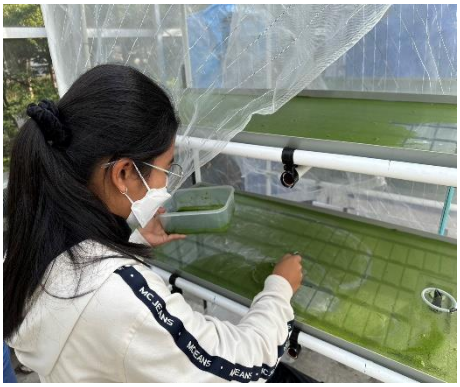
Trainees leaning about the process of amino acid analysis such as acid hydrolysis with 6M HCl in hot air oven at 110 °C for 24 h after that analyze with post-column derivatization in ion exchange chromatography (L-8900 Hitachi, Amino acid analyzer).





3. To learn a series of technologies for high yield and stable production of the duckweed biomass

Trainees learning about the techniques and process of duckweed culturevate and harvesting in vertical farming system.



4. Holiday activity in Hokkaido, Japan