ELM Inc.

innovative products for the world ELM

- Address: Kagoshima Prefecture
- Employees: 48
- Established in 1980
- Business: Contract development and design of electronic application equipment and design of industrial labor-saving machinery

https://en.elm.jp/

Outline of the demonstration project

- Development of temperate vegetable cultivation technology in Brunei using the container-type robotic cultivation system "EcoNursery"

Cooperation with local companies/governments

- Local partner:
  SUPERFISH GROWERS SDN BHD
- Details of cooperation and collaboration:
  Production, sale and export of grains and fruits

Automated robot transport after sowing → Seedling cultivation with efficient recipes → Healthy seedlings to be transplanted into fields for cultivation

Targeted economic/social issues

- Although 42.2% of the vegetables consumed by Brunei people are temperate vegetables, many of them depend on imports.
- To establish cultivation technology to control the harsh environment of high temperature, high humidity and heavy rains and promote domestic production of high value vegetables is a challenge from the perspective of food security and improving the quality of life of the people.

Details of demonstration

- EcoNursery (EN System), a container type cultivation system, is introduced to study and demonstrate the cultivation technology of temperate crops in Brunei in the tropics.
- Indoor hydroponic cultivation systems are expensive and difficult for a single farmer to procure, but the EN System has all the necessary equipment for cultivation in the container, making it possible to reduce investment costs and introduce the system in a short period of time. Environment control through remote operation is also possible.

Expected outcome of beneficialy effects

- It has the potential to realize the goals of high-efficiency, high quality production and promotion of exports set by the Bureau of Agriculture in Brunei Darussalam and contribute to the realization of the medium- to long-term national plan.
- It is also expected to create a new industrial sector called "digital agriculture" and promote employment for young people.