Efforts to develop a new smart agriculture system through integrated use of data for digital transformation

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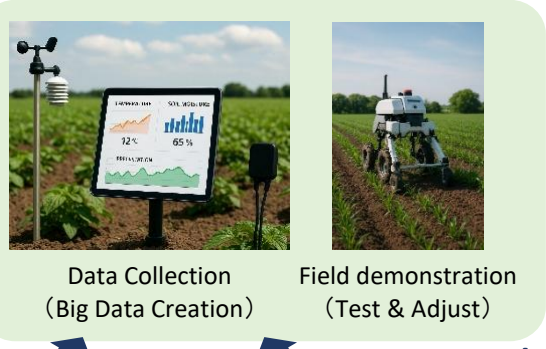
Research Area

〈Experimental Farm〉
- Hearing about the challenges farmers face in citrus cultivation
- Continuous collection of cultivation images, weather, and soil data
- Field demonstration tests of agricultural robots and smart agricultural machinery
- Digitalization of mandarin orange sorting using AI sorting machines

〈Faculty of Informatics〉
- Creation of big data based on data collected at the affiliated farm
- Development of cultivation management apps and smart glasses

〈Faculty of Science and Engineering〉
- Consideration of labor-saving machinery based on big data
- Development of agricultural robots and smart agricultural machinery



Experimental Farm

Data Collection (Big Data Creation)

Field demonstration (Test & Adjust)

Faculty of Informatics

Cultivation management app (Improving cultivation efficiency)

Smart Glasses (Cultivation assistance for new farmers)

Faculty of Science and Engineering

Agricultural robots (Automatic fruit harvesting)

Assist Suit (Lighter labor)

※ The image is for illustrative purposes only

Recent Activities

- Suppression of advanced glycation end products formation and inhibition of tyrosinase activity by 30 essential oils, *Japan Journal of Aromatherapy*, 24(2) 14–20, 2023.
- Effective utilization of *Citrus unshiu* plant waste extracts with lipase inhibitory activities, *Journal of Plant Studies*, 10(2) 1–7, 2021.