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Development of Water Management Method for High Value Crop Cultivation at Reclaimed Tidelands

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[Introduction]
This study is one of "Agri-Bio Industry Technology Development Program, Ministry of Agriculture, Food and Rural Affairs(MAFRA)" and aims to develop high value added agricultural technology through cultivation environment standardization and field scale study for upland cultivations in reclaimed tidelands.

[Materials anc Methods]
- Setting on soil salinity criteria and desalinization point
- Development of low-cost/high-efficiency culvert drainage system
- Development cropping system manual and performance analysis
- Developing optimized soil moisture measurement system and algorithm

[Results and Discussions]
The main contents of this study is evaluate the water management method (including smart water management/control system), the low-cost/high-efficiency soil management method and the optimal cultivation management model for the crops at reclaimed land. These results will provide the standardization of a high value crop cultivation system at reclaimed tidelands. Therefore, in this study, we will develop the technology of high value added agricultural land based on reclaimed tidelands through exploration and demonstration of optimal environmental condition.
Major contents and characteristics in this study were as follows:
1. Building on irrigation system from water source to fields and water management in fields
2. Land use planning by desalinization using culvert drainage and soil management standardization
3. Crop selection and cropping system development through demonstration cultivation
4. Smart farming system that enables automatic measurement and real-time irrigation

These results will provide the standardization of a high value crop cultivation system at reclaimed tidelands.

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