Applications of Dam Sludge for Resource Circulation -Possibilities for Acidophilous Plant Soil Cultivation-(Lecturer: Kaori Kochi, k-kochi@kindai.ac.jp)

## **Research Area**

1. Research to ascertain the unique characteristics of dam sludge: Samples of sludge are taken from dams with high safety standards that are used for drinking water. The physical, chemical, and biological aspects of the sludge characteristics are then examined.

2. Research on the safety and taste of harvested crops cultivated using dam sludge: Blueberries are currently being cultivated using land prepared for this research. The fruit yield and components are analyzed, maintaining a nutritional science perspective.

3. Research on what plants can be cultivated using dam sludge: In addition to blueberries, some other acidophilous plants include tea bushes and chestnut trees. This research examines application of the sludge for cultivation of these plants.

4. Research on plant cultivation using dam sludge and the associated economic cost.

## **Recent Activities**

- Ayaka Kawasaki, Toshihiro Kurusu, Kaori Kochi: "Symbiosis rate for mycorrhizal fungi in the root systems of blueberry plants cultivated using dam sludge." Japan Society for Horticultural: Spring Meeting, Tokyo University of Agriculture, Department of Agriculture, Atsugi, 2016
- Kaori Kochi, Ayaka Kawasaki, Incorporated Administrative Agency Japan Water Agency "Possibilities for blueberry cultivation using dam sludge" Construction Technology Exhibition 2016 Kinki, 2016
- Ayaka Kawasaki, Takaaki Ozaki, Keiko Kawano, Kaori Kochi: "Possibilities and challenges of blueberry cultivation using dredged soil." Japan Society for Horticultural Science: Spring Meeting, Chiba University, 2015