Details of Technology

Name of Technology	Inhibition of cadmium absorption from cadmium contaminated soils in crops by rock powder materials produced in Iwate Prefecture	Agriculture, Forestry and Fisheries
Name/Post/Faculty	Shigenao Kawai / Professor / Biological Chemistry and Food Science Academic Group	
Key words	Miyamori, cadmium contaminated soils, cultivation of crops	

What kind of technology is this?

Outline

It is necessary to reduce the absorbed amount of cadmium in the cultivation of crops in the cadmium contaminated soils in Tohoku district not to exceed the international standard level, though there is not so many reports yet. This rock powder is useful as materials for the purpose.

【Research output contents】

Peridotite is the igneous rock containing magnesium, iron, etc. and the powder produced during the preparation of construction materials can be utilized as the soil improvement materials. We aim to commercialize the powder for the inhibition of hazardous heavy metals absorption in crops as it is or after heat-treatment.

Right now, the Codex Committee in WHO/FAO is discussing about the reduction of the cadmium content standard in crops. Thus there is a possibility that Japanese farmers may have a trouble. Especially in some vegetables, the cadmium content is remarkably increased. It is now required to establish the technology for decreasing the cadmium content in field crops.

It was clarified that peridotite was effective for the reduction of hazardous heavy metal contents in plants by absorbing heavy metals in the soils. We have obtained the data showing that the materials inhibit the cadmium absorption in plants.

What are its applications?

Materials for inhibiting cadmium absorption in crops and materials for adsorbing cadmium

Related patents	None
Related materials	

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