
Effect of Decontamination of Planting Soil Using Zeolite Slurry That Inhibits Transition of Radioactive Cesium from Soil to Plant Bodies

Yutaka IKEDA, Hiroyuki AKITA, Kazuya KIKAWADA

The accident of Fukushima Daiichi nuclear energy plant by the tsunami resulting from the Great Eastern Japan Earthquake in 2011 caused radiation contamination of cultivated fields in Fukushima Prefecture. Some decontamination techniques such as surface soil grab, deep cultivation, and adding zeolite to the soil were tested in the rice fields of Fukushima Prefecture. Zeolite is usually used in the form of particles. It inhibits the transition of radioactive cesium from soil to plant bodies. Here, zeolite slurry was also used. The inhibition effect of the zeolite slurry was checked not only in the field but also in a laboratory experiment using some vegetables. The laboratory test results proved the effect of decontamination for vegetables; however, the field test showed uncertainty owing to the low passage coefficient of rice.