Vol.2, No.1, pp.13 - 18, 2014 / J. Soc. Remed. Radioact. Contam. Environ.

Original

Radioactive Concentration of Radioactive Cesium of Native *Eleocharis Acicularis* in Paddy Fields of Fukushima Prefecture, Northeastern Japan

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Summary

Soil contamination with radiogenic Cs has a long term radiological impact because it is commonly transferred through food chains to human beings. Remediation of soil contaminated with radiogenic Cs remains one of the most important problems after the Fukushima Daiichi nuclear disaster. The objectives of this research were to study the applicability of phytoextraction by aquatic plant *Eleocharis acicularis* of soil contaminated with ^{137}Cs in paddy field, Fukushima Prefecture, northeastern Japan.

In this study, we have investigated the distribution of native *E. acicularis* in Fukushima Prefecture and its ability of absorption of radiogenic Cs in the paddy soils. As a result, the native *E. acicularis* has absorbed 2,400 Bq/kg in wet weight in maximum. *Eleocharis acicularis* shows great potential for use in the phytoremediation of soil and water contaminated by radiogenic Cs at the nuclear disaster area such as Chernobyl and Fukushima.

Key Words: Fukushima Daiichi nuclear disaster, Radioactive cesium pollution, *Eleocharis acicularis*, Phytoextraction, Paddy field