

## Behavior of Radiocesium by Combustion of Weeds Assuming Field Burning

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### Summary

Incineration of weeds, which were collected near the Fukushima Daiichi Nuclear Power Plant accident field, was carried out in a laboratory scale as a model of field burning in order to investigate the distribution ratio of radiocesium in the incineration residue and atmosphere after burning and to investigate the change of water solubility after burning. The radiocesium concentration in weeds increased 7 to 19 times by incineration. The radiocesium concentration in bottom ash increased with the increase of incineration time and the radiocesium amount released into atmosphere increased simultaneously. The solubility of radiocesium in weeds was relatively higher than that in the bottom ash. Furthermore, the radiocesium amounts remaining in weeds after aqueous elution process were similar to those remaining in bottom ash after aqueous elution process. These results suggest that incineration of weeds such as field burning generates bottom ash containing concentrated radiocesium and the ash diffuses to the surrounding environment including atmosphere.

**Key Words:** Weed, Farm levee, Incinerated ash, Elution, Radiocesium

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