

## Uptake and transport of Cadmium in soybean plants

### (2) The relationship between Cd and elemental concentrations in seeds

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#### Abstract

A pot (1/5,000a) soil culture experiment with soybean plant (*Glycine max*) was performed. Soybean plants were sampled at the full maturity (R8) growth stage, and concentrations of elements in roots and seeds were determined by PIXE. The concentration of Cd in soybean plant was determined by ICP-MS.

The analysis result of 82 elements from Na to U by PIXE, the addition of rice stubble (40g pot<sup>-1</sup>) resulted in the increase in the concentrations of Na, Mg, Si, S and Ca, and the decrease in the concentrations of Mn, Fe and Cd in soybean roots. The concentrations of Al, P, K, Cu and Sr did not affected by the rice stubble. The concentrations of Mg, P, S, K, Ca, Mn, Fe, Ni, Cu, Zn, Rb, Sr and Mo in soybean seeds did not affected by the addition of rice stubble.

The addition of rice stubble resulted in the specifically increase in the Cd concentrations in soybean seeds.