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## Japanese journal of crop science

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#### Effect of Charcoal on the Yield of Sweet Potato

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#### Abstract:

Some investigations were made to clarify the effects of charcoal on soil environment and the yield of sweet potato (*Ipomoea batatas* Lam.). Because charcoal contains a large amount of potassium, application of charcoal increased the contents of exchangeable potassium in the soil. When applied at a rate of 2,000kg/10a, charcoal improved the physical properties of the soil. That is to say, it increased the gaseous phase and porosity, decreased the solid and gaseous phase, and helped create environment where sweet potato can easily absorb potassium. As a result, it was clarified that the use of charcoal increased the  $K_2O-N$  ratio in the tuberous root and promotes the growth of the tuberous root, thus increasing the yield of sweet potato.

#### Keywords:

Charcoal,  $K_2O-N$  ratio, Sweet potato (*Ipomoea batatas* Lam.), Three phases of soil

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