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[\[Full-text PDF \(1137K\) \]](#) [\[References \]](#)**Influence of Split Ammonium Sulfate on Nitrogen Availability from ¹⁵N-Labeled Matured Soybean as Green Manure for Buckwheat (*Fagopyrum esculentum* Moench)**

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Abstract:

A pot experiment was conducted at the Experimental Farm of Gifu University to study the effects of ¹⁵N-labeled matured soybean as green manure, with and without splitted ammonium sulfate, on the growth and nitrogen (N) nutrition of buckwheat. Crop yield ranged between 0.7 to 2.8g/pot. Applying green manure together with ammonium sulfate split in a ratio of 2:1:1 enhanced higher dry matter yield and seed nitrogen content. The crop derived 5.3% N from green manure when applied alone, and between 7.4 to 13.4% N when applied in combination with split ammonium sulfate and basal P₂O₅ and K₂O. Nitrogen from green manure was most efficiently utilized by the crop when green manure was applied together with split ammonium sulphate at the ratio of 2:1:1. The "added nitrogen interaction" (ANI) was positive, indicating that the green manure did not furnish the crop with only N but also caused the effective utilization of soil resources as well.

Keywords:Buckwheat, Matured soybean, ¹⁵N utilization efficiency, Split ammonium sulfate, IN JAPANESE[\[Full-text PDF \(1137K\) \]](#) [\[References \]](#)

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