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Growth and Yield of Middle Seedling Grown Rice in Paddy with Hairy Vetch

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Abstract

Hairy vetch (HV) was sown (4kg/10a) in paddy December fast, 2001 and was incorporated or mulched before transplanting of rice, May 17th, 2002. The effect of the middle seedlings was estimated for overcoming delayed growth and low yield of rice in the paddy with incorporated or mulched hairy vetch, comparing with young seedlings. Nitrogen contents of leaves of middle seedling-planted rice in HV-incorporated (3.8%) and HV-mulched (3.6%) paddy were higher than that of young seedling-planted rice in conventional paddy (3.5%), tilled and no HV, 28 days after transplanting, June 20. Plant length of middle seedling-planted rice was higher than that of young seedling-planted rice in paddies with or without hairy vetch 56 days after transplanting (July 18). The tiller number of middle seedling-planted rice was increased to 9.7 in the HV-incorporated paddy, whereas, it reduced to 6.8 in the HV-mulched paddy, compared with tiller number (8.0) of young seedling-planted rice in the conventional paddy. Similar LAI in middle seedling-planted rice in incorporated and mulched paddy was shown to that in young seedling-planted rice in conventional paddy 78 days after transplanting, August 10. Grain yield of young seedling-planted rice in the paddy with HV was 62.6% to 67.3% of conventional paddy, however it increased to 81.4% to 85.6% by transplanting of middle seedling in the paddy with HV. From these observations, possibility to overcome the delayed growth and low yield by middle seedling-planting was shown in the HV-incorporated and HV-mulched paddy.

Key words

[hairy vetch](#), [rice](#), [middle seedling](#), [growth and yield](#)

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