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## **Efficacy of vermicompost on growth and yield of organic rice with the participation of farmer groups to create a model community network in Roi Et and Maha Sarakham provinces**

The objective of this study aimed to investigate the effect of vermicompost on organic rice production. The experiment was conducted at Posai subdistrict, Sri-somdet district in Roi-Et province and Maung district in Maha Sarakham province. The experimental design was Randomized Complete Design (RCD) with 3 replications. The experiment consisted of 6 treatments as followed: 1) Rice berry without fertilizer 2) Red jasmine rice without fertilizer 3) Rice berry with vermicompost 4) Red jasmine rice with vermicompost 5) Rice berry with chemical fertilizer and 6) Red jasmine rice with chemical fertilizer. The results showed that there was no significant difference ( $P \geq 0.05$ ) in plant height, leaf length, leaf width, fresh weight, dry weight and yield weight among treatment. The results of the study found that Plant height, leaf length, number of shoots per clump, and seed weight of rice berry and red jasmine rice applied with earthworm manure there were statistically significant differences ( $P \leq 0.05$ ) and higher values for all experimental conditions. And from the research results, farmers in the community realized the importance of using vermicompost and can create a model community for other interested communities to study and learn extensive exchange of experiences.

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