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CATEGORY : Environmental Science

**PROJECT : Turning Prawn Pond sludge into a
fertilizer**

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Turning Prawn Ponds sludge into a fertitizer

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This project is a research to find out if prawn pond sludge can be used as a fertilizer . This because so far there is no beneficial use of these prawn pond sludge from over 154,000 hectares of water pond culture in Sarawak . The objectives of this project were to determine if this sludge can be combined with topsoil to produce an eco-friendly and effective fertilizer for plants and to investigate what combination of sludge and top soil is the best for plant growth .

It was found that sludge has high nutrient contents such as nitrogen , phosphorus , sulphur , potassium , calcium , magnesium and iron .

The effectiveness of sludge as a fertilizer was investigated by growing water spinach or “kangkong” (*Ipomoea aquatica*) in 5 different mixture of sludge and topsoil for 3 weeks . After the third weeks , the results showed that the combination of 30% sludge and 70% topsoil produced the best results in terms of height of plant , survival , number of leaves , stem thickness and average plant weight as compared to the other combination of 0% : 100% , 50% : 50% , 70% : 30% and 100% : 0% sludge top soil ratio .

Therefore , prawn ponds sludge has a great potential to be process to become a fertilizer .