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RESEARCH NEWS

HYBRID AND EDIBLE MUSHROOMS IN RECYCLING AGRICULTURAL WASTES

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Mushrooms are lignocelluloses fungi, capable of converting plant residues and animal dung to protein rich food.

In Sri Lanka, it is a common practice to burn rice straw in rice fields, dried banana leaves in banana plantations, horse dung in horse stables and to dump saw dust into waterways near saw mills.

In this study the suitability of using these substrates and grass to grow hybrid and edible mushrooms tested at the Horticultural Research and Development Institute, Gannoruwa.

In the first experiment, three types of grasses, *Pothu thana* (*Axanopus compreses*) Rata thana (*Panicum maximum*) and Atora (*Cynodon dactyon*) were tested in the ratio 1:1:1 using the method described by Chang et al. (1978). Yield performance was recorded and the Biological Efficiency (BE) calculated. The BE of the three substrates ranged from (47-60.7%).

In the second experiment, *Calocybe zylanica* (*Sookiri* mushroom) and *Auricularia* (Kan kooria) were grown using sawdust substrate. The BE of yield obtained was 62% and 70% respectively. This promising yield thus proves the suitability of the three substrates for growing these mushroom types.

In the third experiment, paddy straw and a mixture of horse dung and straw were used as substrates to grow the mushroom *Agaricus bisporus* S11 (Button mushroom). Both substrates gave BE values of 18% and 20% respectively.

Significant yields obtained reveal that the three Agro-wastes are suitable materials to grow the mushroom varieties tested in this study.