

STUDIES ON THE ABSORPTION
OF PROPANIL ON SOME
AGRICULTURAL WASTE PRODUCTS

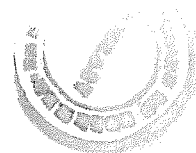
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ABSTRACT

Agrochemical pollution is one of the major environmental problems in Sri Lanka. The use of low cost materials as absorbents for pesticides is one of the economical way of controlling the environmental pesticides pollution. PROPANIL is one of the major pesticide used in Sri Lankan rice cultivation. The absorption of PROPANIL by paddy hull, paddy hull ash, coir dust and saw dust were studied under the laboratory conditions. The absorption of 3,4 DPA (active ingredient) from 20 ppm water solutions were studied by adding the absorbent and leaving the suspension for 48 hrs., at room temperature. The amount of 3,4 DPA left after the absorption was estimated by HPLC . Absorption rates of 3,4 DPA on above mentioned absorbents were also studied as a function of time by analysing the solutions at different time intervals. Paddy hull has the highest absorption capacity and the paddy hull ash has the lowest absorption capacity. The results obtained through the absorption rate experiments are in agreement with the long term absorption results.