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Weed and pest management practices adapted by organic farmers at Kaluwanchikudy village in the Batticaloa District

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Organic farming strives to produce healthy food while maintaining or improving the health of the agro-ecosystem. Organic farmers use an ecosystem approach that manages respects and encourages natural and biological processes. Organic farming has become increasingly popular all over the world, even in Sri Lanka. The Kaluwanchikudy village is one of the predominant agriculturally productive villages in the Batticaloa district and more than 10% of farmers are involved in organic cultivation in home gardens for more than two years. Each farmer has grown different crops in more than 0.25 acre lands.

The study aimed to assess the weed and pest management practices adapted by organic farmers in the Kaluwanchikudy village. The survey covered 40 farmers from Kaluwanchikudy South GN division, which is located in Kaluwanchikudy village in the Batticaloa district. A pre tested questionnaire was used to collect data from organic farmers and the collected data was analyzed using descriptive statistics.

All the selected respondents (100%) practiced crop rotation, field preparation, hand weeding and mulches to control weeds. A 62.5% of the farmers practiced prevention of weed seed set, 57.5% practiced smother crops, 52.5% practiced soil sterilization and 12.5% used soap-based herbicides to control the weed population to increase the quality and quantity of yield. The rate of effectiveness of the weed management programme indicates that 72% of respondents managed crops in excellent manner and 28% managed satisfactory. Pests are managed through good husbandry practices such as crop rotation, hand pickling, insect repellent, field preparation physical barriers, time of planting, burning crop residues, selection of plant varieties and where necessary, through the use of biological and mechanical control. All respondents (100%) practiced crop rotation, hand pickling, insect repellent and field preparation to control pest and also to reduce disease infection. Between 60 - 45 % of the farmers practiced the use of physical barriers, manipulation of time of planting, burning crop residues and selection of plant varieties. They also used oil extracts from botanicals to control many of the diseases and to repel pests.