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A study to find out suitable colour to control pests of chilli plants using a colour trap

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Use of Coloured Sticky Traps in Controlling Chilli Leaf Curl Complex

ABSTRACT

Chilli (*Capsicum annuum* L.) is one of the most important condiment crops in Sri Lanka. The main constrain in chilli cultivation is the Leaf Curl Complex (LCC) which reduces the quality of the pods as well as the yield. Many researches have been proven that the problem can be controlled by Integrated Pest Management (IPM) practices. Colour sticky trap is one of the mechanical methods in the IPM package which reduces the pest population successfully. Mainly three colours, namely blue, yellow and white have been identified as suitable colours for traps all over the world. This study was thus, conducted to find out the most effective colour for sticky traps to control chilli leaf curl complex in the Intermediate Zone of Sri Lanka.

Traps were prepared from wooden plates of 30 x 25cm in size and the colours were applied in both sides of the plate. Both colourless and odorless vaseline was used as the sticky substance. These blue, yellow and white sticky wooden plates (traps) were fixed in 1m height from the ground level and they were used as the treatments. Six pots with 2 plants each of the variety 'KA-2' were used in a treatment and three replicates were sited for the experiment. All the agronomic practices were equally done for all the treatments.

Number of trapped pests associated with the LCC was counted in 4, 6, 9 and 12 weeks after transplanting. The number of leaves affected by the pests in a canopy was counted in 7, 10 and 12 weeks after transplanting. The number of damaged green pods and the pod weight were taken at harvesting.

The mean values of the number of pests trapped in white, yellow and blue colour

traps were 162, 160 and 38 respectively. The percentages of damaged leaves in a canopy at 7, 10 and 12 weeks after transplanting in the blue trap were 89.07, 98.00 and 100.00 respectively. Those values in the white trap were 87.37, 98.90 and 93.29 and in the yellow trap were 69.03, 87.26 and 82.26. Percentages of damaged green pod weight in the blue, yellow and white treatments were 66.63, 47.06 and 45.65 respectively.

These results suggest that yellow and white colours are more effective in sticky traps in pest controlling to control chilli leaf curl complex in the Intermediate Zone of Sri Lanka. Further studies are required to confirm the results.

評語

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