B-91: Integrated management of sweet potato weevil

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Sweet potato weevil (*Cylas formicarius*) is the key pest of sweet potato,

causing about 30 - 60% yield loss in Sri Lanka. Chemical control alone is not effective.

Weevil can fly but flying is a rare occurrence. It moves into newly planted crops either through cuttings, which are used for planting or crop debris or walks from neighbouring fields.

Various control methods such as varietal, cultural, chemical and biological were evaluated during the period April 1991 - April 1993. Sweet potato crop was planted in plots surrounded by 5 m water ditches or fields surrounded by rice fields at different locations. Crop debris and alternative host plants (*Ipomaea* weeds) were removed. Only tip cuttings dipped in 0.001% Carbosulphan solution for 15-30 min were used for planting in the Research field. In farmer fields, 0.001% Carbosulphan solution was sprayed within one week of planting. Sweet potato weevil pheromone traps were also placed in these fields.

Weevil counts were taken at biweekly intervals. Weevil damage could be reduced to 0-10% level in isolated fields ($P < 0.05$) by integrating cultural, biological and chemical control measures, while control plots or fields had weevil damage ranging from 25- 60% ($P > 0.05$).