EFFECT OF ARTIFITIAL DEFOLIATION ON YIELD COMPONENTS IN RICE

C.M.D. Dharmasena
Agricultural Research Station, Mahailluppallama .

Leaf eating caterpillars (i.e. Spodoptera mauritia, Melanotis ismene and Nymphula depunctalis etc.) are important pests in rice. Simulation studies were conducted using rice variety Bg 276-5 to find-out the effect of defolication for the different yield components. Complete Randomized Block Design was used in the field lay-out.

Different percentages of the leaves were removed three weeks after transplanting and one week after the flag leaf was formed. Number of tillers, ears, field grains and new leaves were counted. Grain weight was also measured.

25% defoliation at the tillering stage when LAI was 1.38 did not effect the number of ears at the heading stage. There was a negative correlation between percentage defoliation with emergance of new leaves one week after defoliation at the tillering stage. Defoliation during tillering stage had retarded the plant growth and delayed ear formation.

Renuka R. Habarakada and S.N. de S. Seneviratne
Central Agricultural Research Institute,
Gannoruwa, Peradeniya.

Crops of exotic vegetables such as carrot (Daucus carota), beet (Beta vulgaris), cabbage (Brassica oleracea var. capitata), knol-khol (Brassica oleracea var. gongyloides), leek (Allium porrum) and raddish (Raphanus sativus) are raised almost exclusively from imported seeds. These crops are subject to diseases which are seed-borne.

In a systematic investigation to monitor the seed-borne fungi in imported seeds, about 90 seed samples representing 35 cultivars of nine exotic vegetables were tested for the presence of seed-borne infections by standard methods including blotter and agar tests. Several fungi, saprophytes as well as some of pathogenic significance, were detected. They included species of Alternaria, Aspergillus, Cladosporium, Curvularia, Drechslera, Fusarium and Penicillium. Four species of Alternaria, which are known to cause diseases but which have not been previously recorded, were found seed-borne, A. dauci and A. radicina in carrot, A. brassicicola in cabbage, and A. raphani in knol-khol.

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