

FINAL REPORT ON RG/86/B/4

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Grant No: RG/86/B/4

Title of Project: "RICE-FIELD WEED SURVEYS, STAGE III: RATNAPURA &
KURUNEGALA DISTRICTS

Date of Award: 01 January, 1986 (extended up to 30 September, 1987)

SUMMARY

A survey of rice-field weeds was carried out in two large districts of Sri Lanka, namely, Ratnapura and Kurunegala, during the 'Yala' and 'Maha' seasons of 1986. Rice cultivation in the two districts depended mainly on water received from the monsoons and by extensive networks of irrigation canals. Two-hundred and thirty-four fields of Ratnapura district and 196 fields of the Kurunegala district were sampled at a time when the rice was at heading to flowering and farmers had carried out weeding or herbicide applications for weed control. One-hundred and forty-seven species of weeds belonging to 95 genera and 37 plant families were recorded from the two districts, indicating a very rich diversity in the weed-flora. Of these, 38 species occurred in less than 10% fields; 65 species in 10-20% fields and 44 species in 20% or more fields.

By far the most common and problematic weeds were monocotyledons of the families Poaceae (Gramineae) and Cyperaceae. Three grass species Echinochloa crus-galli (L.) Beauv., E. colonum (L.) Link. and Ischaemum rugosum Salisb. emerged as the most abundant species in both districts, both in terms of frequency of occurrence and levels of infestations. Fimbristylis miliacea (L.) Vahl, Cyperus pilosus Vahl and Cyperus iria L. of the Cyperaceae were also very common in both districts. Dicotyledon weeds, although common in occurrence, generally did not present major problems to farmers, except Ludwigia hyssopifolia in the Ratnapura district. Major differences in the weed-flora of the two districts were not seen, despite the fact that the climate in Kurunegala was much drier than in Ratnapura. Farmer interviews during the survey revealed an inadequate knowledge of weeds, problems due to weeds and effective weed control, among the farmer populations in the areas.