B-41 Floristic composition and size of the soil seed banks in some upland and lowland fields at Mapalana, Kamburupitiya

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Size and the floristic composition of the soil seed banks in the top 10 cm of the soils in a grassland, upland field and 2 paddy fields were determined, by taking soil cores and enumerating the number of seedlings emerging. The mean numbers of seeds germinated per m^2 in the grassland and upland field were 48,571 and 18,929 respectively. Considerable difference in the size of the seed banks was observed between the 2 paddy fields, (27,143 and 174,285 per m^2). There were 7 to 10 weed species in the paddy fields while the grassland and the upland field had 17 and 19 species, respectively.

The floristic composition and biological diversity of seed banks varied among the fields, Diyasiyambala (*Ludwigia hyssopifolia*) was dominant in one paddy field and Lunuwila (*Bacopa monnieri*) was dominant in the other. In addition, batadella *(Ischine globosa)* occurred abundantly in both fields. In the grassland and upland field, *Urena lobata, Ageratum conyzoides, Axonopus* spp. and *Dactyloctenium aegyptium* were dominant in the seed bank.

This study ascertained the major weed species occurring in the soil seed banks of some agricultural fields and their abundance, which is useful in developing an effective and strategic management regime to combat weed problems in crop production.