Floristic composition of weed community in selected vegetable fields in Selangor, Malaysia

ABSTRACT

A survey was conducted, during August 2010 ï March 2011, on five selected leafy vegetable fields in Selangor, Malaysia. The leafy vegetables were Brassica rapa, Ipomea batatas, Lactuca sativa (leaf lettuce), Ipomea reptans and Amaranthus spp. The objective of the study was to identify the most common weeds associated with the leafy vegetables. The fields were surveyed according to the quantitative survey method by using a 0.5 m x 0.5 m quadrat with 20 samples of quadrat from each field. The data were processed using five quantitative measures, viz frequency, field uniformity, mean field density, mean occurrence field density and relative abundance of the weed spp. A total of 40 different weed species, belonging to 15 families, with 6 grasses, 10 sedges and 24 broadleaves, were identified. The weeds comprise 24 were annuals and 16 perennials. In all the vegetable fields surveyed, the most common species were Ageratum conyzoides L., Cyperus kyllingia Endl. and Eleuthranthera ruderalis. Based on relative abundance indices, the perennial weeds Cyperus rotundus L., Ageratum conyzoides L., Cyperus kyllingia Endl and annual weeds Eleuthranthera ruderalis and Amaranthus spinosus L. were most dominant species in vegetable fields.

Keyword: Survey; Quadrat; Weed; Annual; Perennial; Relative abundance