PRESENT STATUS OF WEED PROBLEMS OF IRRIGATED PADDY IN ANURADHAPURA DISTRICT

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Paddy is the most important cereal crop occupying 34% of the total cultivated extent in Sri Lanka. Anuradhapura is a major paddy cultivating area. At present, weeds is the major biotic constraint for reduction of paddy yield and increase the cost of production. A questionnaire survey and field sampling of weeds were carried out among 42 farmers selected from 7 Divisional Secretariats (DS) in Anuradhapura district during *Maha* 2015/2016 to investigate the prominent weeds, nature of farming practices with special emphasis on weed control methods. Six samples each having 1 m^2 area were collected randomly from six farmer fields located in each DS division. Weed species (20) belonging to 9 families were identified in paddy fields while 15 weed species belonging to 5 families identified as prominent in Anuradhapura district. Grasses are prominent in uplands and sedges are prominent in lowlands. Within Anuradhapura district relative density of Grasses, Sedges, Broad leaves and Aquatic weeds were determined as 40%, 47%, 8% and 5% respectively. *Cyperus iria*, *Cyperus difformis*, *Isachne globosa*, *Cyperus rotundus*, *Eclipta prostrate* and *Panicum repens* were the six weeds recorded mosly from study area. About 90% of farmers use herbicides for weed control while others use manual, mechanical or agronomic methods. Out of those using herbicides 50% use herbicides alone while the others use herbicide tank mixtures as they wish. Results of logistic regression revealed that there is a significant ($p<0.05$) relationship between the weed population density with farmers' education level, planting method, weed control method and herbicide usage. Selection of correct herbicide, timely application, correct dosage and efficiency of farmer are important in herbicide application. Parachute method and transplanting performed better than seeding regarding reduction of weeds in the paddy fields.

Keywords: Anuradhapura district, Farmer, Herbicide, Paddy, Weed species