

Survey on use of herbicides in floriculture industry in Sri Lanka

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Cultivation of ornamental plants has expanded significantly in recent years and has become an important source of export earnings. One of the major problems faced by the growers in the floriculture industry is the higher incidence of pests and diseases. Growers tend to use more chemicals on insect pests and fungi because their damage is visible than the effect of weeds. Weeds not only compete with the crop but also change the landscape. Therefore, managing weeds is an important agronomic practice in the floriculture industry. Although there are specific herbicide recommendations in other countries, limited evidence on herbicide usage in ornamental plants in Sri Lanka has been recorded. This study was done to find out the importance to and use of herbicides in the floriculture industry in Sri Lanka.

A questionnaire survey was conducted to collect information on the production type, scale of production, significance of weeds and usage of herbicides from 30 selected ornamental plant growers in Central, Western and North Western provinces of the country. Based on the survey results, data were cross-tabulated and analyzed for associations.

The results revealed that, 90% of the respondents have experienced weeds as a problem. Weeds have been identified as a severe problem in foliage plant nurseries. After planting crops, all growers have been practicing manual weeding, and 19% of the respondents have been using agronomic and mechanical methods, and 4% (one respondent) practiced chemical weeding in addition to manual methods. Approximately 30% of the total cost of production is spent on manual weeding, while 20% spent on agronomic and mechanical methods, and less than 10% on chemical weeding. Of the total respondents, 53% have never used herbicides for weed control both in the cultivated and uncultivated areas, but 43% have used chemicals for weed control only in the uncultivated areas. Glyphosate and paraquat are the frequently used herbicides for uncultivated areas and one respondent has used diuron in the cropping area. According to the growers' perception, applying herbicides may negatively affect the ornamental plants. About 65% of the respondents are looking for a selective herbicide as a reliable and cost effective weeding method. Thus, experiments on selective herbicides to control weed flora in floriculture needs more attention.

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