

**ASSESSMENT OF POTENTIAL AND ADAPTION OF FARM  
MACHINERIES BY VEGETABLE AND POTATO CULTIVATORS IN  
NUWARA ELIYA DISTRICT**

**L.D.U.D.B. Dissanayaka<sup>1</sup>, M.H.M.A. Bandara<sup>2</sup>, G.V.T.V. Weerasooriya,  
A.P.S. Fernando<sup>1</sup>, A.J. Fernando**

<sup>1</sup>*Department of Agricultural Systems, Faculty of Agriculture, Rajarata University  
of Sri Lanka, Puliyankulama, Anuradhapura, Sri Lanka.*

<sup>2</sup>*Department of Agriculture, Peradeniya, Sri Lanka.*

Powered machinery is essential as well as major input in agriculture. Land preparation, seeding, transplanting, irrigation, spraying, weeding, fertilizer application and harvesting are the main field operations in vegetable and potato cultivation. At present reliable data on present status and future potentials for mechanization of potato and vegetable cultivation in Nuwara Eliya district does not exist. Thus, this study was conducted to determine the future potentials and present level of use of farm machineries by vegetable and potato cultivators. The level of mechanization in vegetable and potato farmers were determined by purposely selected 40 potato farmers and 60 vegetable farmers using a semi-structured questionnaire as the tool for data collection. Information on type of machines, monthly income, total land extent of the farm, labour availability, education level of farmers, respondents' age, wage rate, level of farmer satisfaction, modifications, maintenance, safety, required modification, drawbacks of the machines and the requirement of new machinery were collected. Descriptive analysis and multi nominal regression model were used to analyze the data using Minitab. The levels of mechanization in land operations of vegetable and potato cultivations were 13.33% and 22.5% respectively. Weeding was mechanized by 8.33% of vegetable farmers and 15% of potato farmers. Mechanized irrigation was reported by 41.66% and 52.5% of vegetable and potato farmers respectively. All potato and vegetable farmers had adopted mechanical spraying of chemicals. Results indicated that land area, age of the farmer and education level of the vegetable farmers have influenced on the decision making in selecting the machine type while labour availability, level of education and occupation of the respondents have influenced on the decision making in selecting the machine type by the potato farmers. In general, the use of machinery is restricted by the steep slopes in the area.

**Key words:** Agricultural mechanization, Farm machineries, Vegetable and potato cultivators