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Comparative ergonomical study of women workers on two-row rice transplanter and cono-weeder

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Manual transplanting of rice seedlings in puddled field is a widely accepted cultivation practice in India and one of the labor-intensive operations in agriculture. It also involves enormous drudgery, as women workers, who perform most of the operation in India, have to work in bending posture in sweltering weather. Interculture/weeding operation in paddy crop is very important operation which is done mostly in humid environment under scorchy heat. Farm worker used to uproot the weeds by hand in bending position that might affect their health. As known that weeds in upland rice field comes more easily than low land rice. Two-row manual rice trans-planter and a cono-weeder have been ergonomically evaluated in the field work for assessing their suitability for use by farm women and for determining the physiological workload with women workers. Each women worker operated the equipment for 30 minutes. The mean heart rates of women workers during transplanting with two-row transplanter and cono-weeder were 138 beats/min and 153 beats/min respectively. The area covered was found to be 103.4 m²/h and 165 m²/h respectively. Higher average heart rate of worker in operation of both equipments suggests for use of equipment in small area with adequate rest pause to the worker. It is also suggested based on experiment that two workers may be engaged in shift for day long work with the equipment.

Biography

P Vivek has completed BTech (Ag. Engg.) from AEC & RI, Kumulur, Tiruchirapally and presently pursuing MTech (Ag. Engg.) from the Dept. of Farm Power and Machinery, TNAU, Coimbatore.

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Awareness on farm mechanization in paddy cultivation

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Farm mechanization is considered to be one of the several pathways of agricultural development. In modern agricultural practices, mechanization of farm is needed from the view point of profitability of agriculture. A farming system cannot sustain with the traditional machinery. The mechanization of farm is also inductive to the diversification of the cropping system. A main objective of the study was to assess the awareness level of farm implements and machineries in paddy cultivation. The study was conducted in three villages at the rate of one village per block of Madurai district in Tamil Nadu namely Vadipatti, Maduari East and Melur. The sample size consisted of 100 respondents. The awareness of the respondents with respect to 22 recommended farming operation machineries, implements and equipments was enquired. Data were collected through pre-tested interview schedule. The data were statistically analysed using percentage analysis, cumulative frequency. The results of the study revealed that large number of respondents had medium to high level of awareness about paddy farm implements and machineries recommended for paddy cultivation. The result showed that 54.00 per cent had medium level of awareness followed by high (32.00%) and low (14.00%) levels of awareness of about farm implements and machineries.

Biography

A. Anitha Pauline is doing her Ph.D. in Agricultural Extension at Tamil Nadu Agricultural University, Coimbatore, India. This research was done during her master's degree program in the year 2012 in Madurai District of Tamil Nadu. She is receiving Maulana Azad National Fellowship 2012-13 which is sponsored by UGC (University Grants Commission). She has presented quite a few papers in national and international conferences and published few articles in journals.

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