

Ergonomic Interventions in Fodder Collection- Impact on Rural Farm Women

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KEYWORDS Ergonomic. Circulatory Stresses. Fodder Collector. Interventions

ABSTRACT Rural women are food providers not only to family members but also to animal stock. The present endeavour aims to design a women friendly fodder collector to alleviate her from back breaking drudgery of continuous bending during collection and bundling of fodder for animal feed. The research was carried out in three phases viz. survey, experimental analysis and field technology-testing trials. The cardiovascular, muscular, physiological and environmental stresses on women (N=30) while fodder collection were studied by employing various parameters viz. anthropometric data of women workers, physical fitness test, total cardiac cost of work, energy expenditure, rated perceived exertion and impact of environmental parameters on work output and health status both in existing practices and while using fodder collector for collection of fodder. The analysis of existing fodder collection practices by rural women showed stress on back and calf muscles, improper posture, lack of any tool/ technology to lessen the workload and drudgery involved. Hence, long handled standing fodder collector was designed to eliminate the repeated bending for collection and bundling of fodder. The results indicated a significant reduction in average and peak heart rate, circulatory and physiological stress of women while using fodder collector. Production per unit and coverage of land under operation was significantly increased. Usage of fodder collector significantly reduced the angle of bend, thereby, improving the posture and reducing the body pains. Therefore, training is suggested in use of both appropriate posture and technology to reduce drudgery, workload and stress on women.