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Research Paper

Ergonomic assessment of workers engaged in tea cultivation

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ABSTRACT : Tea is the most important plantation crop and the largest organized agro-based industry in India. This industry is highly labour intensive industry where both male and female workers are engaged. The present study was conducted in Jorhat district of Assam (India) to ergonomically assess around 150 workers engaged in different activities in tea garden. Majority of the male (81.9 %) and female (75 %) workers had ectomorph body type. Postural analysis showed that angle of deviation was highest during the digging activity for males whereas for females, it was found to be maximum during deep skiffing. The average working heart rate values was highest during digging for male and of the females deep skiffing was considered as moderately heavy. The grip strength of the male workers was found to be higher for both the hands than the grip strength of female workers. Data also revealed that majority of the workers both male (93.33%) and female (100%) were found to suffer from back pain. Hence, a continuous awkward standing posture, adverse environment and working conditions increased drudgery and decrease productivity of the workers.

KEY WORDS : Ergonomic, Cardio-vascular stress, Physical fitness index, Drudgery

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