

Musculoskeletal disorders in oil palm fruit bunches harvesting in Malaysia.

ABSTRACT

Malaysia is the biggest crude palm oil exporter to the world market for the last 16 years. However this achievement is still be overshadowed by the harvesting method which is conventional and labor intensive. An attempt to use mechanization into the harvesting system, in particular the cutting process of tall palm trees, has been unsuccessful. At the beginning of the oil palm's fruit bearing life, i.e. 3 to 4 years of age, fruit bunches are still accessible. For these palms, a chisel is used to cut the fruit bunches. Growth is such 8-10 years, and the trees have already reached substantial height. In these cases a sickle mounted on flexible telescopic aluminum tube (pole) is used. This, however, exposes plantation worker to the risk of musculoskeletal discomfort and injury. This paper examines the problems by assessing the task posture and tool, and their implications for operators, using questionnaire survey and videotape analysis techniques. The result prevails that there is evidence to associate the problems of musculoskeletal disorders among the operators.

Keyword: Musculoskeletal disorders; Hand tools; Oil palm; Agriculture; Ergonomics.