

Ergonomics in agriculture: an approach in prevention of work-related musculoskeletal disorders (WMSDs)

ABSTRACT

A review of articles was performed by categorizing the selected articles into four approaches ó ergonomic design, ergonomics task analysis, educational and epidemiological concepts ó in order to highlight the ergonomic problems in the agriculture industry. The articles were retrieved from four search engines óPubMed, Scopus, Metapren, and Ebscoö by using specified key words ñergonomicsñ ñagricultural workersñ and ñawkward postureñ The results highlight that ergonomists are capable of providing a safer work environment for the agricultural workers in both developing and developed countries. In addition, the results show that it needs global cooperation of international organizations to enhance the occupational health intervention in agriculture. Furthermore, the efforts of ergonomists to develop a practical ergonomic task analysis for the interventions in agriculture seem significant, as is the necessity for hand tool designs based on ergonomic considerations. Based on the evaluation of articles and related experiences, a recommended model has been introduced to promote health for farmers. This model covers a participatory ergonomic approach to practical ergonomic changes.

Keyword: Ergonomics; Agriculture; WMSDs; Task analysis; Hand tool design