

Agricultural Ergonomics Research and Outreach in California

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Abstract

Aims: The main aim of this paper is to give an overview of agricultural ergonomics research and outreach activities in California. Another aim is to introduce the California AgrAbility Program.

Methodology: A discussion about research publications on agricultural ergonomics is presented. In most countries, agriculture is recognized as one of the most hazardous industries, with musculoskeletal disorders (MSDs) being at the top of problems facing workers in labor-intensive agriculture. This talk gives an overview of the extent of MSDs in California agriculture, and a historical perspective on how ergonomics has been used to reduce the health effects of labor-intensive agriculture in California. The California AgrAbility Program is introduced and its main mission highlighted.

Results and Discussion: A summary of exposure to MSD physical risk factors within various classes of California crops is given. There are various administrative and engineering controls for abating MSDs in agriculture. These range from programmed rest breaks to mechanized or partially-mechanized operations. Worker-based approaches such as prone carts and platforms, and load transfer devices hold promise in combating the prevalent stooped work in agriculture. Although physical risk factors are major contributors to MSDs in agriculture, other psychosocial, organizational, cultural, and socio-economic factors could be important contributors to the development and prevention of these disorders. These factors may play a central role in the effective implementation and adoption of any intervention approach. Despite the advent progress in new technologies in agricultural practices, reliance on labor will always be a major cornerstone of agriculture for at least the foreseen future. An overview is given on how AgrAbility Programs in California and other US states have been assisting disable farmers and farm workers find solutions and other assistive technologies to maintain an active and productive work in agriculture.

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