

An Investigation of Hand Anthropometry of Agricultural Workers

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ABSTRACT Use of hand anthropometric data can help in the proper designing of equipment for better efficiency and more human comfort. In present study different hand dimensions of right and left hand of the agricultural workers (Male: 200; Female: 204) have been collected from West Bengal state, Eastern India. Eight hand dimensions have been identified which were considered more useful for designing agricultural hand tools. It has noted that there were significant differences ($P < 0.001$) in hand measurements between right and left hands as well as between male and female agricultural workers. However, the percentage of differences in the measurements between right and left hands was small (0.10% to 3.49%) than those between men and women (7.1% to 11.96%) Percentile values (5th, 50th, 95th) of the anthropometric dimensions were computed separately for men and women. The agricultural hand tools can be designed for male and female workers separately using these percentile values. However, it was the common practice of the worker to use the same hand tools by the both sexes. Therefore, percentile values for the hand dimensions were also computed considering the men and women as a single group. The hand dimensions of the subjects of present study were compared with the farmers of central part of India. Some proportions of hand dimensions were also computed.

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