Development and Evaluation of Wheeled Long-Handle Weeder

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Abstract: A push-type operated wheel weeder with an adjustable long handle, was designed, constructed and tested. The hoe performance from the tests on a field of Okra plant having an inter-row spacing of 800mm, showed that it could weed satisfactorily, and eliminate the drudgeries associated with the use of the short handle hoe such as backache, pains at the spine and lower waist region. Field capacity and efficiency of 0.050ha/hr and 87.5% were obtained respectively. Furthermore, the average weeding index and performance index obtained were 86.5% and 1108.48, respectively. At a speed of 0.04m/s, a high efficiency of 91.7% at 0.4m depth of cut was obtained. The developed wheeled long-handle weeder was found efficient.

Keywords: Push-type, adjustable long handle weeder, weeding index, performance index