

TWIN WHEEL HOE WEEDER

Utility

The wheel hoe is a widely accepted weeding tool for weeding and interculture in row crops. It is a long handled tools operated by push and pull action. As the name implies, the general construction of wheel hoe comprises of wheel assembly, miniature tool frame, a set of replaceable tools and handle assembly. The number of wheel varies from one to two and the diameter depends upon the design. The



frame has got a provision to accommodate different types of soil working tools such as straight blade, reversible blades, sweeps, V -blade, tine cultivator, pronged hoe, miniature furrower, spike harrow (rake) etc. which can be operated by a single person. The handle assembly has a provision to adjust the height of the handle to suit the operator. All the soil working components of the tool are made from medium carbon steel and hardened to 40-45 HRC. The other assemblies of the wheel hoe are made from structural mild steel and thin walled mild steel pipes. The working depth of the tool can be adjusted with the help of clamp or through the plate with multiple holes provided in the frame and welded to the tool assembly. The handle height is also adjustable. Some of the designs are provided with a pulling ring in the frame, which enables it to be operated by two persons. For operation, the working depth of the tool and handle height is adjusted and the wheel hoe is operated by repeated push- pull action which allows the soil working components to penetrate into the soil and cut/uproot the weeds in between the crop rows. With this action, the weeds also get buried in the soil.

Specification and working features		
Weight	:	4.3 kg
Plant damage	:	1%
Weeding efficiency	:	78%
Field capacity	:	0.01 ha/h
Labour requirement	:	1 person

Design: ICAR-CIAE, Bhopal

Commercialization Status: Commercialized

Proposed stakeholders: Farmers, Manufacturers

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