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CHISEL PLOUGH AND SUBSOILER

CHISEL PLOUGH AND SUBSOILER USED TO BREAK AND SHATTER THE COMPACTED SOIL LAYER FOR BETTER INFILTRATION OF RAIN WATER. EFFECTIVE RESULT IS OBTAINED WHEN THE SOIL IS DRY.



CHISEL PLOUGH

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TRACTOR DRAWN CHISEL PLOUGH





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CHISEL PLOUGH

Primary tillage implement

Stir and aerate the soil

Working depth is 35 cm

**Two to three rows of curved spring steel shank
with narrow shovel points**

Shovel spacing is 30 cm.

**25 % of trash /crop residue is covered each
time it is ploughed**

**Draft requirement is half / unit width of MB
plough**

**Chisel ploughing is faster and more
economical if complete trash coverage is not
required.**



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The *chisel plough* is a common tool to get deep tillage with limited soil disruption.

The main function of this plough is to loosen and aerate the soils while leaving crop residue at the top of the soil.

This plough can be used to reduce the effects of compaction and to help break up the ploughpan and hardpan.



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Chisel plough will not invert or turn the soil.

This characteristic has made it a useful addition to no-till and low-till farming practices which attempt to maximize the erosion-prevention benefits of keeping organic matter and farming residues present on the soil surface through the year.

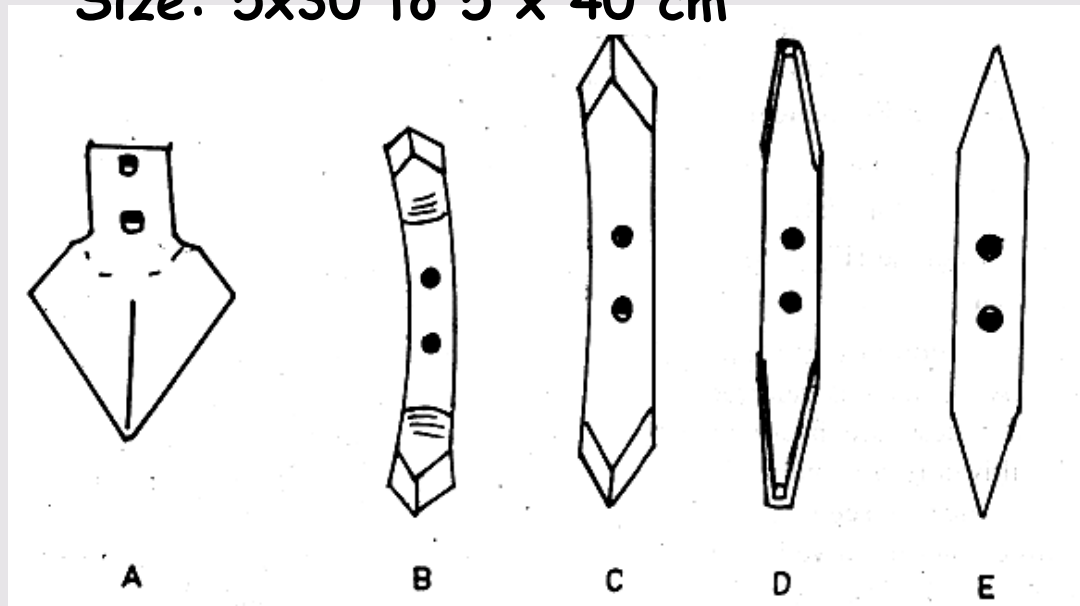
Because of these attributes, the use of a chisel plough is considered by some to be more sustainable than other types of plough, such as the traditional mouldboard plough.



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TYPES OF CHISEL PLOUGH

- **Sweep (A):** Break the soil better. Wrapped around the shanks
- **Reversible chisel points (B & C):** Kills weeds, open hard soil for better water penetration. Size: 3.75 x 24 cm or 5 x 40 cm
- **Double point chisel (D):** Cutting edge sharp in tough abrasive soil and good in dry condition. Size: 5 x 40 to 5 x 45 cm
- **Spikes (E):** Kills weeds, rip apart the hard pan. Size: 5x30 to 5 x 40 cm





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SUBSOILER

CONVENTIONAL TYPE

WINGED TYPE

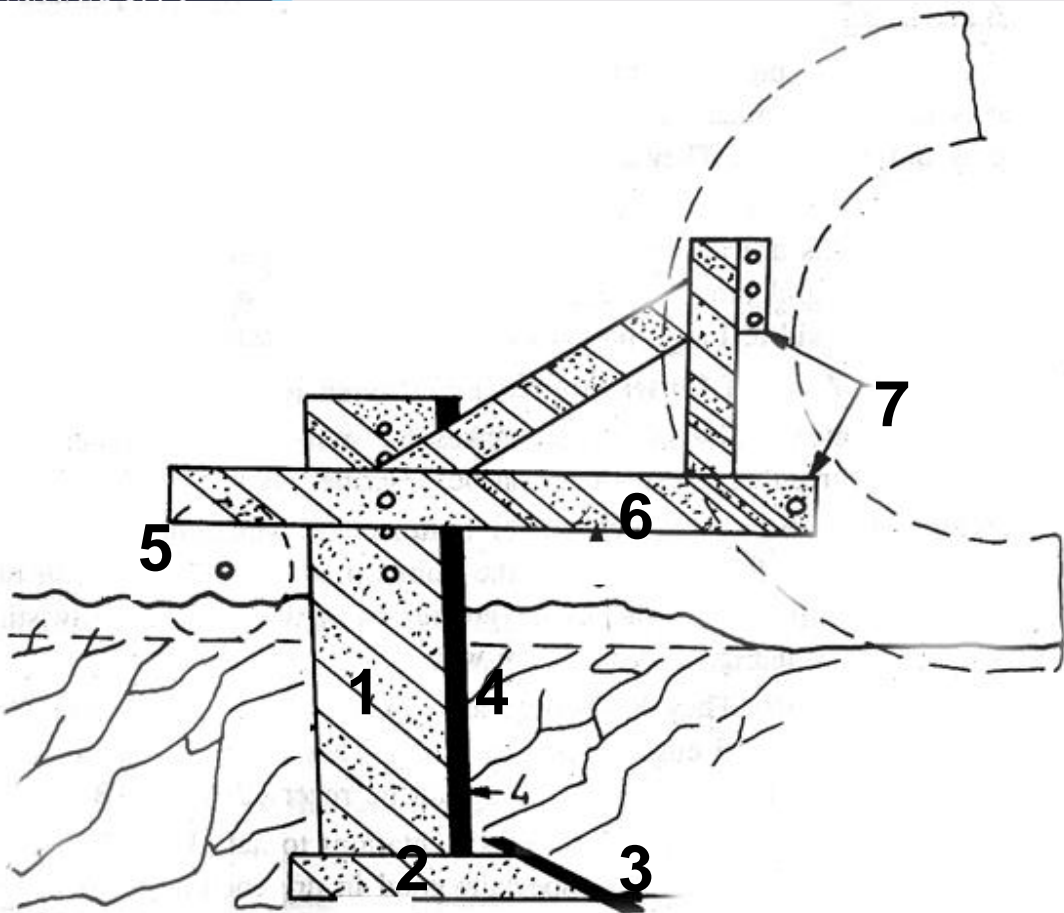
**WORK AT A DEPTH OF 375 TO 500 MM
DEEP**

TO BREAK THE HARD PAN



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SUB SOILER

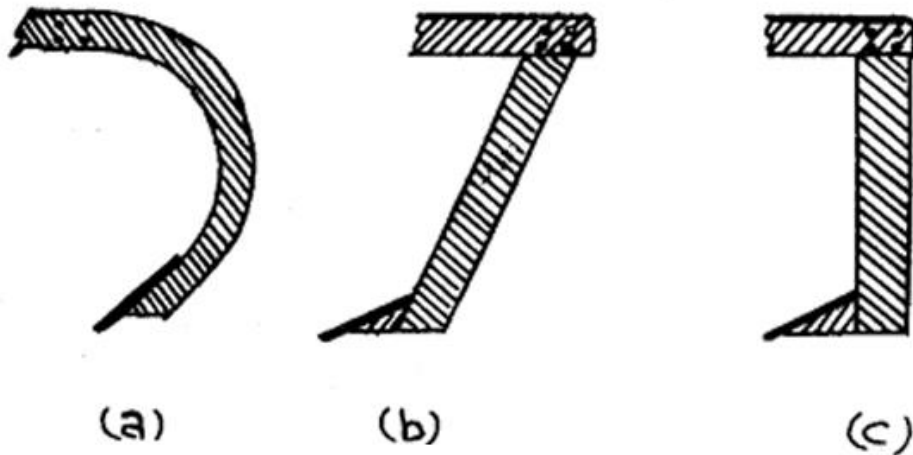


- 1 Leg or standard
- 2 Foot
- 3 Chisel share
- 4 Shin
- 5 Depth wheel
- 6 Tool frame
- 7 Three point linkage



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Types of legs of sub-soiler

At higher depths inclined legs require 25 % less draft than straight legs. However, curved legs require more draft than straight legs because of greater rake angle.