

Description on Secondary Tillage Implements

Secondary Tillage Implements

→ Harrows

- ① Spike Tooth Harrow
- ② Spring Tooth Harrow
 - Row Crop Cultivator
 - Rotary Hoe
 - Rolling Cultivars
 - Sweep Cultivator

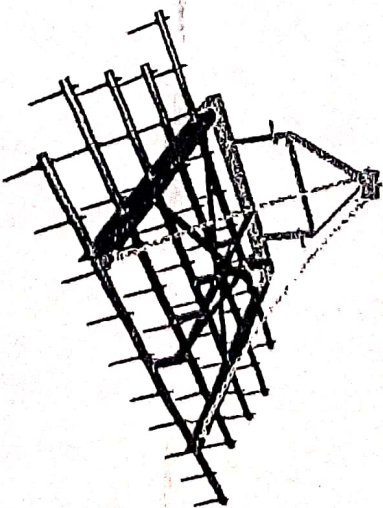
→ Plankers & Rollers

Spike tooth harrow

- ▶ Spike tooth harrow is used to ^①beak the clod, stir the soil, uproot the weeds, break the soil and cover the seed.
- ▶ Its principal is to smoothen and level the soil directly after ploughing.
- ▶ The spike tooth harrow mainly consist of teeth, teeth bar, frame, clamps, guard, braces and hooks.



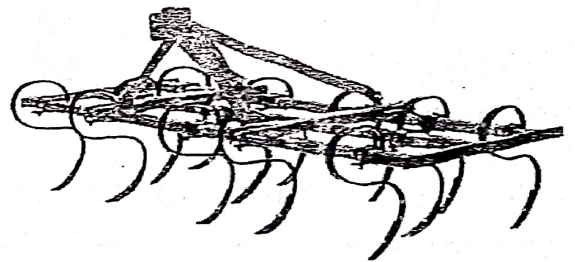
Spike tooth harrow



Spring Tooth Harrow

- This harrow is suitable for work in hard and stony land.
- It is used in the soil where obstruction like stones, roots and weeds are hidden below the soil surface.
- It helps the soil to pulverize, to kill the weeds and to remove the obstacles.

Spring tooth harrow

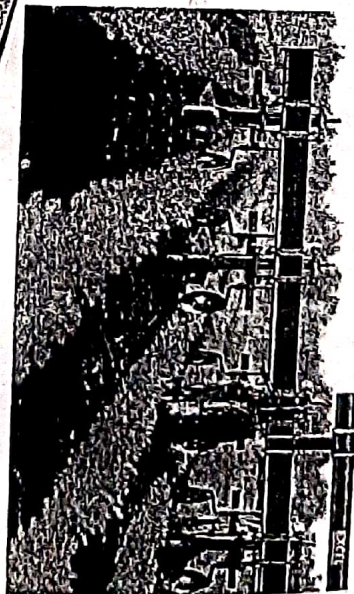


Row Crop Cultivator

- › It is a secondary tillage implement for tilling between the crop rows .
- › The frame and cultivating tools are designed to adequately pass through standing crop row without crop damage .



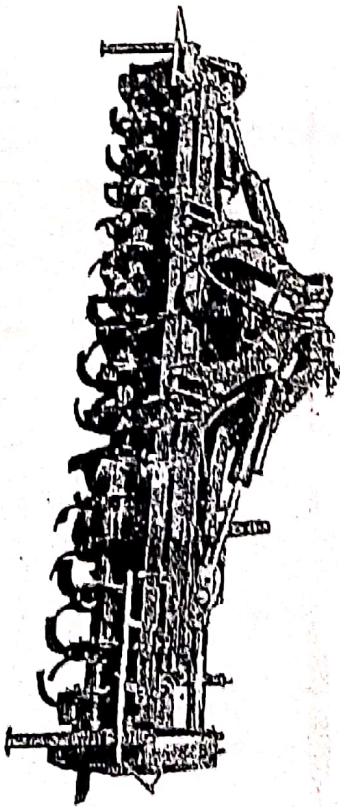
Row crop Cultivator



Rotary Hoe

- 1. It is used for dislodging small weeds and grasses and for breaking soil crust.
- 2. Rigid curved teeth mounted on wheels to roll over the soil, penetrating, almost straight down and lifting soil as they rotate.
- 3. Rotary hoe is used for fast. Shallow cultivation, before or soon after crop plants emerge.

Rotary hoe



→ It is used to control small weeds & break surface crust to improve emergence

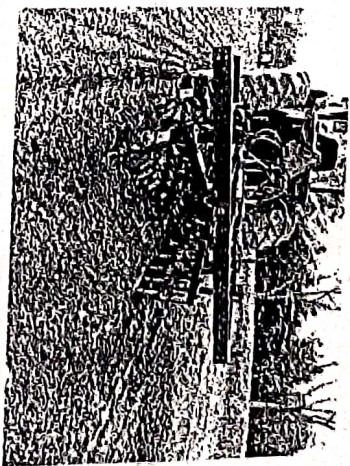
Rolling Cultivar

- ✓ It is used for seed bed preparation which crushes soil clods and smoothen and firm the soil surface.
- Rolling cultivator us consisting of an in-line gang of ridged rollers .

Row cultivators

- Row cultivator kill the weeds while Preserving the crops

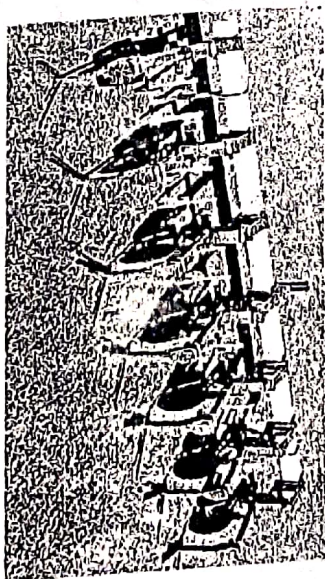
Rolling Cultivator

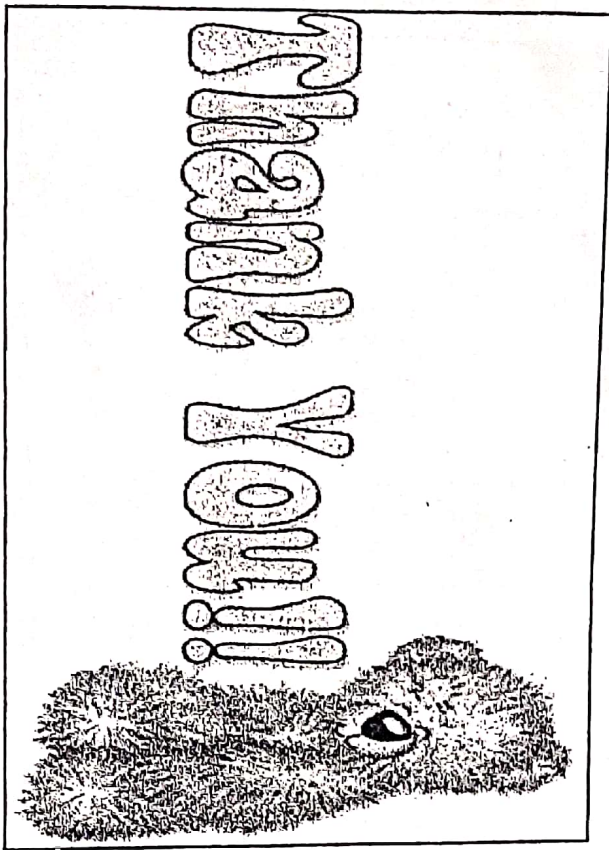


Sweep Cultivar

- It consist of inverted V shaped blades attached to a cultivator frame .
- Sweep cultivator is used to cut to a depth of 12 to 15cm soil during the first operation and still and shallower during subsequent operations
- ✓ Sweep cultivar is used to work in clogging areas where ordinary implements could not work

Sweep Cultivator





Benefits of Tillage

- Reduces labour, Save time
- Increase Production
- Improve crop quality
- Improve crop fertility
- Increase organic matter
- Trap soil moisture to improve water availability