



Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

Center for Smart Agriculture

Applied Hi-Tech Horticulture



Module 1: Introduction to Hi-Tech Horticulture
Session 2: Identification and use of tools and equipments



Centurion
UNIVERSITY
*Shaping Lives...
Empowering Communities...*

INTRODUCTION

Tools:

Mechanical device, light in weight used as manually.

Implements:

These mechanical devices are used for specific purpose or work and attached to another machine.

Equipment: Used as specific purpose, without this work cannot be completed.



Centurion
UNIVERSITY
Shaping Lives...
Empowering Communities...

Pick-Mattock

It is used for digging hard soil



Crowbar

It is used as digging the big hole





Centurion
UNIVERSITY
*Shaping Lives...
Empowering Communities...*

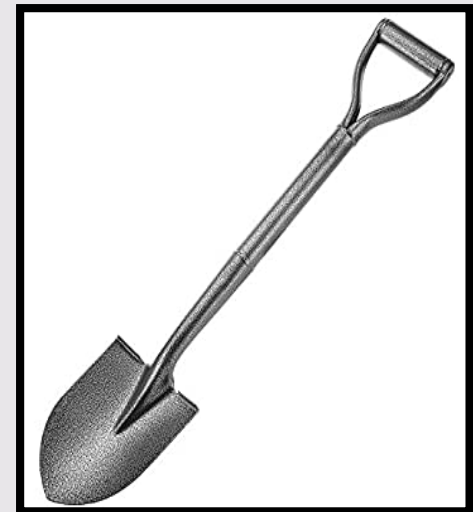
Phawrah:

It used as primary ploughing,
levelling
and scraping of the land



Shovel

It is used for loosening of soil, weeding,
digging of small pits and uprooting the
seedling





Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

Garden Rake

It is used for levelling of land, collecting of weeds, soil clods and other plant debris



Khurpi

It is used for loosening of soil around standing plants, weeding, digging of small pits



Hand Cultivator

It is used for weeding and digging the soil





**Centurion
UNIVERSITY**

*Shaping Lives...
Empowering Communities...*

Secature

It is used to cut tender branches, flowers, scions and rootstocks



Grafting knife and budding knife

It is used for grafting and budding of different flower, fruit and some vegetables



Hedge shear

It is used in training of different hedges and topiary





Centurion
UNIVERSITY
*Shaping Lives...
Empowering Communities...*

Wheel Barrow

It is used in carrying nursery plant, compost, fertilizer, to nursery and main field



Measuring tape

It is used for making layout





Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

Hand Sprayer

It is used for spraying pesticides in small area of vegetables and flowers nursery



Pruning saw

It is used to cut thicker branches of plants



Foot sprayer

It is suitable for spraying in field as well as tall trees.





Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

Mower

It is used for mowing of lawn grasses



Mango harvester

It is used to collecting the fruit in a net at harvesting time



Solar dryer

It is used for drying the vegetables, fruit and spices





**Centurion
UNIVERSITY**

*Shaping Lives...
Empowering Communities...*

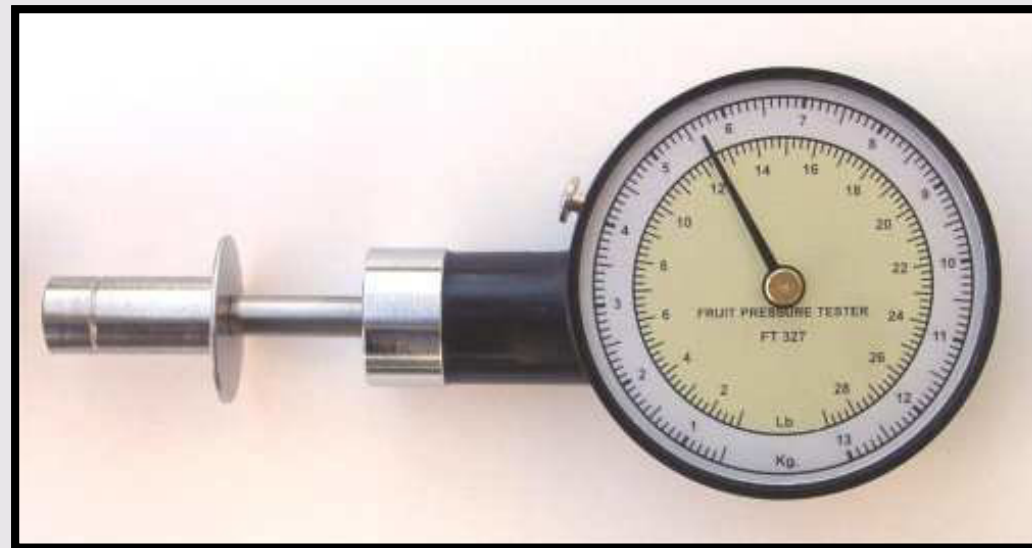
Tenderometer

It is used for measuring the maturity indices of garden pea



Penetrometer

It is used for measuring the pulp thickness of pulpy vegetables





Centurion
UNIVERSITY
*Shaping Lives...
Empowering Communities...*

Cultivator

It is used for primary ploughing and breaking of crust having 9 to 11 tins



Disc Harrow

It is used for secondary ploughing, churning of soil to make soil fine tilth.





Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

Ridger

It is used for bed making for mulching



Manual seedling transplanter

It is used for seedling transplanting in mulching bed





Centurion
UNIVERSITY
*Shaping Lives...
Empowering Communities...*

Rose cane

It is used for sprinkling the water in nursery bed or young plant





Centurion
UNIVERSITY
Shaping Lives...
Empowering Communities...

THANK YOU