

MODULE 1

Land Preparation And Planting

INPUTS

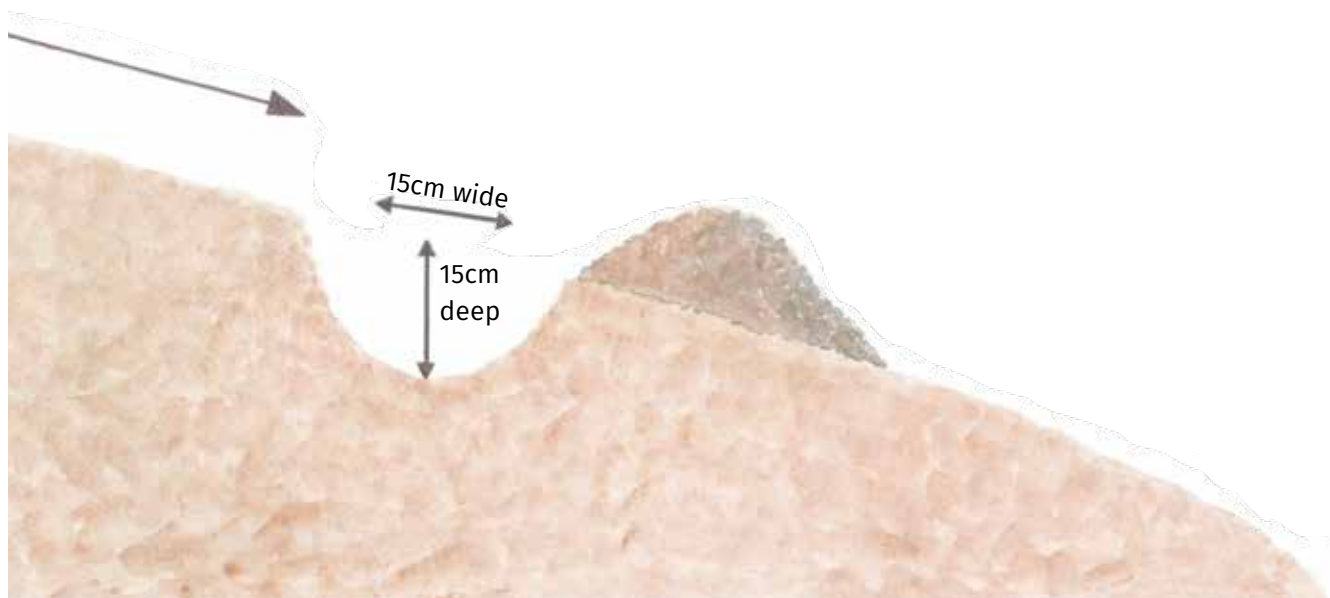
- Use high quality seed.
- Use high quality manure, compost or fertiliser.
- Purchase inputs before 15 October, in advance of the planting season.
- Store purchased inputs in a dry, cool and well ventilated place.

LAND PREPARATION

NB: with conservation agriculture, no ploughing is required

Basin digging using the hand-hoe:

- Involves digging basins that are 15cm wide x 15cm long x 15cm deep using a hand hoe.
- Where fields are protected from animals, digging of basins can start soon after harvesting.
- Where fields are not protected, basin digging can start in August/September
- Work in groups to reduce the burden.
- The soil dug out of the basin must be heaped down the slope, next to the basin such that it supports water harvesting.



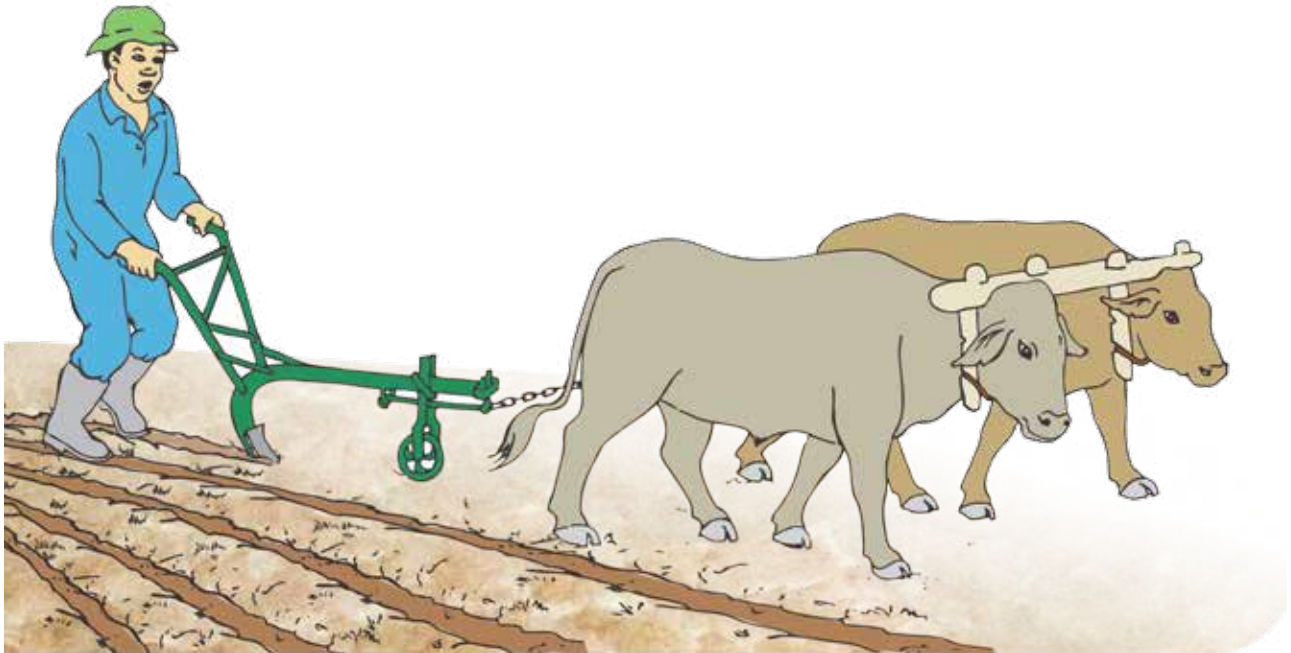
Field showing direction of slope, basin (with dimensions) and soil heaped down the slope.

MECHANISED CONSERVATION AGRICULTURE

- Mechanized conservation agriculture involves opening up planting lines using a ripper tine, ripper tine attached to the frame of a mouldboard plough or a mouldboard plough with the mouldboard removed.
- The field where the planting lines are opened should not be ploughed.

1 Ripper Tine

- An ox-drawn or donkey drawn ripper tine is used for opening planting lines as shown in the diagram below.
- At planting, manure/ fertilizer and seed are placed by hand into the rip-line.



An ox-drawn or donkey drawn ripper tine opening planting lines.

2 Mould board plough with mould board removed

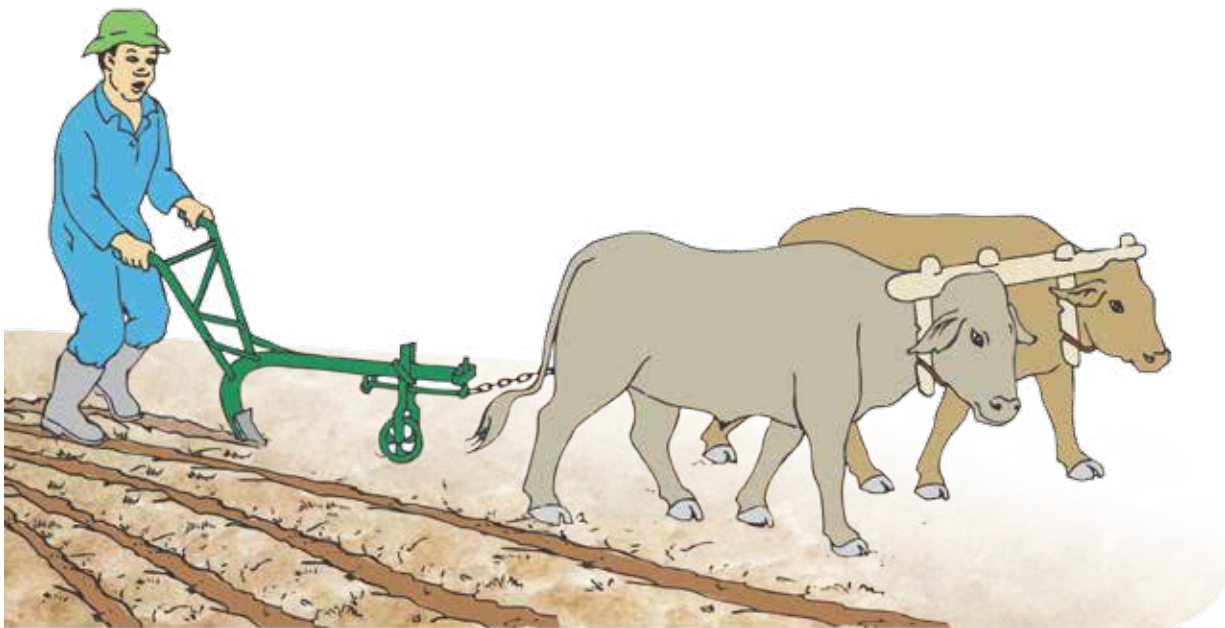
- An ox-drawn or donkey drawn mould board plough (with mould board removed) can be used for opening planting lines as shown in the diagram below.
- At planting, manure/ fertilizer and seed are placed by hand into the opened up furrows.



A mould board plough (with mould board removed) opening planting lines.

3 Mould board plough with mould board removed and ripper tine attached

- An ox-drawn or donkey drawn mould board plough with ripper tine attached can also be used for opening planting lines as shown in the diagram.
- At planting, manure/ fertilizer and seed are placed by hand into the rip-line.



An ox-drawn or donkey drawn mould board plough with ripper tine attached opening planting lines.

PLANT SPACING

- Different basin spacings are used for different crops.
- Spacings for major crops are shown below.

Sorghum and millet

90cm x 30cm. i.e. 3 feet x 1 foot

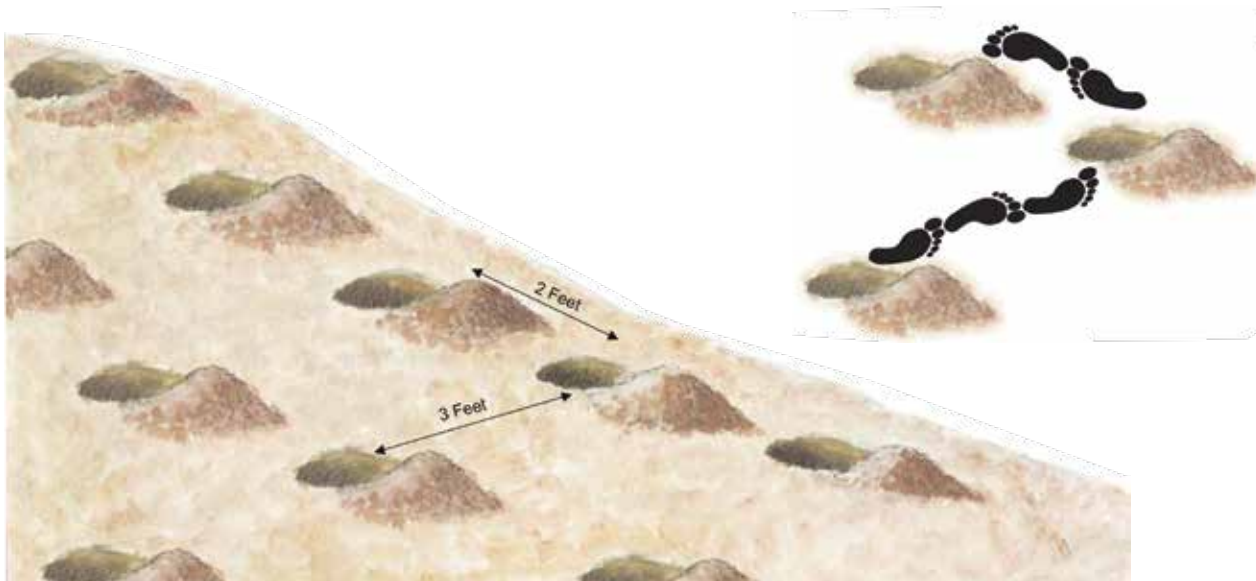
Maize

90cm x 30cm (3 feet x 1 foot) – when using 1 plant/station

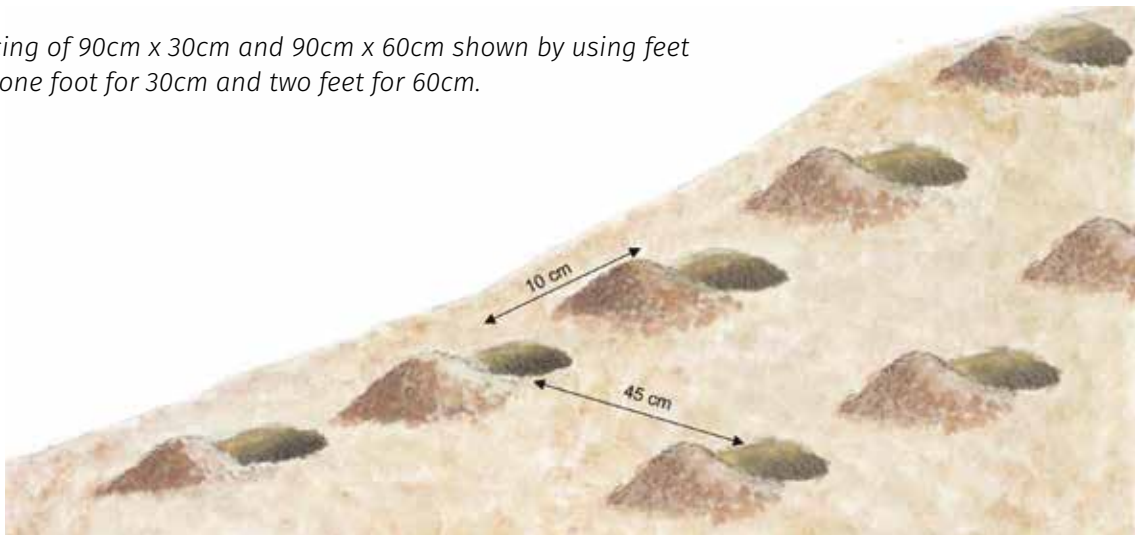
90cm x 60cm – (3 feet x 2 feet) when using 2 plants /station

Cowpeas and groundnuts

45cm x 10cm



Row and inter-row spacing of 90cm x 30cm and 90cm x 60cm shown by using feet
i.e. three feet for 90cm, one foot for 30cm and two feet for 60cm.



NB: Consult your nearest extension agent if you need more information on spacings for crops that are not covered in this module.