



Maize stalk borer

- Use clean planting materials.
- Maintain good cultural practices to break the life cycle of the maize stalk borer.
- Practice push pull technology.
- Rotate maize with legumes.
- Apply ash on leaf funnel of young plants.
- Apply recommended bio and inorganic pesticides/fertilizers.



Larger grain borer(osama)

- Harvest early, shell and dry to a moisture content of 13% before storage..
- Place sticky traps in the store.
- Sun dry and sort out infested grains before packing.
- Ensure well ventilated and dump free stores.
- Place the hermetic bags and metallic silos on raised surfaces to avoid dampness.
- Spray the stores with recommended storage pesticides.



Maize Lethal Necrosis Disease (MLND)

- Practice crop rotation for at least 2 seasons with legumes.
- Use certified or clean seed.
- Plant using fertilizers and manure to enhance crop nutrition.
- Keep the field weed free.
- Use yellow sticky traps to trap vectors.
- Uproot and destroy, burn or bury diseased plants 1m deep.
- Control thrips and hoppers using biopesticides.



Striga

- Continuously uproot and burn striga weeds before they flower and set seed.
- Apply organic fertilizers to improve the soil fertility.
- Intercrop maize with legumes and do rotation for 3-6 years.
- Use push pull technology.



Head smut

- Avoid planting in areas with history of head smut since the spore survive in the soil for a long time.
- Plant clean maize seed free from diseases.
 - Use tolerant varieties.
- Improve the soil fertility by adding organic and recommended inorganic fertilizers (disease is more severe in infertile soils).
- Remove and burn/bury infected plants.
- Use recommended bio pesticides.

8. Harvesting:

Maize maturity is between 3-6 months depending on the variety. A good maize crop can yield between 25-40 (90kg) bags/acre.

- Harvest your maize when husks have turned brown.
- Cut the maize stalks at ground level using a panga then stook/heap to enhance drying. Harvest by dehusking.
- Spread the maize stovers left after harvesting to form mulch to provide cover to the soil..
- Spread the unshelled maize on tarpaulin to dry in the sun.



Mature maize crop



Maize stalks cut back and used as mulch

- Put the unshelled maize on tarpaulin to dry in the sun.



Drying of unshelled maize

9. Post-harvest handling:

- Dry and sort the harvested maize.
- Thresh, winnow and then dry again to attain a moisture content of 13%.
- Test the moisture content using the salt test method, biting between the teeth or winnowing sound or the moisture meter.
- Store the dried maize grains in hermetic bags, metallic silos or local cribs etc.
- Place the well-sealed bags on top of pellets to avoid contamination, dampness, spillage or rodent attack.
- Ensure there is enough ventilation in the store.



Winnowing

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GOOD AGRONOMIC PRACTICES FOR MAIZE PRODUCTION



Required Inputs

1. Clean maize seed (10kg /acre)
2. Compost manure (2.5 T/acre)
3. Tools: Pangas, Jembe, Planting line, tape measure/planting sticks, plastic seed container, ripper, jab planters, chaka jembe, shallow weeder,

Ecological requirements

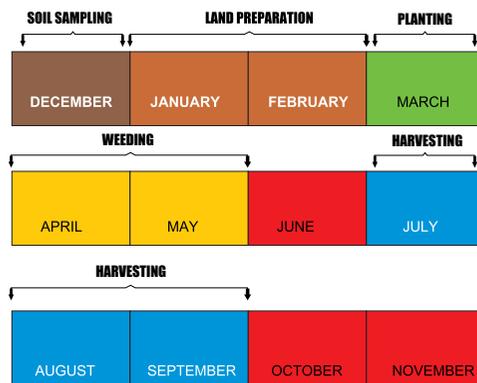
- Site Selection: Select sites away from shade to allow for enough sunlight;
- Soil should be deep medium textured and well drained with high water holding capacity
- In striga infested fields, it is recommended to practice push pull technology.
- Soils: soils should be deep medium textured and well drained with high water holding capacity and high organic matter.

- Altitude - < 2200 m above the sea level
- Soil pH: 5.5 to 7.5
- Temperature: 25 – 30 oC optimal
- Rainfall: 400 – 1200 mm throughout growing period

1. Soil Sampling and Analysis

- Carryout soil test to determine soil health status for management.

2. Land Preparation:



- Timely land Preparation before the onset of rains
- Cut back/trim the cover crop for CA field
- For fallow fields, clear the shrubs, rip using subsoiler to break hardpans

3. Seed Selection

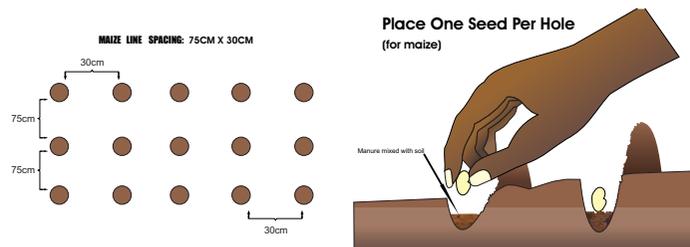
- Use clean seed for planting
- Select seed varieties depending on the agro ecological zone and soil types.
- Clean/certified seed should be purchased from certified agrodealers.
- Farmers can use certified seeds or Open Pollinated Varieties based on their preference.

Open pollinated varieties are selected from mature cobs without defects while maize is still in the field. Select seed grains at the middle of the selected maize cob and discard maize grains at the base and the tip of the selected cob for better seed quality.

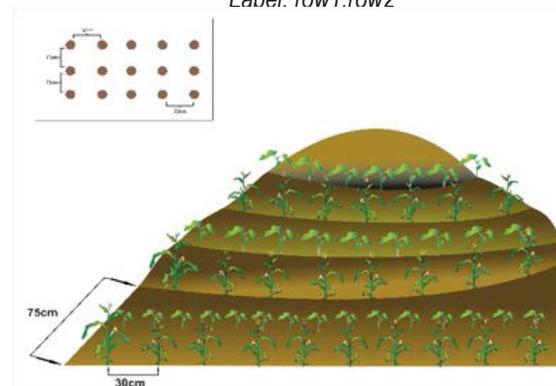


4. Planting / Sowing

- Plant at the onset of rains, when soil moisture content is enough (forms a ball when squeezed in the fist and breaks easily when released).
- Plant along the contour (across the slope in sloppy areas).
- Put 2 handfuls of well decomposed manure per hole and mix thoroughly with soil or apply recommended inorganic fertilizer based on soil analysis results.
- Planting can be done manually using dibblers, chaka jembe, jab planter or mechanically using no-till planter
- Place and cover 1 seed per hole, 5cm deep at a spacing of 75cm between the lines x 30cm within the rows.



Label. row1.row2



Ploughing and planting across the slope

5. Weed Control

- Keep the maize field weed free at all times through mulching, uprooting of weeds, slashing and use of cover crops.



A mulched maize field

- A shallow weeder can be used to scrap off weeds that emerge in the maize field.
- 1st weeding should be done 2-3 weeks and 2nd weeding at 5-6 weeks after germination
- After first weeding plant recommended cover crops for example, mucuna and dolichos by planting it in between the lines of maize at a spacing of 40cm apart.

6. Top Dressing:

Top dress after 1st weeding (when maize is at knee high) when the soil is moist as per recommendations from soil analysis results.

7. Common Pests and Diseases for Maize:

Scout regularly for pest and diseases.



Fall Army Worm

- Avoid late planting.
- Use a mixture of varieties.
- Ensure field is fertile to get a strong maize plant,
- keep field weed free.
- Intercrop maize with other less susceptible crops like beans or cover crops.
- Use bio pesticides e.g. vermi juice, ash and neem based products to control.
- Use army worm moth traps.