

CLIMATE SMART MAIZE CULTIVATION



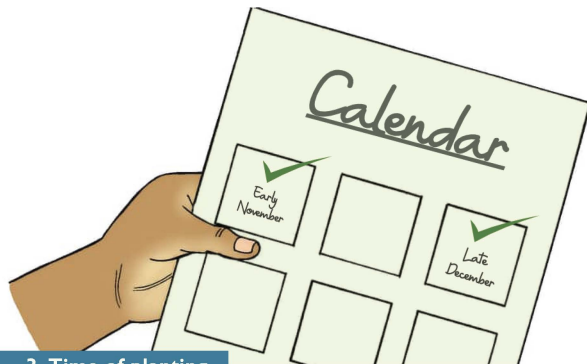
1. Benefits of maize cultivation

- Valuable cash crop
- Staple food crop for most communities
- Easily stored and used for emergencies
- Important source of livestock feed and sustainable crop rotation



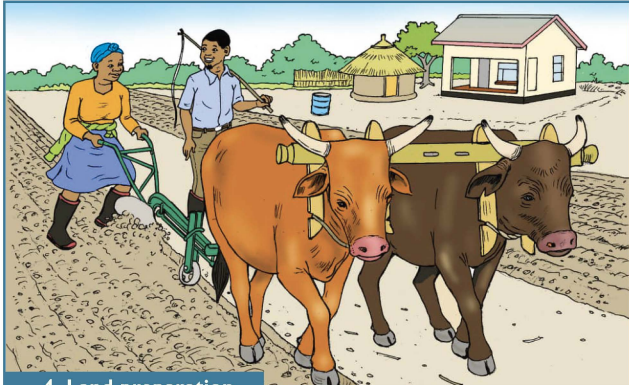
2. Climate and soil requirements

- Requires good rains and on-time planting
- Thrives in well-drained soil
- Soil pH should be 5.5 - 6.5
- Benefits greatly from high quality seeds and fertilizer use



3. Time of planting

- Time of planting and choosing quality of seed go hand-in-hand
- Early planting results in high yields
- Plant with first effective rains - typically late November to early December



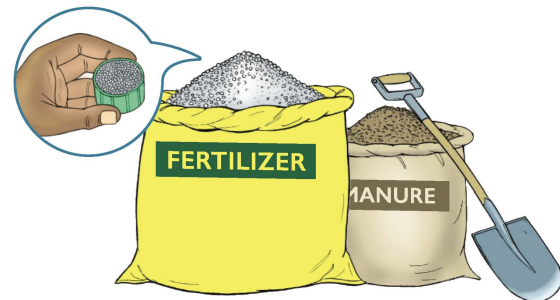
4. Land preparation

- Till/prepare land with hoe, animal power or a tractor
- Rotation scheme is important
- Alternate maize with legumes like sugar beans
- Apply lime at least 12 weeks before planting as needed to ensure proper pH range



5. Planting

- Choose between open pollination and hybrid varieties
- 25kgs of seed per hectare
- Plant seeds 60 centimeters apart
- Distance between rows should be 75 centimeters
- Hole depth should be 5-8 centimeters
- Plant 2 kernels of seed per hole
- 44,000 plants per hectare target



6. Fertilizer

- Applicable basal fertilizer types: Compound D (200 - 300kg/ha)
- Apply fertilizer and supplement with manure (as needed)
- Top dress with ammonium nitrate (AN) 2-4 weeks before flowering
- Recommended top dressing fertilizer rate is 150-200kg/ha on moist soil



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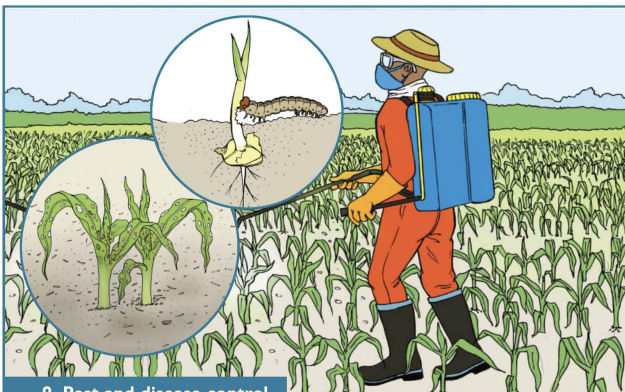
7. Irrigation

- Irrigate soon after or before planting
- For high yields, ensure adequate irrigation is applied throughout the crop's growing phases particularly during the reproductive phase
- During periods of extended mid-season dry spells ensure the crop gets adequate irrigation
- Irrigation should continue until the crops reach maturity



8. Weed control

- Does not tolerate weeds (herbicides recommended)
- Control weeds to minimize competition for nutrients, water, sunlight and space
- Weed control can be manual or chemical, or both
- Choose herbicide based on types of weeds, crop rotation and cost



9. Pest and disease control

- Always monitor for insects
- False wireworms, cutworm, fall army worms, snout and chafer beetles are common pests
- Apply maize specific pesticides



10. Harvesting

- Harvest when the kernels have matured and hardened, and in some varieties dented
- Handpick whole cobs and store in outside grain cribs
- Post-harvest practices are critical to preserve maize crop between harvesting and consumption
- Avoid high moisture when storing and use Actellic Gold dust to prevent large grainboer (LGB) pest



11. Seeds for next season

- Using quality seeds is critical to successful maize production
- Always purchase seed from a registered seed company, agro-dealer or wholesaler
- Buying seed from a local or open market is not recommended



12. Maize returns

- It is the crop with the highest grain production per unit area
- Maize averages **4.3 tons** per hectare
- There is a ready market for maize
- For every **\$100** invested in maize production expect a gross return of **\$180** of which **\$80** is **profit**
- Maize when cultivated successfully can return roughly **2x** the initial investment



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