

Maize Growing Guide in Cameroon

CHOICE OF LAND

Choose fertile, deep, well-drained, non-acidic soil (pH between 5 and 7)

- The site must be unshaded and the terrain homogeneous;
- Topography: flat terrain or very slight slope;
- Cultural precedents: Avoid precedents that impoverish the soil;

Location: take into account the proximity to the centers of consumption, crop transport facilities, access to water for application of herbicides, etc.

CHOICE OF VARIETY

The choice of variety must take into account the agro-ecological zone, the cycle, the level of intensification of exploitation, etc.

Intensification, opt for the composites (return potential 5 to 6 tonnes per hectare). For a good level of intensification, opt for the more productive hybrids (potential yield 8 -9 tones per hectare).

(GROUND PREPARATION)

3 methods:

Labourour conventional of the krocteur or animal traction

Minimum work: worker

No labor: Saw the ground just right only on the sermis lines, replace the pocket to serenity

Avoid regularly burning harvest residues from the countryside; cultivation on plant cover allows for good management soils for sustainable agriculture.

SOWING DATE

campaign in the Eastern, Central, Southern, Littoral Regions:

March 15 - April 15;

1** campaign Adamaoua region: bad - June;

1st Western Region campaign: March 15 - April 15;

Campaign in the Eastern, Central, South, Littoral Regions: August 15 - 30.

QUANTITY OF SEEDS AND TREATMENT

20 to 25 kg of seeds are needed for an area of one hectare. Treat seeds preferably with an insecticide-fungicide mixture at the dose of one 40 grams sachet for 20 kg of seeds, 2 weeks before sowing or just before sowing.

GAPS

- 75 cm between the lines, 50 cm on the line;
- Sow 3 grains per pocket and dilute to 2 plants per pocket for 10 days after the semi-finals; to have a density of 53,333 plants per hectare;
- Stock up on seeds if necessary to replace the missing ones.

SOWING DEPTH

Sow 3-5 cm deep. Ensure good contact between seeds and the ground by trampling lightly above the pocket.

Important: plant after a good rain or the lenderain, plant seeds of good quality and not just everything because the success of your operation depends on it.

FERTILIZATION

The quantities of manure depend on the level of fertility of the soil and the previous cultures.

- 1st spreading: 10 - 15 days after sowing; 2 bags (100 kg) of fertilizer complete 20 10 10 + 1 bag (50 kg) of Urea or 2 bags (100 kg) of 14 24 14 + 1 bag

(50 kg) of Urea per hectare.

- 2nd spreading: 30 - 35 days after sowing; 2 bags (100 kg) Urea per hectare.

N.B. * For soils deficient in phosphorus, a good fertilizer formulation can be as follows: 2 bags (100 kg) of 14-24-14 + 1 bag (50 kg) of DAP + 1 bag (50 kg) of urea for spreading and then 2 bags (100 kg) of urea for spreading

2nd spreading.

* The fertilizer formulation should provide approximately 100 N, 60 P₂O₅ and 20 K₂O per hectare.

- Spreading method:

* In strips 5 -10 cm from the line for 1st spreading or by foot (i.e. localized) at 5 - 10 cm.

* In a strip 20 - 30 cm from the line for 2nd spreading or by foot at 20 - 30 cm.

If deficiencies of phosphorus, potassium or trace elements are observed, supplements may be made.

Avoid any contact of the fertilizer with the plant,

N.B.: Organic manure associated or not with mineral manure allows to improve performance. Applied at 2 - 4 t/ha, it reduces doses of mineral fertilizers by half.

- On land with a high level of fertility, excessive contributions nitrogen can accelerate vegetative growth and result in plants large, non-vigorous and vulnerable, thus leading to lodging and low yields.

WEED CONTROL

- Respect the series densities.

- For manual weeding, weed in time.

- For chemical weeding:

* Use a pressure backpack sprayer maintained or any other tool of appropriate spraying.

* On bare ground, just after sowing or the next day, spray the plot has using a pre-emergence herbicide (Primextra, Gesaprim, Lasso GD, Challenge, etc.) at a dose of 250-300 ml for 15 l of water. The best results are obtained on wet ground.

• On land with weeds, opt for one of the treatments following:

Case of herbs which reproduce by the roots (Sissongo, Impérata, Chromoleana or Bokassa), apply a herbicide 7-10 days before sowing systemic (Roundup 360, Glyphosate 360, Kalach 360, Touchdown, etc.)

to the dose of 150-200 ml for 15 l of water in a pressure backpack sprayer maintained or 720 ml for 4 l of water in an ultra low volume sprayer disc (ULV). Be reassured that it will not rain in the 2 hours that follow the spraying. Then apply a pre-emergence herbicide just after sowing or the next day.

Case of broad-leaved non-grassy weeds: Apply a mixture of 100 - 150 ml of Gramoxone Super and 250-300 ml of a pre-emergence herbicide for 15 l of water immediately after sowing or the following day.

* After corn emergence (4 - 8 leaf stage), use a selective herbicide to nicosulfuron base.

Examples:

(1) Herbimais DF at a dose of 1 kg/ha i.e. 50 g (3 tablespoons) for 15 liters of water

in a pressure backpack sprayer maintained. If a disc sprayer (ULV) is used for low volume processing, the recommended dose is 50g (3 tablespoons) for 1 liter of water; (2) Nicomais at a dose of 60 - 70 ml for 15 liters of water. The optimal effectiveness of these selective corn herbicides are obtained on the young weeds at stage 2 - 4 leaves. The dose should be increased from 25 to 50% on weeds over 30cm and on plots with imperata.

NB. Be reassured that it will not rain in the 4 hours following the spray. These selective herbicides being systematic, the effect on the weeds is visible 10 - 15 days after application. A selective herbicide based on 2-4D amine salt (example: Decaplant) could also be used at doses recommended by the manufacturer.

In the absence of a selective herbicide, a contact herbicide could be used when the corn plants have a size of at. minus 40 cm. In this case, spray weeds using a contact herbicide (example: Gramoxone Super at a dose of 100 - 150 ml for 15 l of water) while avoiding contact between the plant and herbicide. If corn plants and bad herbs have the same size, the use of a rectangular screen (cache herbicide) may be necessary to avoid damage to the plants.

Note: 300 - 375 liters of porridge (20 – 25 maintained pressure backpack sprayers) are necessary to cover an area of one hectare. The quantity of porridge can be reduced to 20 lites if the sprayer

UV is used.

Precautions to take when applying herbicides

- Calibrate the sprayer
- Spray preferably in calm and cool weather;
- Move in the dominant direction of the winds;
- Wear a mask to protect your nose and mouth:

- Wear appropriate clothing as well as boots or other waterproof plastic shoes;
- Respect the doses of products;
- Do not eat or smoke while spraying;
- Wash your body carefully after spraying;
- Destroy empty packaging;
- If the product is ingested, refer to the instructions for antidote and evacuate the patient to the nearest hospital center.

CONTROL OF DISEASE, INSECTS AND OTHERS RODENTS IN THE FIELD

- Insecticide applications may be necessary in the event of an attack.
- If the land preparation technique is no-till or plowing minimum, apply an insecticide 4 days after sowing to eliminate the insect population likely to cut corn seedlings when they emerge.

This insecticide could also be mixed with the systemic herbicide at the time application of herbicide (see paragraph on the control of herbicides weeds).

- In the event of an attack by stem borers in 2 campaigns, introduce the carbofuran (1-2 kg/ha) or another insecticide in the leaf horns at any time but before flowering.

- In the event of an attack by defoliating caterpillars, treat the plants using one of the following insecticides: Dursban, Plantoate, Cyperax 200, or cypercal 200 (refer to the manufacturer recommendations on doses).

- In the event of a termite attack, opt for one of the following solutions:

(1) mix an insecticide (e.g. Marshall or General) with urea when application of the second dose of fertilizer. (2) apply Regent 50

(m.a. Fipronil) at a dose of 100 ml for 15 | of water at the base of the plant and repeat the treatment every 15 days if the damage persists.

Application of these insecticides to termite mounds can reduce the damage from these insects.

- In general, it is not recommended to apply fungicides in cultivation but only if this action is economically justified.

- Keep the surroundings of the field clean to reduce attacks from hedgehogs or insects.

HARVEST

- But fresh

Harvest approximately 21 days after female flowering when the seeds are not yet hard.

- But dry

* Harvest on time (approximately 125 - 135 days after sowing) but at a humidity level not too high.

* Dispatch to the field.

* Remove diseased or insect-damaged ears

(DRYING AND STORAGE)

Two drying modes:

- Natural drying

- Artificial drying

Example of natural drying: The crib

- Principle: Corn drying is ensured by the wind and the sun.

Another source of energy such as wood fire is not necessary

- Crib site: The crib must be housed in a well-ventilated and ventilated area; avoid obstructions from buildings and trees.

- Position of the crib: The length of the crib must be perpendicular (i.e. must face) the East - West direction so that the but benefits from solar rays at sunrise and sunset.

- Features of the crib:

-Width: 60 - 70 cm.

- Length: It depends on the areas exploited in corn

- Height:

Floor - roof: 2.5 m

Floor - platform: 0.50 m

Platform - roof: 2 m

Depth of posts in the ground: 0.50 m.

Distance between 2 posts: 1 m to 1.5 m

N.B.

- The walls of the crib must never be hermetically closed.

- The crib must be equipped with an anti-rodent device.

- The struts may be necessary to give it a certain solidity.

- Capacity: 1 m crib can hold between 400 and 450 kg of corn on the cob which is equivalent to 300 -350 kg of grain corn.

- Loading the corn into the crib must be done gradually in layers of 15-20 cm. Each layer must be processed using a liquid insecticide (Example: Actellic 50 EC at a dose of 20 ml for a liter of water) to provide protection against weevils.

The treated ears spread on a tarpaulin outside the crib before the loading is possible; in this case the treatment in the crib during loading is no longer necessary.

- A movable roof or a compartmentalized door facilitates loading corn into the crib.

- Unloading is generally done from the floor

- External monthly maintenance treatments are necessary for avoid re-infestation by weevils.

- Renewal of the treatment: Every 2 - 3 months if the corn needs remain in the crib, it must be emptied and reloaded by layer all by applying the insecticide treatment as described above.

- Drying time: Drying in the crib can last 2 to 4 months depending on the humidity level of the ears at harvest.