

MAIZE GROWER'S GUIDE

Cereals Program NaCRRRI



INTRODUCTION

Maize is a very important crop produced almost throughout the country. The national cereals program is based at the national crops resources Research institute, Namulonge. The program aims at developing high yielding varieties that are resistant/tolerant to major pests, disease and drought thus providing appropriate maize technology packages to farmers for increased maize production and incomes.

VARIETIES

OPEN POLLINATED VARIETIES (OPVS)

Longe 1: mature in 115days, yields 4tons/ha

Longe 4: matures in 105 days (early), yields 4tons/ha

Longe 5: (**quality protein maize**) matures in 115days yield 5ton/ha

MM3: matures in 90days early yield 4tons
Ha OPV seed can be recycled for not more than 3 seasons.

HYBRIDS

Longe 2H: maturity 120 days yields 8tons/ha Longe 6H, Longe 7H, Longe 10H, Longe 11H: matures in 115-120 days (early), yields 10 tons/ha

Drought TEGO WEMA hybrids are drought tolerant

MAIZE SEED: IS SOLD BY SEED COMPANIES i.e. FICA, NASECO, East

African seed Co. , etc All these varieties are adoptable all over the country (in low-mid altitude areas) except in the highlands.

LAND PREPARATION

Maize requires relatively fine seed bed that needs to be prepared before the onset of the rain to allow early planting. Ensure that key inputs i.e. seed fertilizers are ready.

seed rate: 25-28kg/ha is required



Planting

Timely planting is very crucial and it is best to plant after 2-3 good rains.

Dry planting is not encouraged unless a farmer is sure of good rain within 3-4 days and the seed should be dressed with a chemical thus the advantage of using certified seed.

Spacing:

- 75cm x 50cm leaving 2 plants/hill
- 75cm x 25cm with 1 plant/hill, the two instances the spacing is suitable for a sole crop. However, the spacing will be wider



when intercropped with other crops or when the soil fertility and moisture are not optimal.

Planting depth: Maize should be planted at depth that will protect the seed against rodents and birds as well as facilitates contact with the soil for good germination. Planting depth of 2.5-4cms is acceptable 5cm can be used during dry planting.

Weeding: Maize is extremely susceptible to weed competition which reduces yields considerably. Critical periods for weed control include the first four weeks after crop germination. Striga, couch grass etc are major weeds. Weed control involves either mechanical (e.g.

hoeing) or chemical (herbicides) method. A good crop of maize will need weed control after 4 weeks.

Thinning: thinning should be done in the first 21 days where necessary after plant moisture nutrients by extra maize plants.

Nitrogenous fertilizers like Urea is used for top dressing apply phosphates at the rate of 30kg p205/ha (70kg of TSP) at planting and nitrogen at the rate of 45kgs N per hectare when the crop is at knee height stage.

INTERCROPPING

In order to maximize inputs, intercropping is normally practiced. Maize can be successfully intercropped with beans at an inter-row spacing of 75cm where you can have one bean row between maize rows.

HARVESTING AND STORAGE

Harvest maize when is getting dry. This can be noticed when the cobs collapse and face downwards. It's better to store maize on cobs in well ventilated cribs and shelled maize to be bagged to maximize mould formation after being treated with pesticide. But this should not stay in the bags for long before it is sold off.

**Pests**

Major pests of maize include stem borers, termites, cutworms' armyworms, weevils (storage pests)

Control

Cultural strategies should include enforcement of closed season at least 2 months before the last maize crop.

Chemical pesticides i.e. sevin dust (5% carbaryl) or bull dock can be applied in young leaf whorls or funnels 2-3 weeks after crop emergence for control of stem bores. Termitecides and appropriate (available) insecticides can be used in control of other pests.

Vertebrate pests-rodents, birds, wild pigs and monkeys. Their control is based on the appropriate technology in the area.

Diseases: major diseases, maize streak virus (MSV) northern leaf blight NLB grey leaf spot GLS, maize smut and ear rots.

Control: use of resistant varieties, weed management, cultural control roughening and proper disposal of affected plants.