

MMZ0200

F1 Hybrid Sweetcorn

Experimental

OUTSTANDING QUALITIES

- ◆ SUPER SWEET TASTE
- ◆ SMALLER DIAMETER MAKES IT IDEAL FOR EXPORT
- ◆ EXCELLENT COB QUALITY
- ◆ VERY GOOD SHELF LIFE
- ◆ EXCELLENT TIP FILL

MMZ0200 is a medium early maturing yellow super sweet F1 hybrid with quality and flavour. Plants are medium in height and withstand lodging well. The pericarp is thin and tender resulting in a superior eating sweetcorn. Ears of **MMZ0200** generally are a little bit smaller than MMZ9903, Orla and Mantra, making this variety ideal for export. **MMZ0200** has intermediate resistance against Northern leaf blight (Et) and Stewart's wilt (Pst).



SPECIAL VARIETAL REQUIREMENTS

- **MMZ0200** tends to produce smaller cobs when it is produced during cool seasons

CHARACTERISTIC*	MMZ0200
KIND	F1 hybrid sweetcorn (<i>Zea mays</i> L. var. <i>saccharata</i> Bailey)
TYPE (ENDOSPERM)	sh-2 sweetcorn
MATURITY	75 days from sowing, depending on climatic conditions
EAR SIZE	20 cm
COB SHAPE	Very good, cylindrical
EARS PER PLANT	1.0
COB DIMENSIONS	18 x 4 - 4.5 cm
KERNEL COLOUR	Bright, glossy, uniform yellow
KERNEL ROWING	Excellent, 16 – 18 rows per cob
KERNEL APPEARANCE	Refined and rounded
TIP FILL	Completely filled, slight taper
HUSK COLOUR	Dark green
HUSK PROTECTION	All ears covered, tight
SNAP	Easy
SHANK	Medium
FLAG LEAF	Average length and number
PLANT HEIGHT	1.5 - 1.7 m
PLANT TILLERS	1
DISEASE REACTION (SCIENTIFIC)	Intermediate resistance: <i>Exserohilum turcicum</i> (Et) and <i>Pantoea stewartii</i> (Pst)
PLANT POPULATION	50 000 - 70 000 final stand per ha
USE	Fresh market, pre-packing, export
SPECIAL FEATURES	Good quality, colour and size for export

* Characteristics given are affected by production methods such as soil type, nutrition, planting population, planting date and climatic conditions. Please read disclaimer.

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Resistance: is the ability of a plant variety to restrict the growth and development of a specified pest or pathogen and/or the damage they cause when compared to susceptible plant varieties under similar environmental conditions and pest or pathogen pressure. Resistant varieties may exhibit some disease symptoms or damage under heavy pest or pathogen pressure (HR = High resistance, IR = Intermediate resistance).

Experimental: This variety does not appear on the current South African Variety list, but has been submitted for registration.

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GENERAL TIPS FOR SWEETCORN PRODUCTION

Northern leaf blight (Et)

Symptoms

Long, elliptical, greyish-green or tan lesions ranging from 2.5 – 15 cm in length, develop first on the lower leaves. The disease progresses upward on the plant. Severe infection causes a prematurely dead and grey appearance that resembles frost or drought injury. In damp weather, large numbers of greyish-black spores are produced on the lesions, often in concentric or target like zones. Ears are not infected, although lesions may form on the outer husks.

Causal organisms

Exserohilum turcicum

Disease cycle

E. turcicum overwinters as mycelia and conidia in infected leaves, husks and other plant parts. Conidia are windborne over long distances. Secondary spread within and between fields occurs by conidia produced abundantly on leaf lesions.

Epidemiology

Northern leaf blight occurs sporadically in most humid areas where maize is grown. Disease development is favoured by moderate temperatures (18 - 27 °C) and heavy dews during the growing season. It is retarded by dry weather. If the disease is established before silking, losses in grain yields up to 50 % may occur. If infection is moderate or delayed until six weeks after silking, yield losses are minimal.

E. turcicum attacks sorghum, Sudan grass, Johnson grass, gama grass and teosinte. Races of *E. turcicum* on sorghum and Sudan grass apparently do not infect maize, but some maize isolates can infect Sudan grass.

Common maize rust (Ps)

Symptoms

Pustules may appear on any aboveground part, being most abundant on the leaves. The pustules occur nearly simultaneously on both leaf surfaces in contrast with Southern rust, which has very sparse pustule development on the lower leaf surface. The circular to elongate, golden-brown to cinnamon-brown pustules are sparsely scattered over both leaf surfaces becoming brownish black as the plant matures and spores develop. When severe, chlorosis and death of the leaves and leaf sheaths may occur. The pustules become erumpent and powdery early in their development.

Causal organism

Puccinia sorghi

Epidemiology

Cool temperatures (16 – 23 °C) and high relative humidity (100 %) favour rust development and spread. Some inbred lines show a resistance to *P. sorghi*. Numerous physiologic races of *P. sorghi* can be separated by their reactions on lines of maize having specific genes for resistance. Resistance in mature plants is polygenically controlled.

Control

- Resistant hybrids and varieties.
- Fungicide applications, starting when pustules first appear on the leaves

Disease resistance definition

Resistance: is the ability of a plant variety to restrict the growth and development of a specified pest or pathogen and/or the damage they cause when compared to susceptible plant varieties under similar environmental conditions and pest or pathogen pressure. Resistant varieties may exhibit some disease symptoms or damage under heavy pest or pathogen pressure. Two levels of resistance are defined:

High/standard resistance (HR): plant varieties that highly restrict the growth and development of the specified pest or pathogen under normal pest or pathogen pressure when compared to susceptible varieties. These plant varieties may, however, exhibit some symptoms or damage under heavy pest or pathogen pressure.

Moderate/intermediate resistance (IR): plant varieties that restrict the growth and development of the specified pest or pathogen, but may exhibit a greater range of symptoms or damage compared to resistant varieties. Moderately/intermediately resistant plant varieties will still show less severe symptoms or damage than susceptible plant varieties when grown under similar environmental conditions and/or pest or pathogen pressure.

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