



# MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

## Recommendation Sheet

December 2011, No. 182

### ZS 206, a new maize variety for pure stand cultivation.

Maize variety ZS 206 is recommended for pure stand cultivation for both green cob and grain production. At harvest of green cobs, the left over plants can be used as fodder.

The crop cycle is 90-100 days for green cob and 120-150 days for dry grain.



Green cobs of ZS 206

### Recommendations

#### - **Soil type**

**ZS 206** can be grown all over the island, on all soil types, provided they are fertile, well drained and with a pH ranging between 5.0 and 7.5.

#### - **Planting season**

It can be grown all year round, but the best seasons for plantation are from March to May and August to October.

#### - **Cropping system**

It is not advisable to grow **ZS 206** in sugar cane interrows because it is relatively tall and late-maturing. Being a hybrid, its seeds should **NOT** be saved from one generation to the next for planting.

**ZS 206** should be planted at a density of 62500 plants per hectare, at a spacing of 80 cm between rows and 20 cm between seeds within the row. The seed rate is 30 kg ha<sup>-1</sup> (12 kg arp<sup>-1</sup>). Seeds should be treated with Thiulin @ 3g/kg of seeds prior to planting.

#### - **Fertilization**

At planting, either 13:13:20:2 at the rate of 600 kg ha<sup>-1</sup> (250 kg arp<sup>-1</sup>) together with Urea at the rate of 250 kg ha<sup>-1</sup> (100 kg arp<sup>-1</sup>). In soils deficient in phosphorus, triple super phosphate must be applied.

#### - **Weed control**

In pre-emergence of maize and weeds, apply the following:

	Herbicides	Rate (ha <sup>-1</sup> )	Rate (arp <sup>-1</sup> )
<b>Either</b>	Falcon Gold + atrazine 90% WG	1.6 L + 2.0 kg	0.675 L + 0.85 kg
<b>or</b>	Harness 90 % + atrazine 90 % WG	2.4 L + 2.0 kg	1.0 L + 0.85 kg
<b>or</b>	Linuron 50% Flo	6.0 L	2.5 L

If only broad-leaf weeds are expected, then apply atrazine @ 3.0 kg ha<sup>-1</sup> (1.3 kg arp<sup>-1</sup>)

Published by the MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE, Réduit



454 1061



<http://www.msiri.mu>



[contact@msiri.mu](mailto:contact@msiri.mu)

When the plants have reached about 50 cm high, weeds such as *Cyperus rotundus* (herbe à oignons) can be controlled using the following, taking care to direct the herbicide under the maize leaves:

	Herbicides	Rate (L ha <sup>-1</sup> )	Rate (L arp <sup>-1</sup> )
<b>Either</b>	2-4 D Sel amine (72%)	3.0	1.25
<b>or</b>	Basagram DP	3.5	1.5

### Irrigation

Water is critical at the germination phase and at flowering. In order to have a good stand, it is important to keep the soil humid for at least 20 days after plantation. Taking into consideration the rainfall, apply 15 mm of water every 4 days during the initial phase of plant growth up to 30 days after planting and then 25 mm every week till maturity.

### Pests and diseases

The **webworm** (*Angustalius malacellus*) and **cutworm** (vers gris) (*Agrostis ipsilon*) are important pests at seedling stage.

To control these pests, apply the following:

Pesticides	Rate/ha (600 L water)	Rate/arp (250 ml water)
Karaté Zeon ( <i>lambda cyhalothrin</i> )	150 g	62.5 g
<b>or</b>		
Steward 30 WG ( <i>indoxacarb</i> )	600 ml	250ml



Cutworms damage

The **maize earworms** *Helicoverpa armigera* and *Cryptophlebia leucotreta* attack the green cobs. Usually only the tip of the cob is damaged. Thus it does not warrant herbicide treatment.

**Birds** are also important pests. They pick seeds and uproot the young seedlings as they emerge. They also attack the maize cobs, as they start to dry off. It is very difficult to control them. The following measures are proposed to combat bird damage at the planting stage:

- 1) Keep the soil moist all the time for about 20 days after sowing
- 2) Cover the seeds with at least 4 cm of soil
- 3) Increase seed rate slightly depending on the abundance of birds and history of damage.



Damage caused by birds

**Rust** (*Puccinia polysora*) and **leaf blight** (*Helminthosporium turcicum*) may attack the maize plants, but it is not recommended to apply fungicides for their control.

Your attention is drawn that guideline and/or advice is restricted for the purpose for which it is recommended only. MSIRI board shall not be responsible for any act that may arise out outside the purview of these guidelines.