

## Effect of metalaxyl sprays on viability of tomato flowers

### Objective

To assess whether the use of metalaxyl causes flower abortion in tomatoes.

### Methods and materials

**Test location:** Mama Clementina Foundation Production Farm (Weruweru Farm), in Weruweru, Hai District of Kilimanjaro, Tanzania.

Bimodal rain pattern: Oct – Dec and March – June, approx. 1 200 mm annually. Mean minimum temperature at night is 15°C to 17°C and mean maximum temperature ranges from 25°C to 33°C depending on the season.

**Design:** Randomized complete block design with four replications.

**Sowing date:** 24 October 2016

**Transplanting:** 21 November 2016

**Spraying dates:** 27 December 2016 and 12 January 2017

**Plant spacing:** 750 cm x 50cm (26,666 plants/ha)

**Treatments:** No spray, water, Ivory 80 WP (Mancozeb) and Ivory M72 WP (Mancozeb + Metalaxyl).

**Varieties:** Seedlings of the variety Assila F1 were raised in trays and transplanted in beds under furrow irrigation. 83 kg/ha phosphorus was applied as basal fertilizer using DAP. Nitrogen (221 kg/ha) and potassium (150 kg/ha) were applied as DAP, Urea with CAN and MOP respectively in split applications at weekly intervals up to 7 weeks after planting.

### Results

There were no significant differences in flower retention (fruits formed).



Treatments	% number of fruits formed
No spray	57.3a
Water	55.4a
Ivory 80 WP	59.9a
Ivory M 72 WP	58.9a
I.s.d.	9.22
CV (%)	10.3
p-value	0.734

*Means with the same letter are not significantly different at the 5% level. I.s.d=least significant difference.*

### Conclusions and recommendations

The results indicate that spraying and the use of the fungicides containing metalaxyl does not cause flower abortion in tomatoes.

*Note: The conclusion is based on one test only done at Hai (997m ASL) and might be different in other areas.*