

Comparison of indeterminate hybrid varieties of tomato under Kilimanjaro Region conditions

Objective: To assess the performance of hybrid varieties

Methods and materials

Test Location: Mama Clementina Foundation Production Farm, Hai District of Kilimanjaro Region.

Bimodal rain pattern: Oct – Dec and March – June, approx. 1 200 mm annually.

Mean minimum temperature is 15 °C to 17 °C and mean maximum temperature ranges from 25 °C to 33 °C.

Design: Randomized complete block with 4 replications 2 blocks (Drip and Furrow).

Sowing date: 15 April 2015

Planting date: 11 May 2015

Harvest dates: 27 July onwards

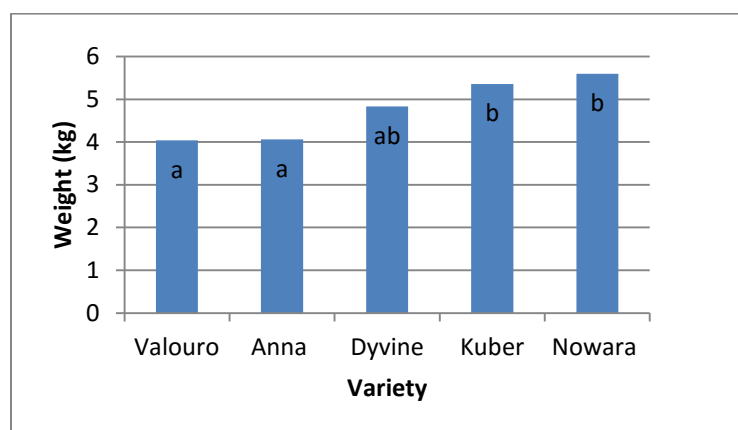
Plants spacing:

75 cm between rows and 60 cm between plants (22,222 plants /ha).

Seedlings of four varieties were raised in trays. Transplanting was done in three weeks. 51 kg P₂O₅/ha was applied as basal fertilizer using DAP. Nitrogen (400kg/ha) and Potassium (440kg/ha) were applied as Urea & CAN and MOP, respectively in split applications at weekly intervals up to seven weeks after planting.

Results

The furrow irrigation system results in an average of 4.3 kg per plant while drip irrigation had an average of 5.2 kg per plant. No interaction between variety and irrigation system was observed. Average yields of both irrigation systems per variety are as shown in the graph.



Mean weight per plant per variety (kg/plant).

Means separated by the same alphabet are not significantly different at the 5% level.

Conclusion

Nowara F1 and Kuber F1 gave the highest yields per plant.

Note: This result is based on one test done at Hai (997m ASL) and results might be different at other locations.