

TOMATO PRODUCTION; GROWER'S GUIDE

NURSERY

Bed preparation

- ✚ Dimensions: 1 metre wide by any length
- ✚ Beds should be raised in case of rainy season avoid cases of flooding
- ✚ Mix processed farm yard manure with DAP well on the bed

Sowing

- ✚ A seed rate of 250g/Ha (100g/Acre) is used
- ✚ Mix the seeds with little saw dust to give the correct spacing of the seeds when sowing

Nursery management

- ✚ Most common disease is damping off and can be controlled by mixing seed with Nordox 75WG at 40g per 250g seed before sowing or drenching the nursery after sowing @ 40gm in 20lts of water.
- ✚ Control cut worms with **Jawabu 48EC** @ 40mls in 20 lts of water. For nematodes, drench using **Vydate 10G** at the rate of 20 Kg/Ha or 2g/plant in the field.

TRANSPLANTING

- ✚ Seedlings are transplanted with fertiliser when they attain a height of 15 cm - 20 cm or after a period of 1 month.
- ✚ Spacing is 100cm by 50cm or 90cm by 60cm.

FLOWERING AND FRUITING

- ✚ Topdressing is necessary at 4th & 8th week after transplanting. However **Farmphoska fertilizer range** offers the suitable options for foliar feeding regime. They are very essential as they provide the plant with micro/macro nutrients and amino acids at critical stages thus enhancing flowering & fruit development & maturity.
- ✚ Use curative fungicides such as **Equation pro** and **Topsin M** in very moist weather conditions as disease begins to manifest against early diseases such as downey mildew and early blight.
- ✚ Spider mites are a major problem in tomato production. Frequent monitoring is encouraged so as to control them while still in small population. Use Disect @ 20 - 30ml/ 20L and other miticides in a suitable spray regime.

WATERING

- ✚ Water is key to the survival and better performance of every crop. Uneven and limited watering leads to calcium deficiency thereby resulting in the physiological disorder referred to as **Blossom end rot**.



HARVESTING

- ✚ In an effort to control insect pests at this stage, farmers are advised to use **Delfin 6.4WG** (with **ZERO PHI**) or **Farm-X 25 EC** with (**ONE-day PHI**). They are derivatives of natural organism compatible with IPM and ICM methods of farming. This allows the farmer to proceed with harvesting a day after spray application.
- ✚ Picking period varies from one variety to another. **Valoria F1** has a picking period of 2 - 2½ months.
- ✚ **Yields:** vary with variety and type of crop management exercised and Pests & Disease pressure. Documented yields range from 20 - 250T/ Ha.

COMMON INFECTIONS

1. **Early Blight:** Causes stem cankers on seedlings and small irregular dark brown spots appear on the upper side of the leaf. Disease may result to defoliation of the crop. Generally identified before or early flowering stages.
Late blight: results to rapid drying of leaves and brown dry rot of fruit. Brown streaks are observed on the stem. Commonly infecting @ late flowering to maturity stages.

Preventive control: Cuprocaffaro 50WP (50g/20L), Farmcozeb 50g/20L), Nordox 75WG (20g/20L), Cuprocaffaro Micro 37.5WG (50g/20L)

Preventive/Curative: Equation Pro (10g/20L), Topsin M (20ml/20L)

2. **Bacterial Wilt:** Caused by a fungus. Results causes wilting of tomatoes
Control: Drench planting hole with Topsin M @20 mls in 20lts of water.
3. **Botrytis** - the base of the flower turns yellow resulting to flower drop.
Control: Topsin M 20ml/20L mixed with Siapton (30ml/20L)
4. **Bacterial spots** - affects leaves and developing fruits.
Control: Cuprocaffaro 50WP (50g/20L), Topsin M (20ml/20L) mixed with Siapton (30ml/20L)

PHYSIOLOGICAL DISORDERS

1. **Blossom End Rot** - is a water soaked spot near the blossom end of the fruit.
Control: Regular watering, foliar feeds like **Farmphoska plus** & **CAN** (at top dressing).
2. **Sunburns:** Occurs when the fruits are exposed to direct sunlight for a prolonged time. **Valoria F1** provides adequate cover for the fruits.

COMMON PESTS

1. **American Bollworm:** Is a caterpillar that bore into the fruit and feed on the inner part of the fruit releasing plenty of excreta. Secondary attacks results to rotting of the attacked fruit.
Control: Avaunt 150SC, Delfin 6.4WG, Farm-X. Spray at flowering till fruit development.
2. **Tobacco white fly:** These are tiny, moth like flies, which fly from the foliage when disturbed; whose nymphs suck from plant sap & transmit plant viruses.
Control: Danadim, Farm-X among others. Spray early in the morning when the insect is immobile.
3. **Red spider mites:** are minute but visible spiders like insects and feed on the plant sap from the underside of the leaves. The pest form web underside the leaf making chemical control difficult due to hard to reach scenario.
Control: Foliar spray with suitable miticides such as Disect 25EC.

Tomato Nutritional Requirements;

Weeks (after transplanting)	Fertilizer and amount applied
1-2	Water only (no fertilizer)
3	Farmphoska solufeed 19:19:19 (50g per 20 litres of water)
4	Calcium Nitrate (1 Kg per 200 Litres of water)
5	Farmphoska starter (50g per 20 Litres of water)
6	Farmphoska vegetative (50g per 20 Litres of water)
8-9	Farmphoska flower and fruit (50g per 20 Litres of water)
10	Farmphoska solufeed 19:19:19 (50g per 20 Litres of water)
11	Calcium Nitrate (1 Kg per 200 Litres of water)
12	Farmphoska flower and fruit (50g per 20 Litres of water)
13	Calcium Nitrate (1 Kg per 200 Litres of water)
14	Farmphoska solufeed 19:19:19 (50g per 20 Litres of water)
15	Calcium Nitrate (1 Kg per 200 Litres of water)
16-17	Farmphoska flower and fruit (50g per 20 Litres of water)
18	Farmphoska solufeed 19:19:19 (50g per 20 Litres of water)
19	Calcium Nitrate (1 Kg per 200 Litres of water)
20-21	Farmphoska flower and fruit (50g per 20 Litres of water)