

Mineral Nutrition - Sapota

Nitrogen

Deficiency Symptoms

Stunted growth. The bark of the shoots turned reddish-brown in colour. On elongating shoots the immature leaves were amber to bright red in colour while the mature leaves remained small and yellow-green in colour. Early abscission of leaves, smaller and fewer fruits.

Correction Measure

Foliar sprays of urea 2% were more effective treatment with 250 g N per tree from both sources increases the fruit weight and yield.

Phosphorus

Deficiency Symptoms

Pigmentation seen in older leaves; leaf size become small

Correction Measure

Foliar spray of DAP 2% at fortnightly intervals.

Potassium

Deficiency Symptoms

Light brown specks scattered all over the leaves which appeared later merged forming necrotic patches between the large veins. Browning on the under side of the leaves and chlorotic areas between veins due to K deficiency.

Correction Measure

Application of KCl at 80 kg per hectare. Application of K₂SO₄ instead of potassium chloride to the sapota plants.

Calcium

Deficiency Symptoms

Tip of the twig and flower bud affected;

Magnesium Deficiency Symptoms

Leaves become lighter green which gradually turned greenish yellow, remaining deeper green along the mid rib and larger veins. Leaves turned yellow with scattered brown lesion on the leaf blade. Intervenial chlorosis on older leaves followed by necrosis of distal leaf edge.

Correction Measure

Application of dolomite or spraying magnesium nitrate 1% can avoid the deficiency.

Sulphur

Deficiency Symptoms

Yellowing of young leaves; growth of the leaf will be affected

Correction Measure

Foliar spray of CaSO₄@1%

Boron

Deficiency Symptoms

Leaves were yellowish-green in colour the older leaves showed signs of burning at the tips and along the margins which abscised prematurely. The tip burning of young leaves and splits or crack on the midrib and large veins on the underside of the leaf.

Correction Measure

Soil application of borax at 5 kg/ha.

Copper

Deficiency Symptoms

The leaf veins developed a reddish-brown colour, premature defoliation and die back of twigs also occurred. The tip of the twigs developed multiple buds which died soon.

Correction Measure

Application CuSO_4 5 to 10 Kg/ha. Cu-fungicide sprays will be helpful in correcting the deficiency

Iron

Deficiency Symptoms

yellowing of young leaves; occurrence of interveinal chlorosis

Correction Measure

Foliar spray of FeSO_4 @0.5 % at fortnightly intervals

Manganese

Deficiency Symptoms

Light colored spots on the leaves and sometimes necrotic spots also appear. Green bands of varying width appear along the midrib and veins with yellow areas between the veins. Interveinal chlorosis, premature dropping of the leaves and die back of terminals due to Mn deficiency were also recorded.

Correction Measure

Spraying of MnSO_4 -0.3% at fortnightly intervals..

Zinc

Deficiency Symptoms

Symptoms seen in young leaves; size of the leaf become small

Correction Measure

Foliar spray of ZnSO_4 @0.5%