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Ad-hoc recommendations on nutrient deficiency management in cashew



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Nutrient deficiency disorders and management in cashew

Nitrogen	Nutrient deficiency symptoms in cashew
<p>Deficiency symptoms</p> <ul style="list-style-type: none"> ➤ Stunted growth ➤ Deficiency in older leaves, ➤ Old leaves turn light green to yellow <p>Management</p> <ul style="list-style-type: none"> ➤ Follow the nitrogen application as per recommendation for the region based on soil test ➤ Apply FYM @ 10-15 kg/tree ➤ Undertake foliar application of urea 3% urea at weekly intervals till the symptoms disappear. 	
Phosphorus	
<p>Deficiency symptoms</p> <ul style="list-style-type: none"> ➤ Dark green, bluish green colour on leaves due to the accumulation of carbohydrates ➤ Restriction in growth of tops and roots. ➤ Suppression of development of lateral buds. ➤ On continued deficiency, leaf get bronze colour, reddish tips on leaf margins. <p>Management</p> <ul style="list-style-type: none"> ➤ Application of P-fertiliser as recommended ➤ Application of biofertiliser containing P-solubiliser ➤ Foliar application of 0.5% phosphoric acid 	
Potassium	

Deficiency symptoms

- Chlorosis along leaf margin, scorching and browning of tips of older leaves which gradually progresses inwards
- The slow and stunted growth of trees and become susceptible to breakage

Management

- Foliar application of 1% potassium sulphate or potassium chloride
- Application of potash fertiliser as per recommendation based on soil test



Calcium

Deficiency symptoms

- Deficiency symptoms appear on younger structures.
- Young leaves distorted, become small and abnormally green leaves.
- Leaves become cup-shaped and crinkled.
- Terminal buds deteriorate with some breakdown of petioles.
- Desiccation of terminal buds and weakening of the stem structure.

Management

- Application of FYM at 10-15 kg/tree
- Application of lime based on soil test report



Magnesium

Deficiency symptoms

- Interveneal chlorosis, streaked or patchy effects on older leaves.
- Affected leaves turn small and curve upwards at the margin

Management

- Application of dolomite based on soil test report
- Foliar application of $MgSO_4$ at 0.5%



Sulphur

Deficiency symptoms

- Deficiency appears on young leaves.
- Fading of the normal green colour of young leaves followed by chlorosis

Management

- Apply 10 kg S per ha.

**Iron****Deficiency symptoms**

- Interveinal chlorosis on young leaves
- The entire plant becomes chlorotic.

Management

- Foliar application of 0.5% Ferrous sulphate



**Manganese****Deficiency symptoms**

- Interveinal chlorosis on middle leaves/ upper leaves.
- Chlorotic/necrotic spots on interveinal areas

Management

- Foliar application of 0.5% Manganese sulphate

Zinc

<p>Deficiency symptoms</p> <ul style="list-style-type: none"> ➤ Interveinal chlorosis on young leaves ➤ Reduction in size of young leaves, get clustered and borne very closely, bronzing, purple, violet, brown colouration of foliage. ➤ Short internode (resetting) and a decrease in leaf expansion (little leaf) ➤ In seedlings, reddish pigmentation in the middle leaf and later cover entire lamina. Tissues become papery and necrotic <p>Management</p> <ul style="list-style-type: none"> ➤ Foliar application of 0.5% zinc sulphate at flushing, flowering and fruiting 	
Copper	
<p>Deficiency symptoms</p> <ul style="list-style-type: none"> ➤ Deficiency cause male flower sterility, delayed flowering, chlorosis of younger shoot tissues, white tip and die back. ➤ Necrosis of apical meristems cause elongation of axillary shoots <p>Management</p> <ul style="list-style-type: none"> ➤ Foliar application of 0.1% copper sulphate at flushing, flowering and fruiting 	
Molybdenum	
<p>Deficiency symptoms</p> <ul style="list-style-type: none"> ➤ Deficiency resembles like N defy, chlorotic mottling between the veins on old and middle leaves <p>Management</p> <ul style="list-style-type: none"> ➤ Foliar application of 0.1% molybdenum salts at flushing, flowering and fruiting 	
Boron	

Deficiency symptoms

- Deficiency symptoms appear on terminal buds on young leaves which become discoloured and die back.
- Internodes become shorter and bushy or rosette appearance

Management

- Foliar application of 0.1% borax/solubor at flushing, flowering and fruiting

