

What it does

Calcium (Ca) deficiency impairs root function and predisposes plant to iron toxicity. It causes stunting and death of growing points.

Why and where it occurs

Ca deficiency is relatively rare especially in irrigated rice systems. It is very uncommon in lowland rice soils because there is usually sufficient Ca in the soil, from mineral fertilizers, and irrigation water.

How to identify

Signs and symptoms of Ca deficiency are visible only under severe conditions. Observe for the following:



Leaf tip discoloration caused by Ca deficiency

- Tips of youngest leaves become white or bleached, rolled, and curled
- Necrotic tissue may develop along the lateral margins of leaves and old leaves eventually turn brown and die
- Stunting and death of growing point during extreme deficiency

To confirm Ca deficiency, bring soil and plant sample to a laboratory for testing.

How to manage

- Apply farmyard manure or straw (incorporated or burned) to balance Ca removal in soils.
- Where possible, use single superphosphate (13-20% Ca) or triple superphosphate (9-14% Ca) as a Ca source.

Learn more

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