

NUTRIENT DEFICIENCY SYMPTOMS: BANANA

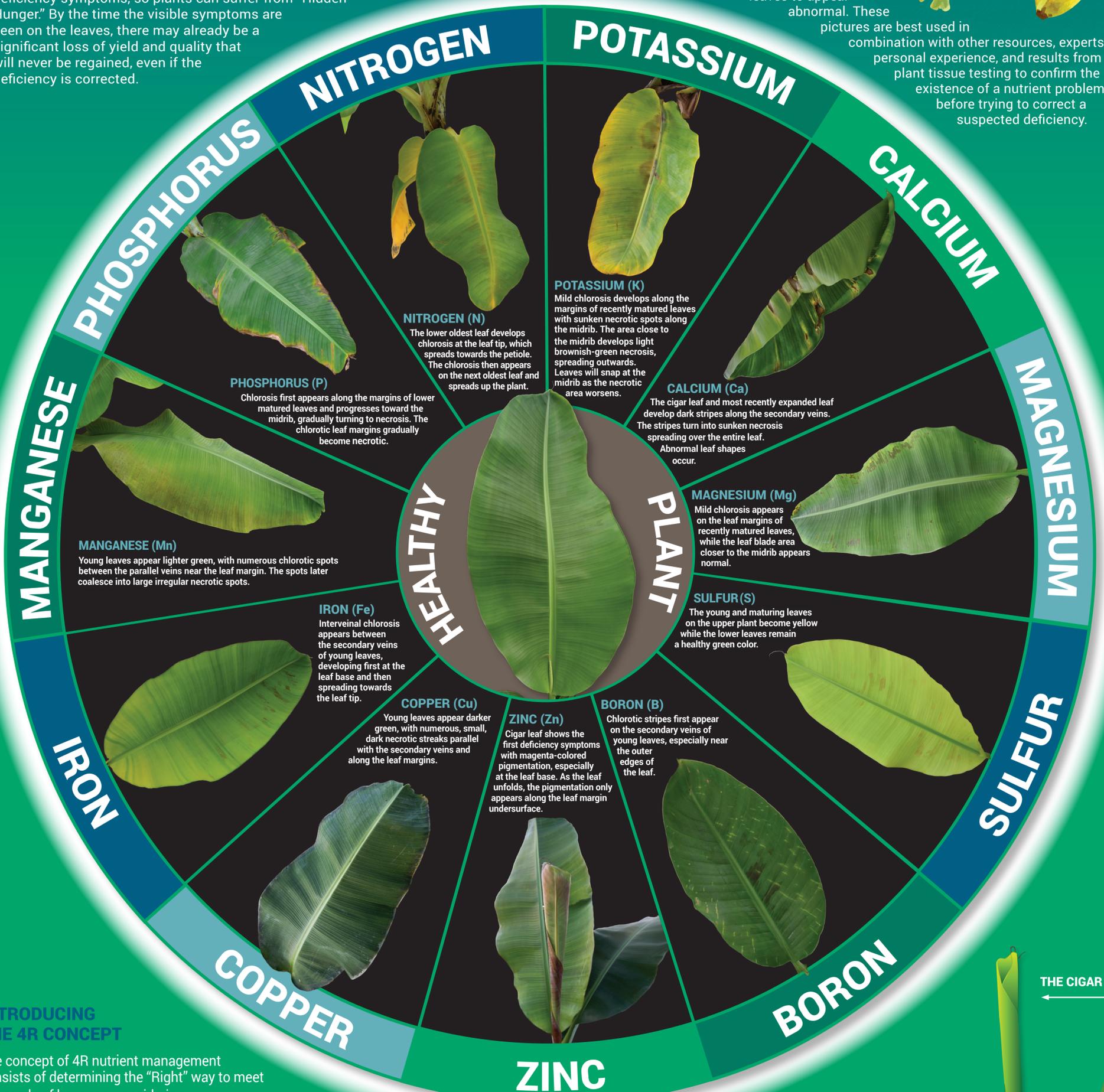


Bananas require an adequate supply of 14 essential nutrients from the soil for healthy growth. Nutrient requirements range from very large (primary nutrients) to very small (micronutrients) amounts, but they are all equally important to support crop growth. When a single nutrient is missing, the plant cannot properly grow and develop. The specific nutrient that is lacking will often cause the leaves to develop specific symptoms that can be used as a guide for diagnosis.

Nutrient shortages will not immediately appear as visible deficiency symptoms, so plants can suffer from "Hidden Hunger." By the time the visible symptoms are seen on the leaves, there may already be a significant loss of yield and quality that will never be regained, even if the deficiency is corrected.

Nutrient symptoms are most useful when observed during the early stage of deficiency. When the deficiency continues, a shortage of most nutrients will eventually cause leaves to die or plants to be stunted, making diagnosis difficult.

Other stresses unrelated to the plant nutrient supply may cause leaves to appear abnormal. These pictures are best used in combination with other resources, experts, personal experience, and results from plant tissue testing to confirm the existence of a nutrient problem before trying to correct a suspected deficiency.



INTRODUCING THE 4R CONCEPT

The concept of 4R nutrient management consists of determining the "Right" way to meet the needs of bananas, considering:

- **Right Source** of nutrient applied at the
- **Right Rate**
- **Right Time**
- **Right Place**



When a nutrient deficiency has been confirmed, consideration of each of the 4 "R's" should be made before applying a corrective fertilizer treatment.

The images on this poster are a result of a collaborative effort between Tennessee State University and the African Plant Nutrition Institute (APNI). Contact **Dr. Dharma Pitchay**: dpitchay@tnstate.edu or APNI: info@apni.net for more details.

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THE CIGAR LEAF

Bananas have a rolled cylinder leaf, the "cigar leaf", which emerges from the center of the pseudostem. This developing leaf takes a week or two to fully emerge and unfurl.



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