



W03L04: Nutrient Management

Dr. Sanjay Kumar

Chairman, Dept. of Agronomy, BAC, Sabour

Nutrient Management

- ✓ Diagnosis of nutrient deficiency
- ✓ Decision making tools (Greenseekers/Leaf colour chart/Nutrient expert)

Deficiency symptoms

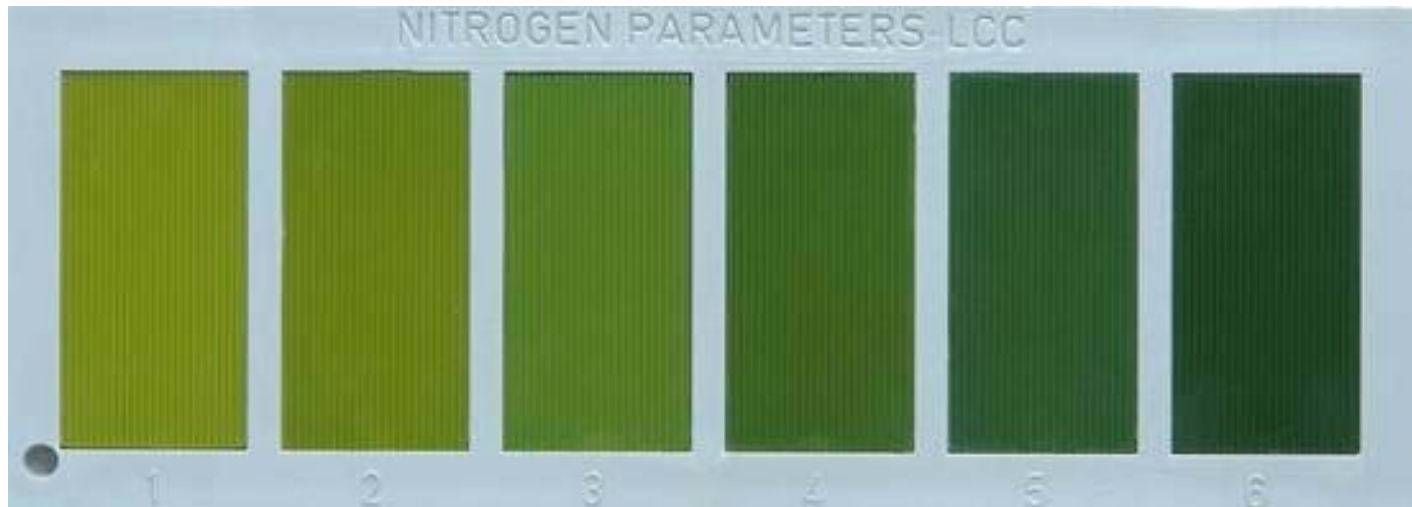
- ✓ **Nitrogen (N) deficiency:** yellowing of the leaves start showing in the older leaves near the base of the plants. If the condition persists, these leaves become completely yellow and fall off from the plants.
- ✓ **Phosphorus (P) deficiency:** P deficiency does not turn the leaves into yellow colour. Leaves turn dark green and even purple colour from the margins. The petioles also turn red-purplish colour.

Deficiency Symptoms

- **Potassium (K) deficiency:** leaves margins and tips turn yellow and rusty and may also curl and crinkle from the older leaves. Stem branches may increase and plants become slender and weak.
- **Sulfur (S) deficiency:** young leaves turn yellow and plants become short and small. Similar to nitrogen deficiency but starts with the younger leaves.

Leaf Colour Chart

- The Leaf Colour Chart (LCC) is used to determine the N fertilizer needs of the crop. LCC has four to six green strips, with colour ranging from yellow green to dark green.
- It determines the greenness of the rice leaf, which indicates its N content.



GreenSeeker

The GreenSeeker handheld crop sensor is an affordable, easy-to-use measurement device that can be used to assess the health or vigour of a crop for better nutrient management decisions.



Nutrient Expert

Nutrient Expert is an easy-to-use, interactive, and computer-based decision support tool that can rapidly provide nutrient recommendations for an individual farmer field in the presence or absence of soil testing data.