Using the Leaf Color Chart (LCC)

- LCC is a cheap, fast, and handy field instrument to measure green color intensity of leaf, which is related to the plant’s nitrogen content.

- Yellowish green (No. 2 in the LCC) represents the lowest nitrogen concentration and dark green (No. 5) as the highest.

Remember:

- Take the first LCC reading at 14 days after transplanting (DAT).
- However, if 14-14-14-12S is applied through soil incorporation or as topdress at 14 DAT, start LCC reading at 21 DAT.
- For direct wet-seeded rice, start taking readings at 21 days after direct wet seeding.

Procedure

1. Randomly select 10 healthy plants in your field where plant distribution is uniform.

2. Select the topmost, fully expanded, and healthy leaf of each of the 10 plants. Take LCC readings by placing the middle part of the leaf on top of the LCC’s color strips for comparison. Do not detach the leaf and do not expose the LCC to direct sunlight during readings. The same person should take the LCC readings at same time of the day between 8:00 a.m. and 10:00 a.m. from first up to the last reading.

3. If more than 5 out of 10 leaves have readings below 4 in transplanted rice and below 3 in direct wet-seeded rice, apply 30 kg N/ha during dry season (DS) or 23 kg N/ha during wet season (WS). Use 1.5 bags of urea per hectare during DS or 1 bag urea during WS. Do not use ammonium sulfate since sulfur is adequately supplied with the basal application of 14-14-4-12S.

4. Repeat LCC readings every seven days until the first flowering. Different sets of 10 leaves can be used for each weekly reading.