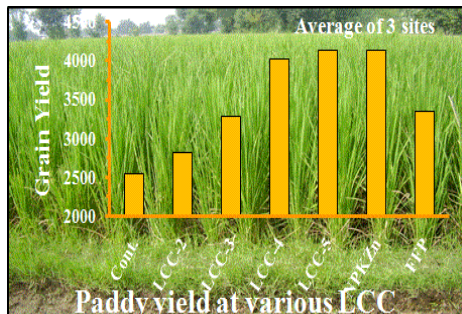
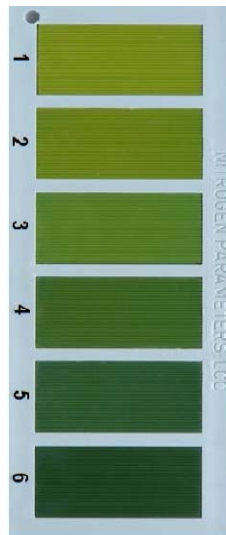


Leaf Color Chart (LCC) for Need-based N Management in Rice

Leaf Color Chart (LCC)



CHALLENGE:

Nitrogen is the most limiting nutrient in almost all the soils. Blanket fertilizer recommendations over large areas are not efficient as it does not consider variability of soil N supply and changes in crop demand. It is more beneficial if N inputs could be adjusted to actual crop conditions and nutrient requirements.

INTERVENTION:

Demonstrated that leaf color chart (LCC) is reliable, quite simple, and useful tool to assist farmers in decision making regarding top-dress N application to crops. Multi-location field experiments were conducted on rice in the rice wheat area to determine the appropriate LCC value for basmati rice for getting the optimum cost effective yield. Various LCC values were evaluated. The LCC value 4 was found to be the most effective for getting the optimum yield and to achieve higher nitrogen use efficiency.

OUTCOME:

Saving of urea is 30 kg ha^{-1} by using LCC. The area under rice cultivation is about 2.2 million hectare. Substantial amounts of urea can be saved if half of the rice growing farmers will adopt this technology. It will not only increase the profit of farmers but also reduce the environmental pollution. Based on these findings, Water Management Department, Lahore delivered LCC to rice growing farmers in the area of rice wheat project.