

SOIL TEST INFORMATION SHEET NO. C-150

- Prepared by Extension Agronomist Ronnie Levy

Rice

1. Fertilizer nutrients are most efficiently used by rice when applied immediately before plant demand. In general, applications of phosphorus, potassium, zinc and sulfur are best utilized when applied during the window from just before planting until the four-leaf stage of development. Lime is not recommended for rice production unless the pH of the soil falls below 5.5. Soybeans grown in rotation with rice may benefit from liming. The pH of the soil should not be increased to more than 6.2 for rice production. Over-liming can induce zinc deficiency in rice. If needed, lime should be applied in the fall after rice harvest.
2. In a water-seeded pinpoint flood system, one-third of the crop's nitrogen fertilizer needs should be applied during the brief drain period between planting and reflooding. If urea is the fertilizer source, it should be treated with a urease inhibitor product containing the active ingredient N-(n-butyl) thiophosphoric triamide (NBPT), N-(n-propyl) thiophosphoric triamide (NPPT) or Duromide. The second third of the nitrogen fertilizer should be applied one to two weeks later and the final third by internode elongation (green ring).
3. In a drill-seeded, dry broadcast or water-seeded delayed flood system, two-thirds of the nitrogen should be applied immediately before permanent flood. In order to maximize nitrogen efficiency, the application should be made on dry ground, and the field should be flooded as soon as possible after the application. The balance of the nitrogen should be applied at internode elongation (green ring) or earlier if deficiency symptoms occur.
4. Varieties vary in their nitrogen needs as follows:

	N rate (lbs/A)	or	Urea (lbs/A)
Addi Jo, Avant, Jupiter.....	90-135		200-300
Cheniere, CL111, CL153, CLHA03, CLJ01, CLL16*,	115-180		250-400
CLL18*, CLL19, CLM04, Della-2, Fitzgerald, Frontiere,	115-180		250-400
Jazzman, Jewel, Mermentau, PVL03, Taurus, Titan.....	115-180		250-400
5. Furrow-irrigated rice (FIR), also known as row rice, often requires 30 to 50 pounds more nitrogen as compared to delayed flood rice due to the reduced nitrogen fertilizer efficiency caused by the frequent wetting and drying of the soil. Nitrogen application in FIR should utilize multiple smaller applications to improve fertilizer efficiency.
6. When zinc deficiency symptoms begin to occur (bronzing), it is recommended to immediately drain the field. When the rice begins to show signs of recovery (new growth), a foliar zinc application can be applied to rice at rates between 1 and 2 pounds of zinc per acre. Granular zinc applications at this time have also shown to be equally effective.
7. Ratoon, or second-crop rice, should be fertilized with 90 pounds of nitrogen per acre when the first crop is harvested before Aug. 15. Apply nitrogen and establish a very shallow flood as soon as possible after the first-crop harvest to maximize second-crop yields. If first crop is not harvested before Aug. 15, lower nitrogen rates are recommended. A good rule of thumb is to reduce nitrogen by 5 to 6 pounds per day after Aug. 15. Nitrogen is not recommended after Sept. 1.
8. Contact your county agent for additional information and help in your fertilization program. The agent also receives a copy of this report for the parish office files.