

SOIL TEST INFORMATION SHEET NO. C-180

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Sugarcane

1. Sugarcane plants grow best in soils with a pH between 5.8 and 6.5.
2. Nitrogen (N) is the most important nutrient for sugarcane growth and sugar production. Applications should be made between March 20 and April 20. It can be done earlier if the crop is more advanced or later if the crop is less advanced. Higher than recommended rates of nitrogen may increase tons of cane per acre but also may decrease sugar per ton of cane. The recommended rates will maximize sugar per acre yields with optimum sugar per ton of cane. For plant cane, 60-80 lbs N per acre should be applied in light soils, and 80-100 lbs N per acre in heavy soils. For stubble cane, 80-100 lbs N per acre should be applied in light soils, and 100-120 lbs N per acre in heavy soils.
3. Phosphorus (P): Apply only if recommended by a soil test. All P should be applied in the spring. Excess P may lead to increased brown rust severity. If soil P levels are lower than 10 ppm, 45 lbs P per acre should be applied.
4. Potassium (K): Apply only if recommended by a soil test. All K should be applied in the spring. The recommendation will depend on soil K levels, which present different critical values depending on soil texture.
5. Sulfur (S): Apply only if recommended by a soil test. All S should be applied in the spring. Excess S may lead to increased brown rust severity. Apply S only if soil S levels are lower than 20 ppm. If S levels are between 10-20 ppm, 20 lbs S per acre should be applied. If S levels are lower than 10 ppm, 40 lbs S per acre should be applied.
6. Zinc (Zn): Apply only if recommended by a soil test or tissue analyses. All Zn should be applied in the spring before planting. Apply Zn only if soil Zn levels are lower than 2.25 ppm. Overliming can induce Zn deficiency (less plant-available Zn at high soil pH). The deficiency of Zn can also occur in areas where the topsoil was removed through land grading. Zinc is relatively immobile in the soil and can accumulate in the topsoil. If Zn levels are between 1-2.25 ppm, 3 lbs Zn per acre should be applied. If Zn levels are lower than 1 ppm, 6 lbs Zn per acre should be applied.
7. 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.