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# Re-Evaluation of Current Nitrogen Recommendations for Irrigated Corn in Florida

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**Abstract :** To our best knowledge, for a new recommendation of nitrogen (N) rate of irrigated corn in Florida, we evaluate different doses of N that can be applied by growers and select the best one that is both environmentally friendly and does not compromise yield potential or growers' income. A study was carried out in March 2024 in Live Oak, Florida, at two different sites to evaluate a hybrid corn cultivar response to different N fertilizer rates. The N was applied in six different rates (0, 78.5, 157, 235, 314, 392, and 471 kg $ha^{-1}$) under a randomized complete block design with four replicates. The fertilizer application was done in seven splits to meet crop requirements of N throughout its growing cycle with a starter dose of 33.62 kg $ha^{-1}$ at planting. The remaining amount of N fertilizer was then applied by hand in splits as follows: 10% at fourth leaf stage (V4), 15% at V8, 20% at V10, 25% at V12, 10% at V14, 10% at tasseling (VT) and 10% at silking stage (R1). Periodic soil samples were collected at depths of 0-30, 30-60, and 60-90 cm and analyzed for total Kjeldahl N, nitrate-N, and ammonium-N analyses. Biomass samples as whole shoots were analyzed for total N. Other observations viz; plant height, SPAD, crop circle (ACS-435), leaf spectrometer were taken to detect nitrogen deficiencies at early stages.

**Keywords :** nitrogen, Florida, corn, split application
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