

# Studies on Yield and Nutrient uptake of Baby Corn as Affected by Nitrogen and Population Levels

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## ABSTRACT

A field experiment was conducted during *kharif* 2014 on sandy loam soils of the Agricultural College Farm Bapatla to study the yield and nutrient uptake of baby corn as affected by nitrogen and population levels. The experiment was laid out in randomized block design with factorial concept and the treatments were replicated thrice. The treatments consisted of four levels of nitrogen in Factor – A (60, 120, 180 and 240 kg ha<sup>-1</sup>) and four plant densities (P<sub>1</sub>: 2,22,222; P<sub>2</sub>: 1,48,148; P<sub>3</sub>: 1,11,111 and P<sub>4</sub>: 1,66,666 plants ha<sup>-1</sup>) in Factor – B. Results of the experiment showed that applying 240 kg N ha<sup>-1</sup> registered the highest 12024 kg ha<sup>-1</sup> cob with husk yield which was statistically comparable with 11711 kg ha<sup>-1</sup> @ 180 kg N ha<sup>-1</sup>. 1,66,666 plants ha<sup>-1</sup> with 12,596 kg ha<sup>-1</sup> and 1,48,148 plants ha<sup>-1</sup> with 11,647 kg ha<sup>-1</sup> were statistically comparable and significantly superior to other two densities tried. Regarding nutrient uptake highest N uptake, by fodder was recorded in 2,22,222 plants ha<sup>-1</sup> along with the application of 240 kg N ha<sup>-1</sup> (191.08 kg ha<sup>-1</sup>). While the highest nitrogen uptake by ear was recorded with a planting density of 1,66,666 plants ha<sup>-1</sup> (93.70 kg ha<sup>-1</sup>) with the application of 240 kg N ha<sup>-1</sup>. Significantly the highest phosphorus uptake (19.9 kg ha<sup>-1</sup>) at a planting density of 2,22,222 plants ha<sup>-1</sup> and with the application of 240 kg N ha<sup>-1</sup> (22.1 kg ha<sup>-1</sup>) was recorded and the lowest phosphorus uptake (15.8 kg ha<sup>-1</sup>) was registered in 1,11,111 plants ha<sup>-1</sup>. Significantly the highest potassium uptake (73.4 kg ha<sup>-1</sup>) at a planting density of 1,66,666 plants ha<sup>-1</sup> and with the application of 240 kg N ha<sup>-1</sup> (76.5 kg ha<sup>-1</sup>) was recorded.

Key words: *Baby corn, Nutrient, Population levels.*