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EFFECT OF DIFFERENT FERTILIZER LEVELS AND HUMIC ACID APPLICATION ON GROWTH, YIELD AND ECONOMICS OF CHICKPEA (*CICER ARIETINUM* L.)

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An agronomic investigation entitled as "Effect of different fertilizer levels and humic acid application on growth, yield and economics of Chickpea (*Cicer arietinum* L.)" was conducted during *rabi* 2020-21 at Experimental Farm, Department of Agronomy, College of Agriculture, Latur. The objective of present study was to find out the effect of fertilizer levels and humic acid on growth and yield of chickpea and to find out the economics of chickpea treatments.

The experimental site was clayey in texture, slightly alkaline in reaction, soil was low in available nitrogen, medium in available phosphorous and high in available potassium. Soil was well drained, with good moisture retention capacity. The experiment was laid out in Factorial Randomized Block Design (FRBD) with nine treatment combinations, consisting of two factors i.e. different fertilizer levels and humic acid application through soil, which included three levels each of different fertilizer levels and humic acid application. The different fertilizer levels were 75% RDF (F_1), 100% RDF (F_2) and 125 % RDF (F_3) whereas, humic acid levels were 1 kg humic acid ha^{-1} (H_1), 2 kg humic acid ha^{-1} (H_2) and 3 kg humic acid ha^{-1} (H_3). The gross plot size of each experimental unit was 5.4 m × 4.5 m and net plot size was 4.8 m × 3.9 m. Sowing was done on 08th November, 2020 by dibbling method at spacing 30 cm x 10 cm. The crop was harvested on 23rd February, 2021.

The result of the experiment revealed that higher growth and yield attributes, seed yield (3051 kg ha^{-1}), straw yield (5819 kg ha^{-1}), GMR (₹ 149499 ha^{-1}), NMR (₹ 102424 ha^{-1}) and B:C ratio (3.18) was observed with the application of 125% RDF (F_3). Higher growth and yield attributes, seed yield (3025 kg ha^{-1}), straw yield (5768 kg ha^{-1}), GMR (₹ 148225 ha^{-1}), NMR (₹ 100427 ha^{-1}) and B:C ratio (3.10) was observed with the application of 3 kg ha^{-1} humic acid (H_3). In case of seed yield and net monetary returns (₹ ha^{-1}), application of 125 % RDF and 3 kg ha^{-1} humic acid performed better.