

EFFECT OF PLANT DENSITY ON YIELD AND ECONOMICS OF PIGEONPEA [CAJANUS CAJAN (L.) MILL SP.]

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Received-06.07.2021, Revised-15.07.2021, Accepted-24.07.2021

Abstract: An experiment was conducted during the kharif season of 2020-21 to find out the effect of optimum plant density / geometry on yield and economics of pigeonpea. Pigeonpea crop sown at 80 and 60 cm inter row with 30 or 20 cm intra row spacing gave significantly higher seed yield, biological and stalk yield over rest of the plant densities. The lowest yields of seed, biological yield and stalk yield were found under broadcast @ 15 kg seeds ha⁻¹ (0.97 lakh plants ha⁻¹) closely followed by broadcast @ 12 kg seeds ha⁻¹ (0.78 lakh plants ha⁻¹), 40 x 30 cm (0.83 lakh plants ha⁻¹) and 40 x 20 cm (1.25 lakh plants ha⁻¹). Maximum harvest index (19.45) was recorded under wider spacing 80 x 30 cm (0.41 lakh plants ha⁻¹) and it was lowest (18.06) under broadcast @ 12 kg seeds ha⁻¹. Significantly higher gross return (Rs 87400), net return (Rs 58363) and benefit cost ratio (2.01) were found at spacing of 80 x 30 cm followed by 80 x 20 cm, 60 x 30 cm and 60 x 20 cm spacing.

Keywords: Pigeon pea, Plant density, Yield, Economics

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