

Response of broad bean Cultivars (Vicia faba L.) to harvest levels Of NPK fertilizer

By

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Abstract

Field Experiment Was Conducted during Winter Season of 2015-2016 In Qurna District Of 80 Km North Basra, To Study The Effect Of Four Levels Of Compound Fertilizer NPK on Growth and Yield of Three Varieties Of Broad bean (*Vicia faba* L.) by Split plot design (R.C.B.D.) with Three Replications, Experiment included two factor, The first four levels of NPK fertilizer 30-10-10 which were F0 Without fertilization, F1 100, F2 200 and F3 300 kg/h⁻¹, The Second Factor was Three Varieties which were Ecuadlchi Turkish Origin, Acuadols Dutch Origin And Luz De Otunnu spanish Origin .

Results Showed that F3 Fertilizer was superior in Plant Height At A Rate Of 82.2 Cm, Pod Number Per Plant At A Rate Of 10.1 Bra/Pl⁻¹ , Seed Number Per Pod At A Rate Of 4.03 Seed/ Pod⁻¹ , Yield Per Plant At A Rate Of 47.2 Gm/Plant⁻¹ , seeds yield At A Rate 4696 kg/h⁻¹ , Proportion Of Protein At A Rate 30.7%, Protein Yield At A Rate 1451.6 Kg/H⁻¹ And Biological Yield At A Rate 10037 Kg/H⁻¹, While F1 Treatment was superior in Weight 100 Seed only which was 121.8 Gm , control Treatment had the Highest Number Of Days From Planting to The First appearance Of Flower 58.67 Days, No Significant Difference among In Number of Tillers Per Plant and Harvesting Index .

Achieved cultivar Was Superior in Number Of Days Until First Flower 61.25 Days, While Acuadols Cultivar was Superior in Plant Height 86.8 Cm, and Number of Toller 6.63 Branch/Plant⁻¹, Luz De Otunnu cultivar had the highest pods number 8.98, Plant Yield 38.7 gm, plant Proportion Of Protein At A Rate 30.5% , Protein Yield 1171.4 kg.h⁻¹ and harvesting index 46.4%. No Significant Differences was four among cultivars Number of Seeds Per Pod, Weight of 100 Seeds , Total Seeds Yield And Biological Yield.