



Impact of interaction between organic nitrogen and Bio fertilizers on quality and productivity of Pea (*Pisum sativum* L.) plants

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Abstract : Using organic and bio fertilizers can make as an alternative to use mineral fertilizers. The nitrogen fertilizer requirement of pea plant is high, reverse all the legumes plants, because it is less in the fixation of atmospheric N. Two field experiments were carried out in factorial randomized complete block design with three replicates. Each experiment included nine treatments, two rates of chicken manure (ChM) as a source of organic N; 80 and 100 kg N fed⁻¹ applied singly or in combined with three kind of bio fertilizer (Nitrobin, Biogen and Halex-2). The application of 100 kg N fed⁻¹ as chicken manure + Nitrobin gave the highest values of N₂-ase activity (86.49) and all nodules characters i.e. nods number/plant and nod fresh and dry weight (20.44,0.471,0.045) Moreover, inoculating seed of pea by all types of bio fertilizer have significantly increased in all studied parameters. The highest content of protein and carbohydrate (25.17and16.05) were obtained when plants fertilized with100 kg N fed⁻¹ as chicken manure + Nitrobin. The seed yield of pea plants was highly significant effect with addition of 100 kg N fed⁻¹ as chicken manure + Nitrobin, which considered as one of the effective agriculture practices in organic farming and environmentally safe procedure.

Key words:Chicken manure, bio-fertilizer, pea plant, growth, pods yield and quality.

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