

INFLUENCE OF VARIOUS BIOFERTILIZERS AND MULCHING ON GROWTH, YIELD AND YIELD ATTRIBUTING TRAITS OF GARLIC (*ALLIUM SATIVUM L.*)

CV. PG-18

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ABSTRACT

The experiment was conducted to study the influence of biofertilizers and mulching on growth, yield and yield attributing traits of garlic (*Allium sativum L.*) cv. PG-18 was conducted at Agriculture Farm, School of Agricultural Sciences and Technology, RIMT University, Mandi Gobindgarh, Punjab, India during 2019-20. The experiment was conducted in Factorial Randomized Block Design along with three replications. The different treatments included a combination of various biofertilizers and mulching. The results revealed that the maximum plant height (53.15cm), length of leaf (34.57cm), stem diameter (5.88mm), yield (3.90 kg/plot and 54.05 q/ha⁻¹), weight of bulb (24.39g), polar diameter of bulb (3.07cm) and total soluble solids (36.26°Brix) were recorded under treatment T₈ (Black polythene mulch+Azotobacter+PSB). However, the maximum leaves per plant (7.11), number of cloves per bulb (33.46) were recorded under treatment T₇ (Black polythene mulch + PSB). Whereas, the highest thickness of bulb neck (7.95 mm), length of cloves (2.90 mm), length of pseudo stem (6.01cm) and equatorial diameter of bulb (4.17cm), were produced by treatment T₆ (Black polythene mulch+Azotobacter) and T₁₀ (Rice Straw mulch+Azotobacter). It is concluded that Black polythene mulch+Azotobacter+PSB, Black polythene mulch+PSB, Black polythene mulch+Azotobacter and Rice Straw mulch+Azotobacter are best for garlic growth and yield.

KEYWORDS: Azotobacter, black polythene, garlic, Rice straw & PSB

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