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Effect of microbial inoculants and chemical fertilizers on yield and economics of hybrid cabbage (*Brassica oleracea* var. *capitata*)

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ABSTRACT : The present investigation was carried out at Department of Horticulture, Allahabad School of Agriculture, SHIATS, Allahabad, U.P. during winter season of 2014-15 and 2015-16 in Factorial Randomized Block Design (RBD) for yield and quality contributing characters. The microbial inoculants (*Azospirillum*) significantly reduced the number of days taken to head initiation (52.20 days). The plants developed under NPK levels of N₂₀₀ P₁₀₀ K₁₀₀ along with microbial inoculant *Azospirillum* significantly produced the highest average head yield (1.753 kg) per plant. The highest head yield (787.47 q/ha) was obtained with the use of microbial inoculant *Azospirillum* and proved its superiority over *Azotobacter*. For economics components the highest gross return (607954.67Rs./ha) was associated with NPK levels of N₂₀₀ P₁₀₀ K₁₀₀ + *Azospirillum*. Moreover, net return (463011.69Rs./ha) was associated with NPK level of N₂₀₀ P₁₀₀ K₁₀₀ per hectare. The plants grown at NPK levels of N₂₀₀ P₁₀₀ K₁₀₀ per hectare produced significantly maximum benefit: cost ratio (3.96). Therefore, it may be concluded that application of microbial inoculants basically *Azospirillum* as soil application of NPK levels of N₂₀₀ P₁₀₀ K₁₀₀ per hectare was the most effective treatment combination for higher yield and economics in hybrid cabbage.

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