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# Effect of integrated nutrient management on plant growth, fruit yield and quality of phalsa (*Grewia subinaequalis* D.C.)

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**ABSTRACT :** Field experiment was carried out to ascertain the effect of integrated nutrient management on plant growth, fruit yield and quality of phalsa. Eleven treatment combinations of nutrient resources were tested on phalsa var. Sharbati. The maximum plant growth and fruit yield (5.06 kg per plant and 5.23 kg per plant ) in both the year, respectively was obtained with treatment $T_6$ closely followed by treatment $T_7$. The physical character of fruits *viz*., fruit length (1.13 and 1.15 cm), fruit breadth (1.37 and 1.35 cm), weight of fifty fruits (38.63 and 39.10g) and juice per cent (51.11 and 51.92%) and pulp/stone ratio (1.60 and 1.62) were recorded maximum with treatment $T_6$ during both the years, respectively. Chemical character of fruit *viz*., TSS (27.64 and 27.91%), reducing sugars (19.38 and 19.40%), non reducing sugars (2.37 and 2.38%) and total sugars (21.74 and 21.78) were obtained with treatment $T_6$ during both the years, respectively. The minimum acidity (2.24 and 2.20%) and maximum ascorbic acid (38.51 and 38.21 mg/100 ml juice) was also obtained with treatment $T_6$ during both the years respectively. On the basis of performance treatment $T_6$ FYM +75 per cent NPK+ *Azotobacter*+ PSB+ $ZnSO_4$(0.4%) may be applied for better growth, yield, quality and sustainability of phalsa crops.

**KEY WORDS :** Phalsa, Bio-fertilizers, Nutrients, Micronutrients

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