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Impact of NPK fertilizers on growth attributes and micronutrient uptake patterns of hybrid sunflower

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ABSTRACT : This study was undertaken to know the impact of different levels of NPK fertilizers on growth and micronutrient uptake pattern of hybrid sunflower under irrigated condition. For this purpose a field experiment was conducted at Agricultural Research Station, Bhavanisagar, Tamil Nadu Agricultural University. Experiment comprised of macronutrient treatments consisted of five levels of nitrogen (0, 30, 60, 90 and 120 Kg N/ha), four levels of phosphorus (0, 30, 60 and 90 kg P_2O_5 /ha) and four levels of potassium (0, 30, 60 and 90 kg K_2O /ha). Increasing levels of NPK increased growth parameters like plant height, leaf area index, dry matter production, crop growth rate, Net assimilation rate and relative growth rate. Yield components and oil content also increased with increasing levels of NPK. Maximum seed yield (2006 Kg ha^{-1}) and oil content (42.4 %) was recorded with NPK @ 120:90:90 kg/ha (T_7). Cu, Fe and Mn uptake was observed maximum in T_7 but Zn uptake was observed higher with NPK @ 120:60:60 kg/ha (T_6).

Key Words: Micronutrient uptake, hybrid sunflower, growth and yield attributes.