

GROWTH AND SEED YIELD OF BROCCOLI AS INFLUENCED BY MICRONUTRIENTS AND ITS APPLICATION METHODS

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Executive Summary

The experiment was conducted at the Central Farm of Sher-e-Bangla Agricultural University (SAU), Sher-e-Bangla Nagar, Dhaka-1207, Bangladesh during the period from October, 2021 to April, 2022 to investigate growth and seed yield of broccoli as influenced by micronutrients and its application methods. The seeds of BARI broccoli-1 were collected from BARI, Gazipur Dhaka. This experiment was conducted with two factors: Factor-A Micronutrients (Four levels)- (i) F_0 - Zn₀ B₀ Mo₀ kg/ha (ii) F_1 - Zn_{2.0} B_{1.0} Mo_{1.0} kg/ha (iii) F_2 - Zn_{4.0} B_{2.0} Mo_{1.5} kg/ha and (iv) F_3 -Zn_{6.0} B_{3.0} Mo_{2.0} Kg/ha Factor-B: Application methods (Three type)- (i) M_1 - Direct soil (ii) M_2 - Foliar spray at before flowering (iii) M_3 - Direct soil + Foliar spray at before flowering. There are 12 treatment combinations. The two factors experiment was laid out in a Randomized Complete Block Design (RCBD) with three replications. Seeds were sown on 01 November and transplanting was done 22 November with distance 60cm X 45cm to be maintained. In case of different levels of micronutrients, maximum number of branches per inflorescence (15.49), number of flower per branches (69.37), number of pods per plant (2204.90) and seed yield per hectare (1.15 t) were observed from F_3 treatment and minimum number of branches per inflorescence (10.26), number of flower per branches (43.14), number of pods per plant (1426.30) and seed yield per hectare (0.65 t) were obtained from F_0 treatment. For application methods, maximum number of branches per inflorescence (14.44), number of flower per branches (63.29), number of pods per branch (31.21) and seed yield per hectare (1.02 t) were observed from M_2 treatment and minimum number of branches per inflorescence (11.96), number of flower per branches (48.43), number of pods per branch (28.70) and seed yield per hectare (0.82 t) were observed from M_1 treatment. Due to combined effect, maximum number of branches per inflorescence (16.67), number of flower per branches (77.0), number of pods per plant (2449.30) and seed yield per hectare (1.30 t) were obtained from F_3M_2 treatment combination and the minimum number of branches per inflorescence (9.67), number of flower per branches (37.67), number of pods per plant (1332.80) and seed yield per hectare (0.59 t) were produced from V_0M_0 treatment combination. So, the F_3M_2 treatment combination appeared to be the best for achieving the higher growth and seed yield of broccoli.

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