



Research Note

Influence of GA₃ and NAA on yield parameters of cauliflower cv. SNOWBALL-16

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Abstract : Investigation was carried out to evaluate the performance of different level of GA₃ and NAA as root dipping and foliar spray on cauliflower cv. SNOWBALL-16. GA₃ applied at 50mg/l foliar spray on cauliflower gave the best results for length of stalk (5.22 cm), curd diameter (17.78 cm), gross weight of curd (3.53 kg/plant), net weight of curd (1040 kg/ha), yield of curd (12.25 kg/plot and 378.04 q/ha), while the same treatment showed minimum days to 50 per cent marketable curd (88.80 days).

Key Words : GA₃, NAA, Cauliflower, Root dipping and Foliar spray

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Cauliflower got an important place among the cole crops because it's delicious taste, flavour and nutrition. Cauliflower is a good source of protein, carbohydrates, minerals and vitamins. The leading cauliflower growing states are West Bengal, Bihar, Uttar Pradesh, Punjab and some part of Gujarat. Cauliflower gives good response to the plant growth regulators for better vegetative growth. So it directly related to the yield of curd in cauliflower. Therefore, the present investigation was carried out on the effect of GA₃ and NAA on the yield parameters of cauliflower cv. SNOWBALL-16.

A field trial was conducted at College Farm, N.M. College of Agriculture, Navsari Agricultural University, Navsari during 2009-10. The soil of experimental field had a pH (7.7), available nitrogen (229.08 kg/ha), available phosphorus (29.54 kg/ha) and available potash (336.50 kg/

ha). The experiment was laid out in Randomized Block Design (RBD) with three replications and different concentration of GA₃ and NAA at 50, 75, 100 mg/l with root dipping and foliar spray. Basal dose of FYM was applied at the rate of 20 tonnes per ha, phosphorus and potash were applied uniformly to each plot at the rate of 80 kg/ha. Whereas nitrogen was applied at the rate of 100 kg/ha in two splits. The first half dose of nitrogen was applied at basal dose and remaining dose at 30 days after transplanting. The data on length of stalk, days to 50 per cent marketable curd, curd diameter, gross weight of curd, net weight of curd, yield of curd per plot and yield of curd per hectare were recorded and statistical analysis was done at statistical department, N.M. College of Agriculture, N.A.U, Navsari.

The data presented in Table 1 revealed that length of stalk was influenced significantly by GA₃ and NAA. Highest stalk length 5.22 cm was recorded in GA₃ 50mg/l foliar spray which remained at par with NAA 50mg/l (4.97 cm), GA₃ 75 mg/l (4.82 cm) and GA 100 mg/l (4.56 cm) foliar spray. It might be due to the folier spray of gibberelic acid which stimulate vegetative growth and involved in initiation of the cell division in cambium. Enhance in auxin content of tissue also increase cell elongation. Similar results were also

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