INFLUENCE OF WATER AND KINETIN ON THE GROWTH AND FLOWERING OF CARNATION

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ABSTRACT

Two field experiments were conducted to evaluate the effect of water regimes and kinetin spraying on growth, flowering and chemical composition of *Dianthus Caryophyllus* cv. white sim.

Number of branches per plant, length of flower stem, fresh weight of leaves and flower stem were considerably increased by water regime E (2155 m³/feddan). Water regime C (3310 m³/feddan) gave the maximum number of flowers per plant while water regime D (4310 m³/feddan) produced the largest diameter and heaviest fresh weight of flower.

Kinetin at 200 ppm produced the best growth characters as (number of branches, length and fresh weight of flower stem, number and diameter of flowers). While kinetin at 100 ppm gave the heavier fresh weight of leaves and flower.

Water regime (C or D) with kinetin at 100 ppm produced the best flowering characters of carnation plants. This results is economically valuable.

Chemical analysis of leaves showed higher carbohydrate percentage due to water regime (D) plus kinetin at 100 or 200 ppm.