

RESPONSE OF *Rosa damascena* TO MAGNETIZED WATER AND PHOSPHORUS FERTILIZATION .

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ABSTRACT

An experiment on the effect of magnetized water and phosphorus fertilization on vegetative growth and flowering of *Rosa damascena* was carried out from April 2009 to Nov. 2009. Regular or magnetized water with 500 gauss of magnetic field were used in plants irrigation. Phosphorus levels tested were 0, 20 or 40 g/l. Results could be summarized as follows:

Magnetized water improved the growth and flowering of plants. Plant height 69.65 cm , branch diameter 3.86 cm , Number of leaves/plant 100.25, leaves area 89.38 cm², chlorophyll content 465.5 mg/m², vegetative dry weight 15.50 g, percentages of N , P , K were 1.83%, 2.92%, 2.26% respectively. Number of flower/plant (6.73), flower diameter (12.8 cm), flowering period (9.13 day), vase life (11.44 day) and flowers dry weight (25.98 g) were increased as well.

Phosphorus at 20 g/l was more effective on increasing no. of branches/plant (12.04), branch diameter (3.65 cm), no. of flowers/plant (6.75) and vase life (10.25 day). While 40 g/l was superior on enhancing plant height (64.96 cm), no. of leaves/plant (109.08), leaves area (83.04 cm²), chlorophyll content (458.2 mg/m²), dry weight (15.83 g), N% (1.61), P% (3.03), K% (2.47), flower diameter (12.45 cm) and dry weight (29.40 g) as well.