

EFFECT OF AZOMITE, CALCIUM AND POTASSIUM NITRATE ON GROWTH AND STRAWBERRY'S FRUIT PRESERVATION

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Introduction: Strawberry is an economical fruits, produced in farm and greenhouse. Fruits are very susceptible to *Botrytis cinerea* fungi.

Material and method: In the present research the effect of some additive nutrient compounds : azomite (organic natural fertilizers:1 or 2 g/pot),calcium(calcium nitrate 40 , 60 mg/pot), potassium(potassium nitrate 50 ,70 mg/pot),bore(boric acid 10 ,20m g/pot) and silicon(potassium silicate 10,20 mg/pot) or combination of these, compared by customary nutrition on vegetative growth, production and strawberry fruit preservation. These nutrients prepared in solution form, mixed by culture media. Strawberry transplants (cv. Gaaviota) potted in peat-perlitte pots (1.0 kilograms), installed in IRIPP's greenhouse, in Karaj, for 175 days. Vegetative and reproductive characters of plants were recorded. Fruits were inoculated via brushing and dipping methods, by *Botrytis cinerea* fungus, then there preservation was studied.

Result and discussion:Results indicate that, more wet and dry weight observed in Plants treated by azomite, Ca-nitrate, K-nitrate or combination of these. Plants treated by azomite (1g/pot) + Ca-nitrate(40mg/pot)produced more(25%) and heavier fruits(220%)than untreated control. Ripened fruits were observed in Plants treated by azomite + Ca or K, 18 days earlier than control. Fruits from treated plants by azomite + Ca-nitrate, infected by *Botrytis cinerea* 9 days, later than untreated plants.Addition of Azomite(1g/plants), Ca-nitrate, K-nitrate or combination of theses to plant nutrition program can stimulate plant cell division, cell wall formation and increase acquired defensive system of strawberry plant.