

Testing efficacy of arbuscular mycorrhizal product Symbivit® on *Petunia* plants

Experiments conducted by Symbio-m Ltd. Czech Republic



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Summary

Effect of the inoculation of growing substrate with mycorrhizal product Symbivit[®] was tested in an experiment with *Petunia* plants. Mycorrhizal inoculation positively affected the number of flowers and flower-buds (4x higher), shoot weight (40% higher) and mycorrhizal colonization (50% higher than control, uninoculated plants).

Purpose/Aims:

The aim of this work was to evaluate the effect of inoculation of growing substrate with mycorrhizal product Symbivit[®] on the growth and blooming of *Petunia* plants.

Procedure/Methods:

The pot experiment was conducted on *Petunia* sp. plants in the experimental greenhouse of Symbio-m Ltd. in 2007. The mycorrhizal product Symbivit[®] was mixed into the growing substrate (mixture of peat, zeolite and expanded clay in 2:1:1.2) before planting in a dose of 32g per 400 mL pot. The experiment involved two treatments: control, uninoculated plants and plants inoculated by Symbivit[®]. Each treatment consists of 10 *Petunia* plants.

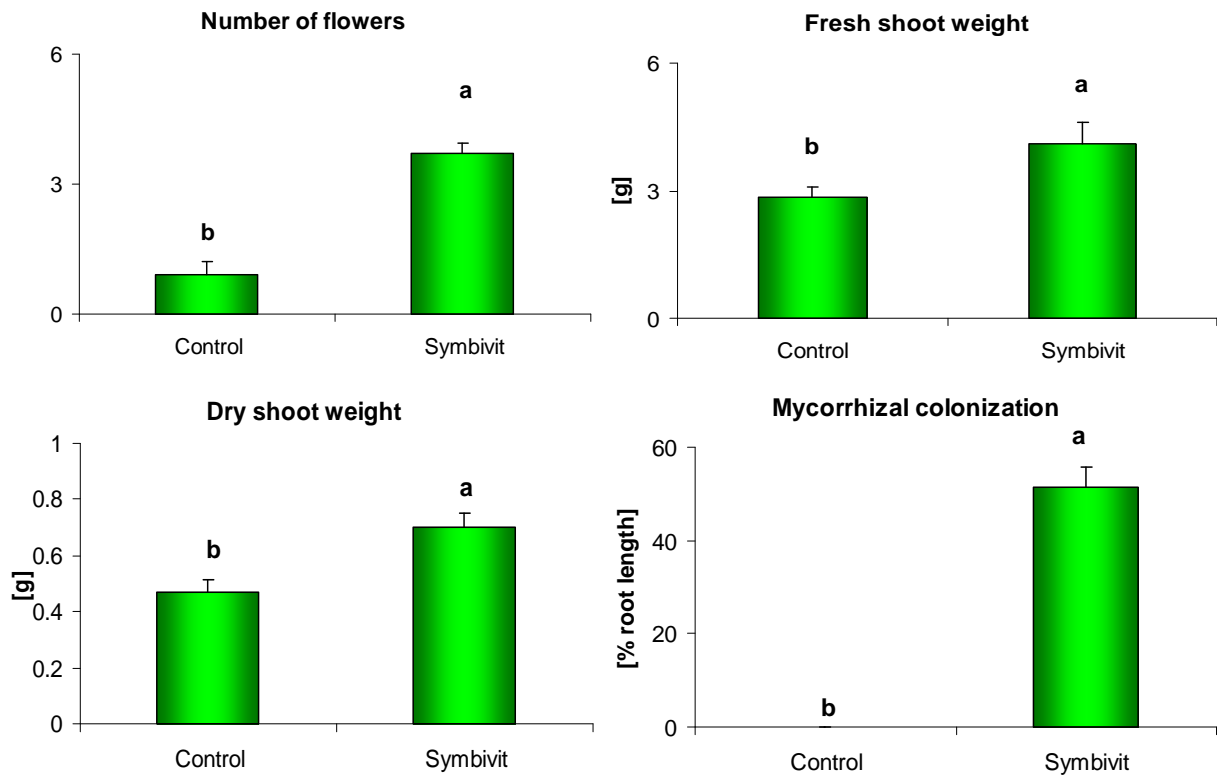
Two months after application the number of flowers included flower-buds were determined for both treatments. The shoot weight and mycorrhizal colonization was evaluated at the end of the experiment (after 3 months). The mycorrhizal colonization was determined for 5 plants per each treatment as a length of root colonized by symbiotic fungi (root maceration in 10% KOH for 45 min in 90°C, Trypan staining, microscopic evaluation). Data were statistically analyzed by ANOVA. The bars above columns in figures refer to standard error (SE). The columns marked by the same letters are not significantly different.

Results:

It was proved that Symbivit[®] - treated *Petunia* plants exhibited significantly higher (4x) number of flowers included flower-buds, greater shoot biomass (more than 40%) and higher mycorrhizal colonization (more than 50%) than the control, uninoculated *Petunia* plants.

Testing efficacy of mycorrhizal product Symbivit[®]

Testing efficacy of mycorrhizal product Symbivit[®] on blooming and mycorrhizal colonization of *Petunia* plants



Comparison of the effects of mycorrhizal product Symbivit[®] on growth and blooming of *Petunia* plants

