INFLUENCE OF GLOMUS FASCICULATUM AND BIO FORMULATIONS ON GROWTH OF JAMUN (SYZYGIUM CUMINII SKEELS)

Siddanna Thoke, D.R. Patil, Srinivas.N, Arun Kumar Bhavidoddi. G.S.K. Swamy and Vijayakumar B. Narayanapur*

University of Horticultural Sciences, Bagalkot, Karnataka Email: <u>vbnhort@gmail.com</u>

Received-02.05.2017, Revised-21.05.2017

Abstract: An experiment was conducted at Horticulture Research Station, Bijapur (Tidagundi) to know the influence of *Glomus fasciculatum* and bioformulations on growth of jamun stocks. Rootstocks treated with *Glomus fasciculatum* had registered highest stock height (23.85cm and 30.70cm in both *in-situ* and *ex-situ* respectively), stock diameter (6.31mm and 7.56mm in both *in-situ* and *ex-situ* respectively) and number of leaves (25.97 and 28.15 in both *in-situ* and *ex-situ* respectively) in *both in-situ* and *ex-situ*. Among sub-treatments, stocks treated with microbial consortia had recorded significantly highest stock height (23.45cm and 30.52cm in both *in-situ* and *ex-situ* respectively) stock diameter (6.19mm and 7.47mm in both *in-situ* and *ex-situ* respectively) and number of leaves (24.79 and 26.88 in both *in-situ* and *ex-situ* respectively) in organic conditions.

Keywords: Syzygium cuminii, Glomus fasciculatum, Bioformulations

REFERENCES

Adivappar, N., Patil, P.B., Patil, C.P., Swamy, G.S.K. and Athani, S.I., (2004). Effect of AM fungi on growth and nutrient content of container grown papaya plants. In *Organic Farming in Horticulture*. Eds. Pathak, R.K., Ram, K., Khan, R.M. and Ram, R.A., Central Institute for Subtropical Horticulture, Ramenkhera, Lucknow, pp. 166-169.

Alvarez, D.B., Nodals, R.A., Perez, A. and Viera, M.R., (1996). The effect of *Azotobacter's* double function on banana (*Musa* spp.). *InfoMusa*, **5**(1): 20-23.

Barea, J. M. and Azcon, A., (1982). Production of plant growth regulating substances by the vesicular arbuscular mycorrhizal fungus, *Glomus mosseae*. *Applied Environmental Microbiology*. **43**:810-813.

Hooker, J.F. and Arkinson, (1992). Application of computer aided image analysis to studies of arbuscular endomycorrhizal fungal effects on plant root system morphology and dynamics. *Agronomie*, **12**: 821-824.

Jeeva, S., Kulasekharan, M., Shanmugavelu, G.K. and Obilisami, G., (1988). Effect of *Azospirillum* on growth and development of banana cv. Poovan (AAB). *South Indian Horticulture*, **36**: 1-4.

Kloepper, J, W., Leong, J. and Schroth, M. N., (1981). Enhanced plant growth by siderophores produced by plant growth-promoting rhizobacteria. *Nature*, **286**: 885-886.

Nemec, S. and VU, J.C.V., (1990). Effect of soil phosphorus and *Glomus intraradices* on growth, non-structural carbohydrates and photosynthetic activity of *Citrus aurantium*. *Plant and Soil*, **128**: 257-263.

Pathak, R.K. and Ram, R.A., (2004). *Manual on Vedic Krishi*, Central Institute for Subtropical Horticulture, Ramenkhera, Lucknow, pp. 1-38.

Venkat, (2004). Exploitation of Rangpur lime as a rootstock for different citrus sp. *M.Sc. (Hort.) Thesis*, University of Agricultural Sciences, Dharwad.

Waterer, D.R. and Coltman, R.R., (1998). Response of mycorrhizal bell peppers to inoculation: Timing, phosphorus and water stress. *Hort Science*, 24(4): 688-690.