RESEARCH ARTICLE

EFFECT OF GROWING MEDIA AND FIELD CONDITIONS ON NURSERY GROWTH PARAMETERS OF *ASPARAGUS RACEMOSUS* WILLD. UNDER MID HILL CONDITIONS

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Abstract: As a first step towards cultivation under mid hill conditions, seed germination study comparing different soil media under two field conditions especially to standardize nursery growth parameters was taken up.The study revealed Soil + Cocopeat + Vermicompost (1:1:1) mediaunder protected condition as the best media. As vermicompost production is quite costly than easily available FYM in the country, one can have the almost similar result by switching vermicompost with FYM in the media mixture. Maximum emergence percentage, shoot length and root length recorded was 27.83 %, 22.55 cmand 12.20 cm, respectively under mid hill conditions with 312.91%, 141.18% and 72.32% increase over control.

Keywords: *Asparagusracemosus*, Emergence percent, Root length, Shoot length

REFERENCES

Anonymous (2015a). Retrieved fromhttp://www.nmpb.nic.in/index1.php?level=0&linkid=90& lid=642

Anonymous (2015b). Retrieved from http://www.nmpb.nic.in/searchdetails.php?lid=246&skey= 32

Anonymous (1948). *Wealth of India: a dictionary of Indian raw materials and industrial products: raw materials.* Vol. I. Delhi: CSIR. 132p.

Anonymous (2000). Annual report of All India Co-ordinated Research Project on Medicinal and Aromatic Plants and Betelvine: 1998-2000. Directorate of Medicinal and Aromatic Plants Research. 82 p.

Ashajyothi, V., Pippalla, R. S. and Satyavati, D. (2009). *Asparagus racemosus* – a phytoestrogen. International Journal of Pharmacy and Technology,1(1): 36-47.

Bopana, N. and Saxena, S. (2007). *Asparagus racemosus* - ethnopharmacological evaluation and conservation needs. Journal of Ethnopharmacology, 110(1): 1-15.

Goyal, R. K., Singh, J. and Lal, H. (2003). *Asparagus racemosus* – an update. Indian Journal of Medical Sciences,57(9): 408-414.

Kirtikar, K. R. and Basu, B. D. (1918). *Indian Medicinal Plants*. Vol IV. 2nd edition. Dehra Dun: Bishen Singh Mahendra Pal Singh. 314p.

Kumar, K. and Abbas, S. G. (2012). Studies on *Asparagus racemosus* Wild. in healthcare formualtions and analysis of quantitative standard in ordeal to Jharkhand. International Journal of Drug Discovery and Herbal Research,2(1): 329-332.

Lawrence, H. M. G. (1960). *Taxonomy of Vascular Plants*. New York: Macmillan Company. pp. 413-416.

Nautiyal, B. P., Prakash, V., Chauhan, R. S., Purohit, H. and Nautiyal, M. C. (2001). Assessment of germinability, productivity and cost benefit analysis of *Picrorhizakurrooa*cultivated at lower altitudes. Current Science,81(5):579-585.

Nautiyal, M. C. and Chauhan, R. S. (2007). Seed germination and seed storage behaviour of *Nardostachysjatamansi* DC., an endangered medicinal herb of high-altitude Himalaya. Current Science,92(11): 1620-1624.

Saxena, G., Singh, M. and Bhatnagar, M. (2010). Phytoestrogens of *Asparagus racemosus*Wild. Journal of Herbal Medicine and Toxicology,4(1): 15-20.

Sharma, P. V. (1998). *Dravyaguna –Vijnana, Chaukhamba*. Bharti Academy, Varanasi, II: pp. 562-564.

Sultan, A. I. (1997). Vermicology – The Biology of Earthworms. Orient Longman Ltd, New Delhi, 92p.

Vashistha, R. K., Chaturvedi, A. K., Nautiyal, B. P. and Nautiyal, M. C. (2009). Vegetative propagation of *Angelica glauca*Edgew. and *Angelica archangelica* Linn.: two high value medicinal and aromatic herbs of the Himalaya. Nature and Science,7(8):76-82.

Wani, J. A., Achur, R. N. and Nema, R. K. (2011). Phytochemical screening and aphrodisiac activity of *Asparagus racemosus.* International Journal of

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Pharmaceutical Sciences and Drug Research,3(2): 112-115.