

Status of Arbuscular mycorrhiza (AM) in nurseries of willow, poplar and pine seedlings in Himachal Pradesh

■ Sunita Chandel* and Vijay Kumar

Department of Plant Pathology, Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan (H.P.) India
(Email : vnarwal777@yahoo.com)

ARTICLE INFO

Received : 05.01.2020
Revised : 10.03.2020
Accepted : 23.03.2020

KEY WORDS :

VAM (Vesicular arbuscular mycorrhiza), Poplar, Willow, Pine, Salix, Rhizosphere

ABSTRACT

Poplar and willow are economically-important, fast-growing tree species with the ability to colonize nutrient-poor environments. Willow (*Salix* sp.) offers a great potential as a source of renewable energy and for bioremediation and polluted environments. To initiate a study on the possible contribution of arbuscular mycorrhiza to this ability, we isolated mycorrhizal fungi from in and around the rhizosphere of native poplar (*Populus* sp.), willow (*Salix* sp.) and pine (*Pinus* sp.) seedlings grown in research nurseries at Dr. Y.S. Parmar University of Horticulture and Forestry, Solan (H.P.). Several species of mycorrhizal fungi grew well in the rhizosphere of these trees, were characterized based on morphological studies. The number of spores per 50 g of rhizosphere soil from pinus, willow and poplar were found to be 1380, 1290, 1300 and 540, 490, 530 spores at 106 μ and 250 μ mesh sieves, respectively. The presence of these AM fungi may help explain the ability of these pioneering tree species to grow under nitrogen limitation. Their presence will be helpful in mitigating the losses due to soil borne diseases as well as enhancing the plant vigor.

How to view point the article : Chandel, Sunita and Kumar, Vijay (2020). Status of Arbuscular mycorrhiza (AM) in nurseries of willow, poplar and pine seedlings in Himachal Pradesh. *Internat. J. Plant Protec.*, 13(1) : 87-92, DOI : 10.15740/HAS/IJPP/13.1/87-92, Copyright@ 2020: Hind Agri-Horticultural Society.

*Corresponding author:
Email : schandelmpp@rediffmail.com