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ELICITING PHYTOCHEMICAL PROFILE OF *POLYGONATUM VERTICILLATUM* (L.) ALL.: A HIGHLY USEFUL ASTAVARGA HERB

Preeti Chaturvedi

G B Pant University of Agriculture and Technology, India

Polygonatum verticillatum (L.) All., an *Asparagaceae* member, is an important and highly useful Astavarga medicinal herb of North West Himalaya. *P. verticillatum* has well established biological activities in terms of pain alleviation, antipyretic, anti-malarial, anti-inflammatory, diuretic, cardiogenic and energizer activities. Underground part of the plant is used traditionally in several health rejuvenating preparations in India. Seed dormancy, slow rate of natural regeneration, imprudent harvesting in nature necessitates its conservation. The plant was successfully established *in vitro* through sprouted buds. Elicitation of its phytochemical profile was done by foliar application of several chemical elicitors which are well-established signal molecules forming an integral part of plant defence system. Remarkable increase in medicinally important compounds was achieved in differently treated plants. The study showed that elicitation not only enhances the bioactive compounds but also stimulate the synthesis of new compounds. These interesting results of elicitation may help in value addition of the bioactive compounds of the plant to improve the quality of plant-based medicine on an industrial scale.



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