

Impact of Different Environmental Temperature on Chemical Composition of *Asparagus densiflorus sprengeri* L. Collected from Different Areas of Punjab, Pakistan

Aga U A\*

Higher contents were found between May and October for cultivated populations and from June to September for wild species [18]. Phenolic compounds in a medicinal plant *Hypericum brasiliense* are directly related to environmental temperature [9]. Phenolic compounds alleviate the oxidative stress performing role model as antioxidant [13,14]. Seasons and agro-climatic locations strongly affect the total phenolic contents and their antioxidant activity of many of the plants [15].

Air temperature of 80 and 90°C resulted significant variations in the physicochemical, antioxidant capacity and nutritional properties of *Aloe barbadensis* and caused decrease in the antioxidant capacity of gel [19]. Environmental factors strongly effects the phenolic ingredients and antioxidant activities of plants [20]. Abiotic factor like light period greatly influences the vitamin C contents of plants [21]. Many of the studies revealed that low light intensity might have influenced the levels of phenolic compounds in a medicinal plant *Hypericum brasiliense* [9]. Heat shocks also increased the amount of phenolic compounds as well as ascorbic acid in cabbage sprout [22]. Keeping in view the medicinal, antimicrobial activity and pharmaceutical importance of *A.*

in roots clearly indicated that concentration of as (Vitamin C) while it was minimum 0.224 mg g significantly ( $p < 0.001$ ) differed in *A. densiflorus* collected from different sites of Punjab. All sites differed significantly ( $p < 0.001$ ) for AsA contents. The highest AsA concentration 0.4245 mg g<sup>-1</sup> was in roots collected from Govt. College University Faisalabad (GCUF).

chemical compositions was due to the climatic conditions like rain fall, humidity and temperatures. Present results revealed that minimum and maximum temperatures mainly

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