

**SEED GERMINATION OF MASBEDDA (*Gymnema sylvestri*),
A RARE MEDICINAL PLANT AS AFFECTED
BY pH AND ORGANIC SOLVENTS**

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The use of plants in treating diseases can be traced to the remote past. However due to lack of organized and scientific cultivation, proper management and awareness of social factors, the number of these medicinal plants is decreasing at an alarming rate. *Gymnema sylvestri* is one of rare medicinal plant species, which has high demand in the market. Since, little information is available on germination dynamics of *Gymnema* seeds, the present investigation was carried out to study the effect of pH and organic solvents on germination of *Gymnema sylvestri* seeds.

Fresh seeds taken from the plant were used for the experiment. Five pH solutions (i.e. 4,6,7,8 and 10) were used to moist the filter papers in petri dishes, which contained seeds. A separate experiment was carried out to study the effect of organic solvents (i.e. Ethanol, Ether, Xylene, and Acetone) on germination following same procedure with using distilled water as a control. CRD was used in both experiments with 20 replicates each containing 10 seeds.

Results showed that significantly ($p < 0.05$) higher germination of seeds (56% and 52%) at pH 4 and 6 respectively, whereas the lowest germination (36%) showed at pH 10. The highest germination (62%) was recorded from the seeds treated with distilled water, followed by Xylene (42%) and Ether (39%). A significantly ($p < 0.05$) lower germination was showed in Acetone (10%) and Ethanol (6%). According to the findings of the experiment it can be concluded that slightly acidic media would be the best pH for the germination of *Gymnema sylvestri* seeds, whereas the organic solutions showed negative effects.