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Astragalus Adscendense, a Unique Source of Persian Manna (Gaz-Angabin)

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Abstract

Astragalus adscendens is one of the native species of Iran belonged to Fabaceae family and is often found in central areas of Iran. This plant with the help of a special insect produces a valuable substance called Persian manna or Gaz-angabin manna which has a high nutritional, medicinal and economic value and has been extensively used in traditional medicine as well as in the pharmaceutical and culinary industries since ancient times.

In addition, a gum tragacanth which is extracted from this plant is used today as a natural polymer in the pharmaceutical and cosmetic industries. Iran is the only region where the production of Persian manna has been reported. In traditional medicine, this substance is used as a laxative and soothing agent for the treatment of lung inflammation, asthma, and respiratory distress and for healing of digestive system. A. adscendens is also an ecologically valuable species as it can provides a suitable microclimate for its adjacent ornamental and medicinal species and prevents soil erosion on steep slopes. Unfortunately, in the last decade, the population of this species and as a consequence, the production of Persian manna have been decreased dramatically which has led to the reduction in the genetic diversity of this species. Research has shown that several factors have contributed to the decline in Persian manna production, the most important of which was the reduction of the insect population, the decrease in the population of the host plants and changes in the climatic conditions and degradation of the plant's habitats. Most of the studies carried out so far have been aimed at restoring the habitats of this plant. In this study, various aspects related to this plant, including Persian manna production, its therapeutic effects, the proper harvesting method, phenology of A.adscendens, appropriate propagation method and the biology of insect have been reviewed.

Keywords: Ethnobotany, medicinal Plants, plant-insect interaction, Traditional medicine, Tragacanth

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