

***Prunus scoparia*, a Potentially Multi-Purpose Wild Almond Species in Iran**

A. Gharaghani^a and S. Eshghi
Department of Horticultural Sciences
College of Agriculture
Shiraz University
Shiraz
Iran

Keywords: wild almond species, genetic resources, landscape, pharmaceuticals

Abstract

Almond is one of the most important perennial fruit crops in Iran. It plays an important role in the economy of the country especially in the semi-arid areas. *Prunus scoparia* (Spach) is a wild almond species native to Iran. It is a deciduous large shrub with green shoots that is growing in many parts of the country. In this paper we review the distribution of *P. scoparia* across the country and its potential as a multi-purpose crop. Shrubs of this species are naturally widespread as a forest resource in many regions of Iran. They are grown in arid and semi-arid areas to control soil erosion and water sheds and for landscape as well. They are also cultivated in different provinces and cities for landscape purposes. Kernels of *P. scoparia* are used in the pharmaceutical industry and are edible when sweetened. Seeds and seedlings are also serving as rootstocks for almond cultivars. Shrubs of this species show great tolerance to abiotic stresses such as drought, salinity, low soil fertility and low winter temperatures; therefore *P. scoparia* may present an important genetic resource to be used in breeding programs to generate new cultivars and rootstocks that are more adapted to climate change.

INTRODUCTION

Almond is one of the most important perennial fruit crops of arid and semi-arid regions of Iran which is the fifth world producer of this crop (FAO STAT Data sources, 2013). It plays an important socio-economic role in the country.

On the other hand Iran is the land of origin of many wild almond species and nearly 20 wild species have been reported in Iran (Khatamsaz, 1992) indicating that Iran is within the centre of origin for almond (Ladizinsky, 1999).

Prunus scoparia (Spach) C.K. Schneider (*Amygdalus scoparia*) is a wild almond species native to Iran (Sabeti, 1975; Mozaffarian, 2005). It is a deciduous large shrub that grows to a height of up to 6 m. It produces numerous long and green branches. Leaves are oblong-lanceolate, not very numerous on the stem and with short petioles. Flowers are white and fragrant with brown-red sepals. They are borne on auxiliary pedicels, either individually or in pairs and bloom from end of March to beginning of April in Iran. Fruits are drupes and are 1 to 1.5 cm long and 0.5 cm wide. They are ripened and dehiscent at the end of July (Khatamsaz, 1992) (Fig. 1). Shrubs of this species are widespread in many parts of the country, growing in different environmental conditions (Fig. 2).

In this paper we review the distribution of *P. scoparia* and the potential of this species as a multi-purpose crop to be exploited directly or in breeding program.

MATERIALS AND METHODS

The distribution of *P. scoparia* in Iran and its usage in different parts of the country were reviewed. Information was collected through both available literature and field survey.

^a gharghani@shirazu.ac.ir