



## BĀDĀM I. GENERAL

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### i. General

*Biogeography of natural occurrences of almond trees.* The genus *Amygdalus* is very common in Iran and Afghanistan and throughout the Turco-Iranian area. Iran and Anatolia were the center in which its various species evolved and from which they were diffused. It is probably now represented in Iran by nine species, several endemic (Zohary, 1973, p. 373). Most often they have the form of small, thorny bushes (sub-genus *lycioides*, whose diversification appears to have begun in Iran) or of taller, tree-like shrubs which grow in colonies (sub-genus *spartioides*). The last examples of the latter are the colonies of *Amygdalus scoparia* on the southwestern flank of the Zagros. Also widespread is the sub-genus *eu-Amygdalus*, to which the cultivated almond tree (*Amygdalus communis* L.) belongs, the commonest wild species being the *Amygdalus orientalis* and the *Amygdalus korschinskii*. Several of these species enter into most plant associations in the arid interior of Iran and Afghanistan. They are found as underbrush in the oak woodlands of the Zagros, the dry juniper forest on the southern slopes of the Alborz and the Khorasan mountains, and even in the semi-humid forest of the Qaradāg, as well as in low-lying (*garmsīr*) districts. Stands of *Amygdalus spartioides* in association with pistachio trees are particularly widespread in the interior basins of Iran, where they form the dominant element of the vegetational cover in wooded steppe areas between forest and true steppe. This pistachio-almond association (termed “Junipero-Pistacietea” by M. Zohary, “Bergmandel-Pistazien Baumflur” by H. Bobek) has its lower limit at 700 m around Herat



and the Harīrūd valley in eastern Khorasan, 1,100-1,200 m east of the Dašt-e Kavīr, 1,300 m around the Lūt, 1,500 m in the Sarḥadd of Baluchistan; its upper limit is ca. 2,500 m in central Kūhestān east of the Lūt, ca. 3,000 m on the flanks of the Kūh-e Taftān, ca. 3,000-3,200 m in the Kermān mountains. The maximum width of this belt corresponds to the isohyets of 150-300 m annual rainfall.

*Human use of almonds and almond trees.* The *Amygdalus communis* (or *Prunus amygdalus*), though undoubtedly native to the Iranian land-mass, is seldom found in natural stands there today. Indeed it is possible that the descriptions of wild types may be based on specimens of the cultivated type which have reverted to nature. The sweet-fruited variety is certainly a mutant of the bitter-fruited variety, developed by grafting of the latter onto many different wild species, in particular the closely related *Amygdalus korschinskii*. In any case, almonds were already important in Iranian agriculture and diet in ancient times. Strabo (11.13.11) states that the Medes made a sort of bread out of roasted almonds. Together with pistachio nuts, acorns, and wild pears, almonds must have formed part of the diet of the young Persians whose initiation into manhood was a spell of open-air life in the wooded steppe (Strabo, 15.3.18). A prescribed quantity of dried sweet almonds had to be delivered daily for the table of the Persian kings (Polyaenus, *Strategica* 4.32). In the Pahlavi literature, there is a mention of these wholesome nuts in chapter 27 of the *Bundahišn*. They still play an important part in Iranian and Afghan arboriculture and diet. Cultivated almond trees are found up to the altitude of 2,365 m in the mountains of Afghanistan. In Iran the average annual production in the 1970s was reckoned to be 50,000 tons; for Afghanistan no trustworthy figures are available, but estimates of the country's annual exports (mainly to India) in the 1950s ranged from 2,500 to 4,000 tons.

In addition to its value as a food source, the almond tree has had other uses in Iranian daily life. Thus it used to be peeled and pounded and its oil extracted by pressing the resulting paste in one's fists. The oil was used as a laxative like that of castor beans (*kaṛčak*). The wood of the wild almond (particularly *Amygdalus scoparii*) is reputed to make the best charcoal and to be excellent firewood (Schlimmer). In the nineteenth century walking sticks made from the wood of the *Amygdalus orientalis* were very fashionable. *Mollās* in Afghanistan often carry an almond-wood wand as a sort of amulet. The wood is also used to make handles of whips for defending oneself against snakes



(Aitchison). In Iran an eye-shaped gold or silver object, called a *bādāma*, is attached to an infant's bonnet to ward off the evil eye.

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