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A REVIEW ON WILD SPECIES, NATIVE CULTIVARS AND CURRENT CONDITION OF PEAR GERMPLASMS IN IRAN

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Iran plateau and surrounding mountains, with at least nine endemic species, large number of wild genotypes and hundreds of local and native cultivars are one of the main regions of pear genus (*Pyrus*) diversity. Recent surveys of the pear habitats has shown that *Pyrus communis*, *P. glabra* and *P. syriaca* are the most widespread species, while *P. salicifolia*, *P. amygdaliformis*, *P. elaeagrifolia*, *P. cordata*, *P. nivalis* and *P. pashia* are other endemic species with more limited geographical diffusion. Also, it has shown that a gene flow of *S*-alleles from East Asian pear species introduced to the germplasm of north and northeastern Iran, such as cultivar Shirin Torkan and several wild genotypes of Guilan province. This gene flow suggests the eventual involvement of inter-specific hybridization in evolution of some native pear cultivars of Iran, especially those originated from northeastern regions. For several decades, local and native cultivars such as Shah Miveh, Dargazi, Sardroudi, Natanzi and Sebri, likewise some introduced commercial cultivars were the most interested cultivars for producers, while currently due mainly to fire blight outbreaks and market expectancy, the main cultivars are principally limited to the fire blight tolerant cultivars such as Dargazi, Louise Bonne, Coscia and Williams` Duchesse. Also the main repository of pear cultivars of Iran has been established and conserved in Horticultural Sciences Research Institute with about 120 commercial, semi-commercial (local) and commercially unimportant cultivars. Despite this vast diversity of *Pyrus* genus, inadequate attempts have been performed for their categorization, evaluation and screening, while it seems that significant potential may be accessible for tolerance to drought and calcareous soils, as well as for breeding the new dwarfing rootstocks in them.

Keywords: Pyrus, Native cultivars, Fire blight, Gene flow, S-alleles