

Perilla

Perilla is a genus consisting of one major Asiatic crop species *Perilla frutescens* and a few wild species in nature belonging to the mint family, Lamiaceae. The genus encompasses several distinct varieties of Asian herb, seed, and vegetable crop, including *P. frutescens* (deulkkae) and *P. frutescens* var. *crispa* (shiso).[1] The genus name *Perilla* is also a frequently employed common name ("perilla"), applicable to all varieties.[2][3] *Perilla* varieties are cross-fertile and intra-specific hybridization occurs naturally.[1] Some varieties are considered invasive.[4]

The classification of *Perilla* is confused, partly because botanists struggled with distinguishing the two distinct cultigens as different species or variations.[1][5] Until a few decades ago, *P. frutescens* var. *crispa* was regarded as a species in its own right, distinct from *P. frutescens*, although it was well established that these types readily cross-pollinate.[6] An early example of dividing the two cultigens into different species is found in Matsumura's 1884 nomenclature book, where the synonym *P. arguta* Benth. is applied to *P. frutescens* var. *crispa*, and the synonym *P. ocymoides* L. was applied to *P. frutescens*. [7][8][9][10] The species name *P. ocymoides* or *P. ocimoides* has historically been used to denote *P. frutescens* var. *crispa*, especially by the Japanese,[a][6] therefore it should not be considered an interchangeable synonym for either cultigen. Recent genetic research confirms that the cultigens are of a common gene pool, corroborating the taxonomists' claim for consolidating the two crops into one species.[11]

Existing *Perilla* species:

Possible *Perilla* species with insufficient description and without known herbarium specimens include:

The past legacies and subsequent reclassification of taxa has led to confusion of nomenclature.[14][5] The red or purple leafed variety of *P. frutescens* var. *crispa* had been dubbed *P. nankinensis*,[5] and this label was used throughout the 19th century in the West following the introduction of the species for ornamental planting. Whether green-leafed or red-leafed, the perillaldehyde factor that characterizes the unique *P. frutescens* var. *crispa* fragrance may turn out to be present or absent in the individual or population, and this is not differentiable from outward appearance alone. Chemical studies classify the genus into different chemotypes, depending on the essential oils they contain. Three wild species that are endemic to Japan are recognized as genetically distinct from the cultivated *P. frutescens* var. *crispa*,[11] however, some references treat, e.g., *P. frutescens* var. *hirtella* as the same species as the *P. frutescens* var. *crispa*. [10]

Perilla varieties are cultivated and consumed mainly in Korea, Japan, Thailand and Vietnam.[18] *P. frutescens* leaves, seeds, and seed oil are used extensively in Korean cuisine, while *P. frutescens* var. *crispa* leaves, seeds, and sprouts are used in Japanese and Vietnamese cuisines.[19]

Perilla is one of the 50 fundamental herbs in Traditional Chinese Medicine. It is called "zi su" (紫苏/紫蘇), and is used to disperse wind-cold, bloating, and stomach and lung problems. It is sometimes paired with Tu Huo Xiang or Guang Huo Xiang to dispel dampness and tonify qi.

