Iris for Medicine and Fragrance

Although people mainly associate irises with the beauty that the plants impart to gardens and landscapes through their elegant forms and vast array of colors, we have also long valued them for their medicinal properties. Iris is the first entry in Greek physician Pedanius Dioscorides’ five-volume “De materia medica,” an immensely influential pharmacopoeia of medicinal plants written between 50 and 70 C.E. (According to William Rickatson Dykes, the first picture of an iris was in the “Vienna Dioscorides,” an illuminated version of “De materia medica” from 6th-century Byzantine Greece.) Dioscorides describes iris rhizomes as useful for a wide range of purposes, from fading freckles and treating ulcers to inducing sleep and tears. According to “Medicinal Plants of the World” (van Wyk & Wink, 2017), the peeled and cut rhizomes of Iris germanica, I. florentina and I. pallida—all plants of European origin—are still used in traditional cough remedies and teas.

In eastern North America, Iris versicolor (harlequin blueflag) is an important medicinal plant whose roots have widespread uses among Native Americans, from poison to poultice. In western North America, other species—including the introduced I. foetidissima and I. pseudacorus—have somewhat poisonous rhizomes that have traditionally been used for medicines, such as purgatives and diuretics.

According to Goldblatt and Manning’s “The Iris Family” (2008), the rhizomes of some bearded Iris species—especially the white-flowered cultivars of I. germanica, also known as I. florentina, and its close ally, I. pallida”—form the basis of Tuscany’s orris root industry. Oil from orris root is a prized fixative and base note in perfumery, emitting a violet-like aroma (due to similar scent compounds). When fresh, the rhizomes are odorless. They have to be dried for up to five years, and over time the scent will develop as substances in the rhizome oxidize. Once the
drying process is complete, the rhizomes are ground into powder.

In ancient Greece, orris root was used as a deodorant, as well as a flavoring for wine. It was also used in centuries past to scent bed linens and powder wigs. Orris root is still used to flavor some formulations of gin, as well as toothpaste, chewing gum, pastries and ice cream.

Iris for Fiber, Ink and Dye

In western North America, leaves of tough-leaved iris, *Iris tenax* (native along the coast from southwestern Washington to northwestern California), are traditionally used as fiber for rope in fishing nets and snares. Fittingly, the species name *tenax* hints at the tenacity and strength of the leaves. In Northern California and southwestern Oregon, the fibrous leaves of other species, such as ground iris (*Iris macrosiphon*) and Purdy’s iris (*I. purdyi*), have also been used for
centuries by the indigenous people of the region to make string or rope.

If you want to try making cordage or rope from your own iris leaves, author Alice Fox—in "Wild Textiles" (2022)—recommends harvesting the green leaves after flowering, or waiting until the plants die back and the leaves are brown. You can also find illustrated directions for using Iris macrosiphon on the “Paleotechnics: Ancient Arts and Technologies” website (www.paleotechnics.com): “Each iris leaf contains only two thin fibers! However, these fibers are very strong and were favored in aboriginal California for making fish nets, deer snares and other items. The fiber, being from a monocot (plants with a single seed leaf), is of the ‘hard’ type and is mono-filament-like. Harvesting and processing enough iris to construct a net or rope is a sizable undertaking, and processing just a little is sure to impart a great deal of respect for the people who undertook such projects in the old days, or still undertake them today.”

According to a blog post from the Oak Spring Garden Foundation (www.osgf.org), fiber from iris leaves may also be used in making paper. An art professor in Louisville, Kentucky has used the leaves of an invasive species, Iris pseudacorus (yellow flag iris), for this purpose. According to the Washington State Noxious Weed Control Board, yellow flag iris flowers “have been used to make a yellow dye, and the roots a black or brown dye.”

“Iris green” is a pigment processed from the juice of Iris germanica or Iris florentina flowers. It was used in medieval manuscript illuminations as an alternative to “bladder green,” derived from the fruit of Rhamnus cathartica. Although the juice from the iris blooms was purple, adding alum turned the color bright green. Depending on which species of iris was used, the pigment might also be blue. Paint recipes from the 14th and 15th centuries mention using iris pollen for yellow color.

Iris for the Afterlife

Iris albicans (syn. Iris florentina var. albicans) is referred to as the cemetery iris. It has been planted in Muslim cemeteries in Israel and Palestine, and as far away as Spain and Kashmir. Iris mesopotamica is another species sometimes seen in graveyards of the Middle East and North Africa. The tradition of planting white cemetery iris even carried over to southern and south-western regions of the United States, especially wherever there had been Spanish settlement (Spain having absorbed some Muslim customs under Moorish rule).

White is considered the color of mourning in Islam, and irises are often found growing alongside the white-flowered and deep-rooted sea squill (Drimia maritima), which is called basl al-maytin and basl al-makbara in Arabic, meaning “bulb of the dead” or “bulb of the cemetery.”

There may be a connection between this planting tradition and the lore surrounding Iris, the Greek messenger of the gods, who was said to accompany souls of deceased humans along the path of the rainbow, acting as a bridge between the worlds of the living and the dead.
Iris for Pollen and Shelter

Irises come in a rainbow of colors, with various markings and floral structures to attract a variety of pollinators. Hummingbirds, which lack a sense of smell, are attracted to the reddish flowers of copper iris (Iris fulva, a wild species found in Louisiana), and the shape of the blooms provides easy access. Bees do seek out the fragrance and yellow nectar guides of other species, like Iris brevicaulis and Iris hexagona. According to the UW’s Burke Herbarium, our native Iris tenax is pollinated by bees, bumblebees, flies and hummingbirds.

A more unusual case is the Oncocyclus section of irises (also called royal irises, or heichal—meaning “palace” or “sanctuary” in Hebrew—referring to the overlapping upright petals or standards that create an interior space), native to the Middle East. Species such as Iris atropurpurea, I. bismarckiana, I. hermona, I. mariae, I. haynei and I. atrofusca have large flowers in shades of red to very-dark purple—with dark markings—and though these irises do not provide a nectar reward for pollinators, their large size and the black patches leading toward the pollination tunnels are “honest signals,” indicating to pollinators that there is a real reward, even if it is not nectar. The reward? A place to stay!

These self-incompatible irises enlist the help of solitary male eucerine bees that are drawn to these flowers as a source of overnight shelter. As a consequence of their choice of lodging, the bees collect pollen grains on their backs and transfer them as they move from flower to flower. They are drawn to the dark markings on the falls of the irises (the three sepals that droop down and outwards), preferring flowers that face south or east so that the morning sun warms the dark spots and also the sheltering bees, helping them to start their busy days.

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Bibliography


