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**IRISES FOR SOUTHWESTERN GARDENS**

The iris or flag, Fleur de Lis of the French, is one of the oldest and best known of our cultivated flowers. The name "iris" means rainbow and was given to this flower by the Greeks on account of its many and bright colors. It is only within recent years however, that the iris began to receive the attention from gardeners and florists that it merits. As a result of this, a number of new garden varieties have appeared within a remarkably short time. New garden sorts are not hard to originate since the plants cross or hybridize readily, after which the seedling plants are propagated from the offshoots. For centuries irises have been favorites with the Japanese, whose florists have originated from a single species as many kinds as make up the German iris group which includes several species. Japanese irises are among the finest of this group of flowers, though the writer cannot recommend them for growing in Arizona. Irises are among the few flowers that grow satisfactorily over nearly all of our country.

*Botanical characters:* Irises form one of the largest groups of flowers and are among the hardiest of our perennials. There are about 175 species known to botanists, of which more than 100 species, represented by many varieties, are in cultivation. The various strains or garden sorts number many thousands. Irises are native over most of the North Temperate zone so that the group is tolerant to a considerable range of growing conditions. There are two very distinct sections of irises, viz., bulbous species, or those growing from bulb-like corms, of which the Spanish iris is an example, and rhizomatous irises or those growing from creeping rootstocks or fleshy rhizomes, the common German iris being\* a representative. Each of these sections is made up of a number of distinct groups, the members of which require somewhat different treatment in cultivation. Irises are related to orchids, on the one hand, with which flowers they are close rivals in color, and to lilies and amaryllises on the other. Iris flowers are always objects of admiration on account of their size and interesting make-up. Their color display ranges from snow white and delicate yellow

to lilac, blue, and the deepest bronze, purple or nearly black with all the intermediate shades and with the most intricate mottled and veined effects.

*Adaptability to our conditions and hardiness:* There are few perennial flowers that are more uniformly successful in Arizona, both in our valleys and at higher altitudes, than the iris. The hardier ones can endure aridity and prolonged heat and drought, grow with little or much irrigation, thrive in a variety of soils, and even tolerate some alkali. They succeed generally with the most ordinary care. By virtue of their fleshy rootstocks or bulbs wherein they store up food, they are able to tide over unfavorable growing periods with the least attention. On account of their hardiness, adaptability and beauty they should have a place in southwestern flower gardens.

Many of us think of irises as plants requiring much soil moisture, because we recall having seen wild ones growing in water, but this is not true of a large number of them, including such forms as the well known German irises, dwarf irises and Spanish irises. The writer knows of clumps of German irises that have continued growth for several years on dry Arizona mesas with only scant rainfall and the occasional flood water that collected in the basins encircling them. Of course, such plants have not made the best growth, but they have blossomed annually. In the heavy red clay soil in the cemetery of one of the large Arizona mining towns irises are very much planted and succeed beyond all expectations. When established in such soil they grow and blossom year after year, almost without care, and they have come to be known as "Easter lilies," on account of flowering commonly at that season. The writer knows of no other flower that would succeed so well under the same trying conditions. Mr. C. S. Harrison of York, Nebraska, says of irises: "They are the best drought resisters we have. Last season was very hot and dry, often the burning sirocco winds were blowing fiercely with the mercury soaring above a hundred, and with only two inches of rainfall from the first of May until the first of October, and yet we did not lose a plant in 150,000. In digging them in September, the ground was as dry as an ash heap, but the roots seemed to have gathered and stored the moisture."

*Uses in ornamentation:* Irises are used to advantage in many kinds of planting, including massing in beds, setting along borders of walks and drives or in obscure corners, planting against low foundations and fences and naturalizing in woods, along brooks and around lily ponds. They are excellent for formal bedding on account of their habit of growth and stately appearing flowers. Their leaves are smooth and rather thick so that they neither collect dust nor sunscald badly, and at nearly all seasons they appear green and decorative.

*Culture of irises:* Irises do best with rather limited attention. In this respect they resemble many wild flowers. They thrive in an average soil not too rich and with reasonable drainage and irrigation. They should have protection against strong

winds, at least during the flowering season; and they may have full exposure to the sun, though under our conditions they tolerate considerable shade and hence grow well among other plants or against buildings. The fleshy rhizomes should be planted flat and covered with soil to a depth of about one-half to two-thirds their diameters. They should not be given much moisture until they show signs of growth, particularly if they are dormant or partly dried up, as they may rot. They may be planted out soon after flowering when they begin a new growth, or in the early fall, August to October. Once established they can be left undisturbed as long as they continue to do well, because, generally, irises resent transplanting and other disturbances of their roots. One may lose a season's flowers by setting them too late or digging about them needlessly. They propagate rapidly from the fleshy rhizomes or bulbs and the excess of these may be removed carefully at the proper time and replanted without disturbing the older plants, or the entire plant may be divided and transplanted once in three or four years. It is not uncommon to see large clumps of irises vigorous and floriferous after seven or eight years' growth. They should have a reasonable supply of soil moisture during their spring growth and flowering season, though in the summer they can get along with very little irrigation, and in fact they seem to do better with a period of rest during our hot weather. Excessive irrigation in summer may cause the bulbs to rot. Spanish irises, and in particular, those from Syria should be allowed to desiccate and bake in summer.

#### GROUPS OF IRISES

*Dwarf irises:* Dwarf irises grow but a few inches high and form dense mats over the surface. These are among the earliest to bloom here, the flowers appearing during March and the first half of April. The colors vary from deep purple and blue to lilac, yellow and pure white, according to the variety. The flowers are always attractive because of their earliness, though rather short stemmed. *Iris pumila* with its many varieties is perhaps the best of the group. Another one of interest is *Iris arenaria* which thrives in light sandy soils and is more drought resistant than the others. Its flowers are bright yellow striped with purplish-brown below, and it will grow among rocks and also as a potted plant. The rhizomes or rootstocks of this class of irises are slender and should be planted one to two inches deep.

*German irises:* German irises are the ones ordinarily seen in gardens. They are commonly known as flags, the blue or purple ones being "blue flags." They grow to a height of two feet or more and have rather broad leaves. Their rhizomes are short, thick and fleshy. They are hardy and well adapted to southwestern conditions, though they can also withstand many degrees below zero. They represent garden hybrids and crosses of several species and varieties and hence show considerable variation in flower and leaf. The flowers appear in April and May and are large and showy and borne on stout, erect stems which exceed the leaves. They

range in color from nearly black to deep purple, light blue, lilac, bright yellow, and pure white with many intermediate shades. Some of the more attractive ones are deep purple streaked with bronze and yellow. *Iris florentina*, the orris root of commerce, is nearly related to the forms of the German iris. Its flowers are pure white and it gives promise of succeeding well here.

*Beardless irises* These have mostly rather narrow leaves and thinner and less fleshy rhizomes than those of the Germanica group. The outer flower parts or sepals are destitute of a beard or crest. The rhizomes of these should be planted at an angle and somewhat deeper than those that are thick and fleshy. These are mostly tall and strong growing species and thrive with an abundance of water and in rather rich soil. They are splendid for growing about lily ponds and along brooks. The Japanese iris already noted belongs to this group of plants. *Iris siberica*, with blue or white flowers, *Iris pseudacorus*, with yellow flowers, and *Iris orientalis*, with white or yellow flowers, are among the best known and much planted. *Iris versicolor* and *Iris fulva*, native to our own country, also belong here and should be planted more than they are.

*Bulbous irises:* These are represented by Spanish and English irises. The bulbs should be planted early in the fall to depths of two or three inches. They do best in sandy soils with good exposure and the ground should not be enriched with manure. They cannot endure extreme cold in the winter as German irises can, but they are more tolerant to heat and aridity, and after flowering they should not be given much water. They make the best showing when planted closely together in clumps, preferably where they will not need to be disturbed for some time. The bulbs increase rapidly and may be divided and replanted every three or four years. The flowers are characterized by bright and contrasting colors and in most kinds appear in May and June, though the species from Syria and Palestine blossom as early as February. This class of irises is well suited to our climatic conditions, since its home is in the Mediterranean country. *Iris xiphium*, (Spanish Iris), *Iris xiphoides*, (English Iris), *Iris filifolia* and *Iris reticulata* with their varieties are among the most popular for planting.

Irises propagate quite rapidly from the roots, and hence a few plants each of a well selected list of varieties will enable one to have a good collection of the flowers in a short time with small outlay. The writer recommends western grown plants for our conditions. The plants may be purchased from almost any reliable seed or plant company and also from nurseries.

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