

Horticulture Diagnostic Laboratory



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GROWING IRIS

Soil and Site: The culture of iris is relatively simple as compared with that of many other garden plants. All require a sunny location, particularly the bearded types. For the German iris, any good garden soil is suitable provided it is well drained. The Japanese iris thrives on moist rich soils and may be planted with success around pools. It will, however, do well in other situations if the soil is fertile and abundant moisture is supplied. The Siberian iris is hardier than either of the others both in withstanding severe climatic conditions and in withstanding the competition of other plants.

Planting: The established rhizomes of the bearded iris normally lie at the surface of the soil about half embedded in the earth. In planting, they should be covered with about 1 inch of soil and the earth packed solidly about them. As they become established they will grow to the surface. The other types of iris should be planted with the roots well spread and covered with about 2 inches of well firmed earth.

Before planting iris improve the soil conditions in the planting bed. It is recommended that you first have the soil pH and/or soil nutrients tested first before planting. You can visit the [Cornell Cooperative Extension – Suffolk County web site](#) for information on soil testing or contact that office directly. To increase the organic matter content the use of compost, peat moss or well rotted manure is suggested.

To maintain the bearded iris in good blooming condition in the garden it is desirable to divide the clumps every third or fourth year. A fan set in July may send up flower stalks the following year. The clumps will increase the second year, and the third year the clumps will be at their best. In the fourth and fifth years the fans compete with one another and should be thinned out by removing a part of the fans so that they are spaced several inches apart or by digging up the clump, dividing it, and resetting the rhizomes. Usually it is necessary to dig up the clump, and divide and reset it because of infestation of the clump with grass and weeds. If in overhauling the iris bed it is desired to establish new flowering clumps rapidly, 3 or 4 of the fans may be set together to form a clump. In setting such clumps the leafy end of the rhizomes should be set pointing outward from the center of the new clump.

Japanese and Siberian iris do not require frequent division. Clumps of Siberian iris remain in good condition for a dozen years or more.

Sooner or later, however, the size and quality of the blossoms may deteriorate or they may become infested with borers or overgrown with grass and will benefit by division and replanting.

Fertilization and Maintenance of Established Plants: The bearded iris will grow on relatively poor soil. On poor soil, however, plants will benefit from the use of fertilizer. It is recommended that you first have the soil pH and/or soil nutrients tested first and information on testing is given above in the section "Planting."

Weeds should be controlled by clean cultivation and pulling from among the rhizomes. Various kinds of grass are the most troublesome because they grow between the rhizomes and are difficult to remove. It is an advantage to have the plants free from grass, weeds, or other crowding vegetation so that the foliage and the rhizomes will not remain moist over long periods of time and thus favor the spread of fungus disease. Borer infestation is also favored by weedy plantings.

An important practice in the culture of the bearded iris is to clean up and destroy all dead foliage, preferably in the fall. This foliage carries disease spores and insect eggs. Winter protection through most parts of New York State is unnecessary. Only in the most severe winters is there any severe damage and then only when the plants are exposed without snow cover. A loose mulch of coarse straw or salt hay may be an advantage, provided it does not mat down on the rhizomes and keep them wet. Mulches afford cover for mice which may destroy the rhizomes. A layer of mulch may be advisable if the iris plants have been planted in the fall and are not yet well rooted. Mulches applied after the ground starts to freeze will protect such plants from the dangers of being "heaved" from the ground during mid-winter thaws.

Japanese iris thrives under more moist conditions than does the bearded type and also responds to more fertile soil. It is recommended that the slow-release fertilizers be used. Manure can be used as a substitute fertilizer. Work the fertilizer or

manure shallowly into the soil. If the weather in June before the plants bloom is dry, liberal watering is advisable. Cultivation is essential to keep down weeds although the danger of disease is apparently not as important as with the bearded iris. The growth of the Japanese iris clumps is relatively slow, but they should be divided occasionally as they become crowded.

Siberian iris is perhaps the easiest to grow of all. Once established they persist in spite of competition from weeds and grass. They do, however, respond to good garden culture, and clumps that become over-size should be divided and the divisions reset. Fertilize them in the same manner as the Japanese iris.

Propagation: Iris', except the bulbous types, are propagated by simple division of the rhizomes. The divisions of the bearded iris are called fans and consist of one of the fan-like clusters of leaves with a section of the attached rhizomes about 2 to 3 inches long. The plants are usually divided in early July just after they bloom. In the garden the individual fans may be dug and separated or the clump may be cut into sections of several fans each with a sharp spade. It is good practice to cut off one-half or two-thirds of the leaf surface at the time of transplanting unless a clump is moved with a ball of earth. Divisions set in July will form roots and new growth before winter.

Japanese and Siberian iris may be divided best in early spring before growth starts. Later divisions during the spring and early summer can be made, but plants are more difficult to establish. Fall division is not satisfactory because of the danger of the plants heaving out of the ground during the winter. The clumps are dug up and cut into divisions with a heavy knife or sharp spade. Each division should have several tufts of leaves and as many roots as can be left attached in the process of cutting.

The Bulbous Iris: The bulbous iris is most adapted to a climate with hot, dry summers and mild winters. Of the many species only a few are satisfactory for growing in the Northern States and these are not well known to gardeners. In the very early spring the dark purple flowers of *Iris reticulata* are attractive in the garden. Another hardy, early blooming species is the sky blue iris, *Iris histrioides*. The later blooming Spanish iris, *Iris xiphium*, is more showy and a good garden subject. The English iris, *Iris xiphioides*, is larger, later, and comes in a variety of attractive colors. The Dutch iris of which the common greenhouse forcing variety 'Wedgewood' is an example is a hybrid race not satisfactory in northern gardens.

The above named bulbous iris is easy to grow in well-drained soils in the open. They should be planted from 3 to 4 inches deep, and spaced 6 inches apart under good conditions. The bulbs multiply naturally by division and may be dug and separated at intervals of several years.

Insect And Disease Pests: Probably the most troublesome insect pest of iris is the iris borer, *Macronoctua onusta*. The adult is a dull brown colored moth. The damaging stage is the pink tinged caterpillar (borer) which has a distinct brown head. Mature borers are 1 1/2 inches long. Initially upon hatching from eggs the small borer will chew small pin holes in the leaves. As they mature they work their way downward into the leaf sheath. Eventually the borers will move into the rhizome and hollow it out, reducing it to just a shell. Injury by the borers provides infection sites for bacterial soft rot.

Cultural control can be achieved with this insect by a thorough cleanup of the plants in the fall and spring of each year. Control is based on destroying the eggs. All debris (especially old leaves near the plant base) in and around the iris planting must be removed and destroyed. During division, every few years, all damaged rhizomes should be discarded.

A troublesome leaf spot disease on iris is caused by a fungus, *Didymellina macrospora*. Usually this disease is more common toward the end of the season, on the upper portion of the leaves. It is not as severe with normally dry weather. If the plants are crowded, shaded and the weather is rainy this fungus can cause spots earlier in the season. This results in spots occurring over more of the leaf surface. Spots are dark brown at first and surrounded by a water soaked and then yellowing region. The spots enlarge into rather oval lesions, up to 1/2 long, with a red/brown border. In addition to leaves the flower buds and stems may show symptoms. Control is possible by removing and destroying all old leaves at the end of the season. Also remove and destroy any infected leaves during the growing season.

Iris rust caused by the fungus *Puccinia iridis* can occasionally be troublesome. Symptoms include small, oblong to oval, red or dark brown powdery spots, often surrounded by a yellow margin. These spots can be present on leaves and stems, which eventually may die prematurely. Remove and destroy infected plant parts.

Contact Cornell Cooperative Extension-Suffolk County for current pest management recommendations.

Resource: *The Culture of Iris*, by L.H. MacDaniels, Cornell University; *Iris Borer*, by Carolyn Klass, Senior Extension Associate, Dept. of Entomology, Cornell University, 1/90; *Herbaceous Perennials: Diseases and Insect Pests*, by Margery L. Daughtrey, Extension Associate and Maurie Semel, Associate Professor in Entomology, Long Island Horticultural Research Laboratory, 1/87; and *Westcott's Plant Disease Handbook*, Fourth Edition, by Dr. Cynthia Westcott, revised by R. Kenneth Horst, Ph.D.

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