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Culture of Iris

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Iris culture emphasizes the best in site selection, planting, winter care and protection, and control of insects and diseases.

The iris is one of the most popular and beautiful of the garden flowers. With the range in plant type, size, and adaption, there is an iris for almost any location.

More than 200 species of iris have been found in the wild. From these species thousands of varieties have been named and made available. Plant size ranges from about 6 inches in the miniatures to more than 3 feet in the large types. Flowers can be 1 or 2 inches across or up to 8 to 10 inches across. Flowers are available in all colors.

The standard iris, Japanese iris, Siberian, Spuria, and yellow flag types are suitable for Nebraska. Siberian iris use is increasing in Nebraska landscapes because of its attractive dark green, narrow, upright foliage that makes it a unique plant in the garden. It is adapted to moist soils and often is seen in and around ponds. By using an assortment of iris in a variety of sizes, iris bloom time can extend from early April through June.

Site Selection

This NebGuide will emphasize the culture of tall bearded (standard) iris.

Choose a sunny location for planting—an area that receives at least six hours of full sun each day. If plants are in an especially hot location, light afternoon shade will help keep flower colors bright.

Iris prefer a well-drained soil. Sandy loam soil is best, but other soil types can be improved with organic matter to be suitable. One possibility for poor soil areas is to grow iris in raised beds, making soil improvement easier and improving drainage. Whether the plants are grown in a raised bed or not, work the soil to a depth of at least 10 inches.

It may be wise to take a soil test before planting iris. The plants prefer near neutral soil, but will tolerate a pH of 6.0 - 8.0. Apply amendments for pH and nutrient deficiencies before planting. A complete

fertilizer low in nitrogen and high in phosphorus and potassium is recommended. A general fertilization with two pounds of 5-10-10 per 100 square feet is recommended. Use manure to fertilize iris only if it has been aged at least one year. If fresh manure comes in contact with the rhizomes it could provide an environment favorable for rot.

Select a site for iris that will provide a showplace for the blooms. It should also provide good air circulation to help prevent disease problems.

Planting and Propagating

Iris grow from an enlarged underground stem called a rhizome. These rhizomes grow just below the soil surface. They provide the fans of leaves and flowers, and also the roots that anchor the plant. The rhizome is the plant part that is vegetatively propagated to give new plants of the same type. All that is required is a few inches of firm, healthy rhizome, with well-developed roots and at least one fan of leaves or growing point. Standard iris multiply rapidly and may require dividing every two to five years. For most iris a peak of bloom will be about three to four years after the original planting.

Iris are dormant during the late summer (mid-July to early September). This is the best time to plant the rhizomes to allow for adequate root growth and establishment before winter. During late summer the buds for next year's bloom are formed. It is important to plant the iris early enough to avoid cold damage to these buds.

Before planting, work the area where the iris are to be planted to a depth of at least 10 inches. Prepare the soil two to three weeks before planting to allow some settling. A well prepared soil bed will result in better iris growth and more blooms.

Plant iris rhizomes just below the soil surface in a good soil. In heavier soil, plant with the rhizomes exposed slightly to prevent rotting. Roots should be buried to provide good anchorage.

When preparing to plant iris, dig a shallow hole large enough to accommodate the rhizome or rhizomes that are available. Leave a cone or ridge of soil in the center of the hole. Place the iris rhizome on top of this cone and spread the roots out around the cone (Figure 1). Don't allow the roots to clump together. The rhizome should be parallel with or just slightly below the soil surface level. Fill the hole with soil and firm around the roots and rhizome. Water rhizomes thoroughly immediately after planting. After initial watering, water plantings sparingly until growth begins. Start of vigorous top growth will indicate good root establishment.



Figure 1. Plant iris on top of cone and spread roots around cone.

Plant rhizomes at least 18 inches apart with fans facing the same direction (Figure 2). Since the flower

stem will emerge from this fan, this will allow adequate spacing for blooms. For a larger display of an individual color plant three or more rhizomes of a single variety in a group. Plant these rhizomes closer together and have fans to the outer portion of the clump with the cut rhizome end pointed to the center.

To keep iris looking their best and producing good, large blooms, divide and replant every two to five years. While they are being divided, be sure that all rhizomes are carefully labeled.

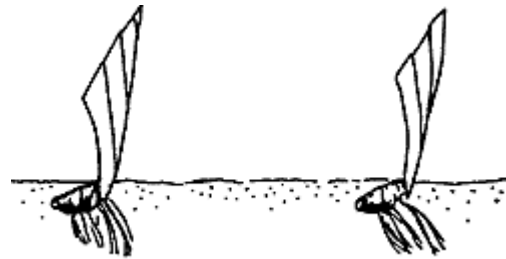


Figure 2. Plant rhizomes at least 18 inches apart, "facing" the same v

Divide any time after blooming is completed, but for best results divide in late summer and early fall. Before dividing iris, cut the leaves to about one third their full height. Dig up the entire clump of rhizomes. It may be necessary to wash away some soil to see just how the rhizomes look. The most vigorous rhizomes will be those on the outer sides of the clump. Carefully cut the clump apart, saving the vigorous rhizomes and discarding the inner, leafless ones. Cut the rhizomes into pieces with each one containing one or two terminal leaf fans (Figure 3). Smaller divisions will not need dividing again for three to five years, but will also be slower to produce a good showing of flowers. Larger divisions will produce flowers more rapidly, but will require division in two to three years. When separated from the clump, each division is ready to plant.



Figure 3. Small iris clump showing proper division for replanting. The central portion should be can be replanted for bloom next year.

Culture

Iris require the same good cultural care as other perennials. Eliminate competition from weeds and grasses. Frequent shallow cultivation can help reduce weeds and will provide air circulation around the rhizomes, especially before blooming. Take care during cultivation to avoid injuring the rhizomes or the roots. Herbicides are now available to control grasses in iris beds.

Iris need adequate water. Keep the soil moist, but not wet, before blooming time. When the blooms fade, cut them from the plant, unless obtaining seeds is a goal. Cleaning up bloomed-out stalks and dead leaves will not only keep iris plantings looking better, but will also help reduce chances for spread of disease. Retain healthy leaves. These leaves produce the food to be stored in the rhizomes which is needed for the next year's growth and blooming. The leaves are also shielding the tiny flower buds that are forming within the bases of the sheaths for next year's bloom.

Fertilization of iris can range from adding no fertilizer to fertilizing five times a year. Much of the variation depends on what you expect from your iris. More fertilization is needed if you are growing flowers for show. If you are looking for a nice garden display, less fertilizer is required.

When you do fertilize, use a balanced fertilizer or one that is slightly higher in phosphorus and potassium. If a single application is used, apply just after the plants have finished blooming. Work in carefully about 1-2 tablespoons of 5-10-10, or a similar fertilizer, around each rhizome. If show iris are desired, fertilize with 1 tablespoon in mid-August and again in mid-October. Apply a fast acting liquid fertilizer around - not on the plants - about 3 weeks before scheduled bloom. If the plants are to be divided later that summer, fertilize again just after bloom with a balanced fertilizer. Fresh manure is not recommended for fertilizing iris since it may lead to rhizome rots.

Winter Care and Protection

Newly planted iris, and sometimes even those in their second or third year of growth, need to be winter mulched. Use clean hay, straw, evergreen boughs or other non-packing material. After the first frost, trim the leaves to 6-8 inches. Make sure the planting is clean and free of weeds. By trimming the leaves and cleaning out weeds some disease and insect problems may be avoided. Spray the iris with a fungicide and an insecticide before mulching. This will help prevent problems that could develop under the mulch. Put mulch in place in late fall. If there is snow on the ground, mulch over the snow. Be sure that mulch is deep enough to provide adequate coverage and allow for some settling.

Mulch can also help reduce freezing and thawing of the soil that can push plants out of the soil. In areas where this is common, mulching is recommended, even for older plantings. If plantings aren't mulched, watch for plants that have been heaved out of the ground by freezing and thawing. If this happens, firm the plants back in place.

After the snow and ice have melted away in the spring, remove the mulch. Do this in several stages. Remove the top layer to allow sunlight and air to dry out the area. After several days, remove more of the mulch. If the mulch layer is thin this can be done in two steps. A thicker mulch requires more steps. Be careful not to damage plants and break leaves when removing mulch. Damage to the center of the plant may prevent flowering. Carefully remove dead outside leaves to prevent possible problems.

After the soil surface has dried, select a dry, sunny day to do a final clean-up. Check plants closely for winter damage or decay. The decay will most often show up as dry rot. If dry rot is present, scrape away the soft portion. Treat the tuber's exposed portion with a good fungicide.

Insects and Diseases

Iris can be relatively carefree plants, but there are a few problems. Iris borer can be destructive. The caterpillars leave tiny pin holes in the leaves with wet streaks as their tracks on the foliage. They will also leave jagged leaf edges on the foliage. The small caterpillars can be killed within the leaves by squeezing the leaves where the caterpillars are present. Any borers not killed in the spring will later burrow down into the rhizomes and the adults will lay their eggs. To help avoid this, remove and burn the old leaves. Since more eggs will be laid in old garden debris, this clean-up can help prevent a new generation of borers.

Following a severe borer infestation, or damage to rhizomes, bacterial soft rot may start. This disease causes the bases of leaf fans to become soft and slimy. The rhizomes will soften and become mushy. This disease is accompanied by a very foul smell. In less severe cases remove the infected fans and scrape away the soft rhizome tissue. Treat the exposed firm tissue with sulfur or chlorine powder to help disinfect this area.

Crown rot is another disease that can affect iris rhizomes. There will be a softening of rhizomes, similar to bacterial soft rot, and small round cream to tan spots on the leaf bases. This disease is not accompanied by the foul smell. Remove and destroy seriously infected plants.

Iris scorch is a non-infectious disease. Little is known about the cause. It may occur at any time during the growing season, but is most common in the early summer. Leaves of the plant will die-back from the tips, and roots will soften and die. The rhizome is not affected. If you discover this disease, lift the rhizomes immediately and store them in a warm, dry location for the remainder of the summer. In the fall replant the rhizomes. The plants should survive, though they may not bloom the next year.

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