

## Iris Culture Notes

This article was compiled from a number of sources and adapted to the growing conditions that occur on the Canadian prairies, Zones 2 and 3.

### Planting and Propagating

Iris grow from an enlarged underground stem called a rhizome. These rhizomes grow just at or below the soil surface. They provide the leaves and flowers (called fans), 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. Most bearded iris multiply rapidly and may require dividing every two to five years depending on the classification. Generally, the median types (SDB, IB, BB, MTB) and the dwarf type (MDB) multiply more quickly than tall bearded types. For most, peak bloom will be 2 or 3 years after the original planting.

Iris are dormant during the hottest part of the summer usually 4 to 6 weeks after blooming (mid-July to mid-August on the prairies). Actually, it is not a true dormancy but rather new growth slows to such an extent that plants appear to be dormant. This is, therefore, the best time to plant 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. For best survival rates on the prairies, tall bearded types should be planted before the end of July. Medians and dwarf types generally can safely be planted until mid-August.

Before planting, work the area where the iris are to be planted to a depth of at least 6-8 inches. If possible, prepare the soil two to three weeks before planting to allow settling. A well prepared soil bed will result in better iris growth and more blooms.

When preparing to plant, dig a shallow hole large enough to accommodate the rhizome. Leave a cone or ridge of soil in the center of the hole. Place the rhizome on top of this

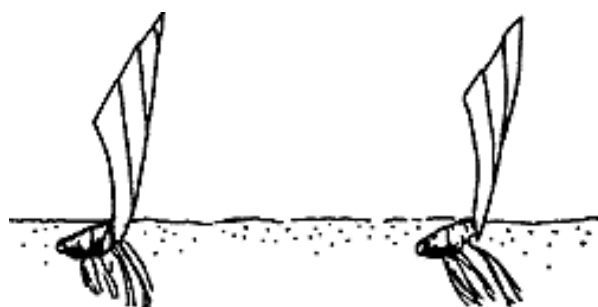
cone and spread the roots out around the cone (See Figure 1). Don't allow the roots to clump together. The rhizome should be just at or slightly below the soil surface level. Fill the hole with soil and firm around the roots and rhizome. Water thoroughly immediately after planting. After initial watering, water plantings sparingly until growth begins. The start of new top growth will indicate good root establishment.



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

Rhizomes should be planted ideally about 18 inches apart (ideal spacing but be flexible) with fans facing the same direction (See Figure 2). Since the flower stem will emerge from this fan, this will allow adequate spacing. 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 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 depending on type and variety. While they are being divided, be sure that all rhizomes are carefully labeled if that is important to you.



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

Divide any time after blooming is completed, but for best results divide 4 - 6 weeks after blooming stops. Before dividing, cut the leaves to about one third their full height. This is usually done in a fan shape but isn't required. It is best to 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. 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 (See 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 discarded. The two side "fans" can be replanted for bloom next year.**

### Cultural Requirements

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

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 your 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. DO NOT COMPOST DEAD IRIS FOLIAGE BUT DO retain the green, healthy leaves on the plant. These leaves produce the food to be stored in the rhizomes that 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. I do not fertilize iris at all and they do just fine.

More of a tonic than a fertilizer is alfalfa tea. Iris love alfalfa whether in a tea or worked into the soil. A warning, though. If you just sprinkle the cubes or meal on top of the ground and don't work it in, when the rains come it is slimy and smells rank. I find it much easier to use the tea.

### **Alfalfa Tea Recipe**

- Choose the size of container and make sure it has a tight fitting lid.
- Use 4 cups of alfalfa pellets or alfalfa meal to every 5 gallons or 20 liters of water
- Add ¼ to ½ cup of Epsom salts (magnesium sulphate crystals) to every 5 gallons of water used.
- Fill with water, put on a tight lid to prevent mosquitoes from breeding in your "swamp"

- Let stand for about a week in a warm out of the way spot in the yard until it bubbles with fermentation.

You can then apply the liquid to your iris beds once every couple of weeks. The left over alfalfa mush at the bottom of the container can be worked into the soil as organic matter.

### Winter Care and Protection

Newly planted iris, and sometimes even those in their second or third year of growth, may need to be winter mulched. Use clean hay, straw, evergreen boughs or other non-packing material. After the first frost, trim the leaves if you wish. 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. Put mulch in place in late fall preferably after the ground is frozen if rodents are a problem. 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. Some iris growers advocate the use of a fungicide prior to mulching but I see no advantage to this.

Mulch can also help reduce freezing and thawing of the soil that can push plants out of the soil. This is a common problem on the prairies and in other areas where spring freeze/thaw cycles occur. In these areas, mulching is recommended, even for older plantings. If plantings aren't mulched, watch for plants that have been heaved out of the ground. If this happens, firm the plants back in place. I use a small rock, depending on the size of the rhizome, to anchor rhizomes in the ground. I also try to mulch, just in case.

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.

After the soil surface has dried, select a dry, sunny day to do a final clean-up and remember, do not compost iris debris.

### **Insects and Diseases**

Iris can be relatively carefree plants, but they can experience a few problems.

**Iris borer** can be destructive but thankfully we do not see them on the prairies unless on plants brought in from outside our region. They can be very destructive, however, and iris gardeners should keep their eyes open for them. They have been reported in Manitoba but no one is quite sure if they are able to over-winter here....yet. The caterpillars leave tiny pin-holes in the leaves with wet streaks and 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 dispose of old leaves. A proper clean-up can help prevent a new generation of borers. Do not put iris debris in the compost.

**Bacterial soft rot** may start following any damage to the iris rhizome be it by pests or inadvertent damage by the gardener. 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 rotting rhizome tissue. Treat the exposed firm tissue with sulfur or chlorine powder to help disinfect this area. I use Comet or Ajax bathroom powder or a bulb dust product to protect the newly cut areas.

**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 from the tips down, and roots will soften and die. The rhizome is not affected. If you discover this disease on a special iris (I know, they are all special) and you want to try to save the plant, lift the rhizome immediately and store it in a warm, dry location. Around the end of July, replant the rhizome. The plants 'should' survive, though they may not bloom the next year. Many times these rhizomes are just discarded and we start over. This disease is more prevalent in the southern US states but I did lose one to it a few years ago (TB Helen Boehm). It is advised that iris not be planted in the same spot again for 2 or 3 years.