Reticulata Iris – Handout

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Cultivation

It is hard to give advice because everyone's situation is different. Although Retics like moisture in the Spring (just as they would get in the wild from melting snow), there's a point where they can get too much. The soil needs to be well drained. So I tend to recommend using raised beds, which can be as simple as dumping a wheelbarrow full of soil on the garden. Ideally you want to keep your bulbs growing as long as you can since a new bulb is forming at the base of each leaf – the longer the growing period, the bigger the bulb. The bigger the bulb, the more likely it will bloom. Generally I find bulbs over 1 cm in diameter will bloom. If you do have problems, one solution is to dig the bulbs just as the leaves are starting to turn brown. This is the point at which they are most susceptible to diseases such as ink spot. By digging them you can prevent problems with disease. Store the bulbs in mesh bags in your garage, then replant in the Fall. This is the only way I can reliably get some species such as Iris *sophenensis* to survive, otherwise it dies out after a few years. If I moved it every few years in the garden it would be fine, but over the years a couple of times I was too busy with other things and nearly lost it. I did loose my collected Iris *danfordiae* and Çat Retic because of not moving them after they started to do poorly in a spot. In addition to expanding the colour range, my goal is to develop Retics that are easier to grow. The commercial form of Iris *danfordiae* is a triploid (three sets of chromosomes rather than the normal two). Its flowers are larger than forms from the wild, which is why it was commercialized. However, most people curse it. It's just not a good clone. People plant large bulbs, which bloom for two years, then typically all they find when they go to investigate is just a large number of bulblets. Their conclusion is the large bulbs shattered. Iris *danfordiae* does well enough in Holland where growing conditions are ideal, and the growing season is long. I expect one day, one or more of my yellow hybrids will replace it. Currently Sunshine, and Happiness are available, with stocks of a couple more nice ones being built up.

Don't plant too close together. It's always tempting to do that because you want an instant clumping effect, however they need room to be able to expand into. For best performance replant the bulbs every 2 or 3 years, taking ½ of a variety and moving them to another spot. The large bulbs should be planted about 3" deep (7cm) and the bulblets should only be about ¾" deep (2 cm). Here in Toronto squirrels like to dig in replanted areas, so I cover with nets / old fencing while the soil is soft [Unlike Tulip and Crocus bulbs, squirrels do Not eat Reticulata bulbs]. For my seeds I put down plastic netting after they are all planted, then cover with straw (NOT hay, which has weeds / weed seeds). This dissuades the squirrels, and the straw also keep the ground frozen in case there is a warm spell in late Winter. If the small bulbs / seedlings are fooled into thinking it is Spring, they will want to start to grow and their cell sap will change and no longer have the same antifreeze capability. Sudden large temperature drops could cause it to freeze, and like water turning into ice cubes, it will expand and destroy cell tissue, killing the small bulbs. Larger bulbs are deeper in the ground and don't see as severe temperature swings.

In Spring I take the straw off, but I leave a light layer overtop of seeded areas to try to retain moisture in the soil; especially since the seedlings are so close to the soil surface, which dries out sooner and would cause the seedlings to stop growing if it gets too dry.

You can use leaves, but they can blow away, so if you do use leaves, it's best to have let them dried out and brake them into small to medium size pieces, that way they aren't able to blow away as easily [Try putting dry leaves in a garbage can and using a weed eater / string trimmer to break them up].

When you have more than one clump of a variety you can leave one of them alone to see how it does over time. I do find after a number of years the bulbs will die off. It appears that they either put something into the soil or they take something out. It is simply a matter of giving the soil a bit of rest for 2 or 3 years, and then the spot can be reused. This is not just Reticulata Iris; it also happens with Tulips – Tulips need to be replanted roughly every 5 years or so.

With varieties from Iris *danfordiae*, I find in my soil I can get a faster rate of increase by planting their bulblets near the soil surface. Otherwise, only a small percentage are able to get a leaf up. It's something trying if you want more bulbs of a variety.

Facts

- Bloom starts just as the snow disappears
- Lasts for 3-4 or more weeks
- Individual flowers last 3 to 7 days
- Some clones are early, and a few are late
- For additional bloom, plant some where the snow is last to leave
- 6.5-12 cm tall (2½-4½ inches)
- 4-10 cm in diameter (1½-4 inches) [3.5-8.5 cm tip-to-tip]
- Bulb has a netted covering
- Square to octagonal leaves
- Leaves grow 45 to 60 cm (18 to 24 inches) after flowers bloom
- Some varieties perform well, others don't
- Remember, their goal is to get a flower up, be hybridized in warm weather by bees, produce seed, and regenerate new bulbs all before the hot dry Summer arrives and they go dormant – the conditions in the wild
- 30,000,000 bulbs are sold annually (down from 40,000,000 in 2005)
- From eastern Turkey, Iran, and Caucasus mountains where it's very dry in the summer
- Iris *winogradowii* is from alpine meadows, so it likes a bit of moisture in the Summer / doesn't like it as dry

- Most are 2n=20
- *histrioides* and *winogradowii* are 2n=16, but they are genetically different from each other. Hence progeny between the two are sterile e.g. Katharine Hodgkin
- *danfordiae* and "company" are 2n=18
- Hybrids between *histrioides* and 2n=20 clones are sterile e.g George, Harmony & related sports (Alida, Pixie), Joyce, and Violet Beauty
- Iris *vartanii* is tender
- Ideally they will form clumps, but there is risk disease can get in and wipe it out
- Move some bulbs to a different spot in the garden. That way if problems develop in one location, you still have the others
- Ink spot develops at end of growing season (try digging the bulbs and storing them)
- Pests: slugs [re: flowers], hares (Holland), small animals [re: disturbing the bulbs]. At this point squirrels have not yet developed a taste for them
- Cover beds with nets and straw to dissuade squirrels from digging in soft soil (someone in our neighbourhood gives squirrels whole peanuts to bury!)
- Raised beds can be good since they provide good drainage
- They like moisture in the Spring, but don't want to be sitting in it
- **Key** is to provide good growing conditions so the bulbs can regenerate
- A new bulb is being formed at the base of each leaf
- One of my goals is to develop varieties that do well in our conditions
- Another is to develop longer lasting varieties
- 5 years typically from seed to blooming plants (~20% germinate & bloom)
- 12+ years to build up stock for sales to begin
- Plant Breeder Rights cost over €2,000 and registration is €200
- Grower only gets a small amount of money from each bulb sold, and growing costs have to be subtracted from that. Grower makes money based on volume.
- Can be a slightly different expression between Holland and my/your garden (due to fertilizer, soil, and other supplements; perhaps even weather)

Negatives (Don't let these stop you from trying Reticulata Iris)

- Some Reticulatas bloom for 2 years, and then peter out. Like Tulips and Daffodils, it's a matter of finding out which ones do well in your environment
- Iris *danfordiae* (commercial form) "shatters"
- If some varieties don't do well, try others, and/or try other soils. For example, mix in coarse (concrete) sand to give better drainage. Possibly plant away from trees. They could be drying out the soil and not allowing the bulbs to fully regenerate.