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Officers of the Group

The Group for Beardless Irises

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Comments From The Chair; Anne Blanco White

On the whole, a satisfactory year for the Group though with the present economic idiocies next year may not be so good – there is a tendency to ditch the smaller subscriptions though I do hope that you will all feel that the Group continues to feed your iris fantasies and supply their deficiencies. After all is said and done it would be a shame not to support Madeleine's efforts with the seed list which have started off so well. And certainly Brita's work with the Review and the Newsletter have made a great difference to the standing of the Group. For those of us with computers the CDs of cultivars are invaluable. I'm sorry for those of you with no computers, but we really can't afford to provide printouts. If you have access to a local "cybercaff" you may find that they will allow you to bring your own CD and play it on their machines. They may even offer assistance in getting started with the process. A local public library may also offer this facility and it is well worth enquiring whatever your Citizen category.

One thing is becoming meteorologically clear: global warming is not yet going to make the British climate predictable or reliable. We shall have to continue trying to do the best for our plants, but if it is going to get steadily warmer it will be even more important to grow as many plants as possible from seed. This is not just to get bigger and differently coloured flowers, but to get plants which will tolerate the changing conditions. Irids in general do have a very great potential for modification so that the species can adapt to changing conditions. They've been around for a long time and should be around for a lot longer if you help them. So it is important to avoid line breeding unless you have a specific reason for it. Rather you should concentrate on keeping the genes as varied as possible because there is no way of telling which genes will give the best long term survival.

And, incidentally, Alun's experiments with lime tolerant ensatas emphasise a point which has rather faded from gardeners' minds over the last few decades: farmers of old limed their soil regularly every year if it wasn't alkaline because if they didn't the lime simply leached out over the season and the next crop would be unsatisfactory. It takes a lot of time to change the pH of soil whether in a field or in a garden – anything up to a quarter of a century and then it will revert to its original state in a few years if the treatments aren't kept up. It may well pay, if you want to try this too, to mix your compost well in advance and let it pickle before planting-on time.

A lot of you will know that bad things that can happen if a malefactor takes over your computer, but good things can happen too when there is co-operation in the use of computers which are otherwise idle. You will know of SETI@home where people are hunting for aliens in outer space, but not so many know of the many other @homes. Herbaria@home for instance was started last year to sort out herbarium specimens and document them properly. Britain has vast quantities of such material which hasn't been seriously looked at for decades and which often has manuscript comments written in. Old notes can be nearly illegible and specimens need re-identifying. Much of this can be done online by sharp eyed amateurs. In time, the founders hope to spread their work world wide and anyone who has had seed which they hoped would be a really interesting plant and which turned out, yet again, to be either *I. pseudacorus*, *I. sibirica* or some wretched bearded hybrid can only wish them luck.

And distantly related to that, how many of you have heard of the Guerrilla Gardeners? They were set up to utilise the neglected areas of London which mainly housed litter of one sort and another. In spite of vandalism they have done much good work and I commend their website: <http://www.guerillagardening.org/> They may have a group near you.

Reticulata Show, January 2008

There was a good turnout of exhibits which did the growers credit in spite of the odd flowers which had decided against opening. Sadly, there were no entries in the beginners' class. Outstanding were two pots of *I. danfordiae* which stood close together and the scent was frequently commented on. On the other hand, there were some exhibits labelled 'Hercules' which were definitely 'Gordon'. And, inevitably, pots of 'Harmony' would have at least one bulb of 'Joyce' and *vice versa*. These were niggles and did not affect the judging, but led to splendid arguments about the real names before the judging started; *I.* 'Katharine Hodgkin' mostly had an 'e' in the middle. There was one nice plant of *I.* 'Sheila Ann Germaney' which has now been registered by the Dutch authority. Apart from that there was a much wider range of cultivars than usual, but your attention should be drawn to Sid. Linnegar's article in the '07 Year Book. The typos are extremely irritating, but if you apply your minds you can gain a lot of very useful information and where you are reasonably sure that you have identified a bulb then it can be isolated and grown on. This is something to which the group might apply its collective mind. There is no use complaining that the bulbs supplied are defective unless we do something to ensure that the bulbs we grow are True to Name. There seem to be some new suppliers in the market and these are worth watching out for in garden centres next season though I am not sure that they are any more reliable simply because all the bulbs tend to come from the same sources.

The mini-garden had only one exhibit, from Sidney Linnegar and, as usual, he had to be congratulated on the range of both cultivars and species which he included – at least 15 – underplanted with sprigs of *Primula* 'Iris Scott', and *Calluna vulgaris* 'Iris van Leyen'. Sidney has a large collection of non-iris plants which have 'Iris' as part of their names.

There was an exhibit of *I. unguicularis*, a vase of mixed colour forms, and a vase of *I. lazica*. The Decoratives were attractive: one of retics on a pedestal with a fall of long catkins so that it looked rather like a fountain; one of unguics with broom stems sweeping away and lungwort leaves; the third was retics with asparagus fern. An also ran was a nice Japanese style arrangement with Dutch irises. In the dried section there was a conventional display of different dried iris seed spikes and the runner up was a charming spray of oat-type grass with a nice open pod of *I. foetidissima* seeds and a small stream of them running away from the base in an abalone shell. And the Arts class was represented by a collection of 'iris' plates thrown and painted by Thelma Naylor.

There was a modest display of species forms: a pretty *I. reticulata* ex Adium with 2 flowers well ahead of the leaves; a pot with *I. histrio* var. *aintabensis* with two flowers to each bulb. Sadly both of these were ruled out by not having sufficient flowering bulbs on show in the pot. It was argued that the *I. aintabensis* probably

had one bulb to each flower since it is quite common for a fat 'bulb' to prove to be two smaller bulbs inside the same wrapping. The judges ruled that they had clearly been planted as one bulb. They were in beautiful condition and nicely spaced so Berney Baughen was awarded the Jeffs Trophy for the best exhibit in show. *I. bakeriana* tried very hard to put on a display, but couldn't quite make it; *I. histrioides major* showed up well as did *I. hyrcana* while *I. histrioides* 'Michael's Angel' was a good blue. Incidentally, there appeared in another place at another time, a spike of a white *reticulata* with blue markings on the petals called *I. 'Blue Ice'* which is worth watching out for.

In the irids there was a nice pot of *Libertia peregrinans* which would certainly help to add colour in the greenhouse at this time of year. The remainder were crocuses several of which had opened happily the previous day in the sunlight and flatly refused to accept the hall lighting as a substitute. A single corm of *Crocus sieberi* PJI 215 was showing off bang in the middle of its pot; a clump of *Crocus chrysanthus* 'Cream Beauty' was effective and *Crocus cvijcii* did its best too.

One unusual plant was brought up for inspection though it was pretty derelict having been in flower for some days already: *Iridodictium kopetdaghensis*. This is a dark red *reticulata* rather like 'Pauline' in base colour and shape, but with very fine standards. It was offered to the JIC not for an award, but because it may be a very long time before it appears again – timing is of the essence. Two other plants were brought up too: seedlings of *I. hyrcana*, but the shapes were so different that it was felt probable that they were hybrids with one of the wider petalled retics.

Secretary's Report; Madeleine Bullock

There isn't a great deal to report of a strictly secretarial nature but a big "thank you" to all the Seed Donors who helped to make the Seed Distribution such a success. I really enjoyed putting the list together and from your comments I think many of you found it interesting.

Additional donors are always welcome so please save some seed this year. If any of you are working on interesting crosses, or grow unusual Beardless Irises and other Iridaceae and would be willing to share seed I know there are people who would love to grow them.

Don't feel you have to contribute vast amounts. Most people send in quite small quantities which need to be here (or at least a list of those promised) by the end of October so that the list can be sent out with the Autumn Review.

On another subject, one of the things that attracted me to the GBI when I joined was the mention, on the website, of the extensive library available to UK members for the cost of postage (both ways). I have a list of titles available and if you are interested in borrowing them I can let you know the costs involved.

I'm looking forward to planting some more irises this year. We've been working on new flowerbeds over the winter so let's hope we have a sunny summer without too many extremes of temperature and rainfall.

Treasurer/Membership Secretary's Report; Alun Whitehead

I would like to thank all the members who pay in advance. This reduces the work load involved and we are happy to give a slightly reduced membership rate in gratitude (see subscription details in the Review). However, one drawback is that we rely on people remembering when they have paid in advance. Unfortunately, memories are not always infallible (including my own) and so to help you - a date has been added to the address - on the envelope. This shows the year to which you have paid and a subscription will be due the following year.

Editor's Notes; Brita Carson

We have an apology from Alun about his mistake with 'Clyde Redmond' which he calls something similar but not Clyde. Jill is making him write it out 100 times. I must call Clyde Redmond, Clyde Redmond. I must call Clyde Redmond, ...

This newsletter is filled with spring feeding regimes which our experts have kindly supplied. The programmes are quite varied but everyone puts great importance on good soil preparation. Know, not only, your soil type but also what the nutrient content is or is lacking. Observation of general plant growth can point out obvious deficiencies but it would be interesting to hear the results if any member has sent off a sample of their soil for analysis. Sharon explains in her article what a valuable service her local University does for gardeners. Marty is another advocate of organic fertilisers and pine needles which Berney used very successfully for growing PCIs in chalky soil.

Jeff provides sound advice for looking after new seedlings and Jane has persuaded me to use my bought organic farmyard manure which was for my veg., now for my Louisianas. Hope they appreciate how much it costs.

Jennifer would like more accuracy with the use of "Sibiricas" and "Siberians". The Society for Siberian Irises, in the USA, is keen that cultivars should not be grouped under the species name *Iris sibirica*, but for us to use the term Siberians. This is because the majority of the cultivars we grow are hybrids, involving often far-back crosses of *Ii. sibirica* and *sanguinea* and now *I. typhifolia* is appearing in the mix as well. Siberian may not be an accurate indication of their origins but it has the advantage of being fairly well known. So can we please use "Siberian Irises" unless referring to the species. Good places to start would be the title of the relevant Trial at Wisley, and (when its future is known) the NCCPG National Collection.

Jennifer has also written an authoritative article on growing Siberians which we hope will be especially useful to new members.

A very valuable article for anyone who is starting to grow Pacific Coast Irises has been penned by Geoff Wilson who specialises in PCIs and Arilbreds as well as growing many other irises and some unusual garden plants.

However for the iris enthusiast Tomas Tamberg has written a challenging article on interspecific hybridising. He takes the **Chry** from the **Chrysographes** group and the **sata** from the **Ensatae** group to form the **Chrysata** hybrid. *I. lactea* is the **Ensatae** group (or is it) but for some more background refresh your memory with Anne's article in the last Review. Beautiful photographs of some **Chrysata** hybrids will be on the CD with the next Review.

How To Produce Chrysata Hybrids; Tomas Tamberg

Chrysata hybrids are hybrids between species or hybrids from the **Chrysographes** group of irises (also called Sino-Siberians) as one parent and forms of *Iris lactea*, the only member of the **Ensatae** series of species, as the other parent.

Whereas Sino-Siberian irises are well known to iris enthusiasts, *Iris lactea* is not very often found in our gardens. Seed of this species and of its many forms can be ordered from different seed distribution schemes, but the seedlings grown from such seed are often, in spite of good growth, very reluctant to reach a flowering state. The reason may be that *Iris lactea* comes from dry areas of central Asia and needs a lot of sun. However, there are clones available from nurseries or from plant exchanges, which flower profusely each year. One clone has even received an AM from the RHS.

In order to produce Chrysata hybrids one normally uses *Iris lactea* as the pollen parent because of its very early flowering period. Using it as the mother plant (seed parent) would make it necessary to store pollen of the late flowering Sino-Siberian parent over winter, which is a more difficult task.

If you have a chance to select a clone of *Iris lactea* to do the Chrysata cross, try to find a floriferous one with large flowers on stems as tall as possible. When flowering starts, anthers with pollen of *Iris lactea* are removed from flowers that are just opening or have opened recently the same day. Use tweezers with fine tips for this purpose. Black film boxes can be used for pollen storage. First put the anthers with the pollen-carrying side upward on the lid of a film box, store it for drying for 12 hours in a cool and dry room. Then close the lid with the body of the film box and store it in the fridge until the pollen is needed (best temperature: 3 to 6°C). Label both parts of the film box to avoid mistakes.

Selecting the Sino-Siberian parent for the Chrysata cross. Look for large flowered and tall plants. The flowers should have wide falls and the stems be branched. As far as colours are concerned, clear yellows and dark purples are recommended.

In preparation of the cross itself, opening flowers of the Sino-Siberian parent are castrated by removing first the falls and then the anthers. Both are broken forcing them downward by help of tweezers. Finally the standards are removed, too. Do not use already fully open flowers. Sino-Siberians open their anthers very early and bees could have pollinated the flower already.

The film box with the *Iris lactea* pollen is now taken from the fridge and warmed up in the hands for a while in order to avoid water condensation on the cold pollen. Only then the box is opened, one of the dried anthers is taken with tweezers and moved to a hold between thumb and forefinger (with the pollen carrying side upward). With the tip of the tweezers some pollen is scratched from the anther and is transferred to each of the three stigma divisions of the Sino-Siberian flower. Pollination should preferably done during dry weather. If rain tends to be continuous during the entire flowering period, flowers can be prepared under an umbrella and then be protected by a cylindrical hood made from thin aluminium foil.

In most cases a pollination as described above yields a seed capsule. However,

quite often it does not contain any viable seed or only a few of them. Sometimes it is difficult to recognise the “good” seeds when a capsule has just opened. After some drying the “bad” seeds shrink very much and can then be identified. Due to the uncertain size of the crop it is recommended to pollinate as many flowers as possible with as many as possible different Sino-Siberians.

The seeds can be sown out in the classical way including some warm/cold cycles. A way to enforce fast germination is the seed cutting method, which has been described in an earlier BIS publication.

Chrysata seedlings should be planted into the open as soon as the leaves are about 10 cm tall. They will flower during the second or third year after planting and are completely hardy. The planting site should be sunny and on the dry side.

From *Iris lactea* these hybrids have inherited a slight perfume, similar to that of some Primulas. They normally have an unbranched stem with up to three flowers. In spite of the two parents having the same chromosome number of $2n = 40$, Chrysata hybrids are sterile at the diploid level. By colchicine treatment a tetraploid and fertile Chrysata hybrid has been produced. This can be crossed with tetraploid Sino-Siberians to yield hybrids of the type $\frac{3}{4}$ Sino-Siberian – $\frac{1}{4}$ *Iris lactea*.

The line patterns of these hybrids are the main ornamental aspect.

Giving Siberians A Good Start; Jennifer Hewitt

When you get a new plant it will probably come well established in a pot, or a split off an existing clump, perhaps dug up and handed over on the spot. Or it may be a division, arriving through the post or a plant sale, which is essentially bare-rooted. If it is an import from outside the EU which has needed a phytosanitary certificate every bit of soil will have been washed off. Any plant that is posted should have the roots wrapped in damp paper towels or something similarly absorbent, and then in a clean polythene bag. If you are given a plant straight from the garden wrap the roots in damp paper (newspaper is OK) and put them in a polybag. Never enclose the whole plant in such a bag as warmth quickly builds up and botrytis has an ideal breeding ground. This applies to all irises other than those that must be kept dry like beardededs. Even so, if sending *Iris unguicularis* for example, I'd wrap the roots.

Give the new plant a good long drink. Even a potted one is better for a soak though don't leave it standing in water for days, unless it really is a water iris.

You have, of course, prepared a space by weeding it and digging in rotted compost and manure. You haven't? Then you're like the majority of us, I suspect. Your plant will be fine for a few days with its roots in water but try to keep the rhizomes on or only just below the water surface and the leaves clear of it. If the delay is likely to be longer, try to pot it, and if the plant is small, or arrives in unsuitable weather, potting is usually the best option. There is said to be no “wrong” time to accept a plant you're offered; planting is another matter. On the whole, the sooner it's in a permanent home the better, but giving it time to establish in a (well-cared-for, need I say?) pot may make for a better start than in open ground.

Personally, I like to add a slow-release fertiliser when preparing a site, though this may be because I know that subsequent feeding is likely to be rather erratic. But

even if you're meticulous it seems a good idea. My own preference is Vitax Q4, but that's mainly because the empty plastic coatings of Osmocote hang around so long, and annoy me.

Trim off any dead leaves as close to the rhizome as possible. If the live ones are full length, cut them back to 9" (22 cm) to reduce transpiration and prevent wind-rock, though this may not be necessary with an established potted plant. When planting out or potting, make a mound for the rhizomes to sit on and spread the roots out, so that they flow downwards, then cover them. On a light soil, and especially in drier areas, the rhizomes should have 1-2" (2-5 cm) of soil covering them; on my heavy clay and with above average rainfall for parts of western England, I only just cover them. They will find their own level in time. Water in well and keep the soil moist, for several months if necessary, particularly if planting in spring when no substantial new root growth is likely for a while.

To mulch or not to mulch? My own feeling is that new, small plants should not have mulch laid closely around them as I've found it can encourage botrytis, but this again is a matter for your own judgement according to your conditions. In later years, topdressing in spring with compost/manure/fertiliser mix, after the previous year's leaves have been cut down (ideally in the previous autumn) may be all that is necessary to encourage the plants and conserve moisture.

Plants received and planted out in early autumn need to be watched for frost heave, but otherwise our winters are not now generally cold enough for protection such as conifer boughs to be needed unless you're in a really awful frost pocket. If you do have to protect plants do allow air to circulate. Slugs and snails may go for the tender spring growth. Some cultivars produce yellowish leaves early on but this normally greens up and shouldn't be a worry.

Spring Feeding Regime for Siberians.

Brita's request has presented me with a dilemma: should I be honest, or not? If honest I have to say I've no regime as such. At best some compost, manure and leaf mould (all well rotted, of course) is used as a top-dressing but it doesn't always happen, or is applied when the spirit (belatedly) moves me. I do try to fling around some slow-release fertiliser such as Vitax Q4, which isn't too high in nitrogen, forking it into the top inch or so with care to avoid damaging the roots. Watering in isn't usually necessary here as the soil is damp in spring and it's likely to rain before long. A bit later I have sometimes used Chempak 8, a high potash feed, but lugging cans of the diluted mixture around several hundred plants isn't good for an arthritic spine and needs more motivation than I can usually summon. I have to admit that not a few of my Siberians survive despite, not because of, my care. Some which are planted in borders with other perennials etc. do share in more conscientious attention, perhaps because they're nearer the house. Incidentally, I use the composted manure sold by garden centres, which seems to me to be more concentrated than what I get from farmyard or stables so goes further and can be used straight away, all of which compensates for the expense. If I manage it, and once a year is often all I can do, the mixture as above gets used as a top-dressing after flowering.

What do Siberians like? Pretty well anything, within reason. I first grew them on alkaline clay which killed rhododendrons but was OK with the irises. Then for two

years we were on acid sand where they didn't like summer dryness (luckily there was no real drought) but survived until being moved to the present slightly acid clay. There wasn't much topsoil in this ex-field 35 years ago but lots of compost, particularly when I was younger and stronger, has produced a reasonably open soil which retains moisture sufficiently well for them. New sites usually get the always advised well-rotted compost and manure, and leaf mould if I have it, but this is moderated if I'm planting into a spot previously well fed for the few vegetables I grow. Then I add a slow-release fertiliser and plan to top-dress in later years.

Iris sibirica is a meadow species, while *Ii. sanguinea* and *typhifolia* may come from damper sites, but none is a water iris. They are accustomed to autumn/winter/spring rains but drier summers. Siberian cultivars mostly have a mixed ancestry. New plants need to be well watered in and kept moist until you can be sure the root system is well developed, but well established clumps on a medium to heavy soil will usually tolerate drought, if not too prolonged, pretty well. If in doubt, water – thoroughly – if you're allowed and able to, then mulch. I am not in favour of a deep mulch close to newly planted small pieces but on a light soil it is probably advisable,

Seedlings; Jeff Dunlop

Seedlings started inside flats here, get a drink of tap water and then a balanced soluble fertilizer, alternating at every watering before they dry out. After they are set out in good garden soil, just occasional overhead watering with an oscillating sprinkler with no extra fertilizer to keep them from drying out until they become rooted and start to flourish. Usually they can get by on their own after 6 to 8 weeks and then will only need water during dry times. Our water is close to pH 6.8, nearly neutral and from Sebago Lake via the public water system—Portland Water District with 120,000 customers. Some of the finest tasting water in the world. We offer it to guests in the gardens during June.

Louisianas; Jane Cole

The editor has asked me to write about my feeding routine for the Louisianas. As I mentioned before I do not write as an expert but as one experimenting.

For the first 2 or 3 years, I grew them in 1 part each multipurpose, ericaceous and J.I. No 3. They grew quite happily but didn't produce much flower. I am now trying 1 part each multipurpose, ericaceous and bought (Garden Centre) farmyard manure. This seems to improve their flowering performance.

I grow them in "Balconiers" which have a water reservoir in the base, and I keep them well watered when they are out of doors. They need less water when they are overwintering in the greenhouse.

I only have 'Black Gamecock' in the garden so far. It looks reasonably happy. I planted it with plenty of the aforementioned farmyard manure. I hope to try a few more this year. *Ii. brevicaulis* and *x fulvala* are also happy overwintering out of doors so if you have neutral to acid soil they are worth trying. They are greedy feeders, like damp conditions and sun. Although they grow in the swamps of southern USA they cope surprisingly well in less wet and warm conditions.

PCIs General Cultivation; Geoff Wilson

PCIs are hardy in most areas of the UK once they have been planted out into their permanent positions. They need soil conditions which are 1) well drained; 2) the acid side of neutral, pH 6.5 - 7.0, and 3) "leafy" soils eg "milled" bark compost. They also appreciate a light top dressing in spring with a slow acting ericaceous fertiliser. Plant in sun and/or partial shade in the south; full sun the further north you go.

This group dislikes division of the rhizomes. When it is necessary I have found this is most successfully carried out in spring as soon as new growth is evident, usually about mid March depending on the season. Divisions are best potted in the "PCI potting mix"* and then placed in a cold greenhouse or frame. Do not allow pots to dry out. The divisions can be planted out when they have obviously become established in the pots. Newly planted divisions should be watered frequently and protected from strong sunlight if the summer is very hot and dry. Horticultural fleece is good for this purpose. Plant out ideally in March/April or early September.

PCIs can be grown successfully in containers. These should be large enough to accommodate several plants (3-5). This will minimise the possible freezing of the roots during periods of severe winter weather. Further protection can be effected by insulating the containers with straw, burlap etc. It should be noted that young plants, potted divisions and seedlings are all best overwintered under cover in a cold greenhouse or frame for this reason.

Feed: soluble 1/2 strength Miracle-gro for large plants in pots.

Sow seeds of PCIs Feb to early March to produce young healthy plants. These irises come easily from fresh seed sown conventionally in 6" seed pots. Some growers prefer to sow individual seeds in jiffy pots claiming it gives a better survival rate. Personally, I have found "conventional" sowings quite satisfactory. The seedling compost should be light and neutral to slightly acid pH 6.5. I use a good quality ericaceous general purpose compost to which I add perlite or vermiculite plus a dash of alpine grit. The seeds are spaced evenly over the surface of the compost (a 6" pot will accommodate about 24 seeds) and are pressed lightly into the surface. Top with 0.5" alpine grit. Water and place in good light in a cold greenhouse or frame. Germination occurs at around 50° F. Warmer than this and seed will not germinate. Shade seedlings on warm spring days if the greenhouse gets too hot.

Seedlings will develop quite rapidly. PCIs are variable with some as high as 18 – 24 " while others are only 6" or less. It is important therefore to decide at what stage seedlings should be potted on but generally before the stronger growers have reached 5 – 6". Pot individually where practical. Tiny seedlings can go 4 to a 3" pot (I use square pots) but must be moved on and potted individually before the roots grow inextricably together. Take care to minimise damage to roots in all cases.

*Potting medium is not critical. I use a good quality ericaceous compost.

Warning there are some composts on the market which are very acid and will kill PCI seedlings stone dead in a week!

Proportions of compost by volume

| Ericaceous | General Soil-less | Grit | Perlite/Vermiculite |
|------------|-------------------|------|---------------------|
| 1 part | 1/2 | 1/4 | 1/4 |

The small proportion of soil-less compost, grit and perlite raises the pH slightly.

Seedlings can go initially into 3" pots. I use square pots as they fit together, preserve moisture levels and minimise weed growth between each pot. Following rapid development the young plants should be planted out in their permanent beds as soon as possible. Spring is the best time for this.

If planting out is not immediately practical then potted seedlings should be removed from the greenhouse to an outside uncovered frame by the end of April. Repotting is vital and should the plants need to spend the following winter in pots, some winter protection should be provided. It is often necessary (as in my case) where large numbers of seedlings are grown to keep individual plants in pots into their second year to assess bloom quality.

Lastly you will find that some of your seedlings die for no apparent reason just after their first potting and some will do the same thing several months later. Put this down to "natural selection". I also grow these irises' remote cousins the *oncoclycus* which are "absolute masters" at sudden collapse and death. Possibly somehow the word gets out.

General Care

There is a fungal disease which infects PCIs and is evident by a sudden browning of leaf fans and in extreme cases drying out top growth and death. Remove and destroy if growing in a pot. Dispose of the potting soil. If planted out (again in extreme cases) dig up and destroy taking the surrounding soil. Refill with a new soil mix and drench with fungicide (Dithane 945) Note this fungus seems only to attack individual plants while those growing nearby remain unaffected.

Aphids generally seem not to attack mature plants. They will infect, however, young seedlings growing *en masse* in a greenhouse while top growth is still soft. Snails also can cause havoc to young seedlings and delight in destroying bloom spikes in the bud stage. There is also a species of large green caterpillar which will clean off the leaves of young plants. This horror hides among the pots in winter and comes out at night to wreak havoc. Ten minutes with a torch can be rewarding when you can treat the offender to a game of "squash"! This caterpillar likes any sort of iris seedlings, the choicer the better.

Growing PCIs On Chalk; Berney Baughen.

Way back in the 1980s Alice and I regularly visited Wisley Gardens. One day along the footpath leading to the restaurant our attention was drawn to some evergreen plants with strappy leaves bearing labels such as *Il.* 'Banbury Beauty', 'Banbury Melody' and 'Banbury Gem'. It was the 'Banbury' word that attracted us in the first place as this was the source of my family roots. We had been too busy to visit Wisley in May and early June so had missed seeing these plants in bloom, until 1986, when we called in one Saturday in May, and lo and behold all the 'Banbury' varieties were blooming their heads off and what a sight! We headed for the RHS information centre to find out more about these beauties, but were sadly disappointed that no-one could give us any details other than that Mrs Marjorie Brummitt of Banbury had provided them.

The following Tuesday the BIS had a show in London and on enquiry I was informed that the PCIs required ericaceous growing conditions, and no they would not suffer

my chalky soil at Downe, in Kent. Ah, but I grew rhododendrons on chalk, so why not PCIs I thought. The secret, I had learned from old Mr Reuthe of Reuthe's Nursery at Keston and Ightham, was to add lots of pine needles to the top spit and as an annual mulch. Pine needles are very acid and neutralize the alkalinity in the soil. Anyone who visited Copper Beeches at Downe will verify the success of using pine needles on the rhododendrons. I went ahead quietly buying a range of PCIs, adding a good measure of pine needles to each planting hole and eagerly awaited the results. The planting area was a raised bed of loam with a depth of some 9" (20cm) over chalk. I was very pleased that all the PCIs – *Ii. innominata* and *douglasiana* hybrids – did so well. In fact much seed from the dozen varieties I grew was sold in the Kent Group in support of Group funds and the results from them have proved most satisfactory.

If you garden on chalk with a reasonable depth of topsoil and have believed you could not grow PCIs have a go, I am sure it will bring you much pleasure.

Earthart Gardens, Maine; Sharon Hayes Whitney

Earthart Gardens is located on the rock-bound coast of Maine (zone 5). We are fortunate to live on one of the few pockets of sandy loam on the peninsula. Before planting, we build up the soil with compost. This helps with moisture retention as well as nutrient availability. We often add compost to the soil a year or so in advance of planting and sow the bed to a cover crop. Sometime before planting we collect a soil sample and send it to our University Extension service for analysis. The soil in Maine is naturally acid, but it is wise to check the pH and nutrients. We adjust our planting beds as suggested by the soil analysis. The Extension service gives both organic and chemical recommendations. It is up to the grower to choose. It is also a good idea to check the pH of the water you use on your garden. Over time water with a high pH can negatively affect the growth of Japanese irises. After the seedlings and plants are installed, we mulch them with compost, pine bark, pine needles or sometimes oat straw. The mulch moderates the soil temperature, retains moisture and suppresses weed seed germination.

We add no amendments to a first year planting bed; the soil has been well prepared and adjusted according to the recommendation of the Extension service. The plants are busy putting on root growth and establishing themselves. If we have done things correctly preparing the beds, the plants are just fine. After the first growing season, we broadcast pro-gro or holly-tone at the root zone of the plants in the early spring and again just after the plants go out of bloom. The second feeding should be light; use half the quantity used in the spring. The soil amendments we use are dry and therefore dependent on rain or watering to become useful to the plants. They contain no sludge. The Japanese Irises are heavier feeders than the Siberians so we fertilize them accordingly. If there is mulch on the area to be fed, it is preferable to remove the mulch, apply the plant food and then restore the mulch on top of the application of plant food. If this is not possible, double all recommended feeding rates. I am sure that you have some wonderful similar organic products over your way which maybe you can suggest in your article.

Pro-Gro 5-3-4 is a high nutrient blend of natural ingredients that plants and trees respond to with sustained growth. It promotes healthy soil and plants and contains cottonseed meal, alfalfa meal, feather meal, rock phosphate, kelp meal, cocoa meal,

blood meal, fish meal, crab meal, dried whey, natural nitrate of soda, natural sulfate of potash and magnesium sulfate. The manufacturer suggests that it be applied at the rate of 15-20 lbs per 1000 sq. ft. in the spring, half that after bloom.

Hollytone 4-6-4 fertilizer is formulated for acid loving plants such as hollies, azaleas, camellias, evergreens, rhododendrons and dogwoods. The manufacturer recommends feeding established beds 5 lbs. of Holly-tone per 100 square feet.

Brita, I apologize for going on so.....it is important to know what you have for soil before you start adding to it AND it is important to know how your water will affect the soil. I learned the importance of checking these things the hard way!!!

Joe Pye Weed's Garden, Massachusetts; Marty Schafer

You can't call how we feed irises a "regime" as we mostly starve our plants. We have sandy-loamy soil which passes water quickly carrying soluble nutrients with it. So the first thing we do is mulch heavily with pine needles and chopped leaves. This has consequences with the small rodent set, but between summer predators and winter trapping we manage to keep the damage down. Decaying leaves slow the flow of water and provide some long term, low yield nutrients. Added up over the years I guess that feeds the plants a little. We supplement the mulch with a sprinkling of slow release organic fertilizer (North Country Organics Pro-Gro 5-3-4) tossed around at the end of an early spring day. It's dusty and we can't wait to shower it off. I'm sure our plants would be more robust if we fed them more, but they put on a good show every year.

That's what we do in the garden. In the field we use the same slow release fertilizer dropped from a spreader on established plants at the same time of year. Line-outs and new transplants we only "feed" with alfalfa meal. Later in the year when the roots have grown and if we have time, we spread some of the fertilizer on them.

It's not that we intend to starve our plants, it's just what we've been doing all these years. We thought we were doing fine, but lately we've been getting the impression that we are probably under fertilizing. We met a professional who raises perennials on a big scale. He gets a cutting of a plant to fill a two gallon pot in three months, and turns one plant into thousands without tissue culture in a year. He has ideal greenhouse conditions and "regimes" to force plants into superlative growth.

We are not too worried about this issue. There is world of difference between growing plants in pots and growing in the ground. Translating the requirements of quick turn-over and the urgency of "time-and-space-are-money" mind set to gardening would make it unattractive to us.

Our main fertilizer is made of organic materials like chicken manure and feathers and rock powders so the yields of nutrients are low and long term. We also use a 20-20-20 liquid fertilizer to keep seedlings and cuttings alive while they are in pots and waiting to get big enough to plant in the ground. If we had any intention of pushing them along, the haphazard way we apply it would put an end to that.

One last thought on snow and fertilizing. Around here snow is called the poor man's fertilizer, presumably because there is some atmospheric nitrogen dissolved in it. Does that mean we can take a year off? Probably not.

Ensatas, Feed The Brutes; Anne Blanco White

Feeding ensatas. I never went in for fancy feeds like that stuff with a name like 'Miracleagro'. They got Tomorite, or Phostrogen, and a standard high potash long-life fertiliser like all the other irises.

The flower beds had masses of compost added because I did most of my growing on very heavy, neutral clay and the containers had compost with very coarse sand or grit added to help drainage. Included at the time was any nice well rotted stable manure I could lay my hands on or, at planting time, the long life fertiliser. Not 'season long' because these plants grow through the winter though it may not be obvious and they need access to nourishment then just as much as later. The first year for garden irises I didn't usually add extra feed because I wanted them to spread their roots and get well established – since most of them were in a stream bed they didn't need watering – but plants in pots which are open to the winter weather do get a lot of their fertiliser leached out by the rain and so in the spring they were mainly watered with a 10% solution of something like Tomorite. Little and often is the motto here. Pots are best stood in a shallowish container which is easily topped up when it empties and won't result in bog-like soil if there is heavy rain.

Serious supplementary feeding should start when the plants are growing strongly in spring and this will depend on the weather earlier in the year. With the present conditions, it is essential that gardeners watch and think about this. Apart from ensuring that they don't dry out, basic feeding should continue until flowering is over. Even after seed pods have been set there should be sufficient reserves of fertiliser in the soil to ensure good seed. Seed pods, or not, the plant can then be kept damp, but not wet until it is obviously dying down when it should be allowed to dry off and, if potted, should be moved to a cooler site.

When the weather cools down, potted plants should be replanted because they will, effectively, have exhausted their soil, but if it was a smallish plant in a largish pot it can be left for a second year. The compost will have subsided so long term fertiliser should be added to the surface of the pot and covered with fresh compost so the roots are again safely under the soil surface. In the flower bed, stir up the surface, add fertiliser and mulch. In the stream bed, add fertiliser and stir carefully into the soil and hope that the winter rains will bring down a modest quantity of mulch material and do the work for you. If not, mulch generously in spring and pray that a spring flood doesn't promptly wash it all away – best to wait until the leaves are around 6 inches tall and can hold some of the mulch in place.

There's a major problem with nice little ponds on the patio. These small areas of water will rapidly become de-oxygenated in hot weather and any unfortunate ensata which had been parked in one for a Japanese effect will suffocate. Either have one of those dinky little solar fountains to aerate the water in a heat wave or take the plant out and park it in a cool, airy place.

It does need to be remembered, for all water irises in practice, that in the wild 'drainage' means that the water moves through the soil allowing oxygen to do so too. Very few irises will tolerate anything approximating to stagnant water even if it doesn't stink.

When You Should Fertilise; Margaret Criddle

It is common practice among the country folk in Lincolnshire not to sow seed or add fertiliser to the soil until the Blackthorn (*Prunus spinosa*) has finished flowering because until the flowering is over it will remain bitterly cold and the ground will not start to warm up. From the buds emerging to the flowers dying off takes 4–6 weeks and winter won't leave us until then.

I use seaweed as a fertiliser. I use as much fresh seaweed as I can and spread it liberally over the ground but if I can't get sufficient I use calcified seaweed added sometime in March after the Blackthorn has lost its blossom.

Spurias; Alun Whitehead

It is rare for me to get a chance to grumble about our Editor. After several months spent building up the extra layers of fat to keep out the winter chill (we have no central heating yet!), the weather is now changing and we have to leave our hibernation and also reduce a few excess pounds. So to what subject are we asked to put our mind Food!

It might seem spiteful, but if I'm having to refrain, why shouldn't the plants. Okay, this may be taking it a bit too far. There are occasions when a plant has been in a spot for too long and we don't want to move it just yet, so a handful of blood/fish/bone is sprinkled round in the early spring. (NB early spring – you don't want weak necks on your flowers!). However, this to my mind is a poor substitute. Ideally the soil should contain sufficient nutrients to provide the iris with all of its requirements other than sun. So it is the preparation of the soil prior to planting that is crucial. This is especially true for the spuria irises which are renowned for their ability to grow in the same spot for many years, 20 or more.

When we first started gardening we were always puzzled by the ubiquitous phrase – “moisture retentive but free draining soil”. If it retains moisture, how can it be free draining? But of course there are friable soils which are very good at holding air pockets as well as retaining the moisture – both ingredients appreciated by most root systems. Our own clay will lose moisture very quickly in the summer by capillary action leaving 2 inch (50cm) wide cracks – if you ask us to give a talk, we'll show you the slide. This can be alleviated by incorporating humus/compost prior to planting which improves the soil texture and stops the capillary action. The humus/compost added will also provide a lasting source of nutrients. Of course after 3 years all the good work is undone and the soil has reverted to solid clay. However, we have another trick. Each spring we add 2" of soil improver from the local council. This layer again prevents capillary action, retaining moisture and giving a longer growing period into summer. But the worms also take it down and where the mulch has been applied the soil structure stays in better shape, i.e. retains its friability.

Of course, we cannot leave the subject of feeding without a mention of Jill's father. One morning a neighbour caught him emptying the teapot in the front garden. He gave a very good account of how tea every morning helped the rose produce such a magnificent show each summer – especially if he didn't forget the 2 sugars.

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