



THE

# FRITILLARIA

GROUP



The Fritillaria Group of the Alpine Garden Society  
Journal 24 Spring 2009



Editor: Pat Huff

Botanical advisor: Martyn Rix

The Fritillaria Group welcomes articles, short notes and photographs – especially of plants in the wild – line drawings, and other material concerning *Fritillaria*.

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Copy dates: 1 May and 1 October

Articles are quicker and easier to handle if they are produced electronically, but typed and manuscript copy is also very welcome.

Photographs should be in the form of 35mm transparencies, or on photo CD. If possible, please send transparencies ahead of the copy to allow for scanning. Electronically produced images will only reproduce well at a resolution of 300dpi.

The cover photographs were both taken by Laurence Hill:

*Fritillaria ayakoane* (front) and

*Fritillaria japonica* (back)

Last year was obviously a poor year for seed set and this resulted in the seed list having only 66 taxa compared with 135 in 2004. We had only 22 donors last year compared with an average of almost 50 each year from 1999 to 2006. The quality and quantity of seed was also down, and there was a lot of chaff and non-viable material in some donations. No doubt because the list was so much reduced, requests for seed were correspondingly down: 62 last year against 127 in 2005. So what is going to happen this year? If you wield a small paint brush on warm spring days, you really can make a difference to seed set, especially if you have more than one clone available. A few minutes spent on this in the spring can result in the most satisfying seed pods later on. If you can, please encourage seed set, and please collect your seed and send it in. Only if you do will the seed exchange return to its former excellence. Pat Craven

## MEETINGS 2009

### SUNDAY 1<sup>ST</sup> MARCH

**Spring Meeting, 9.30 – 16.00**  
**Hillside Events Centre, RHS Wisley**

- 9.30 Coffee, staging of show plants\*
- 10.30 Martin Rix – *Fritillaria* in China
- 12.00 Lunch, Show open to public
- 14.00 Laurence Hill – *Fritillaria* in Japan
- 15.30 Raffle
- 16.00 Close of Show

\*Although it is an early season, if you have any *Fritillaria* in flower or almost open please bring them along for the display table. See insert with this journal for ticket information.

### SATURDAY 26<sup>TH</sup> SEPTEMBER

**One-Day Conference: *Fritillaria* from Greece to China**

Due to circumstances beyond the control of the *Fritillaria* Group the organiser has been obliged to cancel this event.

### SUNDAY, 25<sup>TH</sup> OCTOBER

**AGM and Photographic Competition**  
**Hillside Events Centre, RHS Wisley**

There will be a speaker.

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## FROM THE EDITOR

As Spring approaches, however slowly and seemingly reluctantly, it is appropriate that we have a brace of excellent articles on raising fritillaries from seed and cultivating them after they've germinated. Paul Cumbleton's piece extolling the advantages of Seramis certainly convinced me. All sorts of seeds (mostly weeds, of course) germinate enthusiastically in the gravel of my driveway: a clean, purpose-designed horticultural product that imitates that same porous, open medium can only be an improvement. Laurence Hill explains the techniques that have given him such success with the lovely but recalcitrant Japanese fritillaries that are gradually becoming available. Maggie Campbell-Culver, the doyenne of plant introductions to these islands, has contributed a fascinating piece on the history of the genus *Fritillaria* in Britain. Marcelle Garden makes me green with envy as I contemplate her lovely New Zealand garden with a climate so equable that *Fritillaria meleagris* can become a bit of a thug. I am grateful to all who contributed to this edition of the Journal, and would encourage anyone considering writing an article to go for it. Collect seeds for the autumn distribution and contribute articles to the autumn Journal.

## ERNA FRANK 1918-2008

You will be saddened to learn of the recent death of Erna, our founding President. She will be remembered not only for her expertise in growing *Fritillaria*, *Cyclamen*, and alpines but also on the talks she gave on her travels with Ronald (to the Middle East – visiting Turkey 26 times, the last in May 2005, Austria, the Dolomites, Greece, Syria, Mongolia and the States). With Ronald she found new species of *Fritillaria* and *Cyclamen* and she translated into English Hildebrand's monograph of the genus *Cyclamen*. When she decided that a *Fritillaria* Group was needed, she set about the task with enthusiasm, coercing Ronald into being the first chairman whilst she took on the job of secretary. Various other friends were persuaded to take other positions on the first committee, and the Group has continued to evolve from there.

*Marion and Bob Charman, who wrote the above appreciation of Erna Frank, were very faithful in visiting her during her last years in a nursing home. After she died on 14 September, Bob said "It was obvious that for some time she had had enough of life..." The *Fritillaria* Group is her and Ronald's lasting legacy.*



## SOWING AND GROWING IN SERAMIS®

By Paul Cumbleton

Growing bulbs from seed is very rewarding, but it can seem to take an age from sowing until first flowering. So anything that could reduce the wait a bit would be most welcome. Over the past few years I have been raising *Fritillaria* from seed using the proprietary growing medium called Seramis. In developing this technique it has become obvious that there are some attractive benefits regarding the saving of time. In particular, *Fritillaria* seedlings grow so well in Seramis that you can often cut the time taken from sowing to first flowering by a year! This article describes my techniques.

### What is Seramis?

For those of you who may not know this product, Seramis is a growing medium developed and made in Germany. It is composed of reddish-brown granules, 90% of which are in the size range of 2mm to 4mm, with 10% finer particles. It is made from clay from the Westerwald region. This clay is mined from deposits laid down during the Tertiary period 65-1.8 million years ago, and consists mainly of the minerals kaolinite, illite and quartz. It also contains other iron compounds and titanium. The clay assumes its reddish-brown colour in the firing process, as the iron contained in the clay oxidizes.

The production process involves first liquidising the clay and then using a special technique to make it porous. It is then dried, broken into pieces, sieved and fired to make the final product. It has a bulk density of 390g/l and the pores make up more than 80% of each granule. This high porosity means it has a high water-absorbing ability (it behaves a bit like a sponge), capable of absorbing more than 100% of its own weight in water, while maintaining excellent oxygen supply at the roots. It has a neutral pH value of 7.0. You can find out more about Seramis from the importer's website at [www.seramisuk.co.uk](http://www.seramisuk.co.uk) and purchases can be

made at many garden centres or off the web from [www.seramishydroponics.com](http://www.seramishydroponics.com) .

### Sowing in Seramis Versus Normal Seed Compost

When I first started developing this technique I would divide each packet of seed into two and sow half using Seramis and half into “normal” seed compost in order to be able compare results. I no longer do this – having repeated this experiment dozens of times I no longer need convincing; the results in Seramis are so superior that I now use this exclusively. I currently have over 150 *Fritillaria* sowings happily growing in Seramis (not to mention 50 pots of *Calochortus* that also respond well to this approach). At first I also sowed in normal seed pots and pricked out later in the usual way. I no longer do this as the experiments showed there was another way to both save time and get better results: sow in Seramis and leave them till they flower. You save on time and on compost, making up somewhat for Seramis’s initial expense.

### The Method

I use deep plastic pots, 13cm deep by 11cm diameter. A circle is cut from some old shade netting to put in the bottom of the pot – this helps to stop the Seramis trickling out of the rather large drainage holes, and to prevent any deeply delving young bulbs from escaping the pot by the same route. Next, I fill the pot with Seramis nearly to the brim (Fig. 1), leaving just enough room for a topping of grit later. I use the Seramis straight out of the bag – I don’t sieve it or anything else. Then I sow the seed on the top of the Seramis. Because I intend to leave them until they flower, I aim to sow thinly so there are not too many in a pot, so I take my time and use tweezers to space the seed out, putting only 7 to 10 seeds per pot. Then I cover the seed with about a cm depth of grit, water and put outside as usual to expose to winter cold.



*1 - Pot ready for sowing*

Seramis contains no nutrients, so feeding regularly is of key importance. As soon as I see germination starting, I give a first feed of a half-strength balanced feed such as Chempak No. 3 (NPK: 20-20-20). Thereafter it is important to feed at *every* watering. I use the balanced feed for about the first three or four waterings then switch to a high potash feed for the rest of the time. For the first year I always use half-strength, but switch to full strength in the second year. In addition to this, in the second and subsequent years, I copy Ian Young's feeding tip of sprinkling a teaspoonful of sulphate of potash over each pot. For seedlings, he does this as soon as the leaves are full size. If this has been very early in the season, a second dose is added in spring. (For adult bulbs it is added just after flowering). There is



one further important point about feeding. I have found that anything grown in Seramis seems to require additional trace elements – i.e. more than may already be in your liquid fertiliser. I don't know why this should be so but it is. So I give each pot a dose of soluble trace elements twice a year, each time at half the strength on the packet. I do this first soon after they come into growth, and the second time about half way through the growing season. So the technique is really very simple – sow thinly on a deep pot of Seramis and feed with every watering as described. Treat them as you would any other bulbs while dormant. Don't bother pricking out or re-potting – the Seramis does not compact or lose its structure so there is no need. Then just wait for flowers a year earlier than you might otherwise expect. Not convinced? Then see....

### The Results

I have tipped out lots of pots one and two years after sowing to see the differences. In every case, more seedlings had survived in Seramis and in every case the young bulbs were far larger than those sown in normal mix. I could show countless photos to illustrate the point but the ones shown are typical. Fig 2 shows *Fritillaria purdyi* bulbs 2 years after sowing. The ones from



2 – *Fritillaria purdyi* after 2 years



3 – *Fritillaria recurva* after two years

Seramis are on the left – you can see how much larger they are than the ones from normal compost on the right. Fig. 3 shows another example, this time *F. recurva* with those from Seramis again on the left. Fig 4 shows the size these same bulbs had attained just one year later. These and many others grown in Seramis have gone on to flower at least a year ahead of those grown in normal mix. I have had several *Fritillaria* flower just 3



4 – *Fritillaria recurva* after 3 years

years after sowing in Seramis – For example, Fig 5 shows *F. recurva* in bud just 3 years from sowing (Note behind it some 2 year old seedlings showing of *F. raddeana*, also in Seramis). Fig 6 shows *F. assyriaca* ssp. *melanthera* at 4 years after sowing - but it first flowered a year earlier, 3 years after sowing.



5 – *Fritillaria recurva* in bud after 3 years



6 – *Fritillaria assyriaca* ssp. *melanthera* at 4 years

Fig 7 shows the size of the *F. assyriaca* ssp. *melanthera* bulbs when they first flowered at 3 years after sowing. Fig 8 shows a cross between *F. karelinii* and *F. gibbosa* in bud just 3 years after sowing.



7 – *F. assyriaca* ssp *melanthera* bulbs at 3 years



8 – *F. karelinii* x *F. gibbosa* in bud

### Growing on

Bulbs cultivated in this way can be grown in Seramis permanently, or moved once adult into a normal bulb mix. If left in Seramis you must remember to feed at every watering and to give additional trace elements. Repotting need only be done once the bulbs are overcrowded. We often move them to clay pots once adult, just because they look nicer on display, but Seramis works equally well in clay or plastic pots.

### Conclusion

Raising *Fritillaria* from seed in Seramis can cut at least a year off the time from sowing to flowering compared to seed sown and grown in normal mixes. Time is also saved due to there being no need to prick out seedlings or to repot. I highly recommend you try this for yourselves, I'm sure you will be delighted with the results.

*The photographs in this article were taken by the author.*

I have taken on a joint project with the RHS Lily Group and Plant Heritage/NCCPG. We are trying to establish what lilies are grown in Britain. We are starting with the listings in the RHS *Plantfinder*, then adding any further information volunteered by keen gardeners. If you grow lilies, and would like to share names with this survey, I would be very grateful if you could send the list either via e-mail or to my home address (see inside front cover for details).

Your name and address will not be published; the numbers will just be added to an anonymous list. We are very interested in establishing further National Collections of the genus *Lilium* and need a base from which to start. Thanks for your help.

Pat Huff

## FRIT FRIT FRIT FRITILLARIES

By Maggie Campbell-Culver FLS

Some Latin names are both difficult to pronounce (and to spell) and some are delightful words to use; such is the word *Fritillaria*, conjuring up, from its Latin derivative, a very dice-box of delicious plants. Singularly it is one of the very few English plant names which also describes an insect, in this instance butterflies, all of which have the distinctive 'dice-box' wing markings. There is the Silver-washed Fritillary (*Argynnis paphia*) the Queen of Spain Fritillary (*A. lathonia*) and the Pearl-bordered Fritillary (*Clossiana ephrosyne*).

In the latest edition of the RHS encyclopaedia about a hundred species of *Fritillaria* are recorded, although half a century earlier just eighty were known. The increase must be mostly as a result of the diligent searching and scholarly work of, among others, Paul Rosenheim, Christabel Beck, Patrick Syngé and Paul Furse. The genus is spread liberally between the temperate regions of the Northern Hemisphere, with fritillaries native to Europe having bulbs of two or three fleshy scales while those growing on the American continent tend to have many scales, or bulblets around a central disc.

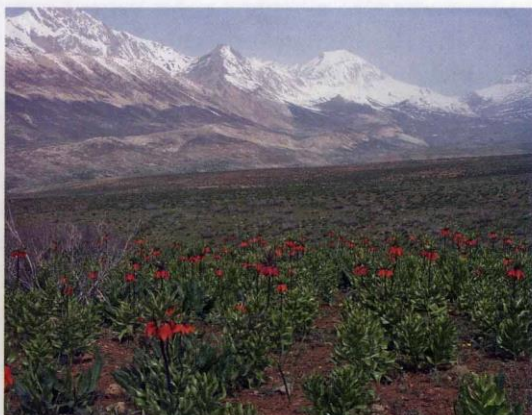
For most 'non-fritters' there is usually only one species that is at all well known, and that is the Crown Imperial *F. imperialis*. Its native habitat was long believed to have been Persia (Iran) but Charles Grey the founder of Harlow Car and author in 1938 of 'Hardy Bulbs' considered its homeland to be the Himalayas. This was reiterated in the 1951 'Dictionary of Gardening', (the Western Himalayas), but has been refined in the 'RHS A-Z Encyclopedia of Garden Plants' of 1996 to southern Turkey to Kashmir. The Crown Imperial was cultivated for many years in Turkey and was one of the plants introduced to Vienna by the brilliant sixteenth-century botanist Clusius in 1576. The Persian Lily as it was then called was quickly embraced by northern European gardeners. In England John Gerard was the first to write

of it, 'having been brought from Constantinople amongst other bulbous roots' (the tulip). The Crown Imperial has such a distinctive look, particularly when in flower, that its fame must have spread very quickly, so quickly that by 1611 Perdita in Shakespeare 'Winters Tale' could speak of 'bold oxlips and the crown imperial ... to make your garlands of'. By 1634 John Tradescant was listing it as 'Corona imperialis' as was Jacob Bobart when he compiled his catalogue in 1648, Tradescant's son, also John, used the same name in his 1656 list of plants grown in their garden at Lambeth. John Evelyn called it either Crown or Croun-Imperial. Sir John Hanmer, a friend and colleague of Evelyn's, wrote in his 'Garden Book' of 'Croun Imperialls which have very great rootes, yellow of color, and smelling strong like a fox. Their greene leaves come up in February, their seed is like a Lillyes seed but greater, they grow without trouble in any good garden mold'. The foxy smell did little for E. A Bowles, who likened it to a dirty dog-kennel, the small cats' house at London Zoo and Exeter Railway Station; Christopher Lloyd described it as a mixture of garlic and fox. Nowadays because of its smell the bulb is promoted as a deterrent against moles, where its efficacy is (as with most anti-mole products) a matter of dispute. None of the five seventeenth century men catalogued the Crown imperial as a fritillary, that classification came later, but they did list fritillaries. All of them seem to have grown *F. meleagris* under various names: 'common checker Daffodill the greater and the lesser', 'Chequer'd Frittilarie' and 'early chequer'd purple'. This last is the name given it by Sir Thomas Hanmer, who also noted 'the flowers are of the shape of bells, and hang downe from the tops of the stalkes, as the Crown Imperialls doe' an interesting and early pre-Linnean comparison. Both the Tradescants and Hanmer listed *F. pyrenaica*, as 'Aquitana gemino' and the 'Little Black Pyrenean, called the blacke fritillary' respectively.

By the mid-eighteenth century Philip Miller had recorded eight cultivars growing in the Chelsea Garden. Later *F. sibthorpiana* was discovered and named for the professor of botany at Oxford John Sibthorp who travelled extensively throughout Asia Minor,

Greece and Cyprus. The fritillary which is a native of south-west Turkey, has flowers which are obconic and coloured yellow flushed with red. Perhaps the most spectacular fritillary is a Californian beauty, the Scarlet fritillary *F. recurva*, which was introduced into Europe about 1870. Four decades earlier David Douglas had introduced the Yellow Fritillary, *F. pudica* from the same region. The twentieth century had a number of introductions including one of the rarest of fritillaries, *F. alburyana*, named for S. D. Albury who took part in the expedition to northeast Turkey in 1966 where it was discovered.

The European species of *Fritillaria* form a National Collection at the Cambridge Botanic Garden, but there is as yet, no American collection of the species. Studying the list of fritillaries available in the 'Plant Finder' one is struck by the large number of species offered (over eighty) as opposed to the very few cultivars and varieties listed, surely a sign that the genus is of an aristocratic nature, and needs both fineness and dedication to satisfactorily grow them. The genus has a very wide habitat range, and the RHS has developed four different cultivation requirements to suit them; but as Christopher Lloyd reminded us 'any plant that succeeds in being all things to all gardens is likely to be a dull plant'. Not so the fritillary, they should be much better known.



*Fritillaria imperialis* in Iran. Photo by Bob Charman.



## FRITILLARIA GROUP PHOTOGRAPHIC COMPETITION

The first Fritillaria Group Photographic Competition will be held at the Hillside Events Centre R.H.S Wisley on the 25<sup>th</sup> October 2009, during the Autumn Meeting. The winning entries will appear on the Group's web site, and some may be published in the Journal. Please do your best to support the event and make it a success. For the 35mm slides, each entrant is restricted to only one slide per class, but for the six print classes, competitors may enter up to three prints per class. Please remember to put your name on the back of each print and slide. Staging will be from 9.00 to 10.30 am

### Classes

- 1 A group of *Fritillaria* 35mm colour slide
- 2 A single *Fritillaria* plant 35mm colour slide (the whole plant)
- 3 A close up of a *Fritillaria* 35mm colour slide
- 4 A group of *Fritillaria* up to A4 print
- 5 A single *Fritillaria* up to A4 print (the whole plant)
- 6 A close up of a *Fritillaria* up to A4 print
- 7 A group of *Fritillaria* print size up to 7 x 5 inches
- 8 A single *Fritillaria* print size up to 7 x 5 inches
- 9 A close up of a *Fritillaria* size up to 7 x 5 inches

### Rules

- 1 Plants may be in the wild or in cultivation
- 2 You may enter up to 3 prints in classes 4 to 9
- 3 You may only enter one slide in classes 1 to 3
- 4 Slides and prints should be labelled with your name

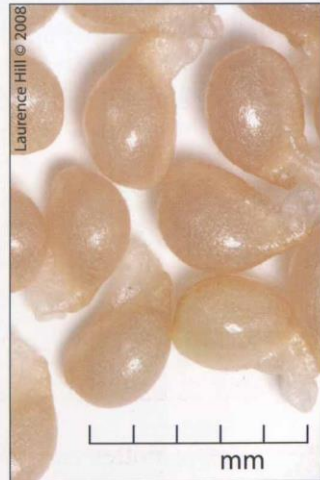
Entries can be brought on the day or sent to Mr P Roseo, 49 Chipstead Way, Woodmansterne Village, Banstead, Surrey, SM7 3JM with a S.A.E. All entries must be accompanied with the NAME and ADDRESS of the competitor, so they can be returned after the meeting. PLEASE SUPPORT THIS NEW VENTURE

## CULTIVATION OF JAPANESE *FRITILLARIA*

By Laurence Hill

It is almost thirty years since Martyn Rix wrote about Japanese *Fritillaria* in the *Plantsman* (1980) and with Roger Philip in their book *Bulbs* (1981). The illustrations showed several plants grown by Vic Horton and Kath Dryden. At the Royal Botanic Garden, Kew *F. koidzumiana* has been grown since 1979. It is from a collection made toward the north of its distribution in Niigata Prefecture. Over the years it has increased well by division but not set seed throughout this time. This clearly shows that *F. koidzumiana* is a long-lived plant that can be grown successfully in cultivation. Nevertheless, Japanese *Fritillaria* are rare in cultivation. The following recommendations are based on observations made over several years in my own garden, which is just 4 km from Kew.

Using terracotta pots\* filled with a mix of 70% composted bark and leaf mould to 30% fine grit, sow the small round seeds as soon as possible after harvesting. Cover the seeds with 2–3 mm of additional compost mixture and top with 5 mm of grit. Plunge in sand in an open frame, protect from direct sunlight and keep moist at all times. In south-east England summer rainfall is low so when necessary I use harvested rainwater for additional moisture.



(\*Seed from several different species were sown in both plastic and terracotta pots. Not only was germination lower in plastic

pots, the seedlings also suffered from damping off. After one year, seed sown in plastic pots had an 8–53% survival rate compared to 76–98 % for terracotta. At Kew terracotta pots were used for all endemic Japanese *Fritillaria* seed sown in 2005 and 2006 with results similar to my own.)

From late October to early November, the seeds germinate and take root. Adult bulbs also put out their roots at the same time. Through December into January seeds will show their first aerial growth while adult bulb will not emerge until late December to early February. In areas with the threat of frost, young seedlings will need protecting. [In their Japanese homeland the first signs of growth are visible



normally from late February in the south to April in the north, after the snow has retreated.] Seedlings will stay in growth until late spring. After the single cotyledon of the first year, the second year seedlings will display a single leaf. Generally, the leaf size will increase every year until the bulb reaches flowering size. At this stage, each bulb will have an aerial stem with five leaves and a single flower. As with most *Fritillaria* seedlings they should

be re-potted after two or three years from late summer to early autumn before new root growth emerges. They should not need re-potting again until after they have flowered. In my own collection *F. ayakoana* and *F. koidzumiana* are

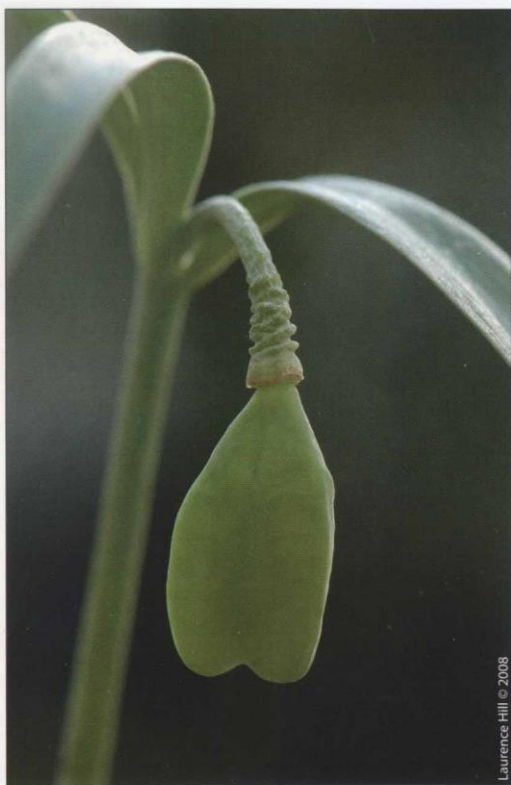
more vigorous and the first to come into growth each year but *F. muraiana* and *F. shikokiana* have proved more difficult. Seeds from the latter two originated from higher altitude populations in Shikoku which may explain this difference.



*Fritillaria japonica*, 7<sup>th</sup> March 2007 Royal Botanic Garden, Kew

Mature bulbs flower from late January until early March and will remain in flower for 10–14 days. Three to four days after the flowers have opened cross-pollinate by hand, as pollinators may not be active this early in the year. Weak self-incompatibility has been reported in wild populations of *F. koidzumiana* from Toyama Prefecture. Therefore hand

pollination avoids self-fertilisation which may weaken stock. The capsule will ripen in four to six weeks producing about 30–40 seeds. Unlike other *Fritillaria*, the Japanese endemics have seed pods that hang down as they ripen and do not dry as they mature. When harvesting the seeds place a tray below the capsule as seed can scatter when the capsule is touched. If the seeds cannot be sown immediately, they can be kept moist in tissue paper for a few days.



This capsule and the seeds in this article are of  
*Fritillaria ayakoana*

## WEEDS OR TREASURES?

By Marcelle Garden

The author belongs to the New Zealand Fritillary Group, and explains how and where she gardens:

“My husband Pat and I farm in the High Country, in the south of the South Island of New Zealand, on the fringe of Central Otago. Our house and large garden are at 450 m above sea level, relatively high for our part of the world. Most plants which are not frost tender or very difficult to grow thrive in our garden. The heat is not as intense during the summer as it is at lower altitude and moisture, as a rule, is sufficient. It is almost paradise, except when a late snow fall, as occurred last week [i.e. last week in October 2008] and is forecasted for next weekend, burns the flowering rhododendrons and the emerging new potatoes...”

Restrictions on the seed import of newly discovered species annoy us all. But, maybe, the authorities have a point...

Last night we had a lovely shower of rain. It softened the ground sufficiently for me to be able to weed the iris bed, which is usually very dry with hardened soil around the rhizomes.

On the other side of the grassy path is a raised bed with small spring bulbs including many *Fritillaria meleagris*. Over the years they have “migrated” across the grass and are making themselves at home among the irises. Some nice clumps are flowering now and while weeding I discovered hundred of grass-like new seedlings growing among the irises! I have always understood that *meleagris* is a bulb of damp meadow, which resents being starved of moisture, but the inhospitable iris bed seems to be to their liking!

I love *meleagris*, with all its different hues. Because it is so easy to grow we tend to overlook its beauty; but could it become a “weed” if we let it seed freely?



*Fritillaria meleagris*: weed or treasure?

*Fritillaria camschateensis*, on the other hand, does not set many seeds for me. But the bulbs are always close to the surface and very easy to disturb while tidying up around them. Grains spread everywhere; beware if you take them into the compost... Later on you will be sure to encounter them somewhere you did not expect or want them... I mainly grow the green/brown form, which is nice but not spectacular. Some generous friends gave me bulbs of the black form and I would not mind so much if they spread the way their cousins do! Seed of the yellow form is not easily available so, in the meantime I dream of it.

My "third" weed is *acmopetala*. It does not spread as much as the two above, produces lots of seedlings and few flowers. But my main concern is that it spreads through wrongly named seeds on the seed exchange lists. How many times have we all waited for a new, exciting species to flower for the first time, only to be disappointed when it turns out to be *acmopetala*... My latest experience is with *Fritillaria pyrenaica* gold form, which, is just flowering for the first time and, yes, it is *acmopetala*. A local reputable mail order firm offered *Fritillaria gibbosa* bulbs two years ago. The description seemed to fit: "pink flowers" yes, but "easy to grow", not so sure. I got tempted and, you guess it, it is *acmopetala*! So, weeds or treasures? They could be both!

## FRITILLARIES IN THE OPEN GROUND

*Since there are two articles on the cultivation of fritillaries in pots in this issue, a piece on the endlessly interesting topic of growing them in the open garden might not go amiss. In Marcelle Garden's plot in New Zealand a few species have become overexuberant, but in most British gardens we struggle to suit them. An anonymous article in the AGS Bulletin of June 1983 gives an account of what succeeded in one contributor's Cambridgeshire garden.*

Brian Halliwell's article in the December *Bulletin* (Vol. 50, p.275) mentioned the present habit of growing *Fritillaria* in pots, or planted in a bulb frame, lamenting that few find their way into the rock garden. I have had a singular lack of success with the hardy species usually grown but find that *F. tuntasia* and *F. verticillata* grow well in open ground in my south facing Cambridge garden on a light sand and gravel soil. The former is short-stemmed, about 25 cm., with almost black flowers like pendant grapes and comes from the Greek Islands. It prefers a frosty, dry winter to a mild, damp one, sets seed well but produces few offsets even when flowers are picked to prevent seed formation. *F. verticillata* is more robust, growing to about 40 cm. with whitish-green flowers heavily spotted inside, at the base, with crimson though I believe this is a variable feature. The leaves have a thready curl at the ends which is distinctive and reminiscent of Sweet Peas, though they serve no useful purpose. The species is said to be shy flowering but this clone flowers and increases well, behaving rather like an herbaceous plant. The article by S G Haw in *Bulletin* Vol. 50, p 148, lists it as one of six or seven species from the Xinjiang Autonomous Region of China and the only one of them not to be found in Soviet Asia.

*Are any members currently growing either of these outside?*





£3.50

