

Our original intention to send this list out much earlier in summer was somewhat confounded by an alteration to our collecting plans and an extremely late season for British seed. The plan to base this list on South American species, especially the new collections made during the January-March, 1994, period, had to be reviewed in order to accommodate a great deal of additional material. What we have decided to do is to issue this list dealing almost exclusively with summer-dormant species - bulbs, corms & tubers or more precisely petaloid monocotyledonous plants - and to send another list for (northern hemisphere) winter-sowing later. Most of the herbaceous and alpine species will be in the next list but a few which will be best sown as soon as possible are included - Paeonia, Ranunculus, Daphne and so on - as well as, of course, Helleborus and Cyclamen. Most alpine and herbaceous plants will be better sown later and can keep satisfactorily in our refrigerator. The species offered now, however, will for the most part germinate more reliably if sown as soon as possible. Please send your order for any of this seed as soon as you can. The sooner we receive it, the sooner it can be dealt with. We are very well-advanced with packaging and should be able to deal with orders reasonably quickly but please appreciate it takes us about four weeks to catch up on the initial response. As long as seed remains available, this list will remain valid through into 1995 to suit the sowing needs of our many southern hemisphere customers. Once again, we thank all of you who have supported our work over the years. After over a decade of trying to bring you new or interesting plants, we hope that we can still stimulate your interest with what is in this present list, which we think continues our high standard. We hope to hear from you soon.

ORDERING could not be easier. We shall accept your personal cheque in US \$, £ sterling or DM, with two qualifications :
 — cheques in US \$ must be on a US bank account - charges for negotiating cheques on foreign accounts are very high in the USA ; please do not send Eurocheques made out in US \$ - they are unfamiliar to the US banking system. Payments from France have caused problems in the past. While we continue pricing in FF, we must ask French customers not to send cheques in FF and especially not to use cheques on 'La Poste'. These have proved very difficult to handle. A Eurocheque made out in £ sterling is excellent ; a Giro payment in sterling is used by many French customers - you can price in FF and have the current equivalent sent to us in £ sterling ; FF cash sent to us by registered letter is also no problem. If fluctuations in exchange-rates mean that it is advantageous to you to select a currency other than your own, please do so - it makes little difference to the operation of our business. Apart from personal cheques, payments can be made in bank-notes for any of these currencies (please send by registered mail), a bank draft or International Money Order (in sterling for these please). We do not operate a Giro account to enable direct transfers nor do we accept credit-card payments. If remitting by sterling cheque, it is a great help both to you and to us, if you send us an open cheque, limited to the total value of your order (obviously it cannot be made out for more than the limit but it can certainly be made out for less, avoiding annoying credits or refunds ; you will only pay for what we have sent after the order is despatched). If you do not wish to do this, a list of some possible substitutes will be very helpful - we shall not use them unless we have to and, if we do, we always try to send more than the value of the items we cannot supply. We shall not pay in your cheque until after your order has been sent - it is in our own interest, as well as yours, to complete your order as quickly as we can. Finally, we stress.....

THERE IS NO CHARGE FOR AIRMAIL ON THE SEEDS OR ON THE SEED-LISTS : : : : PLEASE PRINT YOUR NAME & ADDRESS CLEARLY

NEW CUSTOMERS - PLEASE UNDERSTAND There may be a delay of some weeks before you receive your order. The majority of orders come in during the first week or so after we send out a list. We receive orders very much faster than we can despatch them. You may think that because you ordered as soon as you received this list, we can send back seed just as promptly. A great many other people ordered that same day. While we are a tiny business - a two person team - we are unusual, if not unique, in the field of specialised seed-collection in that we not only have to finance our work abroad but also to derive all our income from this business - we have to handle a lot of orders in a short space of time. We try to avoid listing collections unless we think there will be enough to satisfy most of the demand, so there should be no great concern over this, even if you are not ordering by return. On the other hand, many items, especially those in Section III, do run out as the season advances. If you feel your order is too long in arriving, check with your bank to find out if your cheque has been cashed - we do not pay in cheques until after orders have been despatched. If it has been cashed, let us know immediately. One or two items do become lost or delayed each year. In such an unlikely event, you will find us totally sympathetic. We are glad to say that any such problems are very rare ; postal services are, on the whole, extremely reliable. We try to be as reliable ourselves.

TURKISH DELIGHTS AGAIN When we wrote of our plans last winter, we had no intention of leaving Wales during the spring and summer after our return from Argentina in March. However, we were presented with the possibility of accompanying the bulb-grower Norman Stevens, on a seed-collecting trip to S Turkey. Norman had originally hoped that our mutual friend John Andrews, who had been with him on his previous trip, might be able to go with him. As John had just spent some weeks with us in Argentina, this was not possible. As we have felt for some time that we should try to collect some new Turkish species, we compromised by sending Jim as a substitute for John and leaving Jenny in Wales to do some gardening. We had not visited Turkey since 1988 and anticipated collecting several species, from which we had not obtained seeds in the past. As it turned out, we could barely have chosen a worse year. The season had been disastrous for the S Anatolian steppe flora and not much better in the mountains and the SW. Crocus seeds, which were the object of Norman's visit, had either not set or dehisced early. Of course, we found lots of interesting plants but their condition was abysmally poor and the amounts of any seed collected were miserably small - in most cases far too few to offer in this list. We shall be growing these ourselves and we hope you will have some advantage from our journey in the future. We can only be thankful that we had not planned to spend three months collecting there in 1994. On the other hand, we are told that the season was extremely good up in the NE. It is a big country and a longer visit always gives much more fluidity and the opportunity to alter plans to spend more time in the best areas. What was disconcerting for both Norman and Jim was the fact that there had been so many changes in Turkey since their last visits. If we aggregate the time they have both spent looking for plants in Turkey, we doubt if the total could be rivalled by many other people. They frequently failed to find some of their favourite localities and, when they did, often found them greatly altered. Jim's favourite site for *Fritillaria alfredae* was completely overgrown by oak scrub and a hillside near Gaziantep rich in a bluish form of *Iris sari* had been planted with pistachios. He completely failed to find the type-locality where he and Jenny had collected *Muscari mabeathianum*, after spending a morning looking for it. As this is the only known site and we are the only people who know where it is, this is somewhat embarrassing. There are many more new roads and many more surfaced roads. The old roads are abandoned and falling down the mountains. It is likely to be the last summer that it will be possible to drive over the splendid Irmasan pass N of Akseki. This year it was a rather hazardous undertaking. On the other hand, new roads open up new localities and there remain vast areas of Turkey which are very difficult to reach and are still unknown botanically. The people, of course, were as delightful and overwhelmingly hospitable as ever. The booming then fragile economy, accompanied by hyper-inflation, of recent years and the increasing military influence on their lives, have done little to suppress Turkish ebullience.

HOME SWEAT HOME Our mention of botanical malapropisms - of "euphorias" and "naughty-trickies" - in the last list elicited some worthwhile correspondence. We particularly enjoyed the "appy mediums". Linguistic torture was much in evidence in the SW corner of Turkey, where a multiplicity of signs intended to attract the foreign tourists occasionally lightened a somewhat depressing journey. We did not investigate the 'CARPET FARM' but we did pay attention, when driving past the quarry on Baba Dag, after being told 'LOOK OUT! STONES CARRYING LORRIES.' Having been told of the many small pensions on the peninsula in Lake Egredir, we planned our day to arrive there in the evening. Cruising slowly past a variety of signs advertising their respective good qualities in German and English, we paused at "Ali's" - 'A SWEAT HOME FOR YOU'. "That one will do", said Norman. The charming young Turkish lady who ran the establishment spoke excellent and fluent English and had a brother who worked in a Turkish restaurant in Sheffield. "Tell me", she said, "Why did you choose our pension?" We did not have the heart to tell her and lied effusively. If we had done so, she might have lost some future business. Free-range tourists are thin on the ground in Turkey at present. The packaged variety is still numerous but confined to a very limited area in the SW, discreetly ringed by members of the Turkish armed forces, rather more in evidence and more nervous here than in the Kurdish-speaking area around Diyarbakir far to the east. Needless to say, our strange activities came to their attention and, on our last day, after leaving our "sweat home" in Egredir, we were obliged to spend some time explaining what Norman was doing crawling about on a dried-up hillside (looking for *Crocus* capsules) while Jim was kneeling in a prayer-like position by the roadside with a sheet of paper (cleaning seed). We kept in mind how British security forces might have reacted to a similar sight in Ireland and the incident was dealt with in good humour and with courtesy on both sides. But reports had to be filled in and signed and it all took time. No sooner had we left the army-post, than a young Turkish driver decided to accelerate past our car on a stretch of newly gravelled road, skidded sideways at high speed, slammed into our car and forced us off the road - fortunately not over a precipice. This necessitated spending the rest of the day with the traffic police and with the army, who are always involved in such matters in Turkey, at the next army-post. Subsequent army check-points were approached with a feeling of unease and the inevitable banter and hilarity expressed at them over the crumpled condition of our vehicle were not always appreciated. Back at our "sweat home" in Wales, Jenny had experienced some weeks of cool, wet weather. Two days after our return, bombs exploded in a selection of SW Turkish coastal resorts. Home, sweet home, indeed.

ALPINE FREEZE-OUT ? On the back-page of this list, you will find some comments on the involvement of the Royal Horticultural Society with the "derailment" of an EC Draft Regulation which, if implemented, would have made life for gardeners in Europe unbearable. You will find one name missing from among the other gardening societies which were involved in consultations - those which the RHS "thought would be the main affected parties in horticulture." Did no-one ask the Alpine Garden Society if they wished to be involved? Were the AGS asked and refuse to take part? We are not privy to such matters and can but remark on their notable absence and also the absence of any communication with their members about their official policy towards this Draft Regulation. So far we have seen the AGS, at their members' expense, devote a considerable amount of Bulletin space to what might be seen as pre-publicity for this anticipated legislation and they appear to align themselves with another group of non-gardening Registered Charities who have been extremely influential in formulating the substance of the Draft. Some of you may think we have been harsh on the AGS in the past but how can one react to a society which appears to connive with those who would seek to turn the entire membership into criminals. Are those who run the AGS simply incompetent? Do they not understand what is happening? Or is there some hidden agenda, which simple souls like ourselves cannot be expected to understand? We realise this is all about vested interests and very little to do with conservation. The vested interests of bureaucrats and vested interests of money-spinning Charities. Perhaps the AGS thinks it might have an appropriate future role to play as the UK Registration Authority for those who wish to grow any alpine or bulbous plant. If you wish to grow *Androsace pyrenaica*, apply to the AGS - reduced price for licences to members of the Society. Only 10 licences per annum are available for those wishing to grow *Jankaea heldreichii*. It has been brought to our attention that a member in Wales is growing *Galanthus nivalis* without a licence. It is morally repugnant to cultivate members of the genus *Galanthus* without a licence. Yes, it is pure AGS - an expanding bureaucracy, a nice little earner and all with heavy moral overtones and more than a hint of elitism. Not everyone is likely to agree with us - thank goodness. Graham Rice wrote to us when we first brought up this subject to the effect that he did not agree with what we said but that he would defend to the death our right to say it. We appreciated the sentiments though we were not sure if we should be prepared to reciprocate - with the death bit that is. Last winter Graham sent us a copy of an article he had written for 'The Observer', one of our British national newspapers. In it he praised the brave little AGS and the Fauna and Flora Preservation Society and was blistering in his condemnation of the RHS. Graham is a professional journalist and obviously a crusader. While we respect his 'Something must be done' (and the RHS is not doing it) and 'Ban it' viewpoint, we have always been more than a little wary of such attitudes. After all, they gave us the mess that is CITES. If we condemn the RHS for anything it is for taking twenty years to waken up and try to deal with that mess.

PET OF THE MONTH We notice a recent appeal by Graham Rice to members of the Hardy Plant Society. Under 'Pet Plants', he writes, "There is a white flowered form of the lesser celandine, with blue backs to its petals, which I understand is named 'Randall's White' after Randall, a cat owned by Alan Robinson of Robinson's Nursery in Kent. Do any members know of other plants named after pets - cats, dogs, budgies, parrots?" This all seems a bit improbable to us but we'll take your word for it Graham, though we should have thought the questions for a good investigative journalist might have been "If the Robinsons cat is named Randall, after whom was the cat named? Did Robinson's Nursery name the other celandine, 'Brazen Russey'?" Staying with lesser celandines, we could point out more obviously that 'Salmon's White' was named after our pet fish. We should have thought it apparent that *Delphinium* 'Tiddles', *Hemerocallis* 'Corky' and *Paeonia* 'Felix Supreme' were all named after felines. *Dianthus* 'Squeeks' is called after A.G. Weeks pet mouse; *Hosta* 'Squiggles' and H. 'Green Wiggles' after Paul Aden's pet worms; *Hemerocallis* 'Winnie the Pooh' after the raiser's teddy-bear. The anonymous "ginger tom next door" is remembered in *Iris* 'Wild Ginger' and *Aster* 'Golden Spray'. The story is that *Astrantia* 'Shaggy' was named after Margery Fish's dog. We all know about Kath Dryden's *Lewisia* 'Pinkie' and *Primula allionii* 'Perkie' but who would have thought that *Helleborus* 'Trotter's Spotted' was named after Beth Chatto's pet piglet. The naming of plants after famous people's pets is a subject in itself. The *Primulas* 'Tenby Grey' and 'Grey Monarch' are called after the budgies at No. 10 Downing Street and *Penstemon* 'True Blue' after the pussy preceding them. We think *Penstemon* 'Blue Bedder' was also named after another political pet. We seem to recollect a tabloid newspaper account of the naming of *Primulas* 'Fiery Red' and 'Red Hugh', as well as a whole series of *Sempervivums*, 'Red Ace', 'Red Chief', 'Red Giant' and so on, after Ken Livingstone's pet newts. The most honoured pet, however, is immortalised by *Helleborus* 'Parrot', *Delphinium* 'Polly', *Hemerocallis* 'Pretty P', *Hosta* 'Slim Polly' and, finally, *Tulipa* 'Flaming Parrot', all of which commemorate the famous ex-parrot purchased by John Cleese - now sadly deceased.

WE DO SPEAK TO THE A.G.S. Sequestered in W Wales, we seldom have the opportunity to meet many of our customers in person. We do, however, seem to have arranged a disconcerting number of talks, mainly to English Alpine Garden Society local groups, during 1994 and 1995. We hope that any of our customers who are members of these groups will take the opportunity to introduce themselves to one of us at these meetings. We should also point out that all groups welcome non-members, so we can still see you if we are in your area, whether or not you belong to the A.G.S. We are not certain of the subjects about which Jim will be speaking for all the dates given. If you wish further information about subjects, places or times, please let us know and we shall tell you or provide a local 'phone number for you to call. 14 October, 1994 : E Kent AGS ; 19 October, 1994 : Norwich AGS ; 20 October, 1994 : Cambridge AGS ; 18 November, 1994 : Swansea Botanic Garden ; 9 January, 1995 : E Lancashire AGS ; 14 January, 1995 : Leeds AGS ; 17 February, 1995 : Bangor AGS ; 2-4 June, 1995 : NARGS AGM, Albany, NY ; 15-17 September, 1995 : AGS Conference, Sussex University ; 4 October, 1995 : Tewkesbury AGS ; 12 October, 1995 : Westbury AGS.

SECTION I : SEEDS COLLECTED IN SOUTH AMERICA

Most seeds listed were collected by ourselves in Argentina & Chile in 1994 and in Ecuador in 1993. For the most part, only "bulbs" - petaloid monocotyledonous plants - are included in this list. Some are summer-dormant; some are winter dormant. Our next 1994-95 list will concentrate on South American material and will include an extensive range of alpine, herbaceous and woody plants. A few species are offered as 1994 seed from cultivated plants (marked *). Argentina is abbreviated to "Arg." The twelve administrative divisions of Chile are numbered, using Roman numerals, running from N to S - from Peru to the Antarctic - except for a large area around Santiago, the Region Metropolitana (abbreviated "Reg. Metro.")

REFERENCE NUMBERS are field-numbers, which run in the order of collection. Packets of our collections will carry only these numbers and a check-list of the numbers in numerical order will be sent with the seeds for easy identification.

NOMENCLATURE offers considerable problems at present. There is no modern, standard flora in a completed state for any of the areas concerned. Advice has been sought from those currently working on the flora of these areas and use has been made of any recently published revisions or monographs. Overall a conservative and cautious approach is taken. So many collections are distributed under names which are invalid or, much worse, misapplied, that we are reluctant to add to confusion. Many further determinations on the 1993 Ecuadorean collections will be included in our next list.

ALSTROEMERIA

This magnificent genus is to Chile what *Calochortus* is to California. While not quite so variable in habit and habitat it is still extremely diverse and grows from sea-level to altitudes of over 3000 m. in the highest Andes. Our 1991 seed on the whole germinated well and we are pleased to list several species from cultivated material of known wild origin. This is mainly from Mike Tucker (Somerset, UK), who has successfully grown a considerable number of species both in the open garden and in raised beds (with glass-frame protection in late summer through winter). We plan to devote a good deal of space under glass to this genus ourselves. While we are currently growing a few species in pots, they will do better planted out. In pots, the tubers are vulnerable to freezing - in nature they grow deeply - and they exhaust the soil quickly, meaning annual repotting. In general, their growth-cycle fits in with other late-flowering, summer-dormant groups, such as the Aril Irises or Mariposa Section of *Calochortus*. While neither Mike nor ourselves had any great problems in germinating seed, we know some of you have had difficulty. We have always found germination occurs at a reasonably even temperature between 5-10°C (40-50°F). Higher temperatures inhibit germination. If you feel your soil temperature may be too high or too low, we suggest placing the seed container at the bottom of a domestic refrigerator, which should give the even 5°C required, but we have never found it necessary to try this. There is sometimes a depauperate flower or two the first year and most flower well the second or third season. Nomenclature follows that used in the impressive & meticulously researched monograph, 'Die Gattung *Alstroemeria* in Chile' by E. Bayer (Botanische Staatsammlung Munchen, 1987). We are grateful to Dr. Bayer for her help in clearing up one or two problems.

- 14395 *ALSTROEMERIA AUREA* Chile, VIII, Nuble, SW of Termas de Chillan. 1500 m. Open banks in *Nothofagus* woods. 3.3.94 (This outstanding population, singled out for mention by Bayer, is from one of the most northern stations for the species. In its coppery reds and orange-scarlets it approaches the colour of *A. ligtu* subsp. *simsii*, to which we have seen it wrongly attributed, though it does not grow further S than Reg. VI. We have suggested to Dr. Bayer that the colour might be due to introgression by *A. presliana*, which also grows here, but she tells us she was unable to cross the two in hybridization experiments. The taxa (outside of 'groups' around *A. ligtu*, *A. hookeri*, *A. pulchra-magnifica*-magenta, etc.) do not appear to hybridise in the wild, though two or more can grow together. Possibly a spectacular addition to hardy plants. 60 cm.) (15+ seeds) B
- 14404 *A. AUREA* Chile, VIII, Nuble, NE of Termas de Chillan. 2100 m. Steep, stony W-facing slope. 4.3.94 (A very variable high altitude population - orange scarlet to straw-yellow, inner segments streaked with red. From a truly alpine elevation & well worth trying in areas too cold for the *A. ligtu* hybrids. 50 cm.) (15+ seeds) C
- 14411 *A. AUREA* Chile, IX, Cautin, W of Vilcun. 200 m. Among scrub at woodland margins. 6.3.94 (Not seen in flower but almost certainly the more widespread brilliant yellow race which extends S to Reg. XI.) (15+ seeds) A
- 14271 *A. AUREA* Argentina, Neuquen, Lacar, E of Lago Lolog. 1100 m. Among scrub in gravelly soil. 18.2.94 (Here, this is definitely the bright yellow race which is such a feature of the lake districts.) (15+ seeds) B
- * *A. DILUTA* (subsp. *diluta*) Chile, VII, Talca, near San Rafael. ca. 300 m. Cultivated seed ex M. Tucker from a coll. by Axel Brinck (Concepcion, Chile) (the source of the wild colls. we listed in 1991). (A distinct & intriguing little species, about 20 cm. high, described in 1986 and only known from the area around the type-locality between Talca & Curico. White to pink segments with attenuated, darker tips, the two upper, inner ones very heavily marked with dull-red streaks, which sometimes fuse together.) (8 seeds) E
- 14415 *A. EXSERENS* Chile, Reg. Metro., La Parva to Valle Nevado. 2800-3100 m. Steep, loose, stony slopes. 8.3.94 (In 1991, both Dr. Bayer & ourselves independently came across these high altitude colonies of this stunning plant. Our colls. 12513 & 12470 (as well as Brinck's "*A. spathulata*") listed in 1991 belong to this species. Among the largest flowers in the genus on the dwarfest of plants. Flat-faced flowers with broad overlapping segments in rich pink with darker tips and crimson-flecking on the yellow ground of the upper, inner ones. Mike Tucker is growing this with reasonable success but, as might be expected with such a high alpine, it is not the easiest - hot summer weather can lead to premature dormancy. Possibly best attempted outside in the UK, in scree or a raised bed, & may be easier in the N than the S - fully temperature-hardy.) (10+ seeds) D
- * *A. aff. EXSERENS* Grown by M. Tucker from an A. Brinck coll. as *A. exserens*, made in the "cerros La Colla", a locality we have not traced, this is a much larger plant proving very satisfactory in cultivation - big heads of pink flowers. Though it is very different in character to the preceding, we cannot assign this to another species & Dr. Bayer has not yet seen material. Well worth growing & hardy so far.) (10+ seeds) C
- * *A. GARAVENTAE* Chile, V, Quillota, Cerro La Campana. (Again from an A. Brinck coll., listed in 1991. Described in 1986 from two colls. in the Cerro Vizcacha, at about 2000 m. on the top of the Coast Range. This is from a little to the N. A little-known plant not quite like anything else - maybe closest to the high Andean *A. spathulata*. Flowers all one colour - from red-pink to white, speckled all over with crimson streaks on opening. About 20 cm. high in the wild. A few 1994 seeds from Mike Tucker.) (8 seeds) E

PRICE CODE A : \$2.00 ; £1.50 ; DM4, - ; FF13. - PRICE CODE D : \$5.00 ; £3.50 ; DM 9, - ; FF30. -
 B : \$3.00 ; £2.00 ; DM5, - ; FF17. - E : \$7.00 ; £4.50 ; DM12, - ; FF40. -
 C : \$4.00 ; £2.50 ; DM6, - ; FF21. - F : \$9.00 ; £6.00 ; DM15, - ; FF50. -

- * ALSTROEMERIA HOOKERI (subsp. hookeri) Our own 1994 seed from the long-cultivated (but seldom-seen) form. Not hardy outside in the UK in our experience but no trouble in a cold greenhouse (maybe best frost-free) where it stays fully in character, about 15 cm. high, with umbels of soft salmon-pink flowers, tipped green & intricately marked. The type is the most southern (Reg. VII & VIII) of this low-altitude complex.) (8 seeds) C
- * A. HOOKERI subsp. CUMMINGIANA Chile, Reg. Metro., Angostura de Paine (between Santiago & Rancagua). 1994 seed from an A. Brinck coll. (Differently proportioned flowers with the upper & inner segments only sparsely speckled with red-brown. The most southern site for this subsp. Seems as easy as the type.) (8 seeds) D
- * A. LIGTU HYBRIDS We include these here to keep the genus together - thriving in British gardens from Cornwall to Aberdeen. By all accounts derived from A. ligtu subsp. simsii (collected by Clarence Elliott in 1927 as A. haemantha) crossed with A. ligtu subsp. incarnata (collected by Comber in 1926 as A. l. angustifolia). Every shade of pink, orange, flame and biscuit. Excellent even here in our cold, wet climate.) (20+ seeds) A
- 14355 A. PALLIDA Chile, Reg. Metro., Lagunillas, ENE of San Jose de Maipo. 2200 m. Steep, open, stony slopes. 1.3.94 (Few alpine-plants can rival the sumptuous spectacle of this in flower. In nature only 5-20 cm. high with its umbels of huge flowers almost on the ground - deep to pale pink or white with the upper, inner segments blotched with gold and streaked with dark crimson. More or less limited to the ranges to the S & W of Aconcagua, between 1500 m. and 2800 m., it must tolerate exceptionally low temperatures.) (10+ seeds) C
- * 12497 A. PALLIDA Chile, Reg. Metro., W of Farellones. 2000 m. Exposed, stony slopes. 1994 seed from our 1991 coll. (This has been white with M. Tucker, though plenty pinks occur here. Proving growable and less sensitive to summer-heat than A. exserens, though still maybe best tried in a sunny scree outside in the UK.) (8 seeds) C
- * 12590 A. PRESLIANA subsp. AUSTRALIS Chile, IX, Malleco, Cordillera de Nahuelbuta, W of Vegas Blancas. 1200 m. Openings in deciduous woodland. 1994 seed from our 1991 coll. (With Mike this has lived up to our hopes that it might prove a brilliant & growable plant in the UK - growing in his front-garden it even caused much comment from uninitiated passers-by. One of the most southern taxa, distinct from the type-race in its striking red-brown anthers, more elongated outer segments and its intense deep-pink colour - a luminous shade which glows out from the dim depths of its native woodland glades. Elegant habit to about 30 cm.) (8 seeds) D
- * A. PULCHRA From the 1971-72 coll., B.C. & W. 4762 (full data not available). Borderline hardiness - we are just too wet for it here though it can be grown in S England. Easy under glass. About 50 cm high with white flowers (palest lilac under glass) with dark maroon tips to the segments, the upper, inner ones streaked with crimson on a bright yellow ground. Quite widespread in the Valparaiso-Santiago area to 1000 m.) (10+ seeds) B
- 14378 A. REVOLUTA Chile, VI, Cachapoal, Rio Cachapoal valley W of Pangal. 950 m. Openings among scrub, in sandy soil. 2.3.94 (Large, rounded umbels of lilac-pink to purple flowers, individually smaller than most but numerous, on stems reaching 1 m. Should be as hardy as the A. ligtu group from similar altitudes.) (15+ seeds) B
- 14348 A. UMBELLATA Chile, Reg. Metro., Lagunillas, ENE of San Jose de Maipo. 2200 m. Loose, igneous talus on steep slope. 1.3.94 (An extraordinary alpine centred on the mountains above the Rio Maipo up to 3000 m. A plant of deep, mobile screes, often growing with Tropaeolum polyphyllum, with succulent sterile rosettes of rounded, grey-green leaves like Echeverias. The dark-tipped, pink flowers, marked with gold & speckled with crimson, sit almost on the ground. Growing from our 1991 coll. but not yet flowered in UK to our knowledge)(10+ seeds) D

- 14141 BARNEODIA MAJOR Arg., Mendoza, Malargue, Valle de las Lenas. 2450 m. Stony slopes & talus above late snow-patch. 5.2.94 (A weird, tuberous-rooted, summer-dormant member of the Ranunculaceae like a surreal version of Eranthis hyemalis. No basal leaves but the bright yellow flower with many narrow tepals sits on a fleshy, brownish-green, lobed involucre. A local high-alpine, appearing as soon as the snow melts, flowering & ripening its woolly seed-heads quickly, impossible to collect in quantity & possibly never cultivated.) (8 seeds) E

BOMAREA

A magnificent genus still little-known in cultivation. Belonging to the Alstroemeriaceae, these are mainly, climbing tuberous-rooted perennials with regular flowers (unlike Alstroemeria), centred on the N Andes & particularly diverse in Colombia & Ecuador, from lowland jungles to almost 4500 m. The higher altitude collections here should be easily grown under frost-free conditions and we believe they will be much happier in cool conditions outside in summer in the UK. Many may prove permanent in a sheltered site against a wall. Seed has germinated easily, if somewhat slowly and irregularly, in cool but frost-free conditions in spring or autumn. Seedlings grow on well. They mainly rely on humming-birds for pollination, so many are orange-scarlet flowered, and also often for seed-dispersal - capsules open to display seeds with a fleshy, viscous, bright-orange skin. They are being revised at present for the 'Flora of Ecuador' and we hope to have authoritative determinations on the herbarium material in time for our next list.

- 13627 BOMAREA SP. Ecuador, Napo, Papallacta. 3100 m. Margins of montane forest. 1.7.93 (Climbing to 2-3 m. with heads of up to 50 flowers - unspotted with scarlet outer segments and orange inner ones.) (8 seeds) C
- 13761 BOMAREA SP. Ecuador, Carchi, SW of Tulcan. 3200 m. Dense, montane scrub. 8.7.93 (From a cold area, swathed in drifting cloud, on the Colombian border. Spectacular, rounded heads of about 50, tubular-campanulate flowers, orange-scarlet evenly speckled with maroon inside. Climbing to 2-3 m.) (8 seeds) C
- 13833 BOMAREA SP. Ecuador, Pichincha, Cerro Pichincha, E slope above Quito. 3200 m. Among scrub. 17.7.93 (Slender -growing to 2 m. with about 12 pendant flowers - scarlet outer segments, spotted orange inner ones.)(8 seeds) C
- 13866 BOMAREA SP. Ecuador, Azuay, Rio Quinuas valley, WNW of Cuenca. 3250 m. Vestigial stands of montane scrub. 21.7.93 (Climbing to 2 m. with dark, leathery leaves and heads of rose-pink & green flowers.) (8 seeds) E
- 13987 BOMAREA SP. Ecuador, Imbabura, NW of Laguna Mojanda (S of Otavalo). 3700 m. Dense 'elfin-forest' at edge of paramo. 9.7.93 (The highest collection - and largest species - stout, downy stems climbing to 2-3 m. with leathery leaves & enormous heads of up to 120 huge, chocolate-spotted, apricot-yellow bells.) (8 seeds) E
- 14144 NOTHOSCORDUM SP. Arg., Mendoza, Malargue, Valle de las Lenas. 2450 m. Steep, stony slopes. 5.2.94 (A pretty dwarf, alpine species, about 10-15 cm. high. Umbels of white flowers on wiry stems.) (15+ seeds) C
- 13743 ORTHROSANTHUS CHIMBORACENSIS Ecuador, Carchi, NW of El Carmelo (SSE of Tulcan). 3300 m. Grass & Espeletia-paramo, in wet, black, peaty soil. 8.7.93 (Libertia-like member of the Iridaceae, characteristic of the N Andean paramo. Clumps of tough, iris-leaves and erect, 60 cm. stems packed with rich-blue flowers. Henry Taylor tells us he is growing this (possibly from Venezuelan material) easily in E Scotland.) (30+ seeds) B

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 B : \$3.00 ; £2.00 ; DM5, - ; FF17. - E : \$7.00 ; £4.50 ; DM12, - ; FF40. -
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ORCHIDACEAE

We have not previously listed seed from this enormous & diverse family, as we felt their germination requirements were too complex and that few of you would have the necessary facilities. On the other hand, especially in South America, we have felt sad to pass by seed on species which may have never been attempted in cultivation and which may be suited to temperate climates. The amazing *Chloraea* and *Gavilea* spp. from the far South or the species of the highest paramo remain little-known away from their native habitats. As we supply seed to a considerable number of botanic gardens, which should have facilities, and there is an ever-increasing specialised expertise among amateurs, we thought it worthwhile over the past year to collect one or two capsules when the opportunity occurred. All the following are terrestrial species from very cold areas - they are not suitable for conditions in which tropical epiphytes are grown. All were collected out of flower and it has not been possible to go further than suggesting a genus in a few cases. All will require specialized conditions for sowing & germination - if you do not have knowledge or experience, forget them.

- 14239 CHLORAEA SP. Arg., Neuquen, Lacar, Cerro Chapelco. 1600 m. Nothofagus woodland near tree-line. 17.2.94 C
 14268 CHLORAEA SP. Arg., Neuquen, Lacar, E of Pas Hua Hum. 1000 m. Openings in deciduous woodland. 18.2.94 C
 14285 CHLORAEA SP. Arg., Neuquen, Los Lagos, Paso del Cordoba. 1220 m. Gravelly area in montane steppe. 19.2.94 C
 13638 EPIDENDRUM SP. Ecuador, Napo, E of Papallacta. 2500 m. Margins of montane forest. 1.7.93 (Possibly scarlet) C
 13717 EPIDENDRUM SP. Ecuador, Imbabura, above Lago Cuicocha. 3200 m. Low, montane scrub. 7.7.93 (Maybe purple.) C
 13715 ORCHIDACEAE Ecuador, Imbabura, above Lago Cuicocha. 3200 m. Low, montane scrub. 7.7.93 (Erect to c. 20 cm.) C
 13913 ORCHIDACEAE Ecuador, Azuay, WNW of Nabon. 3200 m. S Ecuadorean dry-scrub. 22.7.93 (About 15 cm.) C
 14393 ORCHIDACEAE Chile, VIII, Nuble, SW of Termas de Chillan. 1700 m. In turf on cliff-ledge. 3.3.94 (20 cm.) C
-
- 14264 RANUNCULUS SEMIVERTICILLATUS Arg., Neuquen, Lacar, Cerro Chapelco above San Martin de los Andes. 1900 m. Loose, igneous talus on very steep, open slope. 17.2.94 (Dissected, blue-grey leaves, like *Dicentra peregrina* but more finely cut, with large, white, purple-backed flowers. The only S Andean *Ranunculus* for the alpine-connoisseur and one of the world's finest alpine-plants. It has been grown and flowered but the great challenge is to grow it fully in character and to perfection. We have a superb 1994 coll. and, though this is not a summer-dormant plant, felt seed should be sown before the winter in the N Hemisphere.) (10+ seeds) E

RHODOLIRION & RHODOPHALA

The southern "Hippeastrums" constitute some of the most spectacular cold-climate bulbs. Nomenclature has been most confused & confusing in the past and we are grateful to Prof. Dr. J. Grau (Institut für Systematische Botanik der Universität München), who is working on the group, for indicating his provisional opinions on the generic delineation and identities of Chilean material. With late-flowering & high altitude material, we are concerned mainly with species with a clearly trifid stigma, mostly flowering in summer & autumn. These are placed under *Rhodophiala*. The high-alpine plants with capitate stigmas, may be better separated into the monotypic genus *Rhodolirion*. The summer-flowering species here, all flower at the end of their growing season and, as stressed under *Alstroemeria*, are still winter-growers (or spring-growers in the case of high-altitude, snow-melt plants) needing a dry period in late summer to autumn. In practice, possibly only a very short 'rest' is needed and seedlings can be kept more or less growing throughout the year. The first flowering from our 1991 colls. occurred in 1994. Excellent 1994 seed here!

- 14333 RHODOLIRION MONTANUM (*Rhodophiala rhodolirion*, if you do not wish to 'split' it) Arg., Mendoza, Malargue, Valle de las Lenas. 2160 m. Among alpine-steppe vegetation. 25.2.94 (Mainly Chilean in distribution, this spectacular alpine just crosses the Andes into Argentina around here, where the population is extremely variable in colour from pale pinks to deep red with occasional whites and variously striated with purple. It was featured in detail in *Herbertia* Vol. 27 (1991), where some temperature records are quoted - these may be helpful in cultivation: a winter low of -26°C (-15°F) with "very little" to 200 cm. of snow-cover; in February (summer) air temperature fluctuated from 4.9°C (40.8°F) at dawn to 27.5°C (81.5°F) in the afternoon when a soil surface-temperature of 64°C (147°F) was recorded. At the level of the bulbs, however, the soil temperature varied little around a mean of 21.5°C (70.4°F) in February. While taking these with a pinch of salt, the last figure is much higher than we should have guessed and indicates that cultivation under glass in the UK may be quite feasible. It would be interesting to know the mid-winter bulb-level figure) (10+ seeds) C
 14366 RHODOLIRION MONTANUM Chile, Reg. Metro., Lagunillas ENE of San Jose de Maipo. 2300 m. Steep, loose, stony E-facing slope. 1.3.94 (The population here is reputedly all deep-pink to red, darkly streaked) (10+ seeds) C
 14422 RHODOLIRION MONTANUM Chile, Reg. Metro., NE of Valle Nevado (E of Farellones). 3100 m. Among igneous rocks in loose, sandy soil on open slopes. 8.3.94 (The form here is to us unrivalled - in the species, among the few high-alpine bulbs and, indeed, among high-alpines. Here, the clumps of bulbs produce numerous 10 cm. stems, each with a huge pure-white trumpet with a variable & intricate pattern of crimson spots or dashes running along the veins, back into the yellow-green throat. Foliage has already died back as the flowers appear. Though the habitat then appears dry, its strong, permanent roots may still reach moisture) (10+ seeds) C
 14412 RHODOPHALA ADVENA Chile, VIII, Bio Bio, S of Canteras (E of Los Angeles). 400 m. Open site in sandy soil. 6.3.94 (This seems to be one of the easiest species to grow in the UK. There appear to be both red and yellow forms here, about 30 cm. high in fruit and with up to 5 flowers per stem. Lower altitude than the others here but should be suitable for the bulb-frame or cold greenhouse in the UK.) (10+ seeds) C
 14209 RHODOPHALA ANDICOLA Arg., Neuquen, Norquin, between Caviahue & Copahue. 2160 m. Sandy soil among igneous rocks. 15.2.94 (Rivals *Rhodolirion* in high altitude spectacle and like it has a trilobed, capitate stigma - whether or not this should be placed with it, much the same cultivation will be needed. Mainly distributed in Argentina, this has luminous violet-pink, dark-throated, upward facing flowers on 15-20 cm. stems. Our 1991 coll. from this area, 12419, listed as *R. araucana*, is likely to be this - we did not see any in flower in 1991 and both records for *R. araucana* in 'Flora Patagonica' are from Copahue, hence our conclusion.) (10+ seeds) D
 14244 RHODOPHALA ANDICOLA Arg., Neuquen, Lacar, Cerro Chapelco above San Martin de los Andes. 1680 m. Among igneous rocks on exposed, stony slopes. 17.2.94 (Superbly illustrated from this locality by Rolf Fiedler in the report of 'Alpines '81' (opp. p.240). An incredibly sumptuous alpine-plant.) (10+ seeds) D

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 C : \$4.00 ; £2.50 ; DM6, - ; FF21. - F : \$9.00 ; £6.00 ; DM15, - ; FF50. -

- 14277 RHODOPHIALA ARAUCANA Arg., Lacar/Los Lagos, Paso del Cordoba. 1220 m. Gravelly & sandy areas among steppe vegetation. 19.2.94 (We believe we have named this correctly this time - or at least it is not similar to anything else listed. Maybe nearest to *R. elwesii* but a more slender plant, up to 30 cm. high with 2-5 flowers per stem. These appear to open pale yellow and blush to red through tiny crimson dots suffusing over the segments. An obscure plant botanically and unknown in cultivation.) (10+ seeds) E
- 14195 RHODOPHIALA ELWESII Arg., Neuquen, Norquin, SSW of El Huecu. 1260 m. Openings among scrub, in sandy soil. 14.2.94 (Almost certainly this handsome, yellow-flowered species, characteristic of the steppe, E of the Andes. The name has been much misapplied to Chilean plants - maybe yellow-flowered forms of *R. advena* - but, as far as we know, it only grows in Argentina. Prolific & robust here, to over 30 cm. high.) (10+ seeds) C
- 14269 RHODOPHIALA ELWESII Arg., Neuquen, Lacar, E of Lago Lolog. 1100 m. Open areas, among grasses & scrub, in sandy soil. 18.2.94 (We have seen this in flower here - an extremely beautiful plant with upward-facing, soft yellow flowers with wine-coloured throats. Should be growable planted out in a bulb-frame in UK.) (10+ seeds) C
- 12597 RHODOPHIALA PRATENSIS Chile, IX, Malleco, Cordillera de Nahuelbuta, W of Vegas Blancas. 1200 m. Openings among scrub. 26.2.91 (Not recollected in 1994 but a few seeds left. Another much misapplied name - Prof. Grau suggests this may be this "often wrongly interpreted" species. Elegant, pale-scarlet & 20 cm. high.) (10+) E
- 14390 RHODOPHIALA SP. Chile, VIII, Nuble, SW of Termas de Chillan. 1700 m. In turf on broad, sloping, cliff-ledge. 3.3.94 (Not seen in flower but possibly scarlet and certainly temperature-hardy from this area.) (10+ seeds) D

SISYRINCHIUM

We have not seen any of the following in flower so suggested names and possible garden-value of several definitely need confirmation. We do not collect the more obviously 'weedy-looking' species we come across and all the following may have some potential. Descriptions of most are terse & many, especially the Ecuadoreans, are unknown quantities.

- 14212 SISYRINCHIUM ? ARENARIUM Arg., Neuquen, Norquin, between Caviahue & Copahue. 2160 m. Sandy soil, among igneous rocks. 15.2.94 (About 30 cm. high with spikes of flowers - pale-yellow with purple centres.) (20+) B
- 14245 S. ? ARENARIUM Arg., Neuquen, Lacar, Cerro Chapelco. 1680 m. Among igneous rocks on exposed, stony slopes. 17.2.94 (Possibly in the same species-group, which includes, *S. cuspidatum*, *S. pearcei*, etc.) (20+ seeds) B
- 14211 S. FILIFOLIUM subsp. JUNCEUM Arg., Neuquen, Norquin, between Caviahue & Copahue. 2160 m. Sandy soil among igneous rocks. 15.2.94 (Variable, pretty summer-dormant species, about 20 cm. high with up to 8 pendant bells from pink to white, often with purple veins. In the same section as N American *S. douglasii*.) (15+ seeds) B
- 14354 S. FILIFOLIUM subsp. JUNCEUM Chile, Reg. Metro., Lagunillas. 2200 m. Steep stony slopes. 1.3.94 (15+ seeds) B
- 14166 S. ? MACROCARPUM Arg., Mendoza, Tunuyan, Paso Argentino. 4000+ m. Exposed stony slopes. 8.2.94 (Collected on an amazing (but not amazingly rich, botanically) mountain-road maintained by the Argentinian army over a shoulder of Tupungato into Chile. An extremely high alpine compressed into a turfy pad with more underground than above (like the related genus *Chamelum*) and almost sessile capsules - if the flowers are as large as these it will be a great plant but it should be tried with an open mind ready for disappointment.) (15+ seeds) D
- 13722 SISYRINCHIUM SP. Ecuador, Imbabura, above Lago Cuicocha. 3200 m. Among low montane scrub. 7.7.93 (15+ seeds) C
- 13884 SISYRINCHIUM SP. Ecuador, Azuay, WNW of Cuenca. 3600 m. Ledges on rock outcrops in paramo. 21.7.93 (15+ seeds) C
- 13898 SISYRINCHIUM SP. Ecuador, Azuay, S of Cumbe. 3300 m. Exposed grass-paramo. 22.7.93 (15+ seeds) C
- 14362 SOLARIA SP. Chile, Reg. Metro., Lagunillas, ENE of San Jose de Maipo. 2300 m. Loose talus on steep slope. 1.3.94 (Rather *Scilla*-like in seed - flowers possibly green or purplish. A small genus in Liliaceae.) (10+) C
- 13720 SPHENOSTIGMA SP. Ecuador, Imbabura, above Lago Cuicocha, W of Cotacachi. 3200 m. Among low, montane scrub. 7.7.94 (About 15 cm. high in seed with *Tigridia*-like capsules. May end up in *Calydorea* or *Nemastylis*, etc. but almost certainly worth growing and should be reasonably hardy & fit in with other 'bulbs'.) (10+ seeds) D
- 13713 STENOMESSION AURANTIACUM Ecuador, Imbabura, W of Cotacachi. 3200 m. Clay banks, among montane scrub. 7.7.93 (Soft-orange bells hang on long pedicels from 30 cm. stems. Can probably be kept growing throughout the year but inducing a dormant season in winter would be sensible. A member of the *Amaryllidaceae*.) (8 seeds) D

TRISTAGMA

We follow the 'Flora Patagonica' in throwing all these S American 'brodiaeas' together here - mainly for convenience but also because, again, we have not seen all in flower. We cannot even assure you all here are in *Alliaceae*.

- 14246 TRISTAGMA NIVALE Arg., Neuquen, Lacar, Cerro Chapelco. 1680 m. Among igneous rocks on exposed, stony slopes. 17.2.94 (Distinctively curled fleshy leaves coil on the scree & a 15 cm. stem carries tubular flowers with narrow, reflexed lobes. Colour can vary from purple-black to green - best where it can be appreciated at eye-level or in a pot. We grew it from a coll. made further S years ago without any problems.) (10+ seeds) D
- 14125 TRISTAGMA ? PATAGONICUM Arg., Mendoza, Malargue, Valle de las Lenas. 2400 m. Stony areas below late snow-patches. 4.2.94 (A very beautiful, snow-melt alpine bulb, 5-6 cm. high with one or two big, white flowers on each stem, striped brown on the reverse of each segment. We are told this also grows on Chapelco (or something similar does) and there may be some in 14246. Possibly best placed in the genus *Ipheion* - it has been in *Milla* & *Triteleia* - most here have curled leaves as in the dubious taxon called *T. circinatum*.) (10 seeds) D
- 14423 TRISTAGMA SP. Chile, Reg. Metro., NE of Valle Nevado. 3100 m. Open slopes, among igneous rocks in loose, sandy soil. 8.3.94 (Like the following a few cm. high - these do not appear the same, however.) (10+ seeds) D
- 14437 TRISTAGMA SP. Chile, Reg. Metro., above La Parva. 3000 m. Along snow-melt gulleys. 9.3.94 (10+ seeds) D
- 14182 TROPAEOLUM POLYPHYLLUM Argentina, Mendoza, Puente del Inca. 2720 m. Steep, loose clay slopes. 10.2.94 (We are grateful to David Haselgrove for bringing this interesting colony, which he had seen in flower, to our attention - very variable in colour from the usual bright-yellow to orange & red tints, maybe the result of introgression by *T. incisum* or *T. myriophyllum*. Trails of deeply cut, blue-grey leaves to 1 m. Sought-after & difficult to establish but, when settled, trouble-free & embarrassingly vigorous.) (5 seeds) D
- 14356 TROPAEOLUM SESSILIFOLIUM Chile, Reg. Metro., Lagunillas. 2200 m. Steep, open stony slopes. 1.3.94 (By all accounts, the rock-garden species - erect or flopping, 20 cm. branching stems with tiny leaves. White or pale lavender flowers, veined with grey with orange centres. Has been flowered from our 1991 seed.) (8 seeds) D

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B	:	\$3.00	;	£2.00	;	DM5, -	;	FF17, -	E	:	\$7.00	;	£4.50	;	DM12, -	;	FF40, -
C	:	\$4.00	;	£2.50	;	DM6, -	;	FF21, -	F	:	\$9.00	;	£6.00	;	DM15, -	;	FF50, -

SECTION I : SEEDS COLLECTED IN NORTH AMERICA

Most seeds listed were collected by ourselves during the summers of 1992 and 1993. A few 1994 collections by John Andrews are included. All seed collected prior to 1994 has been stored in low humidity under refrigerated conditions. Experience over several years has convinced us that little, if any, deterioration in viability will have occurred. In some cases, such storage even appears to enhance the capacity for germination. This list concentrates almost exclusively on 'bulbs' and other summer-dormant species. Some North American herbaceous and alpine plants will be included in our next list and more extensive fresh collections are planned for 1995. Some earlier, 1987 and 1989 collections are now listed as 1994 seed from cultivated plants (marked *). California is abbreviated to "Cal."

REFERENCE NUMBERS are field-numbers, which run in the order of collection. Packets of our collections will carry only these numbers and a check-list of the numbers in numerical order will be sent with the seeds for easy identification.

NOMENCLATURE for Californian species has generally been put in line with the most recent account: 'The Jepson Manual - Higher Plants of California' published in 1993. This is "good in parts" but the rather outdated 'A Californian Flora' of Munz & Keck (1959) will continue to be our primary reference. The high standard set by the continuing 'Intermountain Flora' and 'A Utah Flora' (Welsh, 1987) means that they are almost invariably used for taxa occurring within their areas. Any discrepancy between accounts is edited with the interests of gardeners in mind.

- 13091 BLOOMERIA CROCEA var. AUREA Cal. San Luis Obispo Co., NE of San Luis Obispo. 170 m. In heavy clay among grass on open slope. 22.6.92 (Wide umbels of starry, pale yellow flowers with a dark median line on each segment, on wiry, 20-30 cm. stems. Not difficult but seldom-seen corms near Brodiaea & Allium.) (20+ seeds) B
- 13112 BLOOMERIA CROCEA var. MONTANA Cal., Ventura Co., Wagon Road Canyon. 1450 m. Openings among scrub. 23.6.92 (Intraspecific taxa, distinguished mainly on filament characters, are not recognized in "Jepson" but remain important for gardeners, as habitats are distinct - this is a montane-chaparral plant.) (20+ seeds) B
- BRODIAEA. We follow "Jepson" in splitting this genus - see Dichelostemma and Triteleia in this list.

CALOCHORTUS

We continue to maintain a wide and expanding range of these sumptuous plants in the hope that this amazing and diverse genus may become established in cultivation with bulb-enthusiasts in suitable climates throughout the world. Over the past five years we have been able to build on the composite knowledge generously shared by fellow enthusiasts, John Andrews, Wayne Roderick, Stan Farwig and Vic Girard, David King, Frank Callahan and Boyd Kline, to build up a reserve of seed covering well over half of the entire genus. Seed stores extremely well and in addition we are now starting to harvest the initial seed from some of the earlier collections raised in cultivation. We plan to update some collections in 1995 and possibly add a few more species not yet listed by us. In spite of a considerable interest in this genus, demand for the introductory "Calochortus collection" has been sustained, indicating that some of you may well have been deterred by a reputation for difficulty and need some encouragement to experiment. We are, therefore, continuing to offer a 'starter' collection of some of the better-known, more easily grown species.

CALOCHORTUS COLLECTION One packet each of C. albus (13363), C. amabilis (12805), C. kennedyi (13544 - the only difficult one but indispensable), C. luteus (13026), C. splendens (13103), C. tolmiei (13455), C. vestae (13288), C. superbus from a range of cultivated forms, including lilacs, plus C. venustus from cultivated seed derived from the extraordinary, velvety red Cuddy Valley population. 9 packets (listed at £17) for \$15.00 or £10.

It is not possible to generalise on cultivation. The range of habitats is enormous - from sea-level to alpine elevation. Field-notes should give a basic start, if locality and altitude are considered. Early flowering members of Subsection Pulchelli can fit in easily with Eurasian bulbs with a Mediterranean growth-pattern. Later flowering Mariposas and the steppe-species flower at the end of their growing season and have a similar cycle to some Oncocyclos and Regelia Irises - they may be best not watered until later in winter in northern climates with long, cool winters. Almost all listed need a definite dry resting-period in late summer, meaning that they are only suitable for outdoor cultivation in climates where this can be provided naturally. In wet climates protection against excess moisture is essential. Like most summer-dormant species, they are low-temperature germinators and most will germinate rapidly at a mean of around 5°C (40°F). Early sowing can create a problem in damp climates with moisture-sensitive species, like C. kennedyi, when young seedlings have to be overwintered in conditions of low light-intensity and high humidity. Sowing after mid-winter may be best for most Californian Mariposas. On the other hand, some steppe and cold-desert species, as well as the few from really high altitudes appear to need a long cold period to induce germination. They may not germinate the first winter after sowing and, whether from fresh or stored seed, are more irregular in coming up. These also appear to be the most difficult to grow on in general. Start with the low to middle altitude Californians to learn about them.

In many species, each population is a little (sometimes a lot) different; they may also vary in 'growability'. This is the reason we have placed the locality in brackets after most collections and have considered it worthwhile to list the same species from different localities. Most localities would be immediately intelligible to American specialists who know these in the wild and we hope that they will become increasingly important to growers elsewhere.

- 13344 CALOCHORTUS ALBUS (Adelaida Road) Cal., San Luis Obispo Co., W of Paso Robles. 550 m. Steep, stony banks in deciduous woodland. 7.6.93 (Fairy Lantern in ruby, opalescent pinks and white. Easy to grow.) (20+ seeds) B
- 13363 C. ALBUS (Italian Bar) Cal., Tuolumne Co., NE of Columbia. 750 m. Steep, scrub-covered slopes. 8.6.93 (Pendulant, globular, white flowers on 20 cm. stems. Grows here with Erythronium tuolumnense.) (20+ seeds) A
- 13340 C. ALBUS (York Mt.) Cal., San Luis Obispo Co., W of Templeton. 400 m. Steep, stony, shaded banks. 7.6.93 (Famous, outstanding population of "var. rubellus" with translucent, ruby-pink lanterns.) (20+ seeds) C

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 C : \$4.00 ; £2.50 ; DM6, - ; FF21. - F : \$9.00 ; £6.00 ; DM15, - ; FF50. -

- 12805 CALOCHORTUS AMABILIS (Mix Canyon) Cal., Solano Co., Mix Canyon NW of Vacaville. 550 m. Steep, scrub-covered slopes. 1.6.92 (Nodding pure-yellow flowers with wide-spreading outer segments on 30 cm. stems.) (20+ seeds) A
- 13368 C. AMABILIS (Butts Canyon) Cal., Lake Co., SE of Middletown. 350 m. Among *Arctostaphylos* on serpentine slopes. 10.6.93 (Dwarfer but possibly due to the impoverished habitat.) (20+ seeds) B
- 13353 C. AMOENUS (Camp Wishon) Cal., Tulare Co., NE of Springville. 1100 m. Steep granite slopes, among scrub. 7.6.93 (Like the preceding two species, in Subsect. *Pulchelli* but with its nodding flowers in deep purplish rose. Native to the western foothills of the Sierra Nevada and maybe not quite so easy as them.) (20+ seeds) B
- 13599 C. AUREUS Arizona, Coconino Co., WSW of Kayenta. 1980 m. Open areas among *Artemisia* & *Juniperus*. 23.6.93 (Superlative *Mariposa* in soft-yellow with a maroon-purple crescent above each gland. A Colorado Plateau endemic used to cold, dryish winters and a warm, dry summer rest. About 10-30 cm. high.) (20+ seeds) D
- C. BRUNEAUNIS (Conway Summit) J. Andrews coll., 1994 : Cal., Mono Co., S of Bridgeport. 2230 m. Among *Artemisia*. (A fresh, 1994 coll. of this steppe-species from the NW rim of the Great Basin. Allied to *C. nutt-allii* with white flowers, purple-spotted above the glands and striped green externally.) (20+ seeds) C
- C. CATALINAE (Triunfo Pass) J. Andrews coll., 1994 : Cal., Los Angeles Co., N of Malibu. 630 m. (*Mariposa* in Subsect. *Venusti* with large, erect, lilac flowers, usually with a purple spot on each segment. Once wide-spread in the seaward-facing canyons of the Santa Monica Mts. and other coastal ranges around Los Angeles, its former habitat is now some of the most valuable land on Earth. Fortunately not too difficult.) (20+ seeds) C
- C. CLAVATUS (subsp. *clavatus*) (Cuesta Ridge) J. Andrews coll., 1993 : Cal., San Luis Obispo Co., N of San Luis Obispo. 665 m. (A big, sumptuous *Mariposa*, local on the Coast Range serpentines. Large, bowl-shaped, lemon-yellow flowers, up to 6 on the 50 cm. plus, zig-zag stems, brown-lined & hairy inside.) (20+ seeds) C
- C. CLAVATUS var. AVIUS S. Farwig & V. Girard coll., 1993 : Cal., El Dorado Co., ENE of Pollock Pines (Sierra Nevada ENE of Placerville). 1280 m. (Extraordinary, local disjunct race, which had a historic flowering in 1993. Up to 1 m. high with umbel-like inflorescences of many, huge, pure butter-yellow bowls.) (20+ seeds) D
- C. CONCOLOR (Morris Ranch Road) J. Andrews coll., 1993 : Cal., Riverside Co., San Jacinto Mts. SE of Strawberry Valley. 1570 m. Among chaparral in granite grit. (The huge Goldenbowl *Mariposa* from the far South. Stunning, big, rich-yellow tulips, marked inside with dark red, up to 7 on stems reaching 60 cm.) (15+ seeds) C
- 13240 C. COXII (Boomer Hill) Oregon, Douglas Co., W of Myrtle Creek. 450 m. In grass among sparse conifers on steep serpentine slopes. 6.7.92 (A narrow, serpentine-endemic described in 1988. Dwarf with up to 7, bowl-shaped flowers, covered & fringed with hairs, white with red striae, marked with lavender & green. 15 cm) (15+ seeds) E
- C. DUNNII (Inspiration Point) J. Andrews coll., 1993 : Cal., San Diego Co., SE of Julian. 1350 m. In sparse chaparral on open slopes. (This narrow, edaphic endemic should be established by the specialist - restricted to gabbro-derived clays here & in the adjacent Mexican Guadalupe Mts. White marked red-brown.) (15+ seeds) E
- 11548 C. EURYCARPUS (Sawtooth Valley) Idaho, Custer Co., S of Obsidian. 1980 m. Stony clay among *Artemisia*. 6.8.89. (Steppe-species with elegant white or lilac-pink bowl-shaped flowers, blotched maroon. 30-50 cm.) (20+ seeds) B
- 13535 C. EXCAVATUS (Gerkin) Cal., Inyo Co., Gerkin (S of Bishop). 1350 m. Among scrub in clay (dry in summer). 20.6.93 (Only known from a few vernal damp seeps in Owens Valley. Up to 6 widely bell-shaped flowers in pale lavender to white, dark purple at the base & with red-brown anthers. From a cold area.) (20+ seeds) E
- 13174 C. FLEXUOSUS (Daylight Pass) Cal., Inyo Co., Amargosa Range. 1315 m. Dry gullies. 28.6.92 (The strangest *Mariposa* - sinuous stems, 30-40 cm. long, if straightened, twist & spiral. Up to 6, erect, white, lilac-tinged flowers, purple-spotted & yellow-banded inside. Widespread but local through SW deserts.) (20+ seeds) D
- 13324 C. FLEXUOSUS (Lake Mead) Nevada, Clark Co., NNW of Logandale. 460 m. Clay hills. 5.6.93 (15+ seeds) D
- C. GREENEI (Little Shasta Meadows) J. Andrews coll., 1993 : Cal., Siskiyou Co., Cascade Range E of Yreka. 1920 m. (Obscure, late-flowering, very local, high altitude species in Subsect. *Nitidi*. Erect, purple, bell-shaped flowers. Grows with *Sisyrinchium douglasii* & *Erythronium hendersonii* - keep it cool.) (10 seeds) E
- 11443 C. GUNNISONII (Glendo) Wyoming, Converse Co., SW of Glendo. 1980 m. Open grassland on low, rolling hills. 22.7.89 (Cold-climate, late-flowering summer-grower. White or pale lilac with golden hairs. 30 cm.) (20 seeds) B
- 13248 C. HOWELLII (Eight Dollar Mt.) Oregon, Josephine Co., SW of Selma. 450-500 m. Among sparse *Arctostaphylos*. 7.7.92 (Erect, white flowers, covered in hairs, darkening centrally to smoky brown. Limited to a few sites in this area and utterly distinct until *C. umpquaensis* was discovered. Grown in the UK in the 1930's.) (15 seeds) D
- C. INVENUSTUS (Mt. Pinos) J. Andrews coll., 1992 : Cal., Ventura Co., Mt. Pinos. 2680 m. Summit area in granite grit. (One or two erect, lavender flowers stained basally with deep purple. 15 cm. here.) (20+ seeds) B
- 13544 C. KENNEDYI (Deep Springs Valley) Cal., Inyo Co., SW of Gilbert Summit. 1620 m. Open, stony slope with sparse *Artemisia*. 20.6.93 (Unrivaled in the brilliance of its colour - here tending more to luminous orange forms. In California, a plant of high, very cold steppe - it does not appreciate superfluous water.) (20+ seeds) B
- C. KENNEDYI (Lockwood Valley) J. Andrews coll., 1993 : Cal., Ventura Co., Lockwood Valley. 1540 m. Open meadows & among sparse *Artemisia*. (The most western race with rich, solid vermilion-red flowers with black anthers. Our 1989 coll. from this area has been successfully raised, flowered & maintained.) (20+ seeds) B
- 13177 C. KENNEDYI var. MUNZII (Wild Rose Canyon) Cal., Inyo Co., Panamint Range. 2130 m. Open areas among *Artemisia* in gravelly soil. 28.6.92 (The highest altitude race from over 1850 m. in the Clark, Providence & Panamint Mts. - intense yellow with black-purple basal markings and anthers. Until now untried in gardens.) (20+ seeds) D
- C. LEICHTLINII (Monumental Ridge) J. Andrews coll., 1994 : Cal., Placer Co., Sierra Nevada W of Truckee. 2060 m. (A *Mariposa* linking Subsect. *Venusti* & *Nuttaliani* from the colder, drier inland slopes of the Sierra Nevada. White (sometimes bluish or pinkish) flowers with dark spots above the glands. 30 cm.) (15+ seeds) C
- 13026 C. LUFEUS (Clear Lake) Cal., Lake Co., N of Clear Lake. 410 m. Among grasses on open slope. 17.6.92 (Clear yellow flowers, tinged green basally & with brown basal markings. Smaller & daintier than next.) (20+ seeds) A
- 13060 C. LUFEUS (Chinese Camp) Cal., Tuolumne Co., SW of Chinese Camp. 380 m. Open grassy areas. 19.6.92 (From the W foothills of the Sierra Nevada - more robust than the Coast Range ones. Cream to deeper yellow.) (20+ seeds) A
- C. MINIMUS (Monumental Ridge) J. Andrews coll., 1994 : Cal., Placer Co., Sierra Nevada W of Truckee. 1800 - 2040 m. (The smallest of all, endemic to coniferous woodland in the Sierra Nevada. In Subsect. *Nudi* with several, bell-shaped, white flowers - pinkish ones are hybrids with *C. nudus*. Less than 10 cm.) (15+ seeds) C
- 13283 C. NUDUS Cal., Plumas Co., NNW of Quincy. 1000 m. Margins of moist meadows, among conifers. 10.7.92 (Erect lavender flowers marked purple basally. A sweet little plant 15 cm. high, growable in the UK.) (15+ seeds) C

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 C : \$4.00 ; £2.50 ; DM6, - ; FF21. - F : \$9.00 ; £6.00 ; DM15, - ; FF50. -

- C. NUTTALLII (Price) J. Andrews coll., 1992 : Utah, Carbon Co., S of Price. (The white form of this wide-spread, eastern Mariposa. A lovely, clean-looking flower with exquisite basal markings.) (20+ seeds) B
- C. OBISPOENSIS (Reservoir Canyon) Cal., San Luis Obispo Co., E of San Luis Obispo. 186 m. Crevices on loose serpentine cliffs. J. Andrews coll., 1993. (In Sect. Cyclobothra, Subsect. Weediani but unlike anything else in the genus - hairy tufted, purple-tipped yellow petals. Small flowers on branching stems.) (15+ seeds) D
- C. OBISPOENSIS (Cuesta Ridge) J. Andrews coll., 1993 : Cal., N of San Luis Obispo. 665 m. (15+ seeds) E
- C. PALMERI (Bandido Camp) J. Andrews coll., 1993 : Cal., Los Angeles Co., San Gabriel Mts., W of Waterman Mt. Open slopes with Artemisia & sparse Pinus. 1770 m. (Dainty, little pink (occasional whites here) Mariposa, usually brown-spotted & yellow-haired inside. Restricted to the ranges E of Los Angeles.) (15+ seeds) D
- C. PALMERI var. MUNZII J. Andrews coll., 1993 : Cal., Riverside Co., San Jacinto Mts., Idyllwild. 1650 m. (Only survives on a lot in the summer-resort of Idyllwild. Lacks the stem-bulblets of the type-race, as well as having opposite bracts and purple-hairy nectaries. Little-known and untried in cultivation.) (15+ seeds) E
- C. PLUMMERAE (Soledad Canyon) J. Andrews coll., 1993 : Cal., Los Angeles Co., San Gabriel Mts., S of Soledad Canyon. 1350 m. Chaparral on decomposed granite slopes. (Superlative, large, late-flowerer in Subsect. Weediani. Huge rose-pink bowls, densely golden-hairy within on branching, 60 cm. stems.) (20+ seeds) C
- C. SIMULANS (Reservoir Canyon) J. Andrews coll., 1993 : Cal., San Luis Obispo Co., NE of San Luis Obispo. 180 m. Heavy clay among grasses on open slope. (We are not entirely happy about moving this under C. argill- osus until we have more material of these two rather obscure, local species from other localities. A lovely, little, lilac-flushed Mariposa with complex, dark basal markings. Surprisingly easy to grow.) (20+ seeds) C
- 13103 C. SPLENDENS (Sulphur Spring Canyon) Cal., Ventura Co., off Lockwood Valley Road. 1280 m. Openings among Artemisia in sandy clay. 23.6.92 (Beautiful, easy, widespread Mariposa, well established in Europe from 1989 colls. of this form from adjacent Lockwood Valley. Soft lavender with long, wispy, basal hairs.) (20+ seeds) A
- 13021 C. SPLENDENS (Walker Ridge) Cal., Lake Co., Walker Ridge. 600 m. Among grasses & scrub on steep, E-facing slope. 17.6.92 (Splendid form from the N limit. Deep purple basal markings. 60 cm. or more high.) (20+ seeds) B
- 12757 C. STRIATUS (Lancaster) Cal., Los Angeles Co., N of Lancaster. 760 m. Open, level sites among alkaline desert scrub. 25.5.92 (Endemic to alkaline seeps in the Mojave. Lavender veined with maroon-purple.) (20+ seeds) C
- C. STRIATUS (Cushenbury Springs) J. Andrews coll., 1993 : San Bernardino Co., E of Hesperia. 1260 m. (20+) C
- 13357 C. SUPERBUS (Hell Hollow) Cal., Mariposa Co., NNW of Hell Hollow above Merced River. 500-700 m. Steep, open rocky slopes. 8.6.93 (Classic Mariposa - with C. venustus & C. vestae forms a superficially similar trio, separated on the shapes of the nectaries (in this linear, like an inverted V) but with staggering variation in ground-colours and markings. Here usually white with purple markings on a yellow ground.) (20+ seeds) B
- 13198 C. SUPERBUS (Shoo Fly Road) Cal., Eldorado Co., N of Placerville. 720 m. Openings among Pinus. 30.6.92 (Subtle shades like faded violet & rose-coloured silks with vastly variable colour zones & marks.) (15+ seeds) D
- 13455 C. TOLMIEI (Eight Dollar Mt.) Oregon, Josephine Co., SW of Selma. 450 m. Open S-facing slope. 13.6.93 (An impressively robust ("a giant form" according to Vic Girard) Pussy Ear - "the most variable species in the section..." writes Ownbey - all are purple-tinted white, bearded on the inside of the petals.) (20+ seeds) B
- 12998 C. TOLMIEI (Shingletown) Cal., Shasta Co., S of Shingletown. 1000 m. Openings in mixed woodland, often in deep shade. 15.6.92 (Also reputedly a large-flowered form - may be worth trying outside in UK.) (15+ seeds) B
- 12974 C. UMPQUAENSIS (Callahan Creek) Oregon, Douglas Co., S of Tiller. 460 m. Steep, open, stony serpentine slopes. 12.6.92 (Very local serpentine endemic, described in 1989 - allied to C. howellii & with similar, very hairy, cream-white flowers with purple-black centres but with large, drooping seed-capsules.) (15+ seeds) E
- * 11665 C. UNIFLORUS (Coyote Valley) Cal., Lake Co., NE of Middletown. 290 m. Among grasses in heavy clay. 1994 seed from our 1989 coll. (Dwarf, lilac-flowered member of Subsect. Nudi - one of the easiest to grow.) (15+ seeds) B
- 13058 C. VENUSTUS (Italian Bar) Cal., Tuolumne Co., NE of Columbia. 650 m. Steep, open, stony slopes. 19.6.92. (Here mainly white, patterned with dark red. The squarish nectary is diagnostic for the species.) (20+ seeds) A
- 13348 C. VENUSTUS (Adelaida Road) Cal., San Luis Obispo Co., W of Paso Roble. 550 m. Among long grass on open bank. 7.6.93 (Exceptionally variable, mainly with pink & rose ground-colour.) (15+ seeds) C
- 11703 C. VENUSTUS (Mt. Pinos) Cal., Kern Co., above Cuddy Valley to Mt. Pinos. 2120 m. Openings among Pinus. 27.8.89 (White or soft lilac with a ghostly thumbprint of pale blood-red at the tip of each petal) (15+ seeds) C
- C. VENUSTUS (Cuddy Valley) J. Andrews coll., 1991 : Cal., Kern Co., Cuddy Valley. 1840 m. Openings among Pinus. (Unique, limited colony in subtle reds, like faded scarlet velvet, with golden basal hair.) (15+ seeds) D
- 13288 C. VESTAE (Coyote Valley) Cal., Lake Co., NE of Middletown. 290 m. Among grasses in heavy clay. 12.7.92 (Huge, spectacular flowers in solid white with purple-pencilled bases & big, brown-purple blotches in yellow zones. Double crescent glands and a different chromosome number to C. venustus & C. superbus.) (20+ seeds) A
- C. WEEDII (Banner Grade) J. Andrews coll., 1993 : San Diego Co., ENE of Julian to Banner. 1260 m. (Stunning big southern Cyclobothra in Subsect. Weediani. Rich yellow bowls filled with long, golden hairs.) (15+ seeds) C
- 13205 CALOCHORTUS SP. Cal., Trinity Co., above Zenia. 1630 m. Coniferous woodland. 3.7.92 (1989 list as C. coerul- eus var. fimbriatus but maybe fits under C. elegans. White, hairy flowers stained wine-purple. Tiny.) (15+) D
- 13498 CAMASSIA QUAMASH Oregon, Douglas Co., S of Tiller. 460 m. Steep, stony, serpentine slopes. 12.6.92 ("Jepson" throws everything under C. quamash - not much help to gardeners with plants from 20 cm. to over 1 m. high in anything from white to deep blue. Not seen in flower but 30-50 cm. in seed here. Usually easy.) (20+ seeds) A
- * 11017 DELPHINIUM NUDICAULE Cal., Trinity Co., Lassics Lookout Road above Zenia. 1660 m. Among scrub on serpentine outcrop. 1994 grown by Dinah Batterham (Dorset, UK) from our 1989 coll. (Elegant, long-spurred flowers of solid scarlet held out on long pedicels from branching stems 1 m. or more high. We have tried since to re-collect this giant form but have been unable to find any trace of it. Fortunately Dinah has been skilled enough to establish & maintain it in the open garden, where it has so far proved reliably perennial (it dies back to a tuberous root in summer). We very much hope this can be more widely grown & enjoyed.) (15+ seeds) C

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- 13505 DICHELOSTEMMA CAPITATUM Cal., Tehama Co., NE of Red Bluff. 380 m. Open area, among long grass. 17.6.93 (Widespread & variable 'brodiaea' with dense heads of blue-purple flowers. Easy to grow. 30 cm.) (20+ seeds) A
- * 13415 DICHELOSTEMMA IDA-MAIA Cal., Humboldt Co., NNE of Orleans. 180 m. Open, stony slope at margin of woodland. (Hand-pollinated, 1994 cultivated seed of this amazing plant, over 1 m. when well grown, with pendant, tubular flowers in pure, glowing red. Greenish-cream segments surround the white staminodes.) (10+ seeds) C
- DICHELOSTEMMA MULTIFLORUM S. Farwig & V. Girard coll., 1993 : Cal., El Dorado Co., ENE of Pollock Pines. 1070 m. (Dense umbels of violet to light purple flowers on 50 cm. stems. Easily grown.) (20+ seeds) A
- 13346 DODECATHEON CLEVELANDII Cal., San Luis Obispo Co., W of Paso Robles. 550 m. Open slopes, among grass. 7.6.93 (The characteristic magenta to pink species of S & central California W of the Sierra Nevada - like the rest here, a summer-dormant plant, not to be confused with the wet-growers. All vary considerably.) (30+ seeds) B
- * DODECATHEON CLEVELANDII subsp. INSULARE The genuine plant from Wayne Roderick's coll. on Santa Cruz Island - a big, striking race, to 40 cm., with maroon-black anthers from the pink shooting-star heads.) (30+ seeds) B
- DODECATHEON CLEVELANDII ? subsp. SANCTARUM (or ? subsp. patulum) J. Andrews coll., 1992 : Cal., Santa Barbara Co., Figueroa Mt., NNW of Santa Ynez. 1180 m. (These two are separated on anther-colour.) (30+ seeds) B
- 12984 DODECATHEON CONJUGENS Cal., Modoc Co., Warner Mts., E of Davis Creek. 1750 m. Among Artemisia on gravelly clay slopes. 14.6.92 (Snow-melt species - the eastern, cold-climate version of *D. clevelandii*.) (30+ seeds) B
- 13397 DODECATHEON HENDERSONII Cal., Trinity Co., S of Bear Creek Trailhead. 960 m. Among conifers on steep, stony slope. 11.6.93 (The characteristic species of NW California, usually in well-drained, shady sites)(30+ seeds) B

ERYTHRONIUM

In nature, most species grow in very well-drained habitats, usually in light shade. Their preference for serpentine areas is marked - singularly inhospitable, infertile soils, deficient in nitrogen, phosphorus and calcium, with high concentrations of magnesium. We suggest caution in attempting these in pure peat - half granite chippings and half sphagnum-peat or leaf-soil might be more appropriate. Many might prefer well-drained, sunnier sites in cool, wet climates. Though the genus now has its centre of diversity in N California, it appears to have inherited qualities from ancestors which evolved when cool, northern forests encircled the world & is remarkably temperature-hardy.

- 13216 E. CALIFORNICUM Cal., Humboldt Co., SSW of Willow Creek. 1580 m. Stony areas in openings among conifers, on serpentine. 4.7.92 (Coast Range endemic with brown-mottled leaves & creamy white flowers.) (15+ seeds) B
- 13462 E. CITRINUM Oregon, Josephine Co., SW of Selma. 550 m. Steep, rocky slopes with sparse conifers. 13.6.93 (White to cream with lemon-yellow bases. Mottled leaves. Restricted to the Klamath Ranges.) (15+ seeds) C
- 13387 E. CITRINUM var. RODERICKII Cal., Trinity Co., above Scott Mt. Creek. 1200 m. Shaded serpentine slopes in in coniferous forest. 11.6.93 (Type locality coll. of this recently described taxon. Not recognized in Jepson and maybe involving *E. californicum* & *E. hendersonii*. Almost certainly our 1989 coll., 11018.) (10+ seeds) E
- 11394 E. GRANDIFLORUM subsp. CHRYSANDRUM Colorado, Montrose Co., Uncompahgre Plateau. 2900 m. Openings in mixed woodland. 15.7.89 (Bright yellow flowers & plain green leaves. The characteristic Rocky Mt. race.) (20+ seeds) B
- 12945 E. HENDERSONII Oregon, Jackson Co., N of Medford. 450 m. Open grassland & openings among deciduous oak scrub. 10.6.92 (Pale to deep lavender flowers with deep purple throats. Darkly mottled foliage.) (20+ seeds) B
- 13466 E. HENDERSONII Oregon, Jackson Co., SSE of Ashland. 1340 m. Deciduous oak woodland, in deep humus over clay. 14.6.93 (This very beautiful, robust species from a higher locality, about its altitudinal limit.) (20+ seeds) C
- 13441 E. HOWELII Oregon, Josephine Co., E of Takilma. 850 m. Among sparse conifers on open, turf, stony, serpentine slope. 13.6.93 (White flowers, usually yellow basally and maturing to pink. Mottled leaves.) (15+ seeds) C
- E. MULTISCAPOIDEUM S. Farwig & V. Girard coll., 1993 : Cal., Butte Co., E of Paradise. 30.5.93 (Mottled leaves. White flowers with pale greenish-yellow centres & white anthers. Stoliferous corms.) (20+ seeds) C
- 13525 E. MULTISCAPOIDEUM ("*E. cliftonii*") Cal., Butte Co., S of Pulga. 420 m. Steep, serpentine slopes & screes. 17.6.93 (More or less a giant form, never described botanically, but proving growable in the UK.) (20+ seeds) D
- 13494 E. OREGONUM subsp. LEUCANDRUM Oregon, Douglas Co., S of Tiller. 460 m. Steep serpentine slopes, among Pinus. 15.6.93 (White flowers with basal markings in orange, dark-red or brown. Mottled leaves.) (20+ seeds) B
- E. PLURIFLORUM J. Andrews coll., 1992 : Cal., Madera Co., Shuteye Peak (Sierra Nevada, E of Merced). 2360 - 2400 m. (Described in 1990 & allied to the following two species with plain green leaves but the 30 cm. stems carry up to 10 (exceptionally 20) bright yellow flowers, maturing to bronze or pinkish.) (15+ seeds) E
- E. PURPURASCENS J. Andrews coll., 1994 : Cal., Placer Co., Monumental Ridge (Sierra Nevada, W of Truckee). 2060 m. (Plain green leaves. White, yellow-centred flowers become pinkish with age.) (15+ seeds) D
- 13511 E. PURPURASCENS Cal., Plumas Co., S of Greenville. 1370 m. Steep, gravelly slopes among conifers. 17.6.93 (Most widespread of this trio of high altitude species but still very little known in cultivation)(15+ seeds) D
- E. PUSATERII J. Andrews coll., 1993 : Cal., Tulare Co., Jordan Peak (Sierra Nevada ENE of Porterville). 2774 m. (Again described in 1990, the most southern of the westerners. White flowers. Plain leaves.) (15+) E
- E. TUOLUMNENSE J. Andrews coll., 1993 : Cal., Tuolumne Co., NE of Columbia. 750 m. Steep slopes in deciduous woodland. (Plain leaves & bright-yellow flowers. Easy in UK gardens though local in the wild.) (15+ seeds) B

FRITILLARIA

About 20% of the genus occurs in N America, centred on N California, where they appear to be actively evolving, showing considerable variation within the current concepts of each 'species' - names here follow the account in the new "Jepson", largely derivative of the work done by Roger MacFarlane. The most useful account for gardeners is that written by Dr. Sylvia Martinelli, accompanied by some fine photographs by David Haselgrove, in the March & June, 1992, AGS Bulletins (the nomenclature she uses follows Munz - also used in our 1989 list). Successful cultivation of these reputedly difficult plants is becoming much more evident. The basic criteria would appear to be well-drained, lime-free, low nutrient composts and, in the UK, giving them their first watering late in winter, about the end of December. Excess nitrogen should be avoided, especially for those exclusive to serpentine - please note our remarks about this under *Erythronium*. No particular problems have occurred with our own early attempts to cultivate these & seed seems to set readily when several clones are available, so we hope they may become more widely established.

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- 12806 FRITILLARIA AFFINIS California, Solano Co., Vaca Mts., Mix Canyon. 550 m. Steep, scrub-covered slopes. 7.6.92 (Widespread & very variable. Nodding bells mottled in brown-purple & pale yellow.) (20+ seeds) A
- 13452 F. AFFINIS Oregon, Josephine Co., SW of Selma. 450 m. Open, S-facing slopes, overlaid with volcanic debris. 13.6.93 (The 'Illinois Valley Form' - usually dwarf, yellowish-green with just a few brown lines.) (15+ seeds) C
- 12985 F. ATROPURPUREA Cal., Modoc Co., Warner Mts., E of Davis Creek. 1750 m. Among Artemisia on gravelly clay slopes. 14.6.92 (Wide bells, mottled in purple-brown & yellow or white. A plant of montane steppe) (15+ seeds) C
- 13338 F. BIFLORA Cal., San Luis Obispo Co., above San Simeon Bay. 10 m. Coastal grassland. 6.6.93 (Dark brown-purple, green-striped bells but very variable. A coastal plant - maybe best grown frost-free.) (20+ seeds) B
- 13274 F. EASTWOODIAE (*F. phaeanthera*) Cal., Shasta Co., S of Shingletown. c. 1000 m. Openings in mixed woodland - mainly *Quercus*. 9.7.92 (A dubious 'species', possibly quite recently derived from *F. recurva* & *F. micrantha*. Dr. Martinelli described this colony as varying from red & apricot to brown-orange edged yellow.) (20+ seeds) C
- * F. GLAUCA - Selected Yellow. Hand-pollinated, 1994 seed from two rich-yellow clones, selected in the 1500 m. Mendocino Pass area - Cal., Mendocino/Glenn Co., E of Covelo. Endemic to Coast Ra. serpentine-scrub (8 seeds) E
- 13040 F. LILLICEA Cal., Marin Co., NW of Nicasio. 15 m. Among scrub on low, grassy coastal hills. 18.6.92 (Creamy white bells & bright-green leaves. A coastal plant, best frost-free in winter & cool in summer.) (15+ seeds) C
- 13062 F. MICRANTHA Cal., Mariposa Co., NE of Coulterville. 1000 m. Grassy slopes in thin, coniferous woodland. 19.6.92 (Up to 10 nodding bells, varying greatly, according to Martinelli, in markings & from chestnut to yellow shades. Here 30-50 cm. with whorled, bluish leaves. A plant of the Sierra Nevada foothills.) (20+) B
- F. OJAIENSIS J. Andrews coll., 1993 : Cal., Ventura Co., Wheeler Springs NNW of Ojai. 533 m. (Disjunct southern member of the *F. affinis* group - pronounce it "Oh! Hi! -ensis". Nodding, wide bells in greenish yellow with dark dots. The broad diamond-shaped nectary is diagnostic. Untried in cultivation.) (15+ seeds) E
- F. PINETORUM J. Andrews coll., 1993 : Cal., Kern Co., Mt. Pinos. 2600 m. Granite slopes. (Another untried, little-known species. Allied to *F. atropurpurea* but the purple, yellow-mottled flowers face out or upward & the capsule is markedly different. A high altitude plant - maybe best dryish in winter.) (15+ seeds) E
- 13380 F. PLURIFLORA Cal., Lake Co., Walker Ridge. 600 m. Open, grassy areas in heavy clay. 10.6.93 (One of the most distinct & beautiful in the genus. Up to 7, rather conical bells in a rich, pure, unmarked pink. A very local, adobe-clay plant of the northern Central Valley foothills, it remains a challenge to grow.) (15+ seeds) C
- F. PLURIFLORA J. Andrews coll., 1994 : Cal., Colusa Co., Bear Valley. 530 m. (Reputedly more variable in depth of colour here, this is also the population among which occasional whites have been found.) (15+ seeds) D
- * 10523 F. PUDICA Cal., Plumas Co., ESE of Beckwourth. 1520 m. With Artemisia on stony, clay slopes. (A few 1994 seeds from our 1989 coll. Nodding, clear-yellow bells. A plant of northern montane steppe.) (10+ seeds) B
- 13395 F. PURDYI Cal., Trinity Co., Trinity River Valley S of Bear Creek. 960 m. Open, stony, serpentine slope. 11.6.93 (Dwarf with a few wide bells, described by Martinelli as "voluptuously curved", "the shiniest, most delectable" flowers. Variable brown-veining & tinting on a green-white ground. Proving quite easy) (20+ seeds) C
- * 11029 F. RECURVA Cal., Trinity Co., N of Junction City. 500 m. Steep, stony, serpentine slopes with sparse scrub. (Hand-pollinated seed of our 1989 coll. from D. Hoskins. Narrow, nodding scarlet bells variably chequered with yellow inside & purplish outside. Not easy but by no means a great problem to grow well.) (10+ seeds) D
- * 11612 F. RECURVA Cal., Trinity Co., NNW of Zenia. 1630 m. Among *Arctostaphylos* scrub in openings among conifers over serpentine. (1994 Hand-pollinated seed of our 1989 coll., from D. Hoskins, who tells us these two colls. are quite distinct - this high altitude one is especially intensely coloured. Keep it cool!) (10+ seeds) E
- F. STRIATA J. Andrews coll., 1992 : Cal., Kern Co., Greenhorn Mts., NE of Bakersfield. 760 m. (Pendant bells described by Alan Galloway, the discoverer, as "white or creamy with purplish dotted striae" - appearing pink - and "with the most delicious fragrance". May need a hot, dry summer rest. An adobe-clay plant.) (10+ seeds) E
- F. VIRIDEA J. Andrews coll., 1992 : Cal., San Benito Co., above Clear Creek W of San Benito Mt. 820-1000 m. (A narrow serpentine-endemic, almost unknown in cultivation. In the *F. affinis* group but lacking rice-grain bulblets and with the nodding bells only on one side of the 30-50 cm. stem. According to Martinelli, variable in green, brown & yellow tones ; Ness in "Jepson" says "pale green to almost black, not mottled.") (15+ seeds) E

HESPEROCHIRON CALIFORNICUS J. Andrews coll., 1993 : Cal., Sierra Co., N of Sattley. 1520 m. (A delightful, tiny, summer-dormant member of the Hydrophyllaceae. Rosettes of rounded, basal leaves & short-stemmed (2-5 cm.) bowl-shaped flowers, usually white here but sometimes lilac-tinted. For an alpine-house pan.) (20+ seeds) C

IRIS

These Pacific Coast Irises (Series *Californicae*) exemplify better than any other genus how much speciation is actively occurring in this area - variation, intergradation and hybridization are considerable. Dr. Lee Lenz's 1958 classification (adopted by "Jepson", Munz & Brian Mathew in "The Iris") is a brilliant and acceptable compromise but do not imagine his taxa are clearly defined units in the wild. In gardens, much material is of hybrid origin & it should be appreciated that many of the wild plants may be less showy and less easy to grow than garden hybrids. Most grow in light woodland or among scrub, usually on steep slopes - they need excellent drainage in a neutral to acid soil. In cooler climates, a site in sun might be preferable to half-shade ; a few might be best in a bulb-frame.

- 13427 I. BRACKETATA Oregon, Josephine Co., Waldo Hill on Sanger Peak Road. 650 m. Open, stony areas among scrub. 13.6.93 (Most distinct with thick, broad leaves & large, showy flowers, always in yellow, veined with brown or maroon. Very limited in its distribution, this is from near Howell's 1884 type-locality. Few.) (15+ seeds) D
- 13233 I. CHRYSOPHYLLA Oregon, Douglas Co., Calapooya Divide E of Huckleberry Mt. 1120 m. Among scrub at margins of coniferous forest. 6.7.92 (Essentially a plant of S Oregon, between the Cascades & the Coast Ranges. Cream, gold-veined flowers ; narrow, glaucous leaves. From a high, cold locality - should suit UK gardens.) (15+) B
- 13052 I. DOUGLASSIANA Cal., Sonoma Co., Irish Hill above Coleman Creek. 150 m. Grassy slopes with coastal exposure. 18.6.92 (A tough, vigorous plant with no particular soil preferences in cultivation and usually proving a fine, hardy garden-plant in the UK, in spite of its low coastal habitat. Usually rich purple here) (15+ seeds) B

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- 12807 IRIS FERNALDII Cal., Solano Co., Vaca Mts., Mix Canyon. 550 m. Steep, scrub-covered slopes. 1.6.92 (Only in the Coast Ranges around San Francisco. Unique, narrow, grey leaves & creamy yellow flowers.) (15+ seeds) C
- 13056 I. HARTWEGII subsp. COLUMBIANA Cal., Tuolumne Co., NE of Columbia. 650 m. Steep, open, stony slopes. 19.6.92 (The most showy race, only known around the type-locality. Virtually a pale-yellow version of splendid Iris munzii from 225 km. to the South. Well established here under glass from our 1989 coll.) (15+ seeds) C
- 13282 I. HARTWEGII subsp. PINETORUM Cal., Plumas Co., N of Quincy. 1070 m. Openings in coniferous forest. 10.7.92 (A Plumas Co. endemic - the only taxon to creep over to the E slope of the Sierra Nevada. Much dwarfier than the long-stemmed, type race, it often opens two of its creamy-yellow flowers simultaneously.) (15+ seeds) C
- 13225 I. INNOMINATA Oregon, Curry Co., N of Agness. 400 m. Steep, stony slopes, facing E & SE in coniferous zone. (The jewel of the group for rock-gardeners. Little tufts of very narrow, glossy leaves & 20 cm. stems. Victor Cohen found the flowers around here, in 1965, to be "golden-yellow and orange" but Galen Burrell tells us that in 1993 he found nearly all were "a beautiful orchid colour". Hardy in lime-free scree in UK.) (15+) C
- 12897 I. INNOMINATA Cal., Del Norte Co., MNW of Gasquet. 390 m. Steep, wooded slopes. 6.6.92 (Just SE of Cohen's locality for deep purples - a few late flowers seen here in 1989 were lavender.) (15+ seeds) B
- 13350 I. MUNZII Cal., Tulare Co., above Coffee Camp, E of Springville. 520 m. Among boulders on sides of scrub-filled gully. 7.6.93 (Largest flowered of this group, limited to a few colonies above the Tule & Kaweah Rivers in the southern Sierra Nevada. Broad evergreen leaves & stout stems to 60 cm. with up to 4 flowers, described by Cohen as "from pale powder-blue through lavender to purple...delicately veined in violet or turquoise-blue." May be temperature-hardy against a S-wall in the UK - Dendromecon grows here.) (15+ seeds) C
- 13203 I. MACROSIPHON Cal., Lake Co., NE of Lake Pillsbury. 1300 m. Openings among Pinus in stony clay. 3.7.92 (Dwarf, narrow-leaved tufts, reputedly in both yellows & purples here. A N Central Valley plant.) (15+ seeds) B
- 12825 I. PURDYI HYBRIDS Cal., Mendocino Co., W of Boonville. 200 m. Open & part-shaded slopes among conifers. 2.6.92 (From the only known site of the complex trihybrid: I. purdyi x I. macrosiphon x I. douglasiana (L.W. Lenz & E.K. Balls 1953). Not seen in flower & may have settled into an even population.) (15+ seeds) B
- 13215 I. ? PURDYI X TENUISSIMA Cal., Humboldt Co., SSW of Willow Creek. 1580 m. Openings among conifers. 4.7.92 (While obviously I. tenuissima, these have larger, flatter flowers with broader falls, in creamy shades veined with purple. Cited by Lenz (L.W. Lenz 18320) for this area but at 1000 m. less elevation.) (15+ seeds) B
- 13206 I. TENUISSIMA Cal., Trinity Co., N of Zenia. 1660 m. Stony openings in coniferous woodland. 3.7.92 (Dainty & delicate with narrow, greyish leaves. Flattish, creamy white flowers faintly veined purple.) (15+ seeds) B
-
- * 11031 LEWISIA COTYLEDON var. HECKNERI Cal., Trinity Co., N of Junction City. 500 m. Fissures on vertical, shaded serpentine cliffs. 1994 cultivated seed from our 1989 coll. (A very local, disjunct taxon limited to this area, which we shall try to maintain in a pure state here - it is the only L. cotyledon we are growing. Wide panicles of huge pink flowers - about twice the diameter of the type-race and quite stunning for a pure, wild race. Much cultivated material is now of hybrid origin. Grows well here unprotected outside.) (20+ seeds) C
- LEWISIA KELLOGGII J. Andrews coll., 1994 : Cal., Placer Co., Monumental Ridge (Sierra Nevada W of Truckee). 2060 m. (Mainly distributed on the decomposed granites of the northern & central Sierra Nevada above 2000 m. Dense rosettes of leathery, spoon-shaped leaves, withering in summer, on which sit the pink or white flowers on stems of about 3 cm. An outstanding snow-melt species, little-known in cultivation - seed-collection is extremely difficult as local rodents dig-up the roots for food, scattering flowers & seed-capsules widely - behaviour described by Merrel Ackley in Roy Elliott's 1966 account & also by John.) (15+ seeds) E
- LEWISIA NEVADENSIS J. Andrews coll., 1994 : Cal., Placer Co., Monumental Ridge. 2060 m. (Sympatric here with the preceding but a widely distributed plant, usually easily grown. Little, shining green rosettes with a succession of white or pinkish flowers hugged tightly in the centres. Summer-dormant.) (20+ seeds) B
- 13484 LEWISIA OPPOSITIFOLIA Oregon, Josephine Co., SW of O'Brien. 500 m. In red clay on open, level, stony area - still wet but drying out. 14.6.93 (In its 'pure' form, an Illinois Valley endemic. Summer-dormant with narrow blunt, succulent leaves; 15 cm. umbels of up to 6 white flowers with red-fringed sepals.) (15+ seeds) D
- LILIUM Seed will be included in our winter, 1994-95 list.
- 13333 PAEONIA CALIFORNICA Cal., San Luis Obispo Co., NE of San Luis Obispo. 150 m. In scrub on steep, stony slopes 6.6.93 (About 60 cm. high with greener leaves than related P. brownii - larger black-red petals margined with pink. Winter-growing & summer-dormant - possibly best frost-free but generally not difficult.) (8 seeds) D
- * 11105 SILENE HOOKERI (subsp. hookeri) Oregon, Josephine Co., E of Takilma. 850 m. Turfy, stony, serpentine slopes with sparse conifers. Hand-pollinated 1994 seed from our 1989 coll. (The type-race from the Illinois Valley (we were too early for seed in 1993) - decumbent, grey-leaved stems & a succession of flowers with deeply cut petals, opening salmon-pink & maturing to shell-pink. Intraspecific divisions are currently disregarded by taxonomists but the different races are utterly distinct horticulturally - we hope, in time, to be able to maintain them all here. Summer-dormant but not exceptionally difficult in the alpine-house.) (8 seeds) D
- 13472 SISYRINCHIUM DOUGLASSII Oregon, Jackson Co., Siskiyou Mts., SSE of Ashland. 1370 m. Open meadows on SW-facing slope. 14.6.93 (Maybe the finest of the genus with "a succession of noble hanging bells in a deep and flashing imperial violet..." Early-flowering, 20 cm. high & summer-dormant. Alpine-house or scree.) (20+ seeds) B
- 12878 VIOLA HALLII Cal., Humboldt Co., SSW of Willow Creek. 1420 m. Opening in coniferous forest - in stony turf. 5.6.92 (Close to V. beckwithii but with dark purple-violet upper petals & cream lower ones. Similar dissected leaves & habit - it all dies back to an underground rhizome in summer - alpine-house or scree.) (10+ seeds) C

While our main aim is to offer seeds collected by ourselves, we are much indebted to friends in Britain and abroad for additional material. This is particularly so in Section III, where space does not allow us to name the sources. We are grateful to: John Andrews, Stan Farwig & Vic Girard, Wayne Roderick (all California, USA); Jim Almond (Shropshire UK); Dinah Batterham (Dorset, UK); John Blanchard (Dorset, UK); Paul Christian (Clwyd, UK); Kath Dryden (Herts., UK); Alan Edwards (Surrey, UK); Don Elick (Japan); Terry Hatch (New Zealand); Dave Hoskins (Hampshire, UK); Melvyn Jope (Surrey, UK); Ruth Lord (NZ); Will McLewin (Cheshire, UK); Jimmy Persson & Henrik Zetterlund (Sweden); Ivan Rankin (NZ); Tom Norman (Dorset, UK); David Stephens (Surrey, UK); Norman Stevens (Cambridge, UK); Graham Tonkin & Marcus Harvey (Tasmania); Mike Tucker (Somerset, UK); Peter & Penny Watt (Hampshire, UK); Michael Wickenden (Kirkcudbright)

Our apologies to anyone omitted. Sincere thanks to all & to all our customers for continuing to support our work.

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SECTION II : SEEDS FROM EUROPEAN, SW ASIAN & N AFRICAN SPECIES

Our 1994 wild collections here were made with Norman Stevens in S Turkey during May & June. A few old but important collections are included this year, where we have had fully satisfactory germination from sowings made during winter, 1993-94. This older seed has been refrigerated in conditions of low humidity and, in our experience, is fully viable. There are many wild collections by others here, as well as a great deal of cultivated material, almost all 1994 seed.

CULTIVATED MATERIAL is listed in this section only if it is derived from plants of known wild origin, accompanied by some field data. We have relaxed our requirements somewhat in the latter respect this season and included some seeds here with less data than we like to have, in order to keep all seeds from plants of known wild origin together. Even with first generation seed, a certain amount of selection has occurred (i.e. an ability to grow and set seed under particular garden conditions) and there is the possibility of hybridization. With successive generations raised from seed in cultivation, field data and the original field-numbers become more and more irrelevant.

REFERENCE NUMBERS in Section II are not our field-numbers but permanent references for populations within the area of Europe, SW Asia & N Africa. If seed is collected by us - or anyone else - from an identified species in a defined locality, it is listed under the same reference as previous collections from the same place. Seed-packets will carry only this number but, as these six-digit numbers run in alphabetical, as well as numerical, order here, identification of packets from this list is a simple matter. Section I five-digit field-numbers apply to particular collections only.

NOMENCLATURE in general follows the basic floras, 'Flora Europaea' and 'Flora of Turkey' with a degree of editing between the two accounts and updating in line with more recent work where this is felt to be relevant & helpful.

* : indicates seed from cultivated plants of known wild origin. Field data applies to the original collection.

- 134.100 ALLIUM NARCISSIFLORUM France, Hautes-Alpes, Pic de Gleize. 2000 m. Loose unstable limestone screes on S-facing side of summit ridge. 20.9.91 (Reasonable germination here last winter from this coll. - unlikely to be repeated - of the true plant (not *A. insubricum*). "The glory of its race" writes Farrer - 15 cm. stems carry umbels of erect (not drooping as in *A. insubricum*) sugar-pink flowers.) (15+ seeds) C
- 134.801 ALLIUM ORIENTALE Turkey, Antalya, Irmasan gecidi. 1530 m. Openings among *Abies* over limestone. 4.6.94 (This appears to fit in to this variable species - a distinct form we have only seen in the Akseki area with rounded umbels of white flowers with lilac-purple anthers and filaments - worthwhile.) (20+ seeds) A
- 154.200 ANDROCYBIUM RECHINGERI Greece, Crete, Hania, Falassarna. Sea-level. In sandy soil among coastal limestone rocks. (Prof. P. & Dr. P. Watt's 1993 coll. - now verified by Dr. K. Persson (University of Goteborg) - of this *Colchicum*-relative, previously only known from the island of Elaphonisos. A characteristic rosette of leaves, like involucral bracts surrounds the pink or white flowers in spring. Alpine-house pot.) (15+ seeds) E
- * 161.900 ANEMONE PAVONINA (var. *ocellata*) Greece, Lakonia, between Areopoli & Githio. 100 m. Oak woods & at edge of scrub. (Brilliant pure-scarlet flowers with a white central zone - seed grown outside in UK.) (20+ seeds) A
- * 185.550 ARISTOLOCHIA LONGA subsp. PAUCINERVIS Morocco, Middle Atlas Mts., SW of Ain el Leuh. 2000 m. Stony places on open limestone slopes. (A dwarf, tuberous-rooted perennial. Weird, elongated yellow-brown flowers.) (10) B
- * 194.752 ARUM ALPINUM Ex Christian & Hoog 806 - full data not available. The dwarf species with greenish spathes from the highest Greek limestone mountains - at around 1200-1500 m. on Parnassos, Dirfis, etc.) (10 seeds) B
- * 195.071 ARUM CONCINNATUM - PURPLE FORM Ex a D. Drummond, 1989 coll. : Greece, Crete, Rethimno, near Spili. (8) D
- 195.155 ARUM DIOSCORIDIS (var. *dioscoridis*) D.B. Stephens coll. : Turkey, Izmir, Cesme, old cemetery. 30.6.94 (The Turkish races *A.d.* var. *liepoldtii*, var. *luschanii* & var. *spectabile* are all merged under the type race by P. Boyce. A very variable entity with black-purple spadices and pale-green spathes, heavily stained inside with maroon-purple blotches, usually running together & often occupying most of the spathe. One of the most spectacular aroids and usually easily grown with some protection in the U.K.) (10+ seeds) B
- * 195.156 ARUM DIOSCORIDIS (var. *dioscoridis*) Ex a N. Stevens coll. : Turkey, Antalya, Apendos. (Superb!) (10 seeds) B
- * 197.000 ARUM PURPUREOSPATHUM Ex P. Boyce 51 : Greece, Crete, Hania, Agia Roumeli. c. 30 m. Stony terra rossa. (Magnificent, shiny purple spathes, coloured on both surfaces. Hardy in a bulb-frame in the UK.) (8 seeds) E
- * 227.702 BELLEVALIA DUBIA Ex an A. Edwards coll. : Italy, Sicily, Castel Mola near Taormina. (A selected form with particularly brilliant blue young flowers of this most striking European species. Electric!) (15+ seeds) C
- * 227.770 BELLEVALIA FORNICULATA Turkey, Agri, Sac gecidi W of Eleskirt. 2300 m. Hay meadow. (An outstanding plant, locally abundant but restricted to a few sites in the Erzurum area, with buds and flowers of turquoise-blue. Choice but proving growable - maybe best grown - outside in the UK. Don't overdry it.) (15+ seeds) B
- * 228.080 BELLEVALIA PYCNANTHA Turkey, Van, NNW of Baskale. 2800 m. Short turf in alpine meadows. (Near *B. forniculata* but with heads of strangely crumpled bells in deep, inky blue-black. Easily grown.) (15+ seeds) A
- * 228.130 BELLEVALIA RIXII Turkey, Van, NNW of Baskale. 2800 m. Open stony slopes, usually in loose talus. (Only known from around the type-locality, a fascinating, dwarf species with falcately recurved leaves and 5 cm. stems of purple-brown flowers with violet anthers, from blue-violet buds. Alpine-house pan.) (10+ seeds) E
- * 228.150 BELLEVALIA ROMANA Greece, Ioanina, Mitsikeli. 860 m. S-facing limestone cliffs. (White to brown.) (15+) A
- * 232.101 BIARUM CARRATRACENSE Ex Salmon & Fillan 235 - full data not available. (Striking, autumn-flowering aroid with large, maroon-black velvet spathes. Of limited distribution in SE Spain. Bulb-frame or pot.) (8 seeds) D
- * 240.000 BRIMEURA AMETHYSTINA France, Hautes-Pyrenees, Vallee d'Ossoue. 1500 m. S & W-facing slopes - stony clay over limestone. (A charming plant, more or less endemic to the Pyrenees, like a dainty, little, brighter blue bluebell. Quite reliable outside in the UK & not seen as often as it should be.) (20+ seeds) A
- * 240.100 BRIMEURA FASTIGIATA France, Corsica, Pointe de Revellata. Among moss & stones in wet-flush (dry in summer) (A tiny bulb, only a few cm. high, with dense racemes of wide-open bells - pale lilac-pink in this form. We have grown this for decades but had no seed set until we more recently acquired a mate (of unknown provenance) - data applies to the seed-parent. Of disjunct distribution, mainly on the W Mediterranean islands. Our normal policy is to hand-pollinate only between different clones from the same locality.) (15+ seeds) B

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- * 347.400 CROCUS LAEVIGATUS Greece, Evia, between Almiropotamos & Polipotamos. 250 m. Stony-clay over limestone. (Late autumn flowers in lilac with occasional whites & a diversity of dark feathering outside.) (15+ seeds) B
- * 347.500 CROCUS LEICHTLINII Ex KPPZ 144 : Turkey, Urfa, ESE of Siverek. (Limited to the area around Karaca Da. - very cold in winter & very hot & dry in summer. Spring flowers, usually in greyish blue, slatey outside, with deep yellow throats. A rather difficult plant for the specialist & seldom available.) (8 seeds) E
- 348.602 CROCUS NEVAEENSIS Spain, Granada, Sierra Nevada below Penones de San Francisco. 2300 m. In turf on NW-facing slope. 25.6.90 (Another seed-bank coll. which germinated well here last season. Reputedly difficult with pale lilac to white flowers in spring. This coll. has not yet flowered in cultivation - we have also seen an odd, stoloniferous member of the *C. serotinus* group here - & we cannot guarantee it 100%)(15 seeds) C
- * 348.803 CROCUS NIVEUS Greece, Messinia, S of Areopoli. 3-50 m. Stony clay in phrygana & macchie. (Magnificent, pure-white, autumn-flowering species of the S Peloponnese. Gorgeous scarlet styles.) (8 seeds) C
- * 350.000 CROCUS PELISTERICUS Ex H. Zetterlund 85-67 : Macedonia, Karadzica Planina. Peaty turf. (Limited to a few sites above 1900 m. near the Greek border in S Macedonia. Close to *C. scardicus* but with striking flowers, described by Brian Mathew as having "an unusual intensity of colour, a deep rich violet with a very glossy surface." A snow-melt plant which should be kept moist all summer & possibly dryish in winter.) (8 seeds) E
- * 352.552 CROCUS SIEBERI subsp. SUBLIMIS Greece, Viotia, Parnassos. 1500 m. Slope below *Abies* woods on limestone. (Lilac-blue flowers with yellow throats in spring. May be some introgression by *C. veluchensis* here.) (15+) B
- * 353.200 CROCUS THOMASII Ex a M. Salmon coll. : Italy, Calabria. (Lilac, autumn-flowers. A low altitude limestone species occurring on both sides of the Adriatic, in S Italy & S Croatia. Bulb-frame in UK.) (8 seeds) B
- * 353.600 CROCUS TOURNEFORTII Ex an I. Barton coll. : Greece, Karpathos. (Lilac-blue flowers from autumn well into winter - these stay open at night. A species of the E Mediterranean islands - protection in UK.) (8 seeds) C
- * 354.002 CROCUS VELUCHENSIS Jugoslavia, Serbia (Kosovo), S of Urosevac. 800 m. Leaf-soil over clay in *Fagus* woods. (Splendid spring-flowerer, lavender-blue with darker tips. Likes it cool - do not overdry it.) (15+ seeds) B
- * 354.004 CROCUS VELUCHENSIS var. MICRANTHUS Macedonia, Popova Sapka above Tetovo. 2200 m. Open slopes in turf and *Vaccinium*-mats. (Small, high-altitude race recently split out by Serbian botanists - useful for gardeners as this is much more difficult to grow - plunge pot outside in UK in summer. Variable in colour.) (10 seeds) C
- * 358.000 CYCLAMEN AFRICANUM Algeria, Kabylie, E of Azanga. 850 m. Humus under deciduous *Quercus*. (Large, patterned dark green leaves and big, pink flowers in autumn. Borderline hardiness in UK - best frost-free.) (10 seeds) C
- * 358.500 CYCLAMEN BALEARICUM Ex D.M. Hoskins coll. : Spain, Islas Baleares, Mallorca, N of Andratx. 350 m. In humus among *Quercus*. (Delicately pencilled white flowers in spring. Needs shade & best frost-free.) (15+ seeds) B
- * 359.000 CYCLAMEN CILICIMUM Turkey, Antalya, Irmasan Gedidi. 1500 m. Stony humus under *Abies* over limestone. (Very hardy, pink autumn-flowerer. A well-drained, sunny site suits it best in UK if grown outside.) (15+ seeds) A
- * 359.003 CYCLAMEN CILICIMUM Turkey, Konya, NW of Bozkir. 1100 m. Base of N-facing limestone cliffs. (15+ seeds) A
- * 359.004 CYCLAMEN CILICIMUM Turkey, Antalya, S of Akseki. 900 m. Among sparse *Quercus* scrub on limestone. (15+ seeds) A
- * 363.003 CYCLAMEN GRAECUM Greece, Lakonia, NW of Githio. 500 m. Steep slopes under olives. (From unusual or out-standing leaf-forms selected in 1984. Best grown planted out or in a deep pot under glass in UK - it needs to be kept dry in summer. Pink flowers in autumn, produced profusely when well-grown.) (15+ seeds) B
- * 363.007 CYCLAMEN GRAECUM Ex a D.B. Stephens coll. : Greece, Argolida, Epidavros. (Selected leaves.) (15+ seeds) B
- * 364.003 CYCLAMEN HEDERIFOLIUM Ex a D.M. Hoskins coll. : Greece, Evia, W of Karistos. 200 m. N & W-facing sides of gully. (Distinct with large flowers & large leaves - very like *C. africanum*.) (15+ seeds) A
- * 367.500 CYCLAMEN PURPURASCENS Italy, Friuli-Venezia Giulia, W of Opicina, N of Trieste. 100 m. Openings among scrub. (Beautiful, scented rosy flowers in late summer & autumn. Maybe easier than Alpine races.) (15+) C
- * 369.000 CYCLAMEN ROHLFSIANUM Libya, Cyrenaica, Benghazi to Jabal Akhdar, above Tukrah. 200 m. Limestone-pockets in macchie & under *Pistacia* scrub. (Beautiful leaves & pink autumn flowers. Frost-free.) (10+ seeds) C
- 369.501 CYCLAMEN TROCHOPTERANTHUM Turkey, Mugla, Baba Da. SE of Fethiye. 850-1100 m. Humus beside limestone boulders under *Pinus* & *Cedrus*. 27.5.94 (SW Turkish endemic but quite widespread within its area. Wide, deep-pink flowers with characteristically twisted petals. Hardy in UK & best grown cool.) (10+ seeds) D
- * 369.500 CYCLAMEN TROCHOPTERANTHUM Ex PD 25579 : Turkey, Mugla, Eren Da. ENE of Fethiye. 1300 m. (10+ seeds) D
- 385.401 DAPHNE SERICEA Turkey, Icel, E of Gulnar. 900 m. Open, limestone slopes with sparse scrub. 5.6.94 (Lovely, variable (it includes the garden form, *D. collina*), evergreen shrub, here about 1 m. high, with profuse clusters of deep rose-pink flowers, heavily fragrant, in spring. Though widespread in S Turkey, we have never before been able to collect a reasonable amount of seed, so we thought we had best list it now for sowing as soon as possible! Always a plant of open slopes - give it full sun & good drainage.) (10+) C
- 444.101 EREMURUS SPECTABILIS Turkey, Kahramanmaras, SSE of Goksun. 1550 m. NE-facing slope with diverse montane steppe-vegetation. 12.6.94 (Robust, tuberous-rooted perennial, up to 2 m. high with dense, cylindrical racemes of (usually) white flowers, striped green or purple & with exserted orange-brown anthers. In spite of its name, not so spectacular as some Central Asians but worthwhile & little-known in gardens.) (10+) C
- 490.001 FRITILLARIA ACMOPETALA Turkey, Antalya, between Antalya & Altinyaka. 900 m. Openings among scrub in heavy red clay. 2.6.94 (Round-shouldered, elegantly waisted bells, usually in yellow-green with brown central shading. About 30 cm. high & usually one of the easiest to grow in a bulb-frame or pot.) (15+ seeds) B
- 490.500 FRITILLARIA ALBURYANA Turkey, Erzurum, Palandoken Da. between Erzurum & Cat. 2500 m. Rock detritus on open slope 22.7.86 (Receipt of a precious batch of cultivated, hand-pollinated seed from that most skilled & inspired plantsman, Henrik Zetterlund, moved us to delve deep into our seed-bank to extract the remainder of our outstanding 1986 coll., which we were never able to repeat, and to offer a package! This was not one of the old colls. we sowed last season, though we did germinate other 1984 & 1985 *Fritillaria* seed, so we have no idea about viability. Kath Dryden has grown this through to flowering and Rannveig Wallis tells us she flowered *F. armena* out of it (the two grow on the same slope, though not usually together, and it would be the one more likely to germinate & survive!). The old seed is not to be taken too seriously - the plant is - an incomparable pink. 20+ seeds of the old, wild coll. & 8 hand pollinated seeds - 2 packets for F

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 C : \$4.00 ; £2.50 ; DM6, - ; FF21. - F : \$9.00 ; £6.00 ; DM15, - ; FF50. -

- * 490.800 FRITILLARIA ALFREDAE subsp. GLAUCOVIRIDIS Turkey, Adana, Nur Da. above Hasanbeyli. 1100 m. Open, stony areas on W-facing slopes. (A most graceful & beautiful species with yellow-green flowers with a glaucous sheen. Endemic to this corner of Turkey near the Syrian border. Not difficult in a bulb-frame.) (15+ seeds) C
- * 492.101 FRITILLARIA BITHYNICA Ex a D.M. Hoskins coll. : Greece, Samos, Ambelos (Mt. Lazarus). Steep slope under chestnut-trees in leaf-soil. (Glaucous yellow-green bells, yellower inside - the island races from Samos & Khios are little-known. This & the next are documented here in the March, 1993 AGS Bulletin.) (10+ seeds) C
- 492.401 FRITILLARIA CARICA (subsp. carica) Turkey, Mugla, Gok Tepe, N of Mugla. 1500 m. Open, stony area with sparse Pinus on limestone. 28.5.94 (Grey-green leaves & dark nectararies inside its yellow bells. We are very grateful to Norman Stevens for identifying these SW Turkish colls. made out of flower - often a matter of intuition coupled with habitat knowledge. It is not easy to tell some apart when in seed!) (10+ seeds) C
- 492.402 FRITILLARIA CARICA Turkey, Burdur, W of Yesilova. 1280 m. Loose serpentine talus on open slope. 30.5.94 (Bob & Rannveig Wallis tell us this is an outstanding form here - it grows in a precisely similar habitat to F.c. subsp. serpenticola with the same serpentine-species. It may fit in as a variant of the latter or there may be a series of adaptations to this specialised habitat. Further investigation needed!) (10 seeds) E
- 492.403 FRITILLARIA CARICA Turkey, Burdur, W of Golhisar. 1150 m. Openings among Pinus & Quercus. 30.5.94 (Coll. by Norman who seems to have a 'nose' for the spots which Fritillarias thrive in.) (10+ seeds) C
- * 493.000 FRITILLARIA CONICA Greece, Messinia, S of Pilos. 200 m. Limestone slope at edge of Quercus scrub. (Allied to the above & F. forbesii, one of the more robust (up to 25 cm.), with larger flowers, among these yellow E Mediterranean species. A very local species in the wild but not at all difficult to grow.) (10+ seeds) D
- * 493.502 FRITILLARIA CRASSIFOLIA subsp. KURDICA Ex a N. Stevens coll. : Turkey, Van, Timar N of Van. 1700 m. (An unusual form with deep-coloured flowers on 20 cm. stems growing in an unusual habitat.) (10+ seeds) C
- * 493.503 FRITILLARIA CRASSIFOLIA subsp. KURDICA Ex BSBE 1434 : Iran, Kurdistan, Sir Kuh S of Rezaiyeh. 1980 m. Rocky & dry S slope. (Robust form with up to 4 brown-chequered bells.) (10+ seeds) C
- 494.000 FRITILLARIA DAVISII D.M. Hoskins 93-14 : Greece, Lakonia, NW of Pirgos Dirou. 200 m. Olive-grove on limestone. 21.5.93 (Mani endemic near F. graeca but with shiny leaves & no green stripe on its bells.) (15+) C
- * 494.800 FRITILLARIA EHRHARTII Greece, Evia, above Metohi W of Karistos. 200 m. N & W-facing sides of gully among scrub, on mica-schist. (Beautiful native of S Evia & the nearby Kiklades. Bloomy, grape-black bells, ruby against the light. Easy enough under glass in the UK but seldom listed commercially.) (15+ seeds) C
- * 496.002 FRITILLARIA GRAECA Ex an A. Edwards coll. : Greece, Lakonia, Akr. Tainaro (Cape Matapan) (Alan Edwards assures us this is F. graeca, though from the territory of F. davisii & sympatric with it here.) (15+ seeds) D
- * 496.501 FRITILLARIA GUSSICHLAE Macedonia, Baba Planina, Pelister above Magarevo. 1400 m. Steep slopes on igneous rock. (A very local plant in the wild. Distinct from F. graeca & F. thessala in its winged capsule.) (10+) D
- * 497.004 FRITILLARIA HERMONIS subsp. AMANA - YELLOW Ex Horton & Stevens 2333 : Turkey, Kahramanmaraş, SSE of Goksun c. 1550 m. (From a single bulb collected many years ago in what is the most northern locality known for the species - Norman & Jim spent a long time here searching for seed and had a single capsule each (now sown) - it will be some time before we know if all the population here is yellow or if this is unique.) (10 seeds) E
- * 499.400 FRITILLARIA MESSANENSIS Greece, Pieria, Oros Olimbos. 1500 m. Among Buxus on steep, gravelly, limestone slopes. (A very fine, elegant form of the type-race here with brown-chequered, waisted bells. Not so vigorous as the next but not at all difficult in a pot or bulb-frame in the UK.) (15+ seeds) C
- * 499.700 FRITILLARIA MESSANENSIS subsp. GRACILIS Bosnia & Hercegovina, W of Trebinje. 500 m. At base of Quercus scrub over limestone. (Untessellated, chestnut-brown bells edged with gold. Very hardy & a good grower in cultivation, though never numerous in the wild - worth trying outside in a well-drained site.) (20+ seeds) A
- * 500.100 FRITILLARIA MINUTA Turkey, Van, Kavussahap Da. 2900 m. Stony, alluvial silt near snow-melt stream. (Small, high altitude, SE Turkish endemic with brown-orange bells. Not difficult in a pot-keep cool.) (10+ seeds) D
- * 500.300 FRITILLARIA MONTANA Macedonia, Galicica Planina above Trpjecica. 1600 m. Exposed, dry, limestone slopes. (Slender, dwarf form with globular, brownish bells here - a variable, widespread group.) (15+ seeds) B
- * 500.303 FRITILLARIA MONTANA Ex P.J. Christian 282 : France, Alpes-Maritimes, NW of Gourdon. 1000 m. Among grasses & Juniperus on N-facing limestone slope. (Plants from this area have been called F. caussolensis - a good grower in cultivation with bells heavily chequered in red-brown to wine-red.) (15+ seeds) B
- 501.801 FRITILLARIA PINARDII Turkey, Denizli, Honaz Da., SE of Denizli. 1650 m. Open sites near tree-line in clay over limestone. 29.5.94 (A widespread & extremely variable species in Turkey, which seems to be the repository of all the little, dark ones which cannot be placed anywhere else! We have not seen this nor the next two colls. in flower but we'll take Norman Stevens' word they may belong here.) (10+ seeds) C
- 501.802 FRITILLARIA PINARDII Turkey, Antalya, N of Kas. 1600 m. Ledges on limestone outcrops. 1.6.94 (10+ seeds) C
- 501.803 FRITILLARIA PINARDII Turkey, Konya, Gidengelmez Da. 1900 m. Steep, N-facing limestone slope. 4.6.94 (10+) C
- * 502.400 FRITILLARIA RADDEANA Ex a P. Furse coll. : Iran, Gorgan, Gulestan. c. 2000 m. From one of several seed & bulb colls. (PF 5162, etc.) made by Paul Furse in NE Iran in 1964, in what was then the royal hunting reserve. Like a dwarfier, primrose-yellow version of F. imperialis. Growable outside in the UK.) (15+ seeds) C
- 502.600 FRITILLARIA RHODOCANAKIS M. Jope coll., 1993 : Greece, Argolida, Idra, above Idra town. 150 m. (All but endemic to the island of Hydra. Usually chocolate with yellow margin. A few seeds left.) (10 seeds) F
- * 503.60 FRITILLARIA THESSALA Ex Christian & Hoog 880 : Greece, Ioanina, Smolikas above Agios Parashevi. 1500 m. Open pasture on limestone. (Flowers well chequered with red-purple in this form. The species, with its variable purplish & green flowers, is, as a whole, robust with 2 or more flowers. Easy to grow.) (20+ seeds) B
- * 503.601 FRITILLARIA THESSALA Greece, Trikala, below Katara. 1500 m. Open, W-facing slopes in stony clay. (15+) B
- * 503.700 FRITILLARIA THESSALA subsp. IONICA Ex an E. Sewell coll. : Greece, Kerkira, Pantokrator. (Usually with solitary, light-green bells, just tessellated with purple at the edges. We follow Kamari's 'splitting' classification in the 'Mountain Flora of Greece' for the variable, intergrading F. graeca group, possibly more justifiable horticulturally than botanically, as we feel it is of help to gardeners.) (20+ seeds) C
- 503.800 FRITILLARIA TUBIFORMIS France, Hautes-Alpes, Pic de Gleize NNW of Gap. 1800 m. Among grasses on steep, SE-facing slopes. 20.9.91 (Seed-bank coll., which germinated well here last winter. Large, fat, chequered, brown-purple bells on relatively short stems. Dryish in summer here so may suit the bulb-frame.) (20+ seeds) C

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- 504.700 FRITILLARIA WHITTALLII Turkey, N of Kas to Elmali. 1600 m. Opening among Cedrus in pocket of black soil mixed with limestone talus. 1.6.94 (A significant coll. of this exceptionally local species, only known from about four other sites, in a new locality. It seems limited to isolated patches of humus-rich scree at about the tree-line of cedar forest. Around 20 cm. high with linear leaves and straight-sided bells in green, heavily chequered with dark-brown inside and outside. Increases by bulblets.) (10+ seeds) E
- 507.300 GAGEA FIBROSA Turkey, Hatay, E of Belen. 1250 m. Stony areas & fissures on limestone outcrop. 8.6.94 (One of the few members of this confusing genus which can almost be called spectacular - umbels of starry, yellow, green-backed flowers on long pedicels. The long, acuminate perianth-segments persist in seed - "one of the largest & most striking" writes Dr. M. Rix, who has kindly identified this for us.) (20+ seeds) B
- * 509.300 GALANTHUS REGINAE-OLGAE Greece, Messinia, Oros Taigetos, Langadas Pass. 1200 m. Deep humus under Platanus. (Hand-pollinated seed from the type-race of this lovely snowdrop with flowers in autumn before the leaves. The Turkish plants which we listed from a P. & P. Watt coll. under the reference 509.305 have since been placed under a new species *G. peshmenii*. Likes a drier period in summer than most Galanthus.) (10+ seeds) C
- * 531.802 GLADIOLUS ANATOLICUS Turkey, Adana, Nur Da. above Hasanbeyli. 1100 m. Among deciduous Quercus scrub on W-facing slope. (Showy, purple-pink S Turkish endemic proving quite easy to grow in S England.) (20+ seeds) B
- * 531.902 GLADIOLUS ANPAKIENSIS Turkey, Hakkari, Zap Gorge near Bagisli. 1500 m. Stony clay, among sparse Quercus. (A rather nice pink species which seems to fit here, though current classification is woolly.) (20+ seeds) B
- 532.503 GLADIOLUS ITALICUS M. Jope coll., 1993 : Greece, Kefalonia, near Sami. (Easily grown purple-pink.) (20+) A
- * 532.601 GLADIOLUS KOTSCHYANUS Turkey, Van, NNW of Baskale. 3000 m. In turf by streams & in alpine-meadows. (Pale lilac with darker blotch. A dainty plant, easy in a pot and should grow well outside in the UK.) (20+ seeds) B
- * 532.602 GLADIOLUS KOTSCHYANUS Turkey, Erzurum, Kop Da. above Askale. 2400 m. Wet-flush among Salix & Betula. (Rich purple-red form, dwarf in the wild but has grown larger in cultivation.) (20+ seeds) B
- 551.000 HANNONIA HESPERIDIUM J.W. Blanchard 93-04 : Morocco, S of Chichaoua. Banks of dry river-bed. (A small member of the Amaryllidaceae, allied to Narcissus, endemic to NW Morocco but not found in adjacent S Spain. Autumn-flowering, it often grows in coastal limestone fissures & may be best frost-free.) (15+ seeds) D

HELLEBORUS

We are grateful to Will McLewin for a superlative range of SE European hellebore seed. This, supplemented by our own Turkish colls. and some material from Georgian and Croatian botanists, enables us to list an extremely representative range of this genus, mainly from wild material. In fact we are only missing the species from China and the two Bosnian subspecies of *H. multifidus*. As this list is being sent out a little later than planned, please ensure that you send your order without delay if you are interested in any of this seed. There is still plenty time for sowing for southern hemisphere customers but those of us in the northern hemisphere cannot delay. With late-sown seed germination may not occur until the following winter. Soaking seed in hot (not boiling) water and leaving it at room-temperature for a day or so before sowing may help germination the first winter after sowing. We have been brief with information on each collection and recommend reference to 'Hellebores' by Brian Mathew, or failing that 'The Gardener's Guide to Growing Hellebores' by Graham Rice & Elizabeth Strangman, for more detailed information on each species. While we accept that the classification proposed by the former - and accepted by the latter - is a reasonable compromise, we should stress that the species in Section *Helleborastrum* seldom comply with the criteria used to divide them into the artificial concept of "species" - flower colour, overwintering leaves and free or joined carpels are not always consistent features. Most colonies are extremely variable and there is a great deal of intergradation.

- 560.001 HELLEBORUS ATORUBENS W. McLewin 94-11 : Slovenia, near Novo Mesto. (Very variable in foliage & colour, this is one of the most local and least-known of the Balkan species. Not all are purple.) (10+ seeds) E
- 560.628 HELLEBORUS CYCLOPHYLLUS WMP 94-12 : Macedonia. (Not usually quite so well defined here as in Greece.) (10+) B
- 560.700 HELLEBORUS CROATICUS W. McLewin 94-16 : Croatia, near Osijek. Regarded by Brian Mathew as a synonym of *H. torquatus*, Will thinks this recently described taxon might be best placed at infraspecific level under *H. atrorubens*. Extremely local in the wild, this is a type locality coll. from E Croatia. (10+ seeds) E
- 560.801 HELLEBORUS DUMETORUM W. McLewin 94-05 : Slovenia, near Maribor. (Reputedly a good garden-plant - quite a distinct, dainty species of mature, deciduous woodland, here growing near the Austrian border.) (10+ seeds) D
- 560.802 HELLEBORUS DUMETORUM W. McLewin 94-13 : Hungary, Vertes Mts. W of Budapest. (May be type-locality.) (10+) D
- * 561.400 HELLEBORUS LIVIDUS Ex a D.M. Hoskins coll. : Spain, Islas Baleares, Mallorca, NE of Andratx. 100 m. In limestone talus among Rosa scrub at base of cliffs. (Untoothed, silver-veined, purple-backed leaves and cream-green flowers flushed with pink. A very beautiful, caulescent species, usually less than 30 cm. high, best grown shaded & frost-free but will survive in a sheltered site outside in the UK.) (15+ seeds) C
- 561.704 HELLEBORUS MULTIFIDUS subsp. ISTRIACUS W. McLewin 94-21 : Croatia, near Buzet. (This tends to intergrade with *H. odoratus* further N - this & the next are from populations well into the Istrian Peninsula.) (15+) D
- 561.705 HELLEBORUS MULTIFIDUS subsp. ISTRIACUS WMP 94-11 : Croatia, Ucka. (From NE Istria.) (15+ seeds) D
- 561.806 HELLEBORUS NIGER W. McLewin 94-19 : Slovenia, Bohinj. (From the population discovered by Will where a large percentage of the plants have flowers which flush to red shades as they mature.) (15+ seeds) D
- 562.005 HELLEBORUS ODORUS W. McLewin 94-14 : Hungary, Pilis Mts. (Hungarian populations of all the species tend to be more isolated and more homogeneous than those to the S - good for "true" collections!) (15+ seeds) C
- 562.405 HELLEBORUS ORIENTALIS IBT 94-01 : Georgia, N of Tblisi. (This & the following are wild colls. by a Georgian botanist - he places all the hellebores in this area under *H. caucasicus* - and may give us some insight into the variability of plants in this area. The type-locality for *H. guttatus* is around here - see Brian Mathew's article on his *H.o.* subsp. *guttatus* in 'The New Plantsman' (Sept., 1994)) (15+ seeds) D
- 562.411 HELLEBORUS ORIENTALIS IBT 94-07 : Georgia, SE of Bordzhomi. (About 200 km. W of Tblisi) (15+ seeds) D
- 562.600 HELLEBORUS PURPURASCENS W. McLewin 94-12 : Hungary, Bukk Mts. (Will tells us there are some superb clones in these populations of this predominantly Hungarian species, little-known in cultivation.) (10+ seeds) E
- 562.601 HELLEBORUS PURPURASCENS W. McLewin 94-23 : Hungary, Borzsony Mts., NE of Budapest. (10+ seeds) E

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- * 562.806 HELLEBORUS TORQUATUS 1994 cultivated seed from wild-origin plants of the Montenegrin population - mainly from W. McLewin 91-06 - from the Kolasin & Andrijevica region - our wild populations 562.802, 562.803, etc. Cultivated seedlings may have crossed to some extent with other members of Sect. Hellebor-astrum and may give an incorrect impression of the wild plants - maybe better for non-purists! (10+ seeds) E
- * 562.807 HELLEBORUS TORQUATUS 1994 cultivated seed from the Bosnian population - our refs. 562.800, 562.801, etc. - in the Vrtoce & Bosanski Petrovac area, now mostly in the 'Bihac pocket'. Mostly from dark forms, some with strong, internal veining. We doubt if this population has any affinity to the Montenegrin one. (10+ seeds) E
- 563.000 HELLEBORUS VESICARIUS Turkey, Adana, Nur Da. above Hasanbeyli. 1150 m. Among deciduous *Quercus* on shaley slope. 7.6.94 (An extraordinary relic, unlike any other in its inflated seed-capsules, up to 15 cm. long. Summer-dormant and suited to the conditions of a bulb-frame in the UK - seedlings from our colls. in the 1980's have flowered & set seed. Seed germinates irregularly and produces a cucumber-like seedling, which goes dormant without producing true-leaves. These little, first-year dormant roots can be lost through overdrying and this is the most critical period. We made 3 colls. but it varies very little.) (8 seeds) E
- 563.001 HELLEBORUS VESICARIUS Turkey, Gaziantep, E of Sackagozu. 1000 m. In terra rossa on limestone. 8.6.94 (8) E
- 563.003 HELLEBORUS VESICARIUS Turkey, Hatay, E of Belen. 1200 m. Among scrub on limestone slopes. 8.6.94 (8 seeds) E
- 563.253 HELLEBORUS VIRIDIS subsp. OCCIDENTALIS W. McLewin 94-01 : UK, Gloucestershire, near Stroud. (From an isolated and undisturbed colony of the little British race, which so readily crosses in gardens.) (15+ seeds) C
-
- * 571.000 HYACINTHELLA ATCHLEYI Greece, Evia, mainland hills opposite Halkida. 200 m. Open, limestone slope, among *Rosmarinus*, *Cistus*, etc. (An extremely local Greek endemic with dainty, sky-blue bells.) (15+ seeds) C
- * 572.300 HYACINTHOIDES REVERCHONII Spain, Jaen, Sierra de Cazorla, above source of the Guadalquivir. 1400 m. Red clay pockets on limestone cliffs. (An obscure narrow-endemic but proving easy to grow and most attractive with glossy leaves and wide-open, rich-blue flowers on 15 cm. stems. Increases well with us.) (15+ seeds) B
- 572.600 HYACINTHUS ORIENTALIS subsp. CHIONOPHILUS Turkey, Sivas, Ziyaret Tepe W of Gurus. 2100 m. Limestone crevices & among rocks. 13.6.94 (Dwarf, few-flowered hyacinth - a snow-melt plant of the high mountains in S central Turkey. Pale-blue flowers with long perianth lobes on short stems - stays neat here.) (15+ seeds) C
- * 584.301 IRIS AUCHERI - WHITE Ex KPPZ 156 : Turkey, Diyarbakir, NW of Diyarbakir. 800 m. Field with deep clay, flooded in spring. (Hand-pollinated between 2 outstanding, pure-white clones selected wild.) (5 seeds) F
- * 584.302 IRIS AUCHERI - DEEP PURPLE Ex KPPZ 157 : field data as above. (Hand-pollinated between 3 clones in deep blue-purple with only a very thin white stripe on the falls - "an amazing plant" writes Henrik Zetterlund. Like the preceding, selected from the famous Leylek station population of this "juno".) (5 seeds) F
- 585.601 IRIS CAUCASICA subsp. TURCICA Turkey, Gumushane, Kop Da. 2500 m. Stony, igneous slopes. 28.7.88 (Seed-bank coll. which gave reasonable germination here last winter. Pale yellow "juno" for the specialist.) (10 seeds) E
- * 589.800 IRIS ILLYRICA Croatia, E of Senj. 100 m. Among *Juniperus* on steep, limestone slopes. (Slender, deep purple bearded iris - about 50 cm. high - possibly no problem in a hot, dry site in the UK.) (15+ seeds) B
- * 590.400 IRIS LATIFOLIA France, Hautes-Pyrenees, Vallee d'Ossoue. 1500 m. Steep, stony, limestone slopes. (Summer flowering with 60 cm. stems of large violet-blue flowers marked with gold. Outside in UK.) (15+ seeds) B
- * 592.504 IRIS PERSICA Ex J. Persson 87-58 : Turkey. (Hand-pollinated - brown to plum-purple shades) (6 seeds) E
- * 592.505 IRIS PERSICA Ex material coll. Turkey, Van. (Hand-pollinated - blue-greens.) (6 seeds) E
- 592.506 IRIS PERSICA Turkey, Malatya, SW of Dogansehir. 1500 m. Open limestone slope. 11.6.94 (6 seeds) E
- * 596.802 IRIS SCHACHTII Ex a N. Stevens coll. : Turkey, Malatya, WNW of Darende. 1500 m. (A very fine, dwarfish bearded iris - we have never seen any sign of it flowering (or fruiting) in this area but it is excellent in cultivation - bulb-frame best - in the UK. Seed from both dull purple and yellow forms.) (10+ seeds) C
- * 598.802 IRIS STENOPHYLLA Ex KPPZ 346 : Turkey, Konya, NE of Beysehir. 1500 m. (Violet-blue "juno".) (5 seeds) F
- * 598.803 IRIS STENOPHYLLA Ex KPPZ 355 : Turkey, Konya, SW of Beysehir. 1150 m. (5 seeds) F
- * 599.001 IRIS STENOPHYLLA subsp. ALLISONII Ex J. Persson 87-12 : Turkey, Antalya, near Gundogmus. 1000 m. (Hand-pollinated seed of this distinct, disjunct race, described in 1981 & barely known in gardens.) (6 seeds) F
- 599.800 IRIS TAOCHIA Turkey, Erzurum, NE of Oltu. 1300 m. Steep, stony, igneous slopes. 22.7.88 (Seed-bank seed which gave reasonable germination here last winter. Bearded iris in both yellow & purple.) (10+ seeds) C
- 601.400 IRIS XIPHIDIUM Spain, Jaen, Sierra de Cazorla, E of Puerto de las Palomas. 850 m. Open, wet slope among grasses & rushes. 13.9.91 (Seed-bank coll. - excellent germination here. Clear lilac-blue.) (15+ seeds) B
- * 630.450 LEUCOJUM ROSEUM France, Corsica, Pointe de Revellata NW of Calvi. Pockets on granite. (Delicate, tiny, autumn-flowering bulb with shell-pink bells - best in 'cyclamen conditions' under glass in UK.) (15+ seeds) B
- * 632.600 LILIUM CANDIDUM Greece, Lakonia, foothills of Oros Taigetos W of Sparti. 500 m. Steep, limestone slopes among *Euphorbia*, *Phlomis*, etc. (We have some superb hand-pollinated seed this year of this stunning, pure white lily, grown from wild seed we collected in 1983. It survives outside in our wet climate but we must grow it under glass for a good seed set. This is best sown as early as possible so we list it now but other *Lilium* species will be included in our winter list. A chance to grow fertile, virus-free stock.) (15 seeds) C
- MERENDEIRA We include these colchicums with their perianth segments free to the base under Colchicum, q.v.
- * 688.101 MUSCARI AUCHERI Ex N. Stevens 2541 : Turkey, Bolu near Abant golu. 1000 m. (An interesting and striking bicoloured form with mid-blue and white flowers - short, neat foliage.) (20+ seeds) A
- 688.500 MUSCARI BOURGAEI Turkey, Denizli, Honaz Da., SE of Denizli. 1700 m. Summit of exposed ridge - gravelly areas on limestone. 29.5.94 (W Turkish endemic new to us and most promising in seed. Distinct glaucous foliage with a pale central stripe & scapes to about 10 cm. with bright-blue to violet-blue flowers with paler lobes. Very dwarf in this site - a high mountain plant only recorded above 1500 m.) (20+ seeds) B
- * 688.600 MUSCARI CAUCASICUM Turkey, Kars, SSW of Sarikamis. 1800 m. Stony, igneous slopes. (Handsome *Leopoldia* with a striking coma of amethyst-violet sterile flowers. Extends across Transcaucasia into NW Iran.) (15+ seeds) A
- 689.300 MUSCARI DISCOLOR Turkey, Sivas, Ziyaret Tepe. 2100 m. Exposed limestone gravels. 13.6.94 (Tiny high-alpine independently assigned by Dr. Kit Tan & Dr. K. Persson to this S steppe species. Black-blue.) (15+ seeds) B

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- 746.705 PAEONIA MASCULA (subsp. *mascula*) A. King 216 : Cyprus, Olympus (Khionistra), W of summit (1950 m.). Pine woods. 1994 coll. of 1993 seed. (Peony seed matures late & the colonies are always extremely local - we are very grateful to Alan King for making this rose-red species available from an odd locality.) (8 seeds) C
- * 801.000 PULSATILLA MONTANA Slovenia, NW of Permani (WNW of Rijeka). 500 m. Open karst & on slopes of dolines. (Black-violet bells - most distinct from the *P. vulgaris* group. Proving an excellent plant in the open garden with Dinah Batterham (Dorset, UK) who sent this 1994 seed. Choose a dry, limy place.) (15+ seeds) B
- 813.400 RANUNCULUS CADMICUS Turkey, Denizli, Honaz Da., SE of Denizli. 1700 m. Exposed ridge - gravelly soil over limestone. 29.5.94 (We are grateful to Norman Stevens for drawing our attention to this little, tuberous, summer-dormant, snow-melt plant, which he had seen on a previous visit. Seed drops while still green but we have found no problem germinating such seed from species from similar habitats. A few cm. high with pedately cut leaves and bright yellow flowers. Known only from between 1600 and 2500 m. on a few SW Turkish mountains, this coll. is from Boissier's 1842 type-locality. For the alpine-specialist.) (20+ seeds) E
- * 873.650 SCILLA HOHENACKERI Ex P. Furse 1064 : Iran, Mazendaran, S of Chalus. (Paul Furse's "Caspian Bluebell", a delightful, early-flowering bulb with soft violet-blue flowers with reflexed segments. It often grows in quantity in crevices on large limestone boulders in the Caspian woodland - hardy in the UK.) (10+ seeds) B
- * 873.800 SCILLA HYACINTHOIDES Ex a N. Stevens coll. : Turkey, Siirt, NW of Siirt. c. 1000 m. Wet places & stream-sides. (Norman's giant form - up to 2 m. high with cylindrical racemes of blue flowers.) (15+ seeds) B
- * 874.400 SCILLA LILIO-HYACINTHUS France, Hautes-Pyrenees, N of Col du Pourtalet. 1500 m. Deciduous woodland. (Easy garden-plant in UK with attractive, lush, glossy foliage and racemes of starry pale-blue flowers.) (15+) A
- * 874.800 SCILLA LITARDIERI Bosnia & Hercegovina, above Dubrovnik to Trebinje. 500 m. Fragmented limestone. (Heads of starry, pale-blue flowers on 20 cm. stems. Local in nature but hardy in a sunny site in UK.) (15+ seeds) A
- 875.000 SCILLA MELAINA Turkey, Hatay, E of Belen. 1300 m. Fissures on & at base of limestone cliffs. 8.6.94 (More or less endemic to the Amanus Mts. & maybe closest to *S. mischtschenkoana* (= *S. tubergeniana*) but with prussian-blue flowers. Little-known in cultivation but should be perfectly hardy in UK.) (10+ seeds) C
- * 875.200 SCILLA MESSENIACA Greece, Messinia, S of Kardamili. 30 m. Shaded places among limestone rocks. (Another very local species easily grown with protection in UK though surprisingly temperature-hardy. Racemes of pale-blue flowers - nearest to *S. bithynica* but confined to the tail-end of the Taigetos Mts.) (15+ seeds) B
- * 876.501 SCILLA PERSICA Ex a N. Stevens coll. : Turkey, Hakkari, Beyaz Da. SSE of Yuksekova. c. 2200 m. Wet places. (Racemes of many blue flowers, about 40 cm. high. A plant of water-meadows, drying out later.) (15+ seeds) B
- * 876.800 SCILLA PERUVIANA Ex an A. Edwards coll. : Spain, Cadiz, near Grazalema. (Spectacular, W Mediterranean species, up to 50 cm. tall, with large, conical racemes of violet-blue flowers. Hardy in UK.) (10+ seeds) A
- * 878.000 SCILLA VERNA Spain, Avila, Sierra de Gredos SW of Hoyos de Espino. 1700 m. Moist turf on open slopes. (Racemes of starry, lilac-blue flowers - this mountain, snow-melt form has stayed dwarf here.) (15+ seeds) A

STERNBERGIA CANDIDA

This extraordinary species, flowering in January & February, remained unknown until, in May 1976, Oleg Polunin hired a motor-cycle in Fethiye and took the dirt-road up Baba Dag, SE of the town. He found this *Sternbergia* in fruit and collected bulbs, which flowered the following year in cultivation. Its pure white flowers immediately placed it apart from all other members of this yellow-flowered genus and Brian Mathew prevailed on Professor Baytop of Istanbul University to visit the site the following year. It was not until 14 January, 1979, however, that Baytop found it in flower and collected the type specimens. It was described in July, 1979, and Brian subsequently, sensibly arranged for a small number of collected bulbs to be distributed to some experienced bulb-growers. By May, 1981, however, it was being exhibited for sale at Chelsea and several hundred bulbs had entered the British market. Since then, it has become a vanguard-species for professional conservationists and was the subject of an article in the September, 1993 A.G.S. Bulletin by Andy Byfield, a botanist financed by the World Wide Fund for Nature. He claims that in 1990 at least 250,000 bulbs of this species were dug-up in Turkey. All we can tell you is that they were not dug-up here in the type-locality. It was especially interesting to be able to visit this site in the company of Norman Stevens who had seen it here before the initial 600 bulbs were extracted and to be shown where it had grown in massive clumps among the cedars. Incidentally, none of these figures 'tie-in' with Brian's information that "it is obviously a very rare plant since Polunin (pers. comm.) records seeing only one clump of bulbs and Baytop notes that the population is quite small." It is not recorded whether their observations were made at the beginnings or ends of their respective visits. The clumps under the cedars are regenerating and appear to be currently undisturbed but it was particularly interesting to clamber up an adjacent slope and find it in considerable quantity inextricably jammed into limestone fissures. In this site, the species is in no way threatened and could only be eliminated by destruction of its habitat. Like many local species, it is locally abundant and, while extremely limited in its distribution, almost certainly grows in a number of similar habitats within its range. There never was - nor will there ever be - any reason for the collection of bulbs in great numbers, however. Norman has maintained and propagated stock from seed set in cultivation over many years - all that was needed in the first place was a widely distributed batch of seed. Such seed is now available - it is not a difficult plant to grow in a bulb-frame in the UK.

- 933.000 STERNBERGIA CANDIDA Turkey, Mugla, Baba Da. SE of Fethiye. 1100 m. Limestone crevices, ledges and talus on steep slopes with sparse *Cedrus*. 27.5.94 (Robust with large, scented white flowers in spring.) (10 seeds) E
- 969.200 TULIPA ARMENA (var. *armena*) Turkey, Erzurum, Palandoken Da. between Erzurum & Cat. 2500 m. Rock detritus on open slope. 22.7.88 (Seed-bank seed which germinated well here last season. Stunning scarlet.) (20+ seeds) B
- 969.201 TULIPA ARMENA - YELLOW Field data as above - from selected soft-yellow forms. (15+ seeds) C
- 969.252 TULIPA ARMENA var. LYCICA Turkey, Antalya, above Yarpuz N of Akseki. 1400 m. Steep limestone slopes with *Quercus* & *Pinus*. 4.6.94 (The SW race - scarlet with a yellow-rimmed black blotch but variable.) (15+ seeds) B
- 969.253 TULIPA ARMENA var. LYCICA Turkey, Kahramanmaraş, SSE of Goksun. 1550 m. NE-facing limestone. 12.6.94 (15+) B
- 969.400 TULIPA BIFLORA Turkey, Van, NNW of Baskale. 2700 m. Gneiss scree on steep slopes. 20.7.88 (Excellent germination here last winter. An extremely fine race of this variable species (*T. polychroma*, etc. are all thrown together here) - white, often purplish on the reverse, with large yellow centres. Dwarf.) (20+ seeds) B
- 969.600 TULIPA CRETICA P. & P. Watt coll. : Greece, Crete, Hania, Akrotiri NE of Hania. 100 m. In terra rossa. (Prostrate, narrow, red-edged leaves. Pink-backed flowers - white with a yellow base inside.) (20+ seeds) C
- 970.600 TULIPA ORPHANIDEA Turkey, Antalya, N of Kas. 1600 m. Ledges on outcropping limestone cliffs. 1.6.94 (Almost certainly this variable species (includes *T. whittalli*, *T. hageri*, etc.) - orange-red.) (15+ seeds) B

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SECTION III : SEEDS FROM CULTIVATED PLANTS & OTHER AREAS

- ALBUCA HUMILIS Dwarf, S African bulb. Uprturned, almond-scented, green & white snowdrops. Almost hardy. (20+ seeds) B
- ALLIUM ACUMINATUM Very hardy W N American. Rose-pink umbels. 15 cm. Well-behaved in the bulb-frame. (20+ seeds) A
- CAESIUM Extremely fine, rich-blue form, originally from Tashkent BG. No bulbils in the flower-heads. (20+ seeds) B
- DICHLAMYDEUM From an outstanding, deep-coloured clone grown by Kath Dryden - selected by Wayne Roderick. (20+) B
- SUWOROWII Bulbous Central Asian with hemispherical umbels of rose-violet stars. Up to 1 m. high. (20+ seeds) A
- ARUM CONCINNATUM The type-form from Mike Tucker's plant painted for Plate 3 in the 'Genus Arum'. (10 seeds) B
- CRETICUM Elegant, bright-yellow spathes scented of violets. Good garden-plant in a hot, dry site. (10 seeds) B
- CYRENAICUM Striking large spathes, purple inside. Tender Libyan relative of *A. palaestinum*. (10 seeds) B
- ITALICUM subsp. ALBISPATHEM Very large, membranous, greenish-white spathes. Hardy in light shade. (10 seeds) B
- ORIENTALE (subsp. *orientale*) Huge, boat-shaped, brown-purple spathes. One of the finest of all. (10 seeds) B
- RUPICOLA var. VIRESCENS (= *A. conophalloides*) Green spathes with massive spadices. Tall & vigorous. (10 seeds) B
- BABIANA STRICTA Dwarf, blue-violet to red-violet S African. From corms grown outside in Devon, UK. (20+ seeds) A
- BELLEVALIA WEBBIANA N Italian endemic, near *B. romana*. Deep purple flowers mature to brown. About 30 cm. (10+ seeds) B
- BLANDFORDIA PUNICEA Tasmanian endemic, hardiest of the genus. Scarlet, orange-tipped bells. 60 cm. (20+ seeds) C
- CALOCHORTUS ALBUS From cultivated forms of this Fairy Lantern. Elegant, pendant, white flowers. Easy. (20+ seeds) A
- LUTEUS From a superb, large, soft creamy-yellow clone - may be a hybrid with *C. superbus*. (10+ seeds) B
- SUPERBUS From a variety of cultivated forms, including lilac & purple-tinged clones. (20+ seeds) A
- VENUSTUS Mostly from finely marked pure-whites. Some pinkish but no reds. Splendid & easy to grow. (20+ seeds) A
- CAMASSIA LEICHTLINII - WHITE From an excellent creamy white clone - a robust and striking garden-plant. (20+ seeds) B
- CARDIOCRINUM GIGANTEUM Stems can tower to 4 m. with funnel-shaped, fragrant, white flowers. Woodland. (20+ seeds) B
- YUNNANENSE Shorter (2 m.), purple-stemmed Chinese race - terminal flowers open first. Rich & moist. (20+ seeds) B
- CLEMATIS : Some very interesting wild colls from Terry Hatch (New Zealand) & Marcus Harvey (Tasmania). Several of these southern species are proving quite hardy in the UK. All Australian & NZ seed has been refrigerated.
- CLEMATIS AFOLIATA Coll. Palliser Bay area, NZ. Fine, scented, cream to lemon-yellow forms. Bushy. 1 m. (15+ seeds) C
- ARISTATA Coll. Mt. Wellington, Tasmania - grows to 600 m. here. Climber with creamy-white flowers. (20+ seeds) B
- CUNNINGHAMII Coll. Great Barrier Is., NZ. Sparkling green flowers - "a gem". Climbing to 2 m. (15+ seeds) D
- FOETIDA Coll. Tai Hape, NZ. Lemon-scented, yellow flowers. 2 m. Should be frost-hardy from this area. (15+ seeds) C
- GENTIANOIDES Coll. S Hobart, Tasmania. Starry, white, scented flowers. Dwarf, herbaceous. 30 cm. (20+ seeds) B
- HOOKERIANA Coll. Palliser Bay, NZ. Strongly scented, pale-green climber. Lumped into *C. forsteri*. (15+ seeds) D
- NAPAULENSIS Our seed of this N Indian, winter-flowering climber. Cream with purple stamen. 3 m.+ (20+ seeds) B
- PANICULATA Coll. Tararua foothills, NZ. "Very good form" - white with yellow stamens. Climber. 3 m. (20+ seeds) B
- CLINTONIA ANDREWSIANA From an exceptionally deep-coloured, wine-red clone of this W N American, redwood-forest endemic. Steely-blue fruits on 30 cm. stems. Cool, humus-rich site or peat-bed. Slow but hardy in UK. (8 seeds) E
- CODONOPSIS CONVOLVULACEA Exquisite, summer-growing, tuberous climber. Wide-open blue bells marked crimson. (30+) B
- OBTUSA Lumped into *C. clematidea* but this PF coll. from Afghanistan is distinct. Grey-blue bells (30+ seeds) A
- COLCHICUM AUTUMNALE Lovely, autumn-flowering European meadow-plant. Lilac-pink. Naturalises in UK. (30+ seeds) A
- CORSICUM Lilac-pink, unchequered flowers in autumn. Narrow, lanceolate leaves. Hardy. (20+ seeds) B
- CROCUS BIFLORUS GROUP : DBS 93-10 Coll. Turkey, Mugla, Gok Tepe. David Stephens has now flowered some collected corms & neither he nor Brian Mathew can pronounce yet. Appears to be a hybrid-swarm of several spp.) (15+ seeds) C
- SPECIES - DIDIMA Coll. M. Jope : Greece, Argolida, near Didima. Another anomaly under investigation! Received last year from Melvyn as *C. cancellatus*, we did not list it as seed was not typical of *C. cancellatus*. This may be the plant mentioned in Brian Mathews monograph (p. 65) under *C. sieberi*. Melvyn has since been back to the site when some plants were in flower (in autumn); some have flowered in spring in cultivation! (10+ seeds) D
- FLAVUS (subsp. *flavus*) Not the big Dutch yellow! Lovely orange-yellow wild form. Spring. Hardy. (15+ seeds) B
- HADRIATICUS Autumn-flowering Greek species - usually white with orange-red style. Bulb-frame. (15+ seeds) C
- KOTSCHYANUS (subsp. *kotschyanus*) Ex an Erich Pasche coll. in Turkey. Blue-lilac. Autumn. Hardy & easy. (20+) A
- NUDIFLORUS Lovely, Pyrenean, autumn-flowering species. Purple. Best grown outside, undisturbed in UK. (15+ seeds) C
- OREOCRETICUS Autumn-flowering Cretan endemic with lilac to purple flowers. Bulb-frame in UK. (15+ seeds) C
- CYCLAMEN Like most summer-dormant species, these germinate at low temperatures and, if sown too late, may not come up until they have experienced a temperature-drop over the following year. Northern hemisphere customers should order as soon as possible & sow as soon as possible after receipt. Soaking seed in hot (not boiling) water & leaving for at least 24 hours at room-temperature before sowing appears to aid germination. For further information on each species, C. Grey-Wilson's monograph (1988) is a reliable and unrivalled reference work.
- CYCLAMEN CILICIMUM Excellent, little, hardy, autumn-flowering, red-nosed pink. Sun & good drainage. (20+ seeds) A
- CILICIMUM - WHITE, PINK NOSE From a clone given to us by Ken Aslet from a Peter Davis coll. (10+ seeds) C
- COUM - MIXED FORMS From a wide range - pinks, reds & whites. Both plain & marked foliage. Hardy. (15+ seeds) A

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- CYCLAMEN COUM - SELECTED LEAVES** From clones with particularly well-marked foliage. Both pinks & reds. (15+ seeds) B
- COUM - PEWTER LEAVES** Mainly from white 'Maurice Dryden' but including other silvery-leaved forms. (15+ seeds) D
- CYPRIMUM** Late autumn-flowering white with pink nose. Tender & enjoys a hot, dry rest in summer. (15+ seeds) B
- FATRENSE** Race of *C. purpurascens* with thick, plain green leaves, from Slovakia Not easy but hardy. (10+ seeds) D
- GRAECUM** Pink flowers in autumn. Deep pot or plant-out under glass in UK. Hot & dry in summer. Tender. (15+ seeds) B
- hederifolium** The unrivalled, hardy, autumn-flowering species. From both pinks & whites. (20+ seeds) A
- hederifolium f. ALBUM** From whites only - often more vigorous than the pinks. (20+ seeds) B
- hederifolium 'APOLLO'** A 'strain' derived from Bowles' plant at Wisley. Unrivalled silver patterns. (15+ seeds) C
- hederifolium 'WHITE APOLLO'** Developed by D. Hoskins. Will give plenty whites with 'Apollo' leaves. (15+ seeds) C
- hederifolium - SILVER LEAVES** From Jim Almond - distinct from Phil Cornish's 'Silver Cloud' (15+ seeds) C
- INTAMINATUM** Tiny, autumn-flowering white. From a range of patterned leaf-forms. Perfectly hardy. (20+ seeds) A
- INTAMINATUM - PLAIN LEAVES** Altogether more robust with dark-green leaves, like a plain-leaved *C. coum*. (20+ seeds) B
- LIBANOTICUM** Sumptuous, spring-flowering pink. Rather tender in UK and needs some shade under glass. (15+ seeds) B
- LIBANOTICUM - WILD FORM** Originally from two tubers coll. by E. Hodgkin in the Lebanon - distinct with deeper pink elongated flowers and beautifully marked leaves, often pink-flushed. Not quite so easy to grow. (10+ seeds) D
- PERSICUM** From both pinks and red-nosed whites. Tender & needs a warm summer-rest. Beautiful leaves. (15+ seeds) B
- PERSICUM - DEEP PINK** Derived from a clone coll. by Dr. B.K. Blount. Reasonable proportion come 'true'. (15+) C
- PSEUDIBERICUM** Stunning, spring-flowering, vivid magenta species. With shelter can be grown outside. (15+ seeds) C
- PURPURASCENS - SILVER LEAVES** Derived from a few wild tubers coll. by Manfred Koenen near Limone on Lake Garda, N Italy. Rounded leaves almost entirely suffused with silver - a good proportion come 'true'. (15+ seeds) D
- DAPHNE ALBOWIANA** Not supposed to be in cultivation. Kath Dryden had this from Eliot Hodgkin... (8 seeds) D
- DELPHINIUM SEMIBARBATUM** (= *D. zalil*) Pale yellow, tuberous-rooted Central Asian. Bulb-frame in UK. (20+ seeds) B
- DICENTRA SPECTABILIS 'ALBA'** From the beautiful, pure-white Bleeding Heart. Good, rich soil in shade. (10+ seeds) B
- DIERAMA PAUCIFLORUM** Ex Compton, d'Arcy & Rix (CD & R) 192 : RSA, NE Cape, Naude's Nek. 2500 m. Wet, peaty soil. One of the best recently introduced garden-plants here. A good-grower, profuse flowerer and absolutely hardy with us. Clumps of grassy leaves with many wiry stems of bright purple-pink bells from amid papery, rust-brown bracts. Flowers much earlier than any other here (so this seed will be pure) and stays neat at under 50 cm. (15+ seeds) C
- DIPLARRHENA MORAEA** Tasmanian relative of *Libertia*, quite hardy in UK. White, lilac-flushed flowers. 50 cm. (20+) A
- ERYTHRONIUM REVOLUTUM** One of the best for UK gardens - variable pinks from Peter Chappell (Hants., UK). (15+ seeds) B
- FREESIA ALBA** (= *F. refracta*) Deliciously scented parent of the hybrids. White, yellow throat. Frost-free. (10+) B
- FRITILLARIA ACMOPETALA** Elegant green & maroon bells. Easy in sun & well-drained soil in UK. 40 cm. (20+ seeds) A
- BUCHARICA** Central Asian with racemes of up to 10 open bells, white tinted green. Bulb-frame in UK. (15+ seeds) C
- GIBBOSA - GORGAN FORM** This is the race which may establish this temperamental pink-flowered species widely in cultivation - a good 'doer' with up to 12 flowers on robust stems. Paul Furse mentions finding this in 1964 "in varying shades of brick-pink or even apricot-pink" in the same area of NE Iran as the growable *F. raddeana*. Only for the bulb-frame in UK & maybe best started late. Some excellent seed grown by Martyn Rix (Devon, UK) (10 seeds) E
- LUSITANICA** A vigorous form grown by D. Hoskins - no data. Yellow-green and brown. 30 cm. (20+ seeds) A
- PALLIDIFLORA** Splendid, very hardy Central Asian. Big, pale-yellow bells. Greyish leaves. 50 cm. (20+ seeds) B
- PONTICA** Easy outside in UK in a cool, moist site. From an apple-green & lime-yellow form. 30 cm. (20+ seeds) A
- PURDYI** From various forms without data. Exquisitely marked waxy bells. Easier than most Americans. (20+ seeds) C
- GLADIOLUS CARDINALIS** Spectacular crimson with white flash. S African best grown frost-free - never dry. (15+ seeds) B
- MACULATUS** subsp. **MERIDIONALIS** Lovely, salmon-flowered winter-grower from the Cape. Frost-free. (15+ seeds) B
- HELLEBORUS** : We repeat comments made in Section II & under *Cyclamen* - it is becoming late for the ideal sowing time. Please order as soon as possible if you are interested in these plants. Sow as soon as you can - soaking in warm water, as recommended for *Cyclamen* may help ; stand or plunge outside and protect from mice ; after germination progress will be more rapid with some protection. Late sown seed will not germinate until the following winter. Acceptable results have been reported by N Hemisphere growers & good results can be expected from sowing after midsummer in the S Hemisphere for germination the next winter. Seed here is from ourselves, Dinah Batterham & Will McLewin (EC gardeners wanting plants to colour & vegetatively propagated species can contact the last at Phepar Nursery, Bunkers Hill, Romiley, Stockport, Cheshire, England. SK6 3DS - despatch in spring each year.)
- HELLEBORUS ARGUTIFOLIUS** Corsican endemic with spectacular toothed foliage. Big heads of green flowers. (20+ seeds) A
- FOETIDUS 'SOPRON'** Fine Hungarian form with metallic, lead-green foliage & feathery bracts. (20+ seeds) B
- NIGER** The lovely white Christmas Rose. Likes our Welsh climate but not always easy to grow well. (20+ seeds) A
- HELLEBORUS X HYBRIDUS** The garden hybrids of Sect. *Helleborastrum* cannot be relied on to come true to colour. We have kept them in colour-groups or under parents' names to indicate what is most likely to materialise. Many published illustrations are derived from photographs taken with studio-lighting or electronic flash, which tend to produce an effect not discernible to most eyes. Those of us who grow hellebores enjoy them for their subtle, muted tones - those in search of "new", more violent colours of illustrations may be disappointed with reality.
- From 'ANDROMEDA'** (and similar) Parents are fine, rounded, dark to mid-purples with few or no spots. (20+ seeds) C
- From 'COSMOS'** Outstanding, vigorous white, evenly speckled with maroon. Usually gives fine seedlings. (20+ seeds) C
- From 'PLEIADES'** From a rather dwarf clone - white with a zone of crimson speckles. (15+ seeds) C
- From 'TITANIA'** From our favourite *H. torquatus* hybrid - mushroom outside and soft-yellow inside. (15+ seeds) C
- From McLEWIN'S TM HYBRIDS** Possibly derived from *H. multifidus* & *H. torquatus* - narrow leaf-segments. (15+ seeds) C

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<u>HELLEBORUS X HYBRIDUS</u> - From <u>PURE PINKS</u>	(15+ seeds)	B	From <u>SELECTED CREAMS</u>	(15+ seeds)	B
From <u>SELECTED HEAVILY SPOTTED</u> McLewin seedlings near our 'Zodiac types' & 'Draco types'.	(15+ seeds)	C			
From <u>SELECTED WEBBED</u> Spots in heavy lines, running along the veins. Both pink and white ground.	(15+ seeds)	D			
From <u>REVERSE PICOTEE</u> Dense, merged spotting on a pale ground - solid wine-colour with thin pale edge.	(15+ seeds)	D			
From <u>SELECTED McLEWIN SEEDLINGS</u> From what Will thinks are some of his best current seedlings.	(20+ seeds)	C			
From <u>A WIDE, MIXED RANGE</u> A good 'starter', including some seed from named clones.	(20+ seeds)	A			
<u>IRIS AFGHANICA</u> In the winter of 1983 we listed our own hand-pollinated seed of this Afghan Regelia in our first seed-list. Since then we have been able to list it again on only one occasion - that time from Henrik Zetterlund in Sweden. We have now a few hand-pollinated seeds from Martyn Rix - these have as broad a genetic base as can be expected, involving both the P. Furse & Grey-Wilson & Hower colls. Native to NE Afghanistan in Kataghan prov., it is only recorded on granites & shales. Every effort should be made to maintain this from seed.	(5 seeds)	F			
<u>DECORA</u> (= <i>I. nepalensis</i>) Tuberos, 20 cm. Succession of short-lived purple flowers. Alpine-house or frame.	(10)	B			
<u>FERNALDII</u> Elegant, pale yellow Californian from UK seed grown by Alan Edwards (Surrey).	(15+ seeds)	B			
<u>FOETIDISSIMA</u> var. <u>CITRINA</u> Pale yellow form of this tough, easy garden-plant. Showy orange seeds.	(15+ seeds)	A			
<u>MILESII</u> Himalayan in Sect. Lophiris, easy & hardy here. Purple-mottled lavender-pink. 70 cm.	(10+ seeds)	B			
<u>ORIENTALIS</u> (= <i>I. ochroleuca</i>) Imposing, greyish leaves & stems to over 1 m. White with yellow signal.	(15+ seeds)	A			
<u>SEFOSA</u> From material coll. by the AGS expedition to Japan. Purple-blue. A good garden-plant in UK.	(20+ seeds)	A			
<u>SEFOSA</u> var. <u>ARCTICA</u> Dwarf form - strictly speaking an Alaskan race but applied to others in gardens.	(10+ seeds)	B			
<u>SUBBIFLORA</u> Splendid, pure-violet Portuguese Bearded Iris. 50 cm. Hot, dry site or bulb-frame in UK.	(10+ seeds)	B			
<u>TENAX</u> - <u>BLUE FORM</u> Rated as an outstanding plant for the peat-garden (in sun) by Alan Edwards.	(15+ seeds)	B			
<u>TROJANA</u> Fine W Turkish Bearded Iris. Pale-blue standards with red-purple falls. 70 cm. Hot & dry.	(10+ seeds)	B			
Subgenus <i>Scorpiris</i> - the "juno" irises. Two only for the skilled specialist. <i>I. magnifica</i> is easy to grow.					
<u>KUSCHAKEWICZII</u> Central Asian with white-crested, pale violet flowers, blotched & lined purple. 10 cm.	(5 seeds)	F			
<u>MAGNIFICA</u> The largest juno, easy in a bulb-frame or even outside in UK. Pale-blue. Up to 1 m.	(10+ seeds)	B			
<u>MARACANDICA</u> About 15 cm. with up to 4 yellow flowers. Central Asia. Hand-pollinated seed.	(5 seeds)	F			
Section <i>Oncocyclus</i> - these are all David Shahak's Israeli-grown "gene pool hybrids", an attempt to produce more vigorous, disease-resistant, artificial species by crossing & back-crossing to produce progeny like the wild parents. Seed is notoriously unpredictable - conventional sowing & patience are reliable. Under glass only in UK.					
<u>MARIAE HYBRIDS</u> From this difficult desert plant with pinkish violet flowers. Black beard & patch.	(10 seeds)	C			
<u>SUSIANA HYBRIDS</u> Purple-black veins on grey - the ancient, long-cultivated parent is virused.	(10 seeds)	C			
<u>URMLENSIS HYBRIDS</u> Our 1966 colls. of this yellow, Iranian steppe-iris were used for these.	(10 seeds)	C			
<u>IXIOLIRION TATARICUM</u> Violet-blue, funnel-shaped flowers. SW Asian bulb for a hot, dry site. 40 cm.	(15+ seeds)	A			
<u>KNIPHOFIA CAULESCENS</u> Blue-grey, yucca-like foliage. Dense, lemon-cream racemes from coral-red buds. 1 m.	(15+ seeds)	B			
<u>NORTHIAE</u> Ex CD & R 164 : RSA, NE Cape, Busterroedpad. 2000 m. Peaty, wet hillside. Another superlative, architectural foliage-plant from which we have never before obtained authentic material - it always turned out to be the preceding. Glaucous leaves much broader at the base than in <i>K. caulescens</i> and flowers much earlier in the season - a great advantage here, where we look forward to growing it. UK seed from Martyn Rix (Devon).	(20+ seeds)	B			
<u>LEUCOJUM NICAENSE</u> Delightful, pure-white bells in spring. Dwarf bulb best under glass in UK.	(15+ seeds)	A			
<u>LIBERTIA IXIOLIDES</u> Coll. 700 m. Rangiwahia, New Zealand. Iris-like foliage with white panicles. 50 cm.	(20+ seeds)	B			
<u>MELASPHAERULA RAMOSA</u> Like a tiny, yellow-green, purple-marked <i>Gladiolus</i> . Winter-growing S African. Frost-free.	(20+)	B			
<u>MORAEA ALPICOLA</u> Ex CD & R 180 (data in next list). Tallest of the high altitude species - from marshy grassland up to 2900 m. A succession of large yellow & brown flowers on 1 m. stems - "magnificent" writes A. Edwards.	(15+)	C			
<u>NARCISSUS BULBOCODIUM</u> var. <u>CITRINUS</u> Beautiful pale-yellow hoop-petticoat. Possible outside in UK.	(10+ seeds)	A			
<u>BULBOCODIUM</u> var. <u>OBESUS</u> Bright-yellow. From a free-flowering form grown by Dinah Batterham.	(10+ seeds)	A			
<u>ROMLEUXII</u> From a range of forms of this soft-yellow Moroccan hoop-petticoat. Best under glass in UK.	(10+ seeds)	B			
<u>OMPHALOGRAMMA DELAVAYI</u> KGB 800 : China, Dali Pref., Cang Shan, E side. 3850 m. Coll. in late 1993 by the Kunming - Gothenburg Botanical Expedition, one of these sumptuous <i>Primula</i> -relatives esteemed in Scottish (& we hope Welsh) gardens. Clumps of hairy leaves & long-tubed, funnel-shaped flowers with toothed margins in what Farrer describes as "fulminating violet". A classic peat-garden plant for cool, moist conditions - usually germinate well.	(15+)	D			
<u>PAPONIA CAMBESSEDESII</u> Rose-pink Balearic endemic, the dwarfest species. Alpine-house or shelter outside.	(8 seeds)	C			
<u>MLOKSEWITSCHII</u> Beautiful, pale-yellow Caucasian. Usually an excellent garden-plant in the UK.	(8 seeds)	B			
<u>PANCRATIUM ILLYRICUM</u> Large, white, scented trumpets. Quite hardy. Magnificent native of Corsica & Sardinia.	(8)	C			
<u>RHEUM ALEXANDRAE</u> KGB 767 : China, Diqing Pref., Tian Chi, lake W of Xiao Zhongdian. 3850 m. Most striking in its display of white to greenish cream, papery bracts up its 1 m. flowering-stem. Neat clumps of smooth, dark-green, leathery leaves. Can grow well in UK in good, rich, moist soil in a cool site. Like nothing else.	(20+ seeds)	C			
<u>ROSCOEIA HUMEANA</u> Exotic-looking, hooded, purple flowers. Peat-garden or moist, humus-rich soil. 30 cm.	(15+ seeds)	B			
<u>ROMULEA BULBOCODIUM</u> 'KNIGHTSHAYES FORM' Rich violet, yellow-centred 'crocuses'. A fine, hardy form.	(20+ seeds)	A			
<u>CITRINA</u> Lemon-yellow S African, 20 cm. high with about 4 flowers per stem. Winter-growing - frost-free.	(15+)	A			
<u>FLAVA</u> Widely distributed, variable S African. Pale yellow to 30 cm. tall. Frost-free.	(15+ seeds)	A			

PRICE CODE A : \$2.00 ; £1.50 ; DM4, - ; FF13. -

B : \$3.00 ; £2.00 ; DM5, - ; FF17. -

C : \$4.00 ; £2.50 ; DM6, - ; FF21. -

PRICE CODE D : \$5.00 ; £3.50 ; DM 9, - ; FF30. -

E : \$7.00 ; £4.50 ; DM12, - ; FF40. -

F : \$9.00 ; £6.00 ; DM15, - ; FF50. -

<u>ROMULEA HIRTA</u>	Another pale yellow S African, much more limited in its distribution. 20 cm. Frost-free	(15+ seeds)	A
<u>MACOWANII</u> var. <u>ALTIQOLA</u>	Summer-growing, from high in the Drakensberg. Very hardy. Brown-backed yellow.	(15+)	A
<u>SALDANHENSIS</u>	Near R. flava but with bright cadmium-yellow flowers. Local in the wild. Frost-free.	(15+ seeds)	B
<u>SETIFOLIA</u> var. <u>AGGREGATA</u>	Large-flowered race of this complex group. Gold to apricot. Frost-free.	(15+ seeds)	B
<u>SCILLA AUTUMNALIS</u>	Lilac-blue flowers before the leaves, in autumn. Easy under glass in UK. 20 cm.	(20+ seeds)	A
<u>SUTHERLANDIA MONTANA</u>	Ex CD & R 151 : RSA, NE Cape, Naude's Nek. c. 2000 m. Gravelly, basalt roadsides. (This showy balloon pea has been subject to a considerable amount of publicity since its introduction in 1988. There is a fine painting of it from this coll. reproduced in 'The Plantsman' of September, 1992, along with a detailed account ; it is featured in the September, 1994, issue of 'The Garden'. Possibly the hardiest of the genus, it has proved reasonably frost-resistant in the UK, if grown in a sunny, well-drained site. It is not long-lived but is easily grown from seed. Erect, shrubby stems to about 1 m. with a spectacular display of scarlet pea-flowers in summer, followed by large, inflated, pale-green seed-capsules. Soak seed in hot water.	(15+ seeds)	B
<u>TRICYRTIS HIRTA</u> FORM	From a distinct, upright form, laterally branched like a Christmas tree, found growing wild in Japan by Don Elick : Ichi un sai Gorge, Shizuoka Pref. 250 m. Try in a cool, shaded site.	(10+ seeds)	D
<u>MACRANTHOPSIS</u>	Very local, specialised Japanese endemic. Pale-yellow flowers. Humidity, shelter & shade.	(10+)	E
<u>TROPAEOLUM PEREGRINUM</u>	Free-growing, short-lived climber with bright-yellow flowers. Sow direct in spring.	(10 seeds)	A
<u>SPECIOSUM</u>	Stunning, hardy, scarlet Chilean climber. Cool & moist in rich, peaty soil.	(8 seeds)	B
<u>TULIPA STAPFII</u>	Spectacular, scarlet Iranian. Dwarf with wavy-edged foliage. Hot & dry in bulb-frame in UK.	(15+)	C

THE BACK-YARD

If you live in the EC, your back-yard has been and may continue to be threatened. In 1992, subsequent to the publication of an EC Draft Regulation on Wild-life Trade, we wrote at some length regarding the attitudes of those professionally engaged in "conservation" to gardening and implored gardeners to project a more positive image of themselves. This EC Draft more or less attempted to absorb the Berne Convention and Habitats Directive into existing CITES legislation. Member states would have been obliged to implement it through national legislation. Under this legislation, the freedom of gardeners to grow any species they wish to would have been considerably restricted. "Possession and sale are prohibited" in the case of many species widely grown in gardens. Among species familiar to many of you, possession and sale would have been prohibited of several Aretian Androsaces, Arnica montana, Azorina vidalii, Cistus palhinhae, Colchicum corsicum, Daphne petraea, Eryngium alpinum, many Fritillaria species, Galanthus nivalis, Paeonia cambessedesii, Physoplexis comosa, Soldanella villosa, Origanum dictamnus, Leucojum nicaeense and almost all the European Narcissus species. Of course, "banning" the cultivation of such plants would have been impossible, so what was proposed was a highly complex and, doubtless, expensive system of registration and paper-work. We should almost certainly have been required to have a licence to sell you seeds of certain species and you would have to have a licence to grow them - this may still come about. The progress of the Draft Regulation has been temporarily "derailed" by a number of organizations, including from a horticultural viewpoint the Royal Horticultural Society, initially acting in conjunction with the British Cactus & Succulent Society, the British Iris Society, the British Orchid Growers' Association, the Cyclamen Society, the Daffodil Society, the Hardy Plant Society and the Horticultural Trades Association. Until our back-yard is bulldozed by bureaucrats, we continue to use it to emphasise the many plant species being preserved by a few thousand specialist-gardeners throughout the world. We believe that gardeners will earn the gratitude of better-informed future-generations. Our knowledge and skills must survive and develop.

NARCISSUS CYCLAMINEUS

This is one of over a dozen Narcissus species which the EC Draft Regulation mentions. Restrictions could also have been understood to apply to garden-hybrids involving this species. In other words, you might have needed a licence to buy a dozen 'Tete a Tete' from your local garden-centre. Just how rare or how restricted this species is in nature is not known to us. We have never seen it growing wild nor, indeed, has our friend John Blanchard, who has probably visited almost every other known species in its natural habitat. It was in cultivation prior to 1608 as it is illustrated in a gardening book of that year. Subsequently, it appears to have been 'lost' for 300 years and many botanists doubted that it had ever existed. It was found again in Portugal in 1885 and has been in cultivation since then. If conditions are to its liking, it is well suited to the British climate and will sow itself enthusiastically, as it does in the alpine-meadow in the RHS garden at Wisley. A heavy, acid loam is considered to be ideal. Our conditions outside here should suit it well but we have up till now been intent on building up a substantial stock for seed production and have kept the bulbs in pans so that they can be brought in under cover for hand-pollination. This is the first year that we have a good quantity to list. We are sure most of you know it - unlike any other species in its extraordinarily long trumpet and its fully reflexed perianth-segments - an irresistible, brilliant yellow daffodil which everyone wants to grow and most people can. Our own cultivated, hand-pollinated seed. (10+ seeds) C

TULIPA SPRENGERI

While this is included in the Berne Convention, it is not included in the Habitats Directive, which is just as well as it does not grow within the area of the EC and it may be rather difficult to protect the habitat of a species which is probably extinct. We may be wrong, perhaps someone has rediscovered it in the wild and is keeping its whereabouts a great secret. It hardly matters as it is well established in cultivation and, like N. cyclamineus, sows itself happily in many British gardens. Described exactly 100 years ago from cultivated material grown from bulbs sent to the firm of Damman & Co. near Naples by a German called Muhlendorff. Perhaps Herr Muhlendorff dug up every bulb there was near Amasya in NE Turkey and sent them all to Naples because no-one has collected it since then. This is a very distinct species, the latest of all tulips to flower and perhaps the best garden-plant in the genus in UK gardens. About 30 cm. or more high with orange-scarlet flowers, tinged with dull yellow on the outside of the segments, this grows well in a diversity of situations from S-facing sunny sites to shaded ones. (20+ seeds) A

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