

Swain

THE BULLETIN OF THE

HARDY PLANT

VOL I NO 6

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ACONITUM NAPELLUS

The purplish-blue flowers of the monkshood, a native plant of Europe and Asia, associate well with phlox in the late summer. The best form is probably Sparke's variety with flowers of violet-blue larger than the form and *bicolor*, blue and white, and *album*, white are also interesting. Long used as an official plant the aconitum is happiest when left undisturbed in a rich soil and it enjoys sunshine provided that the roots are kept cool by mulches or under planting.

Drawing by G. R. Kingbourn.

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THE HARDY PLANT SOCIETY BULLETIN

VOL I No 6

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EDITORIAL

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AIMS OF THE SOCIETY

The aims of the Society are to further the culture and improvement of hardy herbaceous plants (excluding rock garden plants) and to stimulate interest in such plants both old and new.

MEMBERSHIP

The yearly subscription (which includes the Society's Bulletins as published) is 12s. 6d. per year, or £1 for joint membership of man and wife, U.S.A. \$2.00. Life membership is £15. Membership also includes free entry to any shows which the Society may hold.

WE CAN SAFELY SAY, at last, that the teething troubles in producing the Bulletin are nearly over—at least, the milk teeth are in working order! The delay in getting out Bulletin No. 5 was due almost entirely to the dirth of articles and now Bulletin No. 6 follows quickly and one in which we are launching a new experiment.

Mr. H. G. Lyall has written an article on *Meconopsis* a genus generally regarded as monocarpic and always of doubtful perennial quality. Please will you write and tell us of the species and hybrids you know and grow, in regard to their perennial nature, in order that we can publish, in a future issue of the Bulletin, a symposium of members' observations from different parts of the country. Generally only *M. betonicifolia*, *cambrica* (the native Welsh poppy), *grandis*, *simplicifolia* and *villosa* can be regarded in any way as perennial, but what about some of the hybrids? The pink x *sherriffi* promised to display good perennial qualities but I can find no mention of it in recent observations. The Hardy Plant Society may well perform a useful function if members will help spontaneously.

We are fortunate in having an authoritative article on *verbascum* from Mr. H. C. Pugsley of Derby, who has made a special study of the genus, and he would be pleased to have details from anyone who is not already in touch with him, of hybrids with which they are working.

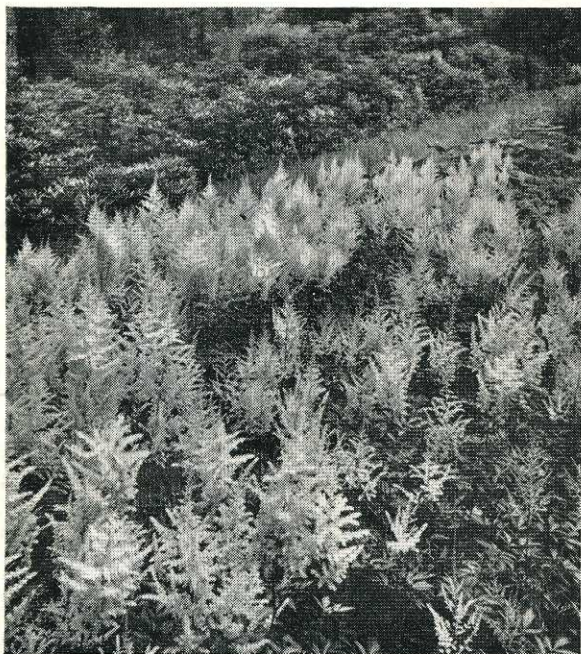
Kay N. Sanecki
Hon. Editor.

THE COVER

This photograph is by A. J. Huxley of *Meconopsis betonicifolia*. The Himalayan blue poppy introduced in 1924 has incredibly beautiful almost iridescent flowers. The amateur is well advised to treat it as monocarpic and remove the flowering shoot the first year to obtain finer blooms the second summer. The plants vary a little, and it is generally accepted that they make better plants in Scotland and the north, and seed can be saved from the best flowers to preserve the stock.

SOME WORTH WHILE ASTILBES

Frederick Street



Photo—Amateur Gardening
Astilbes are perfectly at home in a woodland setting, producing plumes of pinks and reds.

THE TYPE OF SOIL that grows rhododendrons, azaleas, and heathers usually can only be said to be perfect for lupins, when it comes to herbaceous perennials. This is, perhaps an exaggeration. But it is often a problem to find suitable plants to grow in the herbaceous border where the soil is light acid sand. A time of year that is also difficult is the period immediately following the fading of the lupins. It was in bridging this gap that I found the value of the astilbes.

It is popular to assume that astilbes must have a damp place. In practice, it seems that this is not essential. They

will grow with only ordinary moisture. This idea of moisture may be a throwback to the days when acid soil was known as "bog-earth". Consequently, it was thought that all plants that need an acid soil also required a moist place. The old name for acid soil is long since forgotten, but the connection with a wet place, for plants that like it still persists.

However, I found that even acid soil is not essential for the good cultivation of astilbes. On a recent visit to the Waterperry School of Horticulture, near Oxford, I saw them growing very well there, where the soil was on the alkaline side of neutral.

The range of varieties is good. This is largely due to the work of Herr Arends of Ronsdorff, who first produced some good coloured forms in 1907: the original species came from China and Japan. Rich colour is often lacking in the herbaceous border in the early summer and those with red flowers may be the most useful. I must confess that I have not tried all the different varieties, and I have found that Fanal is the most reliable in the darker colours; although W. M. Reeves is deeper, but looser, and with bronze foliage. Yet it seems to be less resilient than Fanal. Pink Pearl is a good pink with fine plumes of flowers.

All the astilbes produce waving heads of feathered charm. They are entitled to a different name—for 'astilbe' means 'without brilliancy'.

Another pink that is free flowering and reliable is Ceres. This is one of the largest. White flowers are usually fairly easy to find. But Deutschland is worth remembering for the shady side of banks. It must be admitted that, although it is not an essential requirement, astilbes do very well on the side of streams and near to ponds. Very often, these are shaded. And in the shade, the lighter flowers look better. Once there was a consid-

erable use for astilbes as forced flowers for decoration. But they do not now seem so popular. Yet, considering their lasting powers, it seems that there is a possibility for them to make a come-back in this rôle.

I have only mentioned a few of the many varieties because a catalogue will give plenty of descriptions of those that are available. But their value seems to lie chiefly in the fact that they like an acid soil (although they are not as fatidious as rhododendrons) and that they flower at a useful time of year.



THE Society's stand at Southport Flower Show proved of strong interest to plantsmen and about twelve members from the region visited us there. The material was supplied by Mr. Alan Bloom, our Chairman, and the photograph shows the Hon. Secretary and Hon. Editor when their work of arranging the material was completed. Thanks are due to Mrs. F. Rundle, a member who travelled from Sheffield to help extend the rota. *Cimifuga cordifolia* Heucherella Bridget Bloom and *Thalictrum* Hewitt's Double were among the plants shown and seemed to rouse most interest and enquiries from the visitors. Three new members joined the society at the show.

H. C. Pugsley writes of his work with HERBACEOUS VERBASCUM

Mr. Pugsley has been engaged in horticulture for forty years and started his career at John Innes Horticultural Institution at Merton during the first World War. The varieties Mr. Pugsley states to be sterile have been grown in pots, taken into a green house and hand pollinated under ideal conditions for setting seed. Thus his statements are well founded. Similarly, he claims a variety to be perennial after having kept an individual plant for not less than seven years.

VERBASCUM (mullein) belong to the natural order Scrophulariaceae, which includes many well known garden plants, like foxglove (*digitalis*) and antirrhinum. Over 300 species of verbascum and celsia are known, centred largely round the Mediterranean area but extending into Asia, North Africa and Europe, and there are some half dozen species in this country. On the whole they are plants for warm, well drained, sunny positions, and therefore are at best in the sunnier parts of Britain.

Verbascums have been grown in gardens in this country for at least 250 years, and as the individual plants of most of the species are self sterile, much visited by bees natural hybrids have occurred from time to time, most of which are themselves sterile. I have on occasions seen both wild and in the garden, natural hybrids of quite surprising proportions, plants up to nine feet high, really good examples of 'hybrid vigour'. No doubt nurserymen and others have raised hybrids, often using the perennial *Verbascum phoeniceum* as one parent, for verbascum species other than yellow or white are unusual many species with yellow flowers are greatly improved when they have purple filament hairs.

The biennial plants are propagated from seed, which is produced in very great abundance, it has been estimated that a single plant of our common native *V. thapsus* can produce up to 700,000 seeds, an unpleasant thought for those who let the plant seed where it is not wanted! The perennial kinds are best propagated by root cuttings taken during the dormant season. If heat is available they can be started into growth before the spring.

Verbascums are not particular as to soil, always provided it is well drained, and will do well in chalk. If one is obliged to garden in or near industrial towns it is better to choose varieties that are less tomentose (woolly). Some verbascum are best kept to the wilder parts of the garden, others again are only suitable for the rock garden.

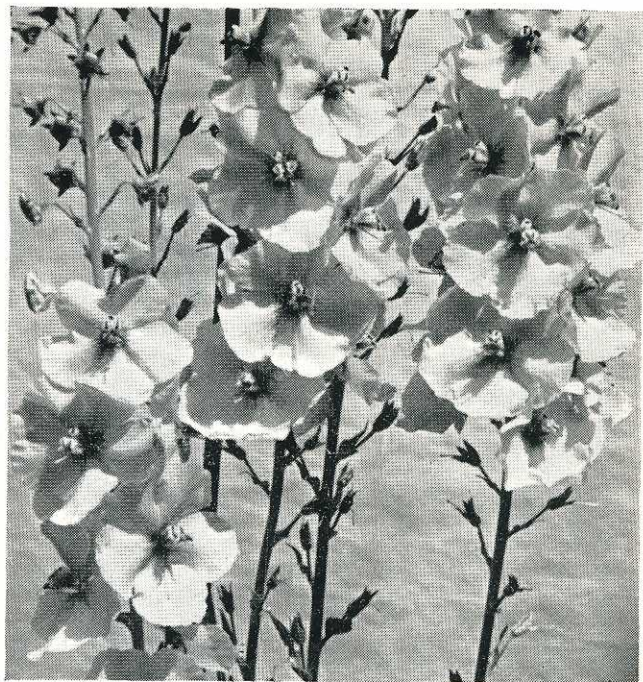
The plants listed below are all quite hardy and are useful for the herbaceous border, it should be borne in mind that the garden hybrids are sterile, which is a great advantage from a garden point of view in that they will not spread, and they flower over a longer period than many of the species that set seed, often continuing from June till September.

In the Chromosome Atlas published in 1955 will be found a list of some twenty-seven species of verbascum and celsia showing the diploid chromosome number of these plants, which varies between thirty and sixty-four, but in spite of this a great number of species will hybridise freely, often those differing in their chromosome numbers.

Some species, like *Verbascum phoeniceum*, produce a long terminal raceme with flowers spaced singly up the spike, others like *V. nigrum*, have the flower

buds in clusters of six or more, the first habit is perhaps the more graceful, but the latter increases the length of time the spikes will be covered with flowers.

*Verbascum*s are not troubled much with pests or diseases, but they are sometimes attacked by *Corynebacterium fascians*, a leafy gall organism which can spread. It causes malformed gall-like growths from the base of the stems, forming a tight mass of very short shoots, all crowded together, often causing dwarfing. Plants thus affected should be destroyed.



Photo—Frank Eyre

Verbascum pestalozzae × *v. phoeniceum*, a hybrid raised by the author, has orange yellow flowers, some with purple filaments.

It is useful to know which garden varieties will do fairly well in town conditions. Below is a list (to which I have already referred) of a selection of the better varieties usually grown, together with some new hybrids.

Verbascum boadieca, a newer hybrid, perennial, 4 to 5 ft., flowers in groups of three or four, copper orange, mauve filament hairs, sterile. Said to be a hybrid between *V. phoeniceum* and *V. longifolium*. Increased by root cuttings.

V. bombyciferum syn. *V. brussa*, biennial, 3 to 5 ft., leaves and young growth heavily covered with a white tomentum, flowers 1¼ to 1½ in. in diameter, sulphur yellow, grown from seed, and best in full sun. Found wild in a small area at Brusa on the Asia Minor side of the Sea of Marmara.

V. blattaria grandiflorum, biennial, 2 to 3 ft., leaves shiny green, flowers white, pinkish back to petals, spaced singly up the stem with long flower pedicels, grown from seed, will stand some shade, good in towns. Wild in Europe including southern Britain.

V. caledonia an old hybrid, perennial, 3 to 4 ft., flowers buff tinted with old rose shading, sterile, increased by root cuttings in dormant season, will stand slight shade.

V. Cotswold Beauty, perennial, 3 ft., flowers pale bronze, purple filament hairs, sterile, increased by root cuttings.

V. Cotswold Gem, perennial, 3 ft., flowers soft buff, overlaid coppery-rose, lilac filament hairs, sterile, increased by root cuttings.

V. Cotswold Queen, perennial, 3 ft., flowers bronzy-salmon, lilac filament hairs, sterile, increased by root cuttings.

V. densiflorum (of nurserymen) syn. *thapsiforme*, perennial, 3 to 4 ft., bronzy-yellow flowers, 1½ in. in diameter, purple filament hairs, sterile, increased by root cuttings. The wild species is a biennial plant from Europe.

V. Gainsborough, perennial, 4 ft., sulphur-yellow flowers, look well with the silvery grey foliage, sterile, increased by root cuttings, best in full sun.

V. hartleyi, garden hybrid, perennial, 4 to 5 ft., large biscuit-coloured flowers, a good garden plant, increased by root cuttings.

V. Harkness Hybrid biennial, 5 to 6 ft., large rich yellow flowers, 1½ in. in diameter. Grown from seed.

V. Miss Wilmott, biennial, 5 to 6 ft., woolly leaves, flowers 1½ to 1¾ in. in diameter, full sun, grown from seed.

V. nigrum, syn., *vernale*, perennial, 3 to 4 ft., stem angled, some plants flower in a slender raceme, others form a branched raceme which is more showy, flowers ¾ in. in diameter, yellow or white with purple filament hairs, grow from seed or root cuttings. Will stand some shade, does well in own gardens, native of this country.

V. olympicum, biennial, 5 to 6 ft., large leaves covered with grey felt, flowers yellow, 1 in. diameter, with whitish filament hairs, forming a candelabra, grown from seed, best in full sun, found wild around Mount Olympus in Asia Minor.

V. phoeniceum, syn., *cupreum*, perennial, 2 to 3 ft., dark green shiny leaves, flowers up to 1¼ in. in diameter, in dainty racemes, shades of purple, mauve, pink and white. Mauve filament some shade, good in towns, grow from seed, wild over a large area of Europe.

V. Pink Domino, believed to be a sport from Cotswold Queen, perennial 3 to 3½ ft., flowers rosy pink with darker eye, a good colour, sterile, increased by root cuttings.

V. thapsus syn., *giganteum*, biennial, 4 to 5 ft., densely woolly leaves, subject to mildew, flowers yellow, ¾ in. in diameter, in tight groups on the raceme, best in wild gardens associated with foxgloves. Seeds most freely, native of Europe, including the whole of Britain.

NEW SPECIES HYBRIDS

V. phoeniceum X *V. pestalozzae*, perennial, 1½ to 2 ft., leaves tomentose, flowers usually in a long slender raceme, occasionally branched, in shades of yellow and orange, some with dark purple filament hairs, up to 2 ins. in diameter, stands wet better than *V. pestalozzae*, suitable for the front of a border, sterile, increased from cuttings.

V. phoeniceum X *V. dumulosum*, perennial, 1 to 3 ft., leaves tomentose, flowers in much branched racemes, up to 1¾ ins. in diameter, colours include carmine, nasturtium orange, Naples

yellow, and burnt orange, hardier than *V. dumulosum*, sterile, increased from root cuttings.

V. nigrum album x *V. phoeniceum*, perennial, 2½ to 4 ft., leaves dark green, often with red pigment in leaf petioles, flowers in a wide range of colours from cream and pink to wine red, many with purple filament hairs. The flowers are about 1 in. in diameter, produced in small clusters, on a branched raceme. A good plant for slight shade, and does well in towns, sterile, increased from root cuttings.

THEY WORKED WITH PLANTS

ARTHUR G. THATCHER



A recent photograph of Arthur E. Thatcher who has now retired and lives at Bar Harbor, Maine, U.S.A.

I was born in Reading on June 9th, 1882, and soon moved to live in Aldenham and after attending Watford Grammar School started work in those famous gardens. I was singularly fortunate to have charge of the labelling and to work with the Hon. Vicary Gibbs, a kind and great gentleman. The correct naming of such a vast collection was a liberal education and the Kew Hand List of Trees and Shrubs a reliable volume to have at one's elbow. A desire to see more of the world found me on the high seas in November 1908 bound for Boston, Mass., where I eventually found work at the famous Arnold Arboretum. Later I was invited to become manager of the Mount Desert Nurseries, devoted to hardy plants, trees and shrubs suitable for the region. At that time one was able to import plants freely and by taking advantage of the great English collections and the continental nurseries much of interest was imported before the First World War put an end to many of those activities. The nurseries were completely destroyed by fire and the land then became part of the Acadia National Park.

In writing these notes on the following pages I want to suggest that there is ample material for raising new varieties apart from the *novi belgi* group of asters and I have no doubt that this will be done.

MR. THATCHER WRITES OF HIS WORK AT ALDENHAM AND TELLS THE STORY OF ASTER CLIMAX.

IN A VERY comprehensive nursery list of hardy herbaceous plants published here by a progressive firm shortly after World War I, it is of interest to note that of the forty-eight varieties of aster listed, all but nine were English introductions. The lists contained such revered names as Queen Mary, Brussels, King of the Belgians, Robinson V.C., and Ypres. Today, the aster list in most nurseries is far shorter, for which we may thank two world upheavals.

A recent catalogue of a noted English firm which has forty varieties in all includes twenty-nine *novi-belgii*, many of which have been given an Award of Merit or a First Class certificate in the Royal Horticultural Society's trials; and it is said of them that 'they are invaluable for providing masses of colour in the garden'.

Many species are found in Europe, notably the *Aster amellus* from Italy, some are from Russia, the Himalayas, Japan, India and Siberia, and during recent years some good garden plants with large solitary flower heads have come from China and Tibet and one may expect that other species of value will be found in further exploration of these little-known lands. Probably the greatest number of species grow from coast to coast in North America and are most abundant in the Eastern United States. It is from among these last mentioned that many of our most beautiful garden plants have come.

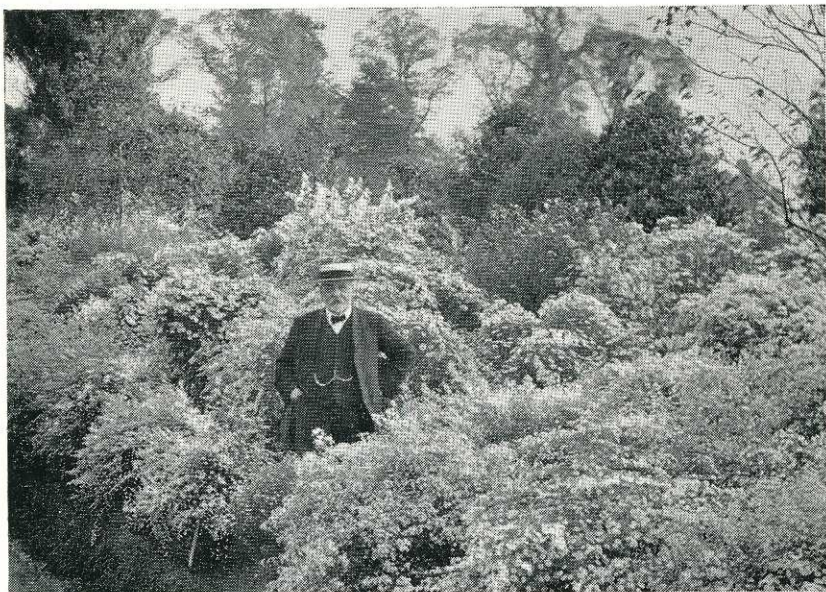
As Asa Gray says, they hybridize freely and it would be quite impossible to describe the great beauty throughout the autumn of the vast number of forms which clothe the roadsides and open woodland in the greatest profusion. It is well known that practically all the deciduous trees and shrubs of Eastern North America have highly coloured foliage in the autumn at the

time the asters are flowering and these in their countless numbers produce a galaxy of superb colour. Where space permits, there are few plants to equal them for naturalizing and the stronger growing species and varieties are well able to take care of themselves.

Growing Michaelmas daisies from seed in an endeavour to produce more beautiful varieties started at Aldenham about the year 1900 and was still in progress when I left there for this country in 1908. With ample space and many other facilities it was possible to grow a considerable number, and one may say that the work was carried on with the thoroughness characteristic of those famous gardens. It is, of course, necessary to grow a quantity if one expects to produce something different and worth while, and consideration must be given to the varieties from which one selects seed.

In raising a considerable number of *novi-belgii* seedlings it is interesting to find that there is much diversity of form and colour among them and in addition to the taller varieties there will also appear some very desirable plants which will not exceed three feet in height and make excellent specimens for the flower border.

In the case of the *novi-belgii* group, if the best varieties are chosen, satisfactory results can be reasonably expected but it is important not to discard seedlings until they have had sufficient time to prove themselves. This was exemplified well in the variety Climax, which one may say safely has had few superiors. The first time this variety flowered it appeared to be just another blue *novi-belgii* and it was decided to discard it, but fortunately, it was grown a second year and its vigorous constitution produced a fine plant with very large flowers of a good colour and with exceptionally strong



A section of the aster border at Aldenham before the first World War, when many good and famous varieties were being raised.

stems. It was propagated as freely as possible and on October 6th 1908 a large exhibit was staged at the old London Scottish Drill Hall before the R.H.S. It was considered to be an outstanding variety. That year some plants were sent to the late Mr. Charles Curtis, who writing of the plants in his garden in 1957, mentioned that he grew only two Michaelmas daisies, one of which was Climax. Last year when I visited gardens in England, I was very happy to see Climax in fine condition and giving every indication that it would be good for another fifty years.

I believe, in all, about fifty Awards of Merit were given to the New Michaelmas daisies raised at Aldenham, a number going to the novibelgii group and a few to the amellus, but the varieties which gave the greatest impetus to the popularity of these fine autumn flowering plants were derived from *A. cordifolius*, blue, and *A. ericoides*, white, both having small flowers in great profusion on slender

drooping branches. Some of the best *A. cordifolius* varieties which older readers may remember were: King Edward VII, Hon. Edith Gibbs, Edwin Beckett, Star Shower and Silver Spray. The two last are in cultivation today, I believe, and would be excellent varieties for anyone interested in raising seedlings with which to experiment.

One outstanding Aldenham *A. cordifolius* variety named Enchantress was unusually beautiful when grown with several stems to a plant, but was seen to best advantage as a single-stemmed specimen and was used as a pot plant for conservatory decoration, the graceful drooping pyramidal habit and the charming light blue flowers making it ideal for the purpose.

Although, most of these delightful asters are no longer in cultivation we may hope with great interest in hardy plants, that the production of new and desirable varieties from seed, will continue.

THE GROWING POPULARITY OF MECONOPSIS

H. G. LYALL

A Nurseryman from Hertfordshire writes of
his work with these poppies

DURING the dozen years or so that I have been growing meconopsis I have been conscious of a steady increase in the popularity of these lovely plants. When shown at the Chelsea Flower Show and elsewhere they invariably arouse a great deal of interest, and I am sure that many more people would like to have them in their gardens but for the mistaken notion that they are not easy to grow. Some of the species are, at times, difficult to get past the seedling stage, but apart from that they are not at all difficult. Another objection that some gardeners have to them is that a number of species and varieties are monocarpic and die after they have flowered. The answer to this is to save your own seed, which sets freely, and rear an annual supply of seedlings to take the place of the plants which have flowered themselves to death, for that is literally what some of them seem to do. In some gardens they seem to seed freely.

Undoubtedly the most popular meconopsis is still *M. betonicifolia*, *M. baileyi* of the nurserymen, it is sold in tens of thousands every year in this country. This blue poppy from the Himalayas is, the loveliest of the whole family, with probably one exception, *M. grandis* GS600, which will be referred to later. The large iridescent flowers of *M. betonicifolia*, with a boss of golden stamens, are breathtaking in their beauty. The vast majority of plants of this species sold in this country are reared from seed and there is some variation in colour, a percentage being very poor. The nature of the soil in which they grow will also affect the colour; they do not

seem to do well in chalk, for example. On the other hand, there is not the least doubt that the richer the soil in which they are grown, the better the colour.

M. betonicifolia is also a rather doubtful perennial. A really strong one-year-old plant will send up a 3-4 ft. stem carrying large, perfect flowers, (I have had my best show stuff from such plants), it will set plenty of seed and, in most gardens, will then die; but, to secure such lovely heads of flowers I am content to plant afresh each year. On the other hand, a small one-year-old plant that is only strong enough to send up a short stem with one rather poor flower stands a 50-50 chance of surviving to flower another year. A plant that is too small to flower the first spring will, if in the right soil, grow on to form a large crown with side shoots, which will flower on several stems and, with luck, will survive and flower for some years. I have, for showing, lifted such clumps with as many as five flower stems, but for the length of stems and size of flowers, they did not quite compare with really well-grown one-year old plants. Finally, by dis-budding the first year a perennial habit can be induced. The bud must be found at once, low down in the centre of the leaves, and removed, because by waiting until the stem has grown, you may be too late to dis-bud effectively. Dis-budded, the energy of the plant goes into throwing out side shoots round the crown, thus forming a perennial clump rather than a single crown, which left to flower will most likely die. There are fortunate people

who can grow this meconopsis like a border perennial, lifting it and tearing it apart at will. It seems fairly clear that the farther north in the British Isles the more perennial plants of *M. betonicifolia* will be found. I met recently a keen private grower from Derbyshire who grows this plant, and he was quite surprised when I said that it was a doubtful perennial. His plants come up year after year and he does not even dis-bud his stock in the first instance. It is a hardy perennial plant in many Scottish gardens.

M. grandis GS 600, is a true perennial everywhere, as far as I know, and the plants I have are very robust and develop year by year. This is a truly noble plant, with flower

stems running up to 6 ft. with flowers of gorgeous deep blue, sometimes 6 ins. across. The demand for this plant will far exceed the supply for some years to come, as it does not come quite true from seed and stock is propagated from pull-offs which the plant produces only sparingly. It does not do well with everyone, as the flowers in some gardens open a dirty red colour and do not become blue.

The interest in meconopsis has been greatly stimulated by the discovery of new varieties (probably not new species) by the Stainton, Sykes and Williams plant hunting expedition to Nepal in 1954. They collected and brought back seed of a number of red



Photo—Amateur Gardening

Meconopsis integrifolia, a parent of some hybrids, one of which is discussed on the following pages.

and pink varieties. Several of these flowered in my nursery (and elsewhere) last year, and were shown at the Chelsea Flower Show 1957. Others flowered for the first time this year and were shown. I have one variety which has not flowered. The foliage is quite different from the others which have flowered here, and the plants are now enormous.

In my opinion the best of these new Nepal meconopsis to flower so far is S.S. & W.7943. I think so much of this variety, or hybrid, that I have discarded all the others. I quote as follows from a note on this meconopsis which I contributed to the R.H.S. Journal March 1958 issue.

'The original seed germinated very

well with us, without any special care or attention. It was sown in boxes which stood in the open, and was watered and weeded along with the ordinary run of Alpines. Seedlings in boxes and plants lined out in the open stood up to all kinds of weather. As an example of the toughness of this variety, 50% of the plants lifted from the open ground in flower for the Chelsea Show, brought back and re-planted during very dry weather, survived for some weeks and continued to flower without any special attention.

This is an attractive plant at all stages of its growth. The leaves and buds are covered with golden hairs which gleam in the sun. The tight clusters of buds when they first appear in the centre of the plants are like bronze nuts.

The best plant here sent up a flower stem of 4 ft. which carried over forty flowers. Others went up to 3 ft. or a little over. The individual flowers are of a good size: one I measured was $2\frac{1}{2}$ ins. across. The colour is very good, but varies according to the season and the length of time opened. Some of the early flowers were a bright rose-pink when they first opened. Either due to the exceptionally dry, hot weather or because it is their nature, the later flowers were a very deep pink.

Seed seems to be setting fairly freely, and I hope to harvest enough to try again to raise a batch of plants, which are almost certainly monocarpic.

To this the Editor added the following:—

‘Mr. W. Sykes has informed us that these plants were grown from seed collected by Mr. Stainton at 12,000 ft. in open grassland under the number S.S. & W.7943. The plants in the wild were 5 ft. in height and are close to *M. nepaulensis*, of which it may be a pink form.’

All I would add is that the seed I

saved last year has germinated well and the young plants are growing vigorously. Also I should like to amend a little what I say about the colour in the Note quoted. I have little confidence in my ability to define colours accurately, but I held that when the first flowers of S.S. & W.7943 opened they had a decided salmon tinge, but I could not get my family to agree, so when I wrote the Note for the R.H.S. Journal I suppressed my own opinion. Since then I have found that another nursery, which grows this variety, quite definitely lists it as salmon pink. The only thing left is for the reader to grow it and judge for himself.

There are some interesting hybrid meconopsis worth growing. A commercial grower in Scotland has several useful hybrids which he offers in his catalogue, for example he lists *M. X sheldonii* with deep blue flowers, a cross between *M. betonicifolia* and *M. grandis*, and says it is a true perennial. Also near to this is the “Crewdson Hybrid”, which is also perennial.

There is a cross between *M. betonicifolia* and *M. integrifolia* which was raised by Mr. Sarsons of East Grinstead and received an Award of Merit in 1930 and is called *M. sarsonsii*. It has yellow flowers and may persist for 2 or 3 years and sets seed readily. It is commonly confused with *M. x beami-shii* a plant which has existed for some fifty years. A private grower not far from where I live has a similar cross but of a deeper yellow than the plant grown under the name of *M. x beami-shii* in the Savill Gardens at Windsor. There are now some wonderful hybrids appearing and all seem to be good companions for one another but I believe that those I have mentioned are the most worthwhile as garden plants.

Editor's Note: A letter received from Edinburgh Botanic Gardens dated 4th August, 1958, reads '... *Meconopsis* \times *beamishii* was first raised by a Mr. R. A. Beamish, Glounthaune, Co. Cork, and first flowered in 1906. The hybrid was the result of crossing *M. grandis* with *M. integrifolia* using the former as the seed parent, and apparently this first plant persisted for 8 or 9 years. Since then *M. \times beamishii* has been raised on several occasions and has authentically been reported to have appeared spontaneously in the Royal Botanic Garden, Edinburgh. Although this hybrid has never lived for more than a few years here it was in cultivation in this garden until the winter of 1956/57 when the last plant perished.

In your letter you refer to a hybrid between *Meconopsis betonicifolia* and *M. integrifolia*, please note that *M. \times sarsonsii* is the name which should be given to this plant ... In the same year (1930) ... this hybrid appeared in a group of seedlings of *M. betonicifolia* in the Royal Botanic Garden, Edinburgh.'

* * * * *

ENEMIES OF HERBACEOUS PLANTS

W. N. Lawfield

Somehow one does not think of hardy herbaceous plants being liable to diseases and pests in the same way as fruit trees or roses. All too often the beds and borders are left to look after themselves until the disorder has almost complete control, and then it is too late to do very much about it. The old saying that "prevention is better than cure" is as applicable among the herbaceous plants as anywhere else in the garden.

Fungus diseases, viruses, and innumerable pests all take their toll of plants in the border, although perhaps viruses are not so common here as with plants such as tomatoes and dahlias. During the post war years many new fungicides and insecticides have been put on the market and have been proved to be efficient. Before turning to a few of the more common pests and diseases it might be as well to point out that if plants are well grown and given good cultivation they are much less likely to be affected by

these troubles. A good sturdy plant is able to stand up to attacks much better than a weaker specimen.

One of the fungus diseases, most common is mildew, there are many different species of fungi that cause mildew, but nearly all produce the familiar woolly growth on leaves and stems, and sometimes on the blooms as well. The perennial asters are often attacked by *Erysiphe cichoraceum* and completely spoilt. It is generally in late summer or early autumn just before the plants come into bloom that the disease is most obvious, particularly in gardens where the clumps of Michaelmas daisies are overcrowded. Large plants should be divided during the early spring just before growth commences, and where possible it is a good idea to tie each shoot to a separate cane allowing four or perhaps five shoots per plant. I knew one grower who took just this little extra trouble and he found that the sprays of bloom were of better quality and also that his

plants hardly ever suffered from mildew, as a free circulation of air among the plants was ensured. Spraying once or twice during the summer months with a good sulphur fungicide is also very wise, and will help to prevent the disease.

During its early stages mildew of Michaelmas daisies is sometimes confused with the equally destructive wilt disease, known as verticillium wilt (*Verticillium vilmorinii*). The lower leaves then the upper leaves and finally the stems become discoloured, the leaves drop and the plant collapses. Fresh shoots are generally produced from the base, and by using the tips of these as cuttings healthy stock can be propagated.

What might almost be called a combined disease and pest is sooty mould, the sooty deposit that can so often be seen on the leaves of phlox and Michaelmas daisies, the two plants that suffer most, needs no description. The appearance of the fungus always follows an attack by aphids, the spores of the fungus germinating in the excreta of the insects. There is no real control for the fungus, and therefore aphids must be kept in check. Both phlox and Michaelmas daisies are plants that flourish in somewhat shady conditions, and the aphids responsible may well be in overhanging trees, and the foliage of plants beneath become quite sticky with the sugary excreta. Where possible spray with BHC or malathion to kill the aphids, and hose or forcibly spray the plants with clear water to remove much of the fungus from the leaves. The fungus in covering the leaf blocks the stomata.

It is now well over one hundred years since hollyhock rust (*Puccinia malvacearum*) was first recorded in this country, since when it has become very widespread. The pustules containing the spores generally appear on the lower surfaces of the leaves, and

are at first a bright orange, later turning much darker. In severe outbreaks the entire plant may become covered. The use of copper fungicides often checks the disease, but cannot be considered fully effective, and it is often better to treat hollyhocks as annuals, growing fresh plants from seed and giving them a fresh site.

The froghopper (*Philaenus leucomphthalmus*) is responsible for a good deal of damage among border plants. The nymphs surround themselves with foam of froth, often referred to as 'cuckoo spit', and to get rid of them a really forceful spray is needed to break down the froth. Any good insecticide will do, or the froth may be removed by spraying with clear water, thus exposing the nymphs, which can then be suitably dealt with by a dusting of DDT or derris or BHC. If the outbreak is not too severe handpicking may be all that is needed.

Phlox are very liable to be attacked by eelworms, and their presence in the stems and leaves can be detected by the twisted and deformed growth, in some cases the plants may not reach a height of more than a few inches. It may be as well to point out that the eelworms are microscopic and cannot be seen with the naked eye. Unfortunately there is no really satisfactory chemical control although some experiments with systemic insecticides are proving fairly satisfactory. It is possible to propagate clean eelworm-free plants by means of root cuttings which should be taken in early spring and rooted in boxes of peaty compost in a cold frame. Two points must be watched though, firstly that there is not even the smallest piece of stem attached to the cutting, and that the resultant plants are planted in eelworm-free soil. As well as phlox, tulips and some other bulbous plants are liable to attack and onions, and strawberries as well; and it is im-

portant that no plant that may suffer from eelworm is planted in soil that may have carried others that have suffered from eelworm.

Although I have said virus diseases are not as common among border plants as in some other parts of the garden there are two different viruses that may attack delphiniums, they are tomato spotted wilt and cucumber mosaic, the former causing a certain amount of distortion of the foliage and the latter mottling and pale green areas on the leaf. As with most viruses there is no control and diseased plants should be destroyed.

Another pest is the leaf miner, there are several different species but their life histories are almost identical. Leaf miners are the larvae of certain flies. They hatch from eggs laid by the female fly in the leaf tissues and then start to tunnel through the leaf. The tunnels can easily be seen as pale green or almost white twisting lines. Badly tunnelled leaves should be picked off and burnt, but spraying with a good insecticide should also be carried out. Systemic insecticides give good results.

A physiological disorder that sometimes affects paeonies is called bud disease. The trouble arises when bright morning sunshine follows a cold night in early spring, this appears to check the bud and sometimes it will eventually drop off, and in some cases the stem immediately beneath the bud will turn brown and shrivel. There is nothing that can be done by way of control except to shade the buds during the early hours of sunshine, and with good cultivation to keep the plants growing well.

IN THE NEXT ISSUE

The years interesting plants by Mr. Will Ingwersen.
News of a new *epilobium* hybrid.
Some notes on helleborus.

BOOK REVIEW

The Mixed Border

(published by W. H. & L. Collingridge Ltd., price 35s.)

THE mixed border, provides just what so many of us require to-day, flowers, foliage and general interest over the longest possible period. Mr. Christopher Lloyd makes it plain in the very first words of his book, 'The mixed border stands mid-way between two extremes: the shrubbery on the one hand and the herbaceous border on the other'. He goes on to say, 'The purist among herbaceous border advocates has an even more exclusive code of rules and it is, I believe, for this reason that he becomes rarer with the years.' Be this as it may, in most things there is still no doubt room for both.

I have no qualms, however, in recommending thoroughly this book, to members of the Hardy Plant Society, for what Mr. Lloyd has to say about, the organisation, planning and planting of mixed borders, is both interesting and most practical.

There is so much useful information contained in the alphabetical list of hardy herbaceous plants, that newcomers and 'oldens' can profit from such advice as 'Aconitums start into growth early in the new year, so they should invariably be planted in autumn.' 'Plants (of *Monarda*) grow into each other and quickly become congested. If they are not frequently split up, whole patches will die out suddenly in a rather distressing manner.' It is information such as this that will be found so useful. The book is well illustrated by 78 half-tones of the photographs most taken in the author's garden. Considering book prices to-day "The Mixed Border" gives full value for money.

N.J.P.

FROM THE POST

Sir,

The letter in Bulletin No. 4, from a member in Sunbury-on-Thames, was a surprisingly harsh letter, coming as it did, immediately after the Honorary Secretary had stated in the Editorial of Bulletin No. 3 that the newly formed society was having its teething troubles.

The aims of the Hardy Plant Society are clearly stated on page 3 of each Bulletin and it is the responsibility of all members to realize, first, that they are, individually, just as much a part of the society as is the committee (a body consisting partly of several founder members, experienced in the growing of hardy plants); and secondly, to play their part in furthering those aims by giving help, or at least having patience during these early days.

Comments are requested, but surely members could show their appreciation of the help so freely given by the committee to this infant society, by offering constructive criticism rather than destructive criticism.

The writer certainly does make one suggestion and appears to want a Bulletin something in the nature of an 'Encyclopaedia Botannica'. Perhaps he should use a little less imagination about results and bring himself to the realisation that we are yet too young to have enough pocket money to buy such collectors' pieces.

EDITH A. LETT (Mrs.)
Northwood.

MEMBERS ASK

Is *Anchusa caespitosa* recognised to be a difficult plant? I have lost several of my plants although they bloomed well last year. I'm told it requires lifting in winter, if this is so, is it a hardy plant?

Anchusa caespitosa certainly does not need to be lifted in winter, though it appreciates protection from dampness during the worst months of the year. Sometimes the plants appear to flower themselves to death, but by cutting back a few shoots early in the summer new growth can be encouraged and used to make summer cuttings, which will be ready to plant out in the border the following year, thus perpetuating the stock.

I have a patch of Evening Primroses which are really only at their best in the evening; but a neighbour grows a very similar plant and the flowers on that plant seem to bloom all day as well. Why is this?

The biennial forms of *oenothera* do look rather untidy during the day as they live up to their name and only flower in the evening. Perennial forms, however, carry their blooms well all the time but have not the sweet fragrance of the evening flowering kinds. Try *O. fruticosa* and some of its varieties like *Yellow River* and *Youngii*, the latter with very attractive brown-red colour in the stems and buds.

COMPETITION

AMATEUR photographers are invited to submit work in a photographic competition. A small panel of judges is to be elected and a book token for one guinea is offered as a prize in each class.

CLASSES

- I. Portrait of hardy herbaceous perennial, correctly named.
- II. General view of border or garden.
- III. Colour transparency of either of the above subjects.

RULES

1. The photographs submitted must have been taken by the member, whose subscription for 1958 has been paid.
2. Photographs must be sent to the Hon. Editor and arrive before December 31st, 1958.
3. Unmounted prints of not less than half-plate size on photographic paper of the competitor's choice should be submitted.
4. Type of camera used, exposure and shutter speed should be given on the back of the print, written in ink.
5. Date and place of the photograph and the competitor's name and full address should be on the back of the print, written in ink.
6. Processing need not have been done by the competitor.
7. Colour transparencies may be any size and should be contained in an envelope, upon which details asked for in Rules 4 & 5 are written in ink.
8. More than one photograph may be submitted in each class, though in the event of the same competitor winning more than one class, the prize will be awarded to the runner up,
9. Entries will be returned, provided adequate packing and postage are included.

HON. EDITOR.

Hawthorn Cottage,
Blind Lane,
Bourne End,
Bucks.

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