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The American Horticultural Society

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Lilium auratum pictum
Seedling 3½ years from sowing.
Oyster Bay, Long Island.

The Forsythias

DONALD WYMAN
Arnold Arboretum

The Forsythias are among the most popular of garden shrubs, used chiefly in those regions of the country where their early spring flowers lend conspicuous color to gardens which have been apparently lifeless and dreary throughout the entire winter. Most of them are natives of the Orient, although a few have recently been developed in this country. The oriental species first came to this country about a hundred years ago, and since that time have proved as popular as almost any other woody plant for garden use, because their conspicuous color, and the ease with which they can be grown, make them adaptable to many soils and many situations.

In the North, the bright yellow, scentless flowers appear before the leaves, usually in March and April, depending on locations, although in the Arnold Arboretum in 1944, due to an unusually late spring, *Forsythia intermedia* varieties were in full bloom during mid-May when lilacs were also at their best. One of their interesting (and useful) qualities is the ability to grow in city gardens, where atmospheric conditions, and frequently moisture conditions, are not to the liking of many other plants. They are practically free from insect and disease pests. Some are valued for their arching or trailing habit and only one (*F. viridissima*) is graced with conspicuous autumn color —a purplish red. Since this is one of the parents of *F. intermedia,* this quality of autumn color sometimes crops up to some extent in some of the clones in this hybrid species. The leaves of all forsythias are opposite, and in most species are sufficiently distinct so that they can be distinguished one from the other, by the amateur when they are not in flower. The fruits are merely dry capsules with no ornamental value.

One of the most disturbing things about these plants, to those of us who appreciate plants growing in their normal habit, is the way that these are sometimes mutilated by improper pruning. Because they withstand city conditions and are easy to grow, they are frequently used in public plantings, where uninformed maintenance men merely cut off the stems at an even five feet or so from the ground. This may be classified under the heading of so-called "formal" pruning, but forsythias are not the plants for this treatment. They should be used only where sufficient space is available for them to grow and expand naturally. Sometimes in planting a bank, it is advisable to plant the trailing types closely together in order to obtain proper ground coverage, but normally they should have plenty of room. A single plant needs at least 8 to 10′ in order to grow properly. Too often we see forsythia planted a mere 3′ from a walk and then mercilessly hacked for the rest of its life in order to properly "restrain" it.

In 1844, Robert Fortune brought the first forsythias to Europe from the Orient. The manner in which this was done he has described in a most interesting way, for, in those days, the trip to England from the Orient was a long and tedious one. The old sailing ships had to go around "The Horn" and in doing so the trip took four to five months. It was most difficult to keep seeds in a viable condition without modern refrigeration methods, and

plants were a serious problem indeed. They had to be protected from salt water spray, they had to have fresh water, which was of course at a premium, and they had to have sunlight.

Wardian cases were used by the early plant explorer to overcome these difficulties. (They are now commonly called solariums.) Sheets of glass were sealed together with sufficient soil in the bottom that that rooted cuttings or very small plants could be grown in them. Prior to the sailing of the ship they were watered and sealed, and serviced occasionally when the ship touched port. According to Fortune, "large vessels with poops" were preferred for the trip from the Orient, for on such vessels the cases could usually be carried out of range of the salt spray.

The pruning of forsythias is not difficult, but their general appearance is dependent on proper pruning at the proper time. Since all forsythias have flower buds formed the previous year, they should best be pruned after they bloom, since pruning in the early spring before they flower merely reduces the number of flowers produced that year. As far as the vigor of the plants themselves is concerned, the pruning can be done either before or after the blooming period. The arching branches, and in some cases, the trailing branches, are essential to good form, and so, any pruning is usually a thinning out of the older and overgrown branches, rather than a "heading back" of all branches on the entire plant. *Forsythia suspensa sieboldi* is trailing in habit, while the clones of *F. intermedia* are upright. *Forsythia viridissima* and *ovata* are intermediate between the two, while there are several clones that are actually dwarf, and should receive little or no pruning.

On occasion, it may be necessary to prune forsythias heavily — even cut them to within six inches of the ground. This can be done and they will recover quickly. We had a bank planting of forsythias in the Arnold Arboretum a few years ago that had become too tall and overgrown so that with heavy snow the breakage was very heavy. The cheapest (and easiest) way to bring the planting back into good appearance, was to cut all plants right to the ground. This was done in the very early spring, and within two short years the entire planting was again blooming beautifully. Lilacs, privets and many other shrubs can be treated this vigorously —on occasion—and be expected to recover. The first year after such heavy pruning the plants are not much to look at, hence in the small garden, whenever possible, it would seem best to prune by thinning only, leaving most of the younger and better branches to continue bearing flowers. A heavy pruning should not be done in the summer, or too late in the spring, for, if a prolonged dry spell follows, the plants may become too weakened to go through the first winter successfully. A renewal pruning each year or two, is certainly the best way (and the least conspicuous way) of keeping individual plants in good condition.

As a group the forsythias are hardy in the northern United States, but the flower buds of the species are frequently killed in severe winters, cause enough why such plants are not used where winter temperatures normally go considerably below zero. The species with the flower buds that have proved to be the most hardy is *F. ovata.* It is decidedly inferior to most of the others in flower, size and color, blooms about ten days before most, but where a forsythia is wanted in areas where most suffer winter injury, this might be tried. If this does not bloom properly (because of winter killed flower buds)

certainly no other forsythia will succeed.

The habit of the forsythia is one of the two principal reasons why it is grown. All species and varieties are dense, well covered with foliage. The lowest is probably "Arnold Dwarf," a recent hybrid grown at the Arnold Arboretum. The original plant was only about 2′ tall after six years of growth, yet it had increased to 7′ in diameter, for it roots readily from the tips of the branches. It makes an excellent ground cover but seven-year-old plants have yet to produce their first flowers. Another dwarf type, originating at the New York Botanical Gardens, has been named *F. viridissima bronxensis,* and it does flower. Still another, in the trade for several years and termed *F. suspensa "fortunei nana,"* is a dense dwarf but in six years at the Arnold Arboretum has failed to bloom.

The chief trailing forsythia is *F. suspensa sieboldi,* often with long branches prostrate on the ground. Planted at the top of a bank or at the edge of a wall, trailing shoots 6′ long overhang gracefully.

Forsythia ovata is rounded in habit, growing about 6′ tall. Most of the remainder of the forsythias are dense shrubs, eventually growing about 9′ tall and often having gracefully arching branches. When properly pruned and grown with plenty of room, these plants have a pleasingly graceful habit that lends beauty to them even when they are not in flower.

The chief value of forsythias is of course their flowers. Twenty-four species and varieties have been grown in the Arnold Arboretum over a period of years, but even with the most careful scrutiny they can be divided into only five color groups (and possibly this is stretching it a bit!) The darkest is of course *F. intermedia spectabilis,* which has no peer in respect to deep yellow color. At least five are very light yellow (Empire yellow according to the Royal Horticultural Society's Colour Chart). Of these, four could be recommended, *F. ovata*—chiefly for its hardiness and where this is not a factor it might be discarded; *F. intermedia* vars. *densiflora* and *primulina* and *F. suspensa pallida.* The last named variety is recommended chiefly for its gracefully arching habit. *Forsythia intermedia spectabilis* and *F. intermedia densiflora* produce more flowers than any other variety. The other forsythias are distributed between these color extremes as is shown in the table. A few years ago a "new" variety appeared in the trade catalogues—*F. suspensa "fortunei aurea."* After several years' trial at the Arnold Arboretum, the plant which we obtained in all good faith under this name appeared to be identical with *F. suspensa fortunei.*

All characteristics considered, eleven forsythias might be valuable enough for one reason or another to warrant growing in our gardens. Thirteen might be overlooked entirely. It is always difficult (and dangerous!) to make such eliminations, but that is just what I propose here, for reasons already mentioned and apparent if one pursues the comparisons in the following table.

The records noted in the following table are suggestive only. It should be obvious to anyone familiar with plants that flower sizes vary on the same plant and even on the same branch. Also the flower color varies similarly, aging flowers being lighter colored, younger flowers being more deeply colored. These records were taken two different years and a conscious effort was made to take specimens of comparable parts of the plants. Sometimes a forsythia with small flowers and very wide petals will make a better display than a plant

which has larger flowers but very narrow petals. The table is offered merely as a basis on which comparisons can be based. For those who will not agree with such records, I would like to point out the fact that these 24 species and varieties are similar in many respects, and some method should be found by which a number of them can be eliminated from our nursery catalogues. Their continued listing often fills us with renewed anticipation each time we order a plant with a "different name" only to wind up severely disappointed when we learn, after several years of growing, that the "new name" plant gives a landscape effect which is identical with a type that has been in this country a century.

FORSYTHIAS

Results of Color Comparisons of Forsythia Flowers
1945-1947

	Width of petal	Diameter of flowers	Colour Chart number	Colour Chart name
europaea	.7	4.1	3/1	aureolin
giraldiana	.5	3.0	603	empire yellow
intermedia	.7	3.2	4/1	lemon yellow
* densiflora	.6	3.8	603	empire yellow
* primulina	.8	4.4	603	empire yellow
* spectabilis	.9	4.5	4	lemon yellow
vitellina	.6	3.6	3	aureolin
japonica saxatilis	.5	3.2	3/1	aureolin
*ovata	.5	2.6	603	empire yellow
ovata × europaea	.6	3.5	3/	aureolin
suspensa atrocaulis	.5	3.4	3/1	aureolin
decipiens	.8	4.0	4/1	lemon yellow
* fortunei	.8	3.9	3	aureolin
* pallida	.9	4.0	603	empire yellow
pubescens				
* sieboldi variegata	.9	3.0	3	aureolin
viridissima				
* bronxensis				
* koreana	.5	2.9	4/1	lemon yellow
*"Arnold Dwarf"				
"Arnold Giant"	1.1	4.8	4	lemon yellow
*"Spring Glory"			3/1	aureolin
Arnold Arboretum— Sdlg. No. 22716	1.1	4.0	3/1	aureolin

* Recommended for one purpose or another. (1-27-49)

Forsythia viridissima; F. suspensa sieboldii; F. europea; F. ovata

Forsythia europea

Robert L. Taylor

Forsythia intermedia

(*natural size*)

Forsythia suspensa fortunei

F. intermedia densiflora

Forsythia japonica saxatilis

F. intermedia spectabilis; F. ovata

Forsythia ovata

Forsythia suspensa sieboldii

Forsythia viridissima bronxensis

The following key may be of assistance to some who wish to tell the species apart when flowers have passed, but leaves are fully developed:—

Leaf Key to Forsythias

1. Leaves often deeply lobed or divided into three parts, twigs hollow but solid where leaves are attached.
   —*F. suspensa*
2. Leaves not divided into three parts.
3. Leaves entire.
   —*F. europaea*
4. Leaves mostly with teeth, only a few entire.
5. Leaves broad ovate, mature branches yellowish.
   —*F. ovata*
6. Leaves narrow and mature branches greenish or brownish.
7. Pith usually solid where leaves occur, leaves sometimes divided into three parts, especially on vigorous shoots.
   —*F. intermedia*
8. Pith usually in partitions.
   —*F. viridissima*

Notes Concerning the Species and Their Varieties

europaea: Flowers usually borne singly, hence not as conspicuous in flower as some of the others. The flowers and flower buds are almost as hardy as those of *F. ovata.*

giraldiana: No better than *F. intermedia* varieties.

intermedia: A cross of *viridissima* and *suspensa,* hence it has some characteristics of both parents—occasionally some autumn color but not pronounced and the habit of *F. suspensa fortunei* with upright arching branches. The varieties *densiflora* and *spectabilis* have the most flowers of any of the forsythias, with *spectabilis* having the largest and darkest yellow flowers. The variety *primulina* is valued for its light colored flowers and *vitellina* is more or less of botanical interest only.

japonica: Both the species and its Korean variety *saxatilis,* bear flowers singly, hence these do not make ornamental plants comparable with the better species listed here.

Robert L. Taylor

Forsythia viridissima

(*natural size*)

ovata: Although this, too, bears only solitary flowers, the plant is valued for its flower buds which are hardier than those of the other forsythia species. It blooms about ten days in advance of most types.

ovata × *europaea:* A cross made at the Arnold Arboretum before 1935, but resulting in plants that were not superior ornamentally in any way to the parents.

suspensa: If we are to take Alfred Rehder's listing literally, there is no such thing as *F. suspensa* since the variety *sieboldi* is taken to be "the type of the species." The variety *sieboldi* has long drooping or prostrate stems, is excellent for bank planting or for overhanging walls and has even been used as a well plant and trained on a trellis; *pallida* has the lightest flowers of the *suspensa* varieties and both *pallida* and *fortunei* are vigorous upright shrubs yet with excellent arching and spreading branches that give a graceful appearance. The variety *decipiens* is not as good an ornamental because the flowers are solitary and not frequently in threes as is the case with the other varieties, and the twigs of *atrocaulis* and *pubescens* are not sufficiently colorful to warrant their being grown in place of the others. The form with variegated foliage I have never seen, but plants with variegated foliage are none too ornamental in most situations.

viridissima: This species is the least hardy of the group, not hardy at the Arnold Arboretum, but its Korean variety *koreana* is, and is just as ornamental. Both have a rich purplish-red autumn color, making them valuable in the fall. Comparatively recently the variety *bronxensis* was named at the New York Botanical Garden, having grown there for nearly ten years. This low dwarf does flower and has merit for this reason.

Horticultural varieties: "Arnold Dwarf" is a cross between *F. intermedia* and *F. japonica saxatilis* and developed by the Arnold Arboretum in 1942. It may prove of value as a ground cover for it roots readily, six-year-old plants are not over 2′ tall, but are 7′ across. The drooping branches strike root readily and form a mat of foliage. However, it has not yet flowered.

"Arnold Giant" is a tetraploid forsythia originated at the Arnold Arboretum. Although the flowers are large and very dark yellow, it proved difficult to propagate from cuttings. Because of this difficulty, and due to the fact that some of the triploids obtained by crossing the tetraploid with diploid forms seemed to be superior in many respects, the "Arnold Giant" is not recommended for further distribution.

"Spring Glory" originated about 1935 as a bud sport of *F. intermedia primulina* in the experimental garden of the late M. H. Horvath of Cleveland, Ohio. He claimed that this sport was distinct from the variety because it produced a larger flower and 30 to 50% more blossoms. It has been propagated and widely advertised for these qualities.

The last-mentioned in the table, Arnold Arboretum Seedling No. 22716, is merely mentioned for its very wide flower petal. This seedling was discontinued when "Arnold Giant" appeared, but may have interest after all since it can be propagated as easily as other forsythias.

Collecting Plants Beyond the Frontier in Northern British Columbia

PART VII

1933 EXPEDITION*

MARY GIBSON HENRY

Spring of 1933 came and again I listened as the silent "Call" to the wilderness drifted to me from the Northland 3,000 miles away. Thoughts crowded into my mind of that magnificent country where the boundary lines stretch beyond the farthest frontier, where the sky is the only ceiling and the floor is a grassy carpet strewn with flowers. Where, too, the rising sun covers the world in great golden silence and falling snowflakes often make an August day white.

On June 28th, 1933, I stood once more on the north side of the Peace River and my daughter Josephine was again beside me. We were near McKnight's tiny inn at Taylor Flats, after ferrying across the river. There would be a short wait for lunch, so we climbed the steep, sandy bank that skirts the river for miles, and so began my third plant collecting trip into the uncharted mountainous region of Northern British Columbia. Part way up the dry, sunny slope, to our amazement, there was a strikingly handsome cactus plant, *Opuntia fragilis,* in full bloom! Salmon pink buds opened to 3 inches wide butter-yellow flowers. It looked as if it would be far more at home in a southern clime than in a region where the winter temperature hovers around 50°-60° F. below zero, for weeks at a time! The plant crept closely and compactly over the ground forming great solid prickly sheets, 10-15 feet across, not rising more than 4 inches from the ground. The comparatively small, almost spherical joints were only about an inch in diameter and covered with ferocious spines, but I gathered a few of the prickly tufts and planted some in a tin can, their home for weeks ahead. Then, although they were mighty poor objects to put in the plant press, I placed several carefully in it and tightened the straps as best I could. Nearby the pretty pale blue flax, *Linum Lewisii,* swayed side by side with the delightful pale yellow forget-me-not-like *Lithospermum incisum.* This latter is a most attractive wildling. *Allium cernuum* carried its gracefully drooping pale pink flowers, *Oxytropis saximontana,* good enough to keep company with the best, reminded me of a large flowered tufted clover. It was a fine pale yellow and delightfully fragant. The attractive and dainty little evergreen ground covers, *Antennaria rosea* and *A. campestris,* helped to clothe the bank. That strange little parasite, *Orobanche fasciculata,* quaint and attractive, subsisted contentedly on its pretty silvery host plant, *Artemisia frigida.* The harebell, *Campanula rotundifolia,* grew in countless numbers in the dry grassy meadows just above the river, making a pretty picture. Mostly, there were rich deep purple blues but a few were pale lavender.

At 5 P.M. a little inboard motorboat was ready to carry us farther up the

*The first part of this series appeared in THE NATIONAL HORTICULTURAL MAGAZINE, in 1934.

river. It was slow going, against the fast current.

On many of the steep, bare hillsides that rise from the river, on the northern side, there are deeply indented trails in the shale. These were made by Wood Buffalo, now extinct, as they descended to the river to drink. They are still plainly visible, particularly at this time of day when the deep slanting shadows showed them clearly. Alas, the Indians who inhabited these regions killed the last of these noble animals years ago for food. In a much more wanton manner, further south, the white man destroyed the Plains Buffalo.

Juniperus horizontalis draped many of the dry clay and shale banks completely with great prostrate mantles of green that were often 30 feet across. Usually these were a dark olive, but sometimes they were of a delightful silvery bluish shade and the contrasting colors made a most ornamental carpet.

We stopped on an island for supper. A huge northern bald eagle was soaring overhead in circles. After tramping through the forest for a while we found its nest high up in a dead tree. In a short time we embarked again and continued on up the river. The northern days are very long at this time of year, so long in fact that the night never does get completely dark, but gradually the pale blue sky of daytime changed into many gorgeous hues. At last the darkening shadows came. At midnight only a few bright stars shone in the dusky sky. We tied up our little boat to a convenient tree and unrolled our sleeping bags nearby, without troubling to pitch our tent. Mosquitoes descended in unbelievable myriads and though we lay there for five hours battling them, it was impossible to sleep. Nevertheless, thrilled at the prospect of the trip ahead, Jo and I arose about 5, fresh as daisies, and soon boarded our boat and were off again. The little engine began to slow up and limp badly but the men coaxed it along until we reached the small town of Hudson Hope where our outfit of 5 men and 24 horses was awaiting us. The horses had been turned loose to graze the previous afternoon, as is the custom on the trail and they had wandered far to find enough to eat. We carried no horse feed. As a rule a few of the "lead" horses are "hobbled," and these wear bells around their necks. The "wranglers" start out early, often at 3 or 4 A.M., to hunt the horses. As some of our horses could not be found we lay over here a day.

Next morning, July 1st, we started north on our journey into uncharted territory. McCusker again was head guide. Jack the cook, Smoky, Tony and Ben, an Indian, also accompanied us. Except those that we rode, the horses were packed with provisions and equipment.

The natives warned us that the water in the rivers was very high this season, the highest it had been for years and that crossing them was very hazardous. We did not realize the full significance of this warning for several days.

Elated and tingling with excitement, we rode up the long hill above Hudson Hope. My horse this season was Belle, a big strong bay. As we rode along the trail through a forest, the exquisite *Clematis verticillaris columbiana* decorated an old log with its startlingly lovely clear blue flowers that were 4 inches across. Near a tiny creek *Mimulus guttatus,* with handsome yellow flowers, rose from a moist mossy couch that was dotted over with that dainty little purple insectiverous plant, *Pinguicula vulgaris. Smilacina racemosa,* apparently a large and glorified variety of

Josephine Henry

Opuntia fragilis. Salmon pink buds open to three-inch butter yellow flowers. A cactus that thrives with winter temperatures of 50°-60° below zero Fahrenheit.

Josephine Henry

Mrs. Henry has a snake! Snakes up north? Yes, we usually find a few each summer. This was a water snake found near the edge of the Peace River at Hudson Hope. Being fond of snakes, we played with it a while and then let it go!

Mary G. Henry (See page 73)

They floated it out into the fast current, Smoky calling out he was sorry he had forgotten his sailor suit!

the eastern plant, waved its fragrant white plumes in the forest. Three orchids, *Orchis rotundifolia, Habenaria orbiculata* and *Corallorrhiza maculata* grew in drier soil. *Lonicera involucrata, Cornus stolonifera, Prunus demissa,* formed much of the undergrowth in the forest of tall spruce and poplar.

We camped at the far end of the Peace River Canyon that night and slept on the hard, stony ground and were thoroughly at home. The altitude here is 1600 feet. Jo and I had decided, years ago, that mattresses were a useless luxury for after the long strenuous days on the trail, the hardest ground was comfortable. It was pleasant to be lulled to sleep by the sound of the torrential river roaring through the great rock walls, "The Gates of the Peace," about a quarter of a mile away.

Next day we walked up to where the river suddenly contracted before it poured through the mighty walls of rock. We slid down on to a narrow shelf, scarcely a foot wide, at the very edge of the turbulent torrent. Even when we shouted as loud as we could our voices failed to rise above the tumultuous sound of the water, and we could not hear the slightest sound of each others voices. Enormous chunks of rock, the size of houses, were strewn all about. It was truly a wild and desolate spot, but very beautiful withal.

We climbed up above the canyon wall where the huge rocks, laying about in chaotic fashion, were densely covered with dark green moss a full foot thick. No particle of stone was visible anywhere. Here and there a beautiful fern, *Dryopteris fragrans* dangled into

the air gracefully like a small and airy fountain. *Thelypteris Robertiana* and *Polypodium virginianum* found a home here, too. In places *Ribes oxyacanthoides* draped its pretty lacy greenery over the rocks.

Hurrying back to camp, in a short time we mounted our horses and soon were on our way again. We rode through miles of the enchantingly lovely and delightfully fragrant pink rose, *Rosa acicularis*. On dry hills facing south *Penstemon procerus* was in bloom. The tidy little clumps were composed of a neat rosette of green leaves and many stems each about 6 inches high, surmounted by short compact spikes of flowers of a dark but brilliant blue, like midnight sapphires. Then came two days of riding through dark forest. I was simply amazed to find the beautiful *Clematis verticillaris columbiana* with its large and handsome blue flowers at an altitude of 2200 ft. In places there was much fallen timber. Hour after hour passed, we walked, we rode and almost constantly the men took turns chopping the trees, so the horses could pass. Sometimes, too, we came to open meadows always, at this season, a veritable sea of blue flowers, *Mertensia paniculata, Polemonium caeruleum acutiflorum, Delphinium scopulorum glaucum, Aconitum delphinifolium*, etc. The meadows above the woods were very wet and no trail was visible. Instead there flowed a stream of water. The horses sank deeply, some disappearing in the water and mud until their backs were almost covered. Suddenly the horse that carried the plant press sank to his shoulders. When he finally emerged from what came near being a watery grave, O horrors, I saw the precious plant press floating away! Thank goodness one of the men rescued it. We continued to flounder and struggle for hours in the water and "muskeg," as the deep blackish northern bogs are called. That evening we reached Aylard Summit, alt. 3800 ft. It was the coldest night so far, the temperature was 35°. The horses and the men were all very tired.

Next morning *Viola renifolia Brainerdii*, growing near our tent, cheered us with its radiant little white faces and *Viola adunca*, an attractive miniature purple violet grew in dry sunny meadows nearby. It took several hours to transfer the pressed specimens to fresh dry blotters and several more hours, with Jo's help, to build a fire and dry and clean the wet ones. It was about 11 P.M. when we got to bed but when morning came we were up about 5 as usual.

July 4th brought us to the Graham River, near a place where we hoped to ford the next day. The river, always high at this season of the year was now a raging torrent and much deeper than usual owing to the melting of the heavy snows of the previous winter. The men decided our duffle would have to be rafted across, so set to work to build a raft. They chopped down 9 trees and lashed the trunks together to make a crude affair about 20 feet long.

Near here, at the base of the handsome shrubby willow, *Salix brachycarpa*, we found the nest of a Snow Bunting on the ground. There were many beautiful bushes of *Lonicera glaucescens*, the honeysuckle of the far north, carrying freely their clusters of showy fiery orange flowers. The royal magenta blossoms of *Hedysarum Mackenzii* brought happy memories of previous trips, especially where I saw it in 1931 growing near the Sikanni River, an enchanting place where the hedysarum grew through a carpet of billowy gray green lichen with an incomparably gorgeous effect. They are, indeed, typical and striking plants of

Josephine Henry

Cypress Creek. I usually fished in the rivers or the creeks after the day's ride. It took only a short time to catch these beauties.

Josephine Henry

Ranunculus pedatifidus cardiophyllus, a handsome buttercup, grows in a meadow near Crying Girl Prairie, a favorite Indian camp ground. Near Graham River.

Mary G. Henry

Jo at work

sub-alpine regions. *Lupinus arcticus* grew among them, a common occurrence, the brilliant blue making a showy and startling combination with the magenta.

Next day the men loaded the raft with approximately four hundred and fifty pounds of food. McCusker, Smoky and the Indian boarded it. They floated out quickly into the fast current, Smoky in his usual good humor calling out he was sorry he had forgotten his sailor suit!

The men had failed to reckon with the unruly force of the turbulent Graham River. Jo and I and Jack the

cook watched them and as we watched our hearts sank. They tried as best they could to guide the "ship" to the opposite shore but it stuck stubbornly to its course on down the river. We saw them pass the gravelly point upon which they had planned and hoped to land. After that loomed a perpendicular bank that somehow or other would have to be negotiated. We followed down our side of the river keeping them in view and stood aghast at the prospect, for it seemed an impossible place at which to land. They swerved toward the steep bank, then the Indian grabbed a rope, jumped into the water up to his chin and scrambled part way up the bank. The other then jumped and we saw them struggle. Unfortunately they could not swim. For a few moments their lives hung by a thread. Smoky clutched a willow on the bank but it pulled right out of the loose soil, throwing him into the river. The Indian, unable to hold the heavy raft by himself, let go the rope that held the heavy clumsy craft, and after frantic, almost superhuman efforts, pulled the other two men to safety. They were on shore. Jo and I were very thankful that all were saved. Nothing else was of any importance. No matter now that our log ship with its four hundred and fifty pounds of food floated unmolested far beyond reach on its mad course down the river! Alas, I learned with distress one of our men, since then, lost his life near here. These swift flowing northern rivers yearly take heavy toll.

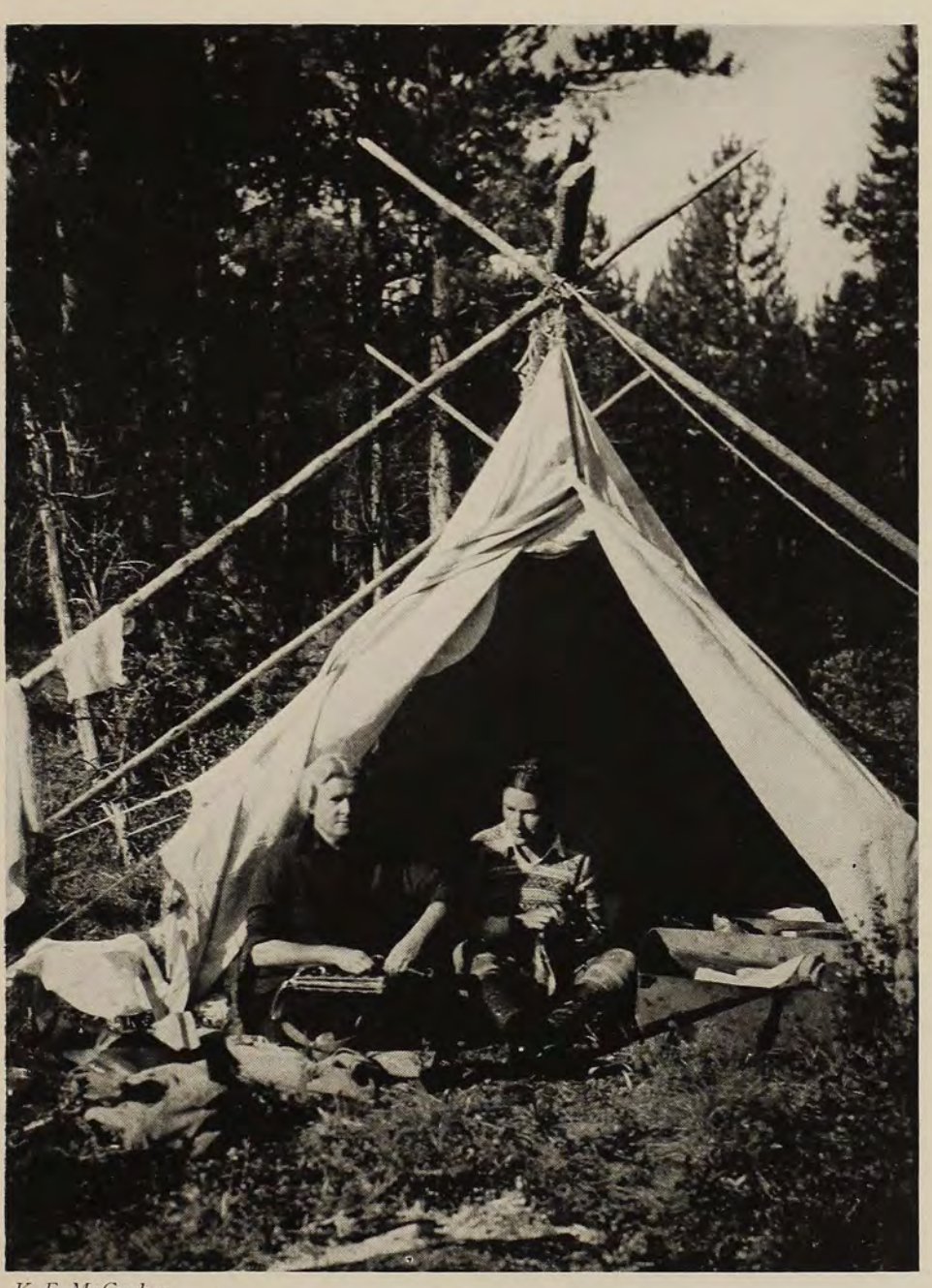
We had a wise cook. Jack had placed all the things he called luxuries on the raft, butter, canned meats, vegetables, fruit and jams. Most people would not call these luxuries but just necessary foods. We still had flour, dried beans, some evaporated fruit, rice, limited amounts of canned meat and bacon and a few sundries.

I could not bear to shorten my trip by returning for more food. Jack thought by careful rationing we could go on our way, if we would be satisfied with a very frugal diet for the weeks ahead. Supper that evening was a solemn affair and everyone was almost afraid to eat anything at all, but afterward we gathered around the camp fire cheerfully, as music from the Victrola, our one luxury, floated through the deepening shadows. Maybe the men found the several plant presses rather a nuisance. Perhaps, too, sometimes they found our photographic equipment rather a nuisance because we insisted on putting it on a "good" pack horse. But no one ever found the Victrola in the way. It was always packed with tender care and given a choice place on one of the best horses!

Life on the trail is invariably a happy life for those who like it, and so next morning our spirits rose with the sun and we went on our way, joyous as usual. Going further up the river we found a better, though not by any means a safe crossing.

Continuous wet and cloudy weather, together with the frequent necessary fordings of rivers, were extremely hard on our rifles, which we always carried in scabbards fastened to our saddles. They required our continued care with cleaning and oiling. Jo and I attended to this important duty every afternoon. Our shoes suffered from the moisture, too. For days and days they never had a chance to dry out and as temperatures were below 32° F. at night, they froze quite stiff. In the mornings we thawed them out and put them on wet.

Fine clumps of *Castilleja fulva* with pale yellow flowers grew in burned over pine woods above the Graham River and *Ranunculus pedatifidus cardiophyllus*, a stunning giant buttercup, grew in a sunny meadow.



K. F. McCusker

Home

We crossed the Graham River several times again but it was narrower now. Each day brought an excitement of some sort, as we wended our way northward over the mountains. But always the magnificence of the scenery, the beauty of the flowers and the interest of the wildlife, with now and then an Indian thrown in, made the time pass quickly, all too quickly!

At 5:30 A.M. McCusker usually built a fire in front of our tent. Except that it was a polite way of saying it was time to get up, it was of practically no use, for since our tent caught fire the year before, he made it so far away it gave us little or no heat. Jack always had a good breakfast of flapjacks, beans and bacon. Jo and I drank cocoa, the men preferred coffee. Our mid-day meal was a sandwich, half a one was enough for me, and a chocolate bar, often eaten on horseback. For supper we usually had meat of some sort, canned or smoked, and sometimes fresh game or trout, rice or potatoes and a vegetable, either dried or canned. Fruit formed our dessert. This year, however, our meals were very, very slim.

The horses, as usual, were turned loose at night so they might forage for food and were "wrangled" before breakfast.

The cold northern nights refreshed us after the long strenuous days and in the evenings the little Victrola gave us music. How I enjoyed it all!

The Victrola, too, had its ups and downs like the rest of us. One night we heard a gnawing sound. I jumped out of bed and there was a large "Snowshoe Rabbit" chewing it. Thick frost, like snow, was sparkling on the ground and burned my bare feet as I ran out and brought the precious victrola into our already overcrowded tent. Sometimes the rabbits did considerable damage to the saddles and harness.

One morning Jo asked me how I had slept. "Fine," was my reply. "Was your bed comfortable?" "Sure," I answered quickly. "Well, I just wondered, because you slept right on top of your rifle!" As a matter of fact, there usually was a bump or two in the shape of a rock or stump and the ground was rarely level, but after the first few days when night came, we learned to close our eyes and sleep.

Every now and then we had a terrible muskeg to get through. The men dreaded these seemingly bottomless northern bogs almost more than anything else, and I always said a prayer of thanks when the crossing was over. I hated to see the horses struggle and often, too, get hurt. I thought of those we lost completely, in horrible mires, during our 80-day trip in 1931.

The days were now perceptibly shorter. This meant I was not able to write in my diary so late at night. As the nights lengthened they, of course, became colder, especially as we were now riding at higher altitudes over the mountains. With the longer evenings we had bigger camp fires. Sometimes we had the curious sensation of having our faces too hot and our backs too cold. We carried no very heavy clothing. We found it too cumbersome. So mornings and evenings and during stormy days we merely added to the number of shirts we wore. Usually a cotton shirt with a flannel one on top would suffice, over thin summer underwear. Our breeches were whipcord.

By 8:30 we usually started on the day's trek. No matter where we went or which way we turned, always the scenery was magnificent. It still rained almost daily and the water in the rivers seemed higher than ever. Finding a place to ford was often difficult. The horses had a hard time to keep their

Josephine Henry

Mrs. Henry collecting Oxytropis saximontana

Josephine Henry

Crossing Graham River. We all got wet this time. It was often difficult for the horses to keep their footing and usually one mare fell at every deep crossing.

footing as the smooth and roundish stones rolled when they were touched, and usually one or two of the horses fell at every deep crossing. These were exciting times.

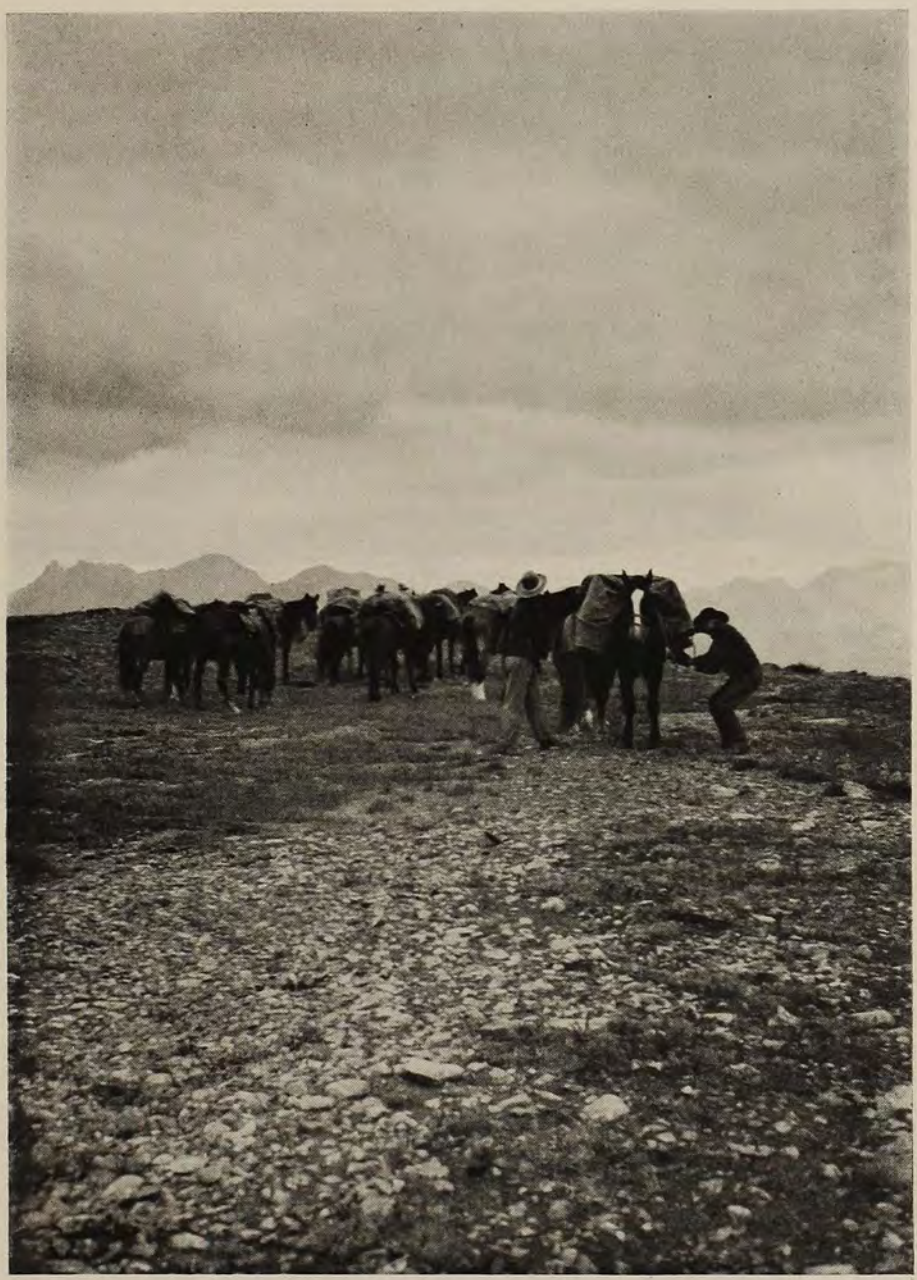
July 10th was an eventful day. We were encamped on Boulder Creek, and it was a rainy morning with the temperature not much above freezing, 38° to be exact, at 5:30. Jo and I often rode independently of the pack train, but this time we decided to ride with it. As the horses would not be ready for some time, we hurriedly packed up and climbed a nearby mountain on foot, for a few hours. The lovely pale yellow *Oxytropis saximontana* was abloom in all its fresh and fragrant beauty. The delightful Forget-me-not *Myosotis alpestris* was nearly everywhere, as were also numerous pretty saxifragas and potentillas, *Thalictrum occidentalis,* with red tassels and deep reddish foliage grew in moist soil.

The men disliked taking down the tents and packing up in the rain. Handling a lot of wet and near freezing ropes is hard on hands, and wet tents, etc., make much heavier loads than dry ones.

So if it was raining early in the morning we almost always waited a while until conditions improved. Showers came frequently but did not often last very long.

After we were once in the saddle, no one cared how much or how long it rained.

The sun came out about 10 A.M. and as the horses were now ready we all started out together. We ate our slim lunch in the saddle. When we



Mary G. Henry

Repacking after a rough ride.

came to an exceptionally bad piece of muskeg we jumped off our horses to take some movies of the poor things struggling in the deep mire. Soon we descended a long slope through pine forest, when we came again to the upper Graham River. It was still a rushing torrent. We plunged in, the water almost reaching our saddles. It was hard for the horses to keep their balance. McCusker, Jo and I got safely over but we waved to the others to go up river to a broader, shallower place. Some of the horses were already in the river and being washed down stream. Several were swimming with their packs under water. Ben, the Indian, was with them. Suddenly his horse fell. Ben disappeared entirely and only the horse's forehead and ears were visible. The horse struggled violently and we feared for Ben. They seemed to have a battle, but in a few seconds Ben emerged safely but he was hurt and shaking with cold. Some of the other horses had great difficulty, too, as they were swept down the river. With considerable anxiety I watched the horse that was carrying my botanical specimens. He, too, lost his balance and was carried dowstream backwards quite a distance before he recovered his equilibrium.

Smoky had already joined us on the far bank. Seeing the predicament of the horses but with no thought at all for his own safety and entirely unperturbed, he and his horse took a flying leap from the high embankment right into the river below. With dexterous skill he landed squarely and in a short time succeeded in mustering in the other horses and driving them to dry land. As the men and horses had had enough and so many packs were soaking wet, we stopped for the night.

Luckily the sun shone so Jo and I put on our bathing suits. After taking the soaked blotters out of my plant press I made a fire in order to dry them. Owing to our camping so early in the day and the general chaotic condition of affairs, supper was called early, 5:45. I just put on my clothes on top of my bathing suit, so when bedtime came I was ready for my swim. The water, of course, was cold and the temperature of the air was just 30°.

We took a swim nearly every day and enjoyed the water immensely, although frequently the temperature was below freezing. When our provisions got wet it was always a problem to dry them. As for my precious plants, the living ones were grateful for a soaking but the pressed ones fared badly.

On July 11th we were approaching Laurier Pass. *Rhododendron albiflorum,* with its curious drooping, bell-shaped flowers, grew on a shady hillside, alt. 4,500 feet. There were many interesting willows, often with handsome catkins. I was not the only one who enjoyed the willows. We all knew that they made excellent feed for the horses. All willows are shrubby in northern British Columbia. *Viola orbiculata,* yellow, and *Viola renifolia Brainerdii,* white, helped to carpet the woods. *Lupinus arcticus* was plentiful. its magnificent deep blue-purple spikes of flowers were frequently tinged with crimson. *Cassiope mertensiana* made great mats with its dainty evergreen foliage all hung with little white bells on crimson pedicels. This is one of the most wholly delightful of all dwarf shrubs. *Castilleja miniata,* magnificent with its salmon pink flowers decorated a moist gravel bar in the, now much diminished, Graham River. *Castilleja fulva,* light yellow, also grew plentifully nearby.

That night we camped in Laurier Pass. Next morning was cold and sparkling, frost was on everything and,

Josephine Henry

Mrs. Henry at Caribou Pass, with plant press. Camera is in saddle bags; field glasses hang from pommel; rifle and fishing rod are in scabbard on horse's right side.

Josephine Henry

Kalmia polifolia, an exquisite little shrub and here only five or six inches tall.

of course, our bathing suits were frozen stiff, so were our wash rags, towels, tooth brushes and shoes, a common occurrence. The horses needed a well-earned rest so that day McCusker and I climbed a mountain. The snow lay deep in the hollows, and in some places we waded through 4 and 5 ft. drifts, slow, tough work. The superb northern balsam tree, *Abies lasiocarpa*, covered the slopes and their sublime fragrance will linger long in my memory. When we reached the top, as always in the mountains, a glorious panorama lay before us, a magnificent chaos of snow-topped peaks. The icy wind blew with such terrific force it seemed to cut my face. My hands were numb from cold and I found it hard to keep my balance against the freezing blast. Afterward, in order to reach the river to take a swim, I walked over tiny, entrancingly lovely *Primula egalikensis*. Their minute pure white or lavender faces were only about ¼ inch in diameter and the little leaves were often scarcely ½ inch long. Although so small in size they rated high in their jewel-like beauty. Truly, they made my swim a joyous one.

We camped at our "Northern Lights Camp" of 1931, where the Northern Lights, with their shattering rays of undreamed of glory, had emblazoned the midnight sky. We crossed over the Caribou Pass on July 14th, alt. 6,000 ft. In places the trail was covered with the beautiful northern *Anemone narcissiflora* in full bloom. Its huge cream-colored flowers with dark centers were very showy, the most beautiful anemone I have ever seen. *Aquilegia columbiana* was just opening its flowers. It is the loveliest of the red columbines. The color is a better red in some localities than others. The little cyclamen-like *Dodecatheon frigidum*, that we saw in former years, was not yet in bloom. The pretty little *Potentilla dissecta* was decked with its soft yellow blossoms. *P. nivalis* is even more attractive, dwarfer and with snow white undersides to the leaves, and *P. uniflora* is the dwarfest and most lovely of the family that I ever came across. Its silken velvety little leaves, pink at first, make this plant a precious gem. *Rhododendron lapponicum* made mounds of bloom 1 to 2 ft. across and but 6 in. high. *Andromeda polifolia*, with rose pink bells, is surely one of the most entrancing of all tiny shrubs. Perhaps, for sheer beauty, it stands at the very top. This exquisite jewel is only a few inches tall. *Kalmia polifolia* is a worthy companion. *Draba incerta* bloomed in crannies of rock, along with *Saxifraga cernua* and *S. tricuspidata*. *Mertensia paniculata*, less than one-fourth the size at this higher altitude, bore flowers of a bright blue and nearly twice as big as those in the meadows. *Pedicularis lanata*'s pretty lavender flowers were plentiful and so were those of the fragile and graceful little *Erigeron compositus trifidus*. Dwarfed by the altitude, *Oxytropis splendens* and *O. hudsonica* made delightful little tufts of bloom. The adorable little 3 in. heliotrope-colored *Corydalis pauciflora* was hung with its unusual and charming flowers. In mighty contrast to such gems, a stalwart buck caribou trotted over the matchless turf.

(To be continued)

Philadelphus Notes

SPECIES OF MERIT

JOHN L. CREECH*

The many Philadelphus hybrids created by Lemoine (see N. H. M. July, 1948) do much to enliven our late-spring or early-summer gardens. While we are inclined now to think in terms of VIRGINAL or ATLAS, there are numerous species that were garden favorites years before Lemoine began his work.

We must remember that while the Lemoine hybrids have most of the virtues and few of the faults of other species they do flower over a rather short period, two weeks at most. In fact, the brief flowering period is one of the arguments against the genus. Actually, this is due to our unfamiliarity with species that flower earlier or later than the more popular varieties. It seems advisable, therefore, to bring to the readers' attention the horticultural possibilities of such species. By including them in a collection, the season can be increased to almost six weeks. In Maryland, the earliest of flowering is May 5 and the last species to bloom appear after June first.

There is a good choice of early blossoming Philadelphus. The first to appear in the Washington area is *P. schrenkii* which has bloomed as early as May 3. It is an upright shrub with small flowers, single but fragrant. The point of interest in this particular species is its early flowering. *Philadelphus hirsutus* is to be found in flower at the same time, but it produces only a few flowers. *Philadelphus inodorus*, a native of the south, also blooms early with us, about May 15. It is a striking plant, and the British state that it is the best of the genus. It is true that the very dark handsome foliage brings out an extreme whiteness in the flowers. These, like many of the species, are no more than one inch in size but remain cup-shaped and, as the name would indicate, are scentless. It has the added feature of arching branches which are rather willowy, bringing the flowers down into full view. The plant I observed at the Arnold Arboretum is an excellent example of this habit. It was completely covered with plump buds about to open in mid-June. This species, which can be found in the better nurseries, would be an excellent addition to the garden.

Philadelphus pubescens was mentioned by the late J. Horace MacFarland as the potential source of a yellow Philadelphus (an intriguing thought, indeed). Our plant, which has creamy-yellow flowers, does indicate the possibility of producing yellow flowers. The flowers, not quite two inches across, are in leafy racemes so that they are partially hidden. They are quite numerous, appearing before May 20. It seems to be a hardy and vigorous species and forms a large, spreading shrub. There are others which flower about the same time, but they are only mentioned here—*P. satsumanus*, *P. grandiflorus*, and × *P. magnificus*. These would not be too easy to find, although they are in the commercial trade.

The late flowering species are limited to two, *P. incanus* and × *P. insignis*. They both flower about June 10. × *P. insignis* will be found under the

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John L. Creech

Philadelphus subcanus
This species displays the graceful, arching habit that is so typical of many of our mockoranges

garden name SOUVENIR DE BILLIARD, especially in British horticulture. It has been in English gardens since 1880. A garden form, HYBRIDUS, came to us from Germany and is quite similar but the name is not too well known. The flowers are in large panicles; I have counted as many as twenty-five flowers in a cluster which are quite fragrant. As with many others, the flowers are small and tend to remain cup-shaped.

Philadelphus incanus will be found in flower at the same time, but there are fewer flowers in the racemes and the shrub tends toward spreading rather than erect habit. The flowers, although described as scentless, seem quite fragrant and have been so reported by other horticulturists. A very close relative, *P. subcanus*, differs from *P. incanus* (from our viewpoint) only in that it flowers two weeks earlier. Our plant is an excellent form. Although a tall shrub, the branches spread and arch so that the flowers are well displayed. A second close relative, *P. magdalenae*, has met with approval in the southeast where it is reported to flower in early May with fragrant, pendent flowers. All three of these species need sufficient room to allow the branches to spread freely. One might add that when seen from a distance, these three species look like large-flowered Deutzias because of the compactness of the flower clusters.

Philadelphus coronarius is the most frequently grown species and there are more forms of it than in any other species. It is in flower by May 20. It was known in the time of the herbalist, Gerard, who found that the penetrating fragrance was pleasantly sweet but "molesting and troublesome to the head." Except for the Lemoine group, only in *P. coronarius* have I seen double forms. These can be found in the trade under such names as *primulaeflorus, dianthiflorus plenus, deutziaeflorus, multiflorus plenus* and *flore pleno*. There is a wide range of doubleness; the most floriferous seem to have the fewer petals. A form with yellow foliage is found here and, if we remember, this character appears somewhat in the Lemoine, INNOCENCE, which of course can be traced to *P. coronarius*. As with the offspring, *P. coronarius aureus* loses this coloring as the season progresses. One will occasionally see the dwarf forms, such as *nanus*, but our plant has not been satisfactory and is not inclined to flower. Recently, a number of *coronarius* selections have begun to appear from stations in Manitoba that should be extremely hardy. We have one called Mr. Thompson, which is a very fine example of these selections. The flowers are cream-colored and profuse in number. Hardiness is no problem and the plant is quite vigorous.

Although most of the species of Philadelphus are upright and inclined to spread, one in particular, × *P. pendulifolius*, is very low and compact. An individual plant, now ten years old, has not exceeded three feet and is just as broad; that is, it is not a weak plant with few stems, but definitely vigorous. It is spheroid in shape and the large pendent leaves aid in this aspect. One cannot see any stems. It conceivably could be used as a low hedge or where a compact plant is needed. The plant in the collection at the Arnold Arboretum, although still broader than high, was a much larger plant. The limited number of flowers last until June 1.

There are undoubtedly many other species that could be discussed, but there is such confusion in the group, and so many species differ in minute details that there would be little value in discussing them here.

On delving into the genus, Philadel-

phus, we frequently see the common name "Syringa," particularly in English works. This is rather confusing but it dates back to the time of Gerard (the sixteenth century) when plants were classified by their use and other non-botanical means. The lilac and the Philadelphus were used to make pipes or flutes because the pith could easily be removed from the stems. Hence, Philadelphus was the "white pipe" and lilac, the "blew (blue) pipe." The Greek for "pipe" is syringa, thus the confusion. When Linnaeus classified his plants, Syringa was retained as the generic name for the lilac and the "white pipe" became the genus, Philadelphus. Even so, one still finds "syringa" in the English or French catalogs, referring to Philadelphus, but we prefer to use either Philadelphus or mockorange.

RELATIVE FLOWERING DATES OF PHILADELPHUS (at the U. S. Plant Introduction Garden, Glenn Dale, Md.)

	May					*June*
	5	10	15	20	25	After June 1
P. hirsutus	x					
P. schrenkii	x					
P. tenuifolius	x					
Gracilis		x				
P. grandiflorus		x				
P. satsumanus		x				
Speciosissimus		x				
P. tomentosus		x				
P. verrucosus		x				
×*P. congestus*			x			
P. cordifolius			x			
P. inodorus			x			
×*P. nivalis*			x			
P. pubescens			x			
Banniere			x			
P. coronarius				x		
P. gordonianus				x		
P. laxus				x		
P. lewisii				x		
×*P. maximus*				x		
×*P. monstrosus*				x		
P. nepalensis				x		
×*P. pendulifolius*				x		
P. subcanus					x	
Albatre					x	
Amalthee					x	
Dresden					x	
Fimbriatus					x	
Girandole					x	
Mont Blanc					x	
Ophelia					x	
Yokohama					x	
P. magdalenae						x
P. pekinensis						x
Argentine						x
Atlas						x
Belle Etoile						x
Boule d'Argent						x
Boule de Neige						x
Burfordiensis						x
Candelabre						x
Coquette						x
Coup d'Argent						x
Dame Blanche						x
Enchantment						x
Enchantress						x
Erectus						x
Fleur de Neige						x
Gerbe de Neige						x
Glacier						x
Innocence						x
Mme. Lemoine						x
Mer de Glace						x
Monster						x
Norma						x
Nuage Rose						x
Nuee Blanche						x
Perle Blanche						x
Pyramidal						x
Rosace						x
Savilos						x
Splendens						x
Sybille						x
Velleda						x
Virginal						x
Voie Lactee						x
P. incanus						x
Favorite						x
Hybridus						x
Sir de Billard						x
Souvenir de Billiard						x

Gardener's Pocketbook

Flavor in Tomatoes

Having grown tomatoes from seed for a number of years I have noticed that the flavor of the old time tomato has vanished from the modern varieties. The old Ponderosa, also called Beefsteak, was the variety that my grandfather always had in his garden as did a neighbor across the way. So I bought it again from Burpee and from Dreer, but the plants I raised did not have the same old taste, a delicious rich one, that signified to us, "the tomato season has arrived again."

The Stone was also a good kind, but it, too, has altered. In THE NATIONAL HORTICULTURAL MAGAZINE for April 1945, I saw an article by A. F. Yeager of the Department of Horticulture of the University of New Hampshire on breeding tomatoes, so wrote him this winter on the subject of flavor for as many other persons to whom I had put the question agreed that "they were not what they used to be." Of course there are people who do not notice taste, the quick lunch people care not what they eat! There are still a few epicures left and it seemed to me it would be interesting to band a few together and demand a return of flavor! I had not thought until now of writing to Crosby Gaige who writes so entertainingly for the Atlantic Monthly when that august monthly started a recipe column as it were, on a more lofty plane than the home-making magazines such as Good Housekeeping or the Ladies Home Journal.

Mr. Yeager wrote me a very interesting letter and said they were trying panels of "tasters" as many people differed in this respect. He also pointed out that children have keener tastes, and at this juncture I felt very ancient indeed, but stick to my guns that there is something in it.

Burpee's Customer Service Department, in the person of Miss Helaine Lintelman wrote me twice about it and it seems that others had written or she had heard them make the some comment. She took it up with their Director of Vegetable Research, Dr. Oved Shifriss, and he agreed that the flavor had changed in American varieties and gave some very logical reasons for the change, increase in size of fruit and yield rather than in quality, demands of the commercial growers, etc. Green fruit shipped, weather, etc. Said it was not entirely correct to say that they had lost flavor but that it had changed.

Then suddenly out of the blue, a friend said, "I had the most delicious tomatoes last summer speaking of flavor, just like the old kinds!" "But where?" said I. "They came from State College and a friend in Bellefontaine, Pa., bought plants from them." The friend has since written me they were the Stone. So now I have an idea that it may be the soil, though have not tried Stone of late years. Will now buy plants from State College if they will ship, and also seeds! Louis Bromfield wrote somewhere he thought they were different and needed boron in the soil to bring it back. Miss Helene Lintelman, referred to above, said boron was not as necessary for tomatoes as for radishes and cabbage and that a little goes a long way. I should have soil treated if I felt that it needed this trace element. Something more to do, in these difficult days but that flavor should be recaptured for my own delight. Will others take up this discussion and give light on the subject?

F. E. MCILVAINE.

Downington, Pa.

Robert L. Taylor

(See page 90)

African Violet, Pink Beauty

African Violet, Pink Beauty

When the notes on African Violets were published in the October 1948 issue of the Magazine, there was no wide discussion of named clones. This was deliberate in that there are already published lists under quite official auspices, each one correct for the date of its issue and almost immediately out-of-date thereafter, because of the rapid appearance of new names.

Through inadvertence, however, no picture was shown of any clone of other than violet and purple colors and the allied hues.

The picture that accompanies this brief apology is of the now old and familiar "Pink Beauty". It shows clearly enough the general style of the flowers with their not too wide corolla lobes, the faintly deeper hue in the center of the bloom, the characteristics of the curious hard stamens and the pistil exserted at a rakish angle. It does not suggest clearly the general lack of red pigmentation in the leaf petioles and the reverse of the leaf blades, a lack that is even more conspicuous in the white clone, "White Lady" and less notable in the clone "Blushing Maid" in which only a faint flush of pink shows over the white flowers. Personally, if I could have but one of this trio, it would be the last, for the flowers are larger and better shaped than those of the other two and the color is extremely delicate.

BYM

Triandrus Narcissus

The section on Narcissus Notes has been omitted from this issue, but it is difficult to reconcile myself to letting pass the opportunity to remind lovers of the daffodil or narcissus that one of the sections most neglected in the gardens and shows of our country is the section of all the Triandrus hybrids.

One will recall that pollen from the triandrus narcissus, whatever the form is highly potent and that the progenies raised when it is applied to trumpet narcissus give flowers that are approximately of trumpet dimensions and distinguished chiefly by the back flaring perianth segments. Pollen applied to garden hybrids with shorter cups, will produce hybrids with shorter cups, but with the same back flare in the perianth. The intriguing thing about these plants, a matter to which most persons pay no attention at all, is the character to the cup. In some it is wide-mouthed, in others quite straight and clipped off as if with shears. The same thing is important in all garden forms of narcissus since the width and character of the cup has much to do with the type of shadow that is thrown, and shadows intensify the colors, always.

A Native Prairie Anemone

When I first knew the Kansas prairie, over forty years ago, the pastures and roadsides were beautiful with the native prairie wind flower, *(Anemone decapetala)*, or "daisies" as they were locally known. I believe it to be one of the most captivating of all wild flowers, for, even though fresh from the glories of California flowers, still, I thought a tight handful of the lovely, delicately fragrant blossoms, brought me for my first view of them, the most delightful flower I had ever seen. Since then the grading of the roads, breaking out of the sod of the wild prairie and over-pasturing of the small amount left has almost made a rarity of that beautiful flower which used to make a carpet of magic for miles about one.

All of which adds up to a plea for the domesticating of our choicest of wildlings to save them for ourselves and those who follow. This can be

done with careful attention to their special requirements of soil, exposure, elevation, drainage and all of their little personal preferences.

But to get back to my "daisies" that are not daisies at all. They grow from the tiniest dahlia-like tubers, which in the wild are often four or more inches below the tough sod of wild grasses. Here, in the garden, half that depth seems to suit them best. It used to be disappointing when they did not bloom in the early spring. Later I learned that when there were no early fall rains the Easter daisies failed, this because the tuber must put up its fall leaves to make the blooms for next spring. This can always be controlled in the garden by a copious fall watering. Early in September is the preferable time, then their wide, finely divided leaves soon show up to stand crisp and fresh all through the worst of winter weather. They will thank you for no mulching nor coddling, for they are used to open, snowless, windswept prairies, with bitter cold, coming through in the early spring with a multitude of their bright daisies on three inch stems which grow as the season advances until the fluffy seed-puff is often topping a ten inch stem.

The flowers are either a pure white with buff reverse to the petals or a deep, (and I really mean *deep*), shining blue, with no least shading of purple. It is a gorgeous shade seldom, if ever, found in any other flower. Occasionally one finds a rather good pink and a few, but never many, paler shades of blue. However, they seldom revert in the seedlings to either white or the lighter blue, so that a colony of carefully selected deep blue can be depended upon to reproduce their own shining color.

The relatively large blossom opens wide its upward turning face each morning when the sun is bright closing about four on bright days or when the sun becomes dim, only to open again the next day, which it continues for weeks, while new blooms come from the same tiny tuber.

This anemone is one flower that does not appreciate either cultivation or fertilizing, requiring only to have its own type of soil, good drainage and full sun in as sod-like ground as possible, then let alone to gloriously attend to its own display, which will amply repay anyone. Provided, always, that it has that one thorough soaking which I spoke of earlier. That does not mean repeated waterings, either, for one good soaking is all it asks for, remembering, as it must, its gratitude for that one in its wild Kansas prairie.

When we bought our little Ozark farm that was one of the flowers we thought impossible to do without, but it was only after years of trying that it finally became reconciled to its new home. The bed was dug out about a foot deep and a layer of four inches of small rocks placed in the bottom to make the perfect drainage it needs. The soil replaced after addition of lime to try to duplicate the sweet prairie sod they revel in, then firmed. Our soil is decidedly acid so knew it must be sweetened, but still they just managed to live, putting up a few pale, sickly bloom, which was worse than nothing. Finally in desperation, the little plateau was covered with fine chick oystershell in the late fall. What a glorious return they made the following spring with their dozens of bright blue blooms. Now they have taken to sending out their thick, white underground runners which push up in the spring with a tuft of leaves, making a new little tuber to increase their beauty another year. This is a sure sign of their contentment.

In their native prairie these "daisies"

grow equally well in the heavy black ground and almost pure sand but not where their resting place has been disturbed by plow or grader. The nearer undisturbed, sod-like conditions with full sun can be reproduced the better they like it, and the finer your reward will be. Try some of these "wind flowers" in your rock gardens for a rare treat, if you can find them.

Mrs. H. P. Magers

Mountain Home, Ark.

Lady of the Night (See page 93)

From southern Mexico, throughout Central America into northern South America, and in Jamaica as well, the orchid, *Brassavola nodosa,* is native where it has been known to botanists for well over a century. It is classed as an epiphyte and often may be found growing on trees but frequently its most vigorous development seems to be made on bare rocks, exposed to full sun, occasionally in locations where salt sea spray may drench the plants at times. In such places the plants form dense mats covering the rock surfaces and at blooming make a striking show. In the Orchid Review, p. 355, Dec. 1928 is an illustration of this orchid, on rocks, with hundreds of flowers. Since the flowers give off a delightful, citrus-like scent from dusk till well into the night, such a bank of flowers perfumes the country-side where they are. In the morning and during the day no trace of the nocturnal fragrance is evident, but it returns with the coming of each evening, as long as the flowers last. So highly thought of is this fragrant orchid that the Spanish people of its home have given it the poetical name "Dama de la Noche", in translation the title of this article.

The plants are of compact habit, sending up slender, cylindrical pseudobulbs from a creeping rhizome. Each pseudobulb bears a single leaf 10 to 20 cm. long. In the wild these leaves are greatly thickened and are linear-lanceolate but under domestication a more constant moisture supply and possibly increased shade, cause them to expand and attain a breadth of 3 cm. although remaining quite thick and succulent. Up to five flowers are produced on the spike that develops at the end of the pseudobulb, and reaches above the leaf. These flowers have the slender sepals and petals of equal length, to 6 cm., with the petals slightly exceeding the sepals in width; their color is creamy white, sometimes with a faint greenish tinge. The labellum is 6 to 7 cm. long, pure white, except inside the throat at base where a few dark reddish-brown spots usually are present, and the expanded heart-shaped lip is crossed by rather evident veins and ends in a short decurved point. Here the flowers last two or three weeks unless pollinated, either intentionally or by natural means, probably the ants that overrun the plants during the blooming season.

This species is of no direct commercial importance, although it has been hybridized with a few commercial species, mainly of the genus *Cattleya,* to produce saleable flowers, but it should be in the collection of every orchid lover. The plants are of easy growth in pots or baskets in greenhouse, slathouse, or out of doors, and do best with little or no shade. In this region the principal flowering season is from mid-May through June but since the plants produce one growth after another all summer, each growth usually sending up a flower spike, ten or a dozen plants assure one of at least a few flowers from the first of May until near the end of the year. The plants are dormant for several of the winter months when they need little water, but leaf-buds begin to swell

H. F. Loomis

Brassavola nodosa in 4 inch pot with second lot of flowers borne in 1947.

in March and from then on water requirements increase. The plants insist on sending their roots outside the container and overpotting should be avoided. Division and repotting is best done at the end of the dormant season.

Coconut Grove, Florida
H. F. Loomis

More about Peonies

After reading Miss Averett's notes on Professor Saunder's peony hybrids I visited Professor Saunder's garden with really disastrous results for I really wanted everything. Having settled, however, on Janice of the *albiflora* x *lobata* group and the lilac *albiflora* x *coriacea* hybrid as the two absolutely essential, we concentrated on giving these two congenial companions.

With patience and skill Professor Saunders worked out planting plans for two triangular beds, solving such problems as blooming dates, heights and color combinations; some of these vary greatly in size and the colors of some are very brilliant indeed.

Here is the result.

The sensational bed has "Postilion" *(albiflora* x *officinalis)* at the back. This is a colossal plant, already some five feet across with four foot stems erect under their enormous dark crimson semi-double flowers. In the middle are "Ludovica" *(albiflora* x *lobata)* described as rose pink, a brighter color than those words suggest to my mind, and "Janice" of the same parentage, a shining true salmon pink. These two are high plants but not as huge as "Postilion". To the front are the shorter "Julia Grant" and "Sophie", sisters of "Janice", both semi-double, Julia pink and Sophie cherry red, and "Victoria Lincoln" *(albiflora* x Otto Froebel) my favorite among all herba-

ceous peonies. The flower is very large, not fully double, the broad petals tapering to a point; in the catalogue the color is described as clear pink, but it has a lustre like rubies.

The subtle bed has "Horizon" (parentage uncertain) at the back, a giant of a plant like "Postilion" with very large single, shell pink flowers. In the middle "Spring Song *(albiflora* x Otto Frobel) a single pale salmon, and "Ballerina" *(albiflora* x *Wittmanniana)* a very large white globe with delicate green and yellow reflections. To the front is "Camellia" the little sister of Miss Averett's "Silver Swan" *(albiflora* x *decora alba).* With me "Camellia" has full double flowers, not very large, white with a pink heart, the form perfect more like a rose than a camellia. Less aspiring than "Silver Swan", "Camellia" manages to keep her stems erect and her flowers fresh for a relatively long time. On either side she has one of the *albiflora* x *coriacea* hybrids, small low plants with stiff almost gray foliage and wide open single flowers rosy purple at first changing to silvery lilac.

Off by themselves I had "Chalice" and "Fantasia" both *albiflora* x *macrophylla* hybrids. They are magnificent plants, very large and very early blooming. "Chalice" thrives and increases prodigiously. The ten inch flower is single and pure white, the foliage striking. "Fantasia" is shell pink, as striking as "Chalice" but twice I have failed to establish it. This must be my own fault as none of the others has ever given trouble. Unfortunately I do not know what I have done wrong.

All of the Saunder's hybrids that I have possess strong stems, decorative and varied foliage and the beauty of the flowers is greatly enhanced by showers of golden stamens and an almost metallic sheen on the petals. Except for "Fantasia" all have established easily and increased quickly. Alas their blooming season is short and I could look at them the whole year round and never tire.

I have "Windflowers" too, the early one as well as the late, which makes for a very long season, as well as one of the parents *P. Emodi* which blooms between its offspring. I echo all of Miss Averett's praise of these.

I cannot close without saying that these beautiful herbaceous peonies are as nothing compared with Professor Saunder's yellow tree peonies but theirs is a whole other story.

Alida Livingston

Oyster Bay, N. Y.

Nandina Domestica

Mr. Alfred Bate asks in the January Magazine why a certain *Nandina* in a garden near Mendham, N. J. (40° 45″ N. Latitude) doesn't bear fruit. The plant has survived five winters at the base of a stone wall, open to north and west winds, has killed back a third several times, duly blossoms but no berries. This is a problem which disturbs many others. There is so much to commend this plant, even aside from berries, that a review of causes may serve other localities.

The Nandina is catalogued as requiring warmth for fruiting which is a half statement. The need is for real heat in summer to set and mature the fruit and then dormancy in winter to stop growth.

The writer has a group planting for a screen along a winding path entering a patio. The plants stand some six feet tall, evergreen, with foliage in green, red, and yellow varigations changing in intensity according to the season. They bloom profusely, the flowers do not open, but drop off in the bud stage and even at that, the

buds are temporarily decorative. This bud dropping occurs in all gardens on and about the slopes facing San Francisco Bay. The climate is mild and any extremes of cold or heat are in short duration.

However, passing over some low ridges and into the interior, no more than 25 miles away, the winters are cold at night, frequently so during days, with heavy frosts at times, perhaps 18 degrees F, and occasionally, thin ice forms. In summer months the heat ranges from 80 to 120 degrees days and nights cool. The Nandina fruits profusely.

In contrast with Japan, its adopted home, we saw the Nandina used in all sorts of locations in the Tokyo-Kyoto-Nara districts, such as around shrines, along open walks and about pools. Our visit was too early for fruit so I have consulted Mr. Samuel Newsome, the well known Californian artist and landscape architect. He spent several years in Japan studying art and landscape design and is well informed thereby. He states that the winters in Japan are considerably brightened by the large clusters of Nandina berries. They are especially beautiful with the snow clinging to them so he is of the opinion that it takes a climate or situation exposed to decided seasonal changes to make them do well. They grow 8 to 10 feet in height and have bunches up to a pound in weight.

As to situation, I know of one garden over the ridge from us where there are scattered plantings in full sun, also out of full sun and part day sun. In some parts of this garden the plants do not fruit so there may be some peculiarities of situation as Mr. Newsom mentions. One plant might be sterile but unlikely for a group.

The Nandina is listed as tender yet the way it withstands frost hearabouts and stands up under the severe winters of Japan, is perplexing indeed. In Mr. Bate's instance, the blossoms perhaps did not get beyond the bud stage. The flowers are perfect and self pollinate, not dioecious to require pollen from another plant. If nights are not cool during summer such may be a factor. The plant had the extremes of seasons to develop fruit. Just how far north is the border line for fruiting and secondly, for growing well, and thirdly, for survival, would be interesting data for readers to report their experiences.

In growing the Nandina, the old canes are not cut off at the ground, but are cut off just above a live shoot or branch so as to make a spreading top. Also heavy watering at blooming time is often an aid in setting berries. The seed germinates in about 30 days when fresh and will normally produce fruit in 3 years. The seedlings make beautiful tropical-like pot plants with abundance of graceful foliage for about five years or until the canes drop the lower foliage.

George B. Furniss
Oakland, California

Nandina in Connecticut

Two plants of *Nandina domestica* were given me to try. They were treated as house plants the first winter, then set in the garden in practically full sun. They do get a little shade late in the afternoon.

In the winter they are well covered with salt hay and spring finds them without leaves. However, this year one plant kept its leaves.

They have not grown very much in the four years. Their height is about ten inches, too small to bear fruit.

I have been told that they will only live a few years in this climate. A neighbor of mine had one which came through five winters only to be dug

up and thrown away by a nursery man who was cleaning up the garden this spring.

Ruth A. Stephenson

Tydeas et al

For the first time it has been possible to find roots of Tydeas offered in our trade, so the editor has laid in a small supply and has had photographs taken of their strange roots, as well as of the roots of Naegelias, their cousins and of an odd species of Achimenes, that does not in the least resemble the roots of any of its kin already known. Of course all of this may be 'old stuff' to the readers of this magazine, but it is new to the editor and to all of his friends who saw the even more catkin-like roots, of the two genera.

Apparently one of the difficulties in the whole matter is that the roots are perishable and that there is a real difficulty in merchandising.

If any members are already growing either of these genera, the editor would like very much to correspond with them on experience and cultural methods.

Stachyurus praecox at Gladwyne

At one time there were well over a thousand different trees and shrubs, mostly all foreigners, growing here. Very many of these have been discarded, for one reason or another, and some few have winter killed. There are still about the same number of trees and shrubs growing here, maybe more, but now they are mostly good American natives.

Having spent much time "in the field" in the recent years and having brought into cultivation many "new" American plants, I have come to the conclusion that our native trees and shrubs are usually vastly more satisfactory to grow in our gardens than are those from foreign lands, and even more beautiful.

Of course there always will be, however, certain shrubs, etc., from overseas that we have been growing since our country was founded, and that are so well loved we cannot bear to call them foreigners. I am thinking especially of the Lilac, and while it is in bloom there is nothing more precious in our gardens. At Gladwyne, the common Lilac, *Syringa vulgaris*, and its numerous varieties are usually in bloom the first week in May.

Long before this, we who love flowers are longing for the "first early" shrubs to come into bloom. The list of these is very limited. Perhaps of them all *Stachyurus praecox*, an Asiatic, is my favorite. My bush is now 15 ft. tall and 18 ft. in diameter. It has been growing here for 18 years and since it became established has never failed to flower. Each year it becomes more lovely and more fairy-like in its unusual beauty.

It bears countless pendulous 3½-4½ in. racemes that resemble icicles in the manner in which they hang from the tips of each branchlet. The color of the flowers, however, is a wholly delightful shade of soft creamy moonlight-yellow, utterly lovely and utterly refined, in direct contrast to the far too often planted, garish, deep yellow flower Forsythia.

Stachyurus is an excellent shrub to cut for use indoors where its easy grace and fresh spring-like beauty is greatly appreciated. It may be cut early in the year, as it forces well.

While green and growing in the summer time maybe *Stachyurus praecox* does look like "just another shrub." It saves its beauty for the early springtime, when we need it most.

Mary G. Henry.

Gladwyne, Pa.

From The Midwest
Horticultural Society

Andorra juniper

Although the evergreen craze developed into large proportions in the entire country, the lack of Andorra junipers is noticeable in the Middle West.

This evergreen is much more suited to low plantings or for edging off larger material than the widely used Pfitzer. It is naturally a compact grower and the pleasing winter color of a plum shade is decidedly a contrast to the dark greens or grays of other species.

Like all junipers this variety is adaptable to a wide range of soils and exposure. It forms a compact circular clump less than eighteen inches tall and spreads close to the ground. As a transition plant or for a low border it is ideal. A good use may be found in low evergreen covers for graves, monuments, and similar areas.

Certainly anyone who is contemplating an evergreen planting for any purpose should look into the merits of the Andorra Juniper for any low use.

Some Notes on Dwarf Vegetables.

During the victory garden era, home gardeners were advised to stay away from melons, cucumbers, corn, potatoes, pumpkins, and squash of the running type. This admonition was made on the basis of the types and varieties then available. Since then a number of new varieties have appeared on the market that make most of these plants desirable in the small backyard garden.

At the present time dwarf varieties of corn, melons, pumpkins, cucumbers, and squash have enlarged the variety of plants that require little space and that pay a dividend in real eating pleasure.

Golden Midget Sweet Corn is one of the new kinds that is especially suited to the home garden. The stalks grow about knee high with the tassels reaching up to the waist. These diminutive plants have one or two, usually two, ears of golden corn about 4 inches in length. The small size of the plant and the absence of shading of other crops makes it possible to grow this variety in the same area as you would a crop of beans and still enjoy the superlative flavor of home grown corn. This corn has one of the finest flavors of any sweet corn on the market. It takes about two months to mature which gives it an added advantage for the home garden as a crop is obtained in less time and several crops can be grown during the season. Late crops can be planted after the family vacation and harvested before frost. Gold Midget has all the advantages of the famous Golden Bantam, plus earlier maturity and dwarf size. White Midget is a miniature Country Gentlemen in flavor but approximates Golden Midget in size and maturity. These two should prove valuable to any home gardener who like corn.

Mincu Cucumber is a small cucumber about the size of a large dill pickle. As such it may be used for pickling or for slicing. The vines do not run extensively and bear heavily. Hills can be placed as close as two feet and an abundance of fruit harvested. This too is an early maturing variety that shortens the time needed in the home garden. The fruits are well flavored and ideal for slicing. Three or four hills will furnish an abundance of salad fruit while a dozen will give plenty for pickling.

New Hampshire Midget is a watermelon that is early maturing and ideal for the small garden. There are several other varieties listed that show much promise such as Icebox, Early Kansas, and Yankee Midget but this one has

the value of personal observation. The fruit is about the size of a large muskmelon. It is a nice green color with a remarkably thin rind and a medium red, very sweet flesh. One fruit makes a good individual serving. While it is questionable if this is any better than the best of the southern melons it is certainly far superior to the varieties used for shipping to the northern markets. The vines will run to about three feet in length and bear several fruits. They take but little more room than a hill of cucumbers and are early enough for a crop in most places.

Minnesota 356 is a midget muskmelon with a thin rind and rich golden fragrant flesh. The fruit is about the size of a large orange and very thin in the rind. Vines do not run much and the fruit is matured early. This, too, is a fine melon for individual serving and a space and time saver in the home garden.

Another midget that may prove of value in some gardens is the Cheyenne Bush Pumpkin. This is sugar type pumpkin which is just about right for several pies. The vine is only about 3 feet across which fits it to the larger home garden. However, the advent of canned pumpkin has so reduced the work of preparing pie filling that it is doubtful if this variety will be very widely grown except in areas where canned pumpkin is not used.

A Midget tomato, called Tiny Tim is being widely suggested for home gardens. Inasmuch as the fruits are of the miniature type that have been on the market for years it is doubtful if the public will be any more enthusiastic than they have been in the past for the cherry, plums, and pear varieties. Good varieties for the home garden are Bounty and Victor. These have good size fruit and bushy plants that do not run. They are excellent for limited space and provide an abundance of fruit.

A new bush squash of the acorn type is now being introduced and may extend the winter type of squash into the homegarden. The summer squash although growing into sizable plants have not taken near the space of the winter kinds and have provided an abundance of fruit over a long season. The development of this bush acorn may add another worthwhile vegetable to the small garden.

Certainly with the development of these new dwarf vegetables the home garden has been benefitted by having maturity time shortened and the space requirements reduced so that more plants may be grown in the garden.

ELDRED E. GREEN.

Double Trilliums

The best-loved wildflower of the Pacific Northwest is surely the western trillium or wakerobin, *Trillium ovatum*. Though Peck's Manual of the Higher Plants of Oregon lists three other trilliums native to the region, this is the one most people know. Its appearance in the woods of Oregon and Washington each year is the assurance that spring has come again.

Each year the Portland *Oregonian* receives letters from a good many people, claiming to have found the first trillium of the season. The one with the earliest date is published, and this informal record shows that March is the month, though trilliums have been found in bloom as early as February, and in 1948 a freakish plant bloomed in November.

It is hard to persuade the admirers of the trillium to leave it alone. They refuse to believe what the botanists and garden clubs tell them, that picking it in bloom destroys seed and leaves as well as the flower, and weakens and

Courtesy, Portland Oregonian

Double Trillium ovatum

finally destroys the plant. So each year the trillium frontier gets pushed back a little farther.

Trilliums transplant satisfactorily, if lifted with care in the summer, after the tops have died down. Early summer is the time to gather seed, too, and this may be sown at once or saved till fall. In either case it will be up the following spring, as small single-leaved plants. It takes about four years to get flowers from seed.

The trillium hunter sometimes finds a double flower and that is really news. One flower in ten million does not seem too extravagant an estimate, considering the acres of white-starred woodland one can walk over without ever seeing a double. A thousand shall bloom at thy right hand and ten thousand at thy left, but the double shall not come nigh thee, till one day, suddenly —

A double may have four, five, six, ten, fifteen or more petals. Those with a small number of petals usually have stamens and pistil; the completely double have no reproductive parts, and of course can be increased only by divi-

Eight new eyes formed on Trillium ovatum double, after mole damages. Two eyes are on the other side.

sion. The right time to divide is in summer, when the plant has ripened seed and its top has died down. Plants that are well situated, with good leaf-mold soil, and sufficient moisture and shade, will make annual increase, and can be divided every year, but the clumps are more attractive if left to spread out.

Carl Purdy of Ukiah, California, described his method of increasing trilliums by cutting the thick fleshy rootstock with a knife, as hyacinth growers do the hyacinth bulb. I have lacked courage to try this on my treasured double trillium, which has from twenty to thirty-three petals, depending on the size and vigor of the rootstock. I had simply divided the natural shoots that came, a slow method. But last year a mole got into the bed and settled the matter for me. By the time the damage was discovered, a fine large rootstock had been scooped out on the under side, and had reacted to this treatment by making eight new eyes on different parts of the rootstock. It was lifted and planted in a pot in the fall of 1948, and I hope to separate these eyes next summer, and grow them on. The main shoot was reduced to about half its usual size. Whether it will bloom this season is doubtful.

Oswego, Oregon. DREW SHERRARD.

Trillium ovatum in the garden.

Crocus "Vanguard"

When one has grown even a few of the spring blooming crocus species, the fat hybrids of commerce take a second or third place in one's regard—always excepting the jolly, laughing "Mammoth Yellow" or "Dutch Yellow," or whatever other name a particular catalog gives it, for all hybrids are the same in form, color, size and charm; the soft lavender "Margot" which is so like a large *Tomasinianus*; the soft light bluish—I will not say blue—"Maximilian" and that grand and glorious regal purple "Purpureus Grandiflorus" which so proudly, and falsely, bears a Latinized name as though it were natural species instead of a man-made hybrid. Now there is another hybrid which may be admitted to this exclusive group which to my species inclined eye stand at the head of all garden hybrids.

"Vanguard" was first advertised, at least to my knowledge, by Wm. N. Craig in the autumn of 1945 when we could again obtain Dutch bulbs. Had it not been listed among species I am sure I never would have bought it and would thereby have lost a very desirable pleasure. It is a very early flowering variety coming into bloom just before the well-known garden hybrids and bearing large, but finely shaped blossoms with pale lavender or soft near-ageratum blue interiors while the outsides of the three exterior petals are of French grey. This grey exterior

makes the buds almost unnoticeable but when the flowers are half open the grey charmingly sets off the lavender. This variety was a Van Tubergen creation and is now listed in several bulb lists and is not expensive. That it is a *vernus* hybrid there is no doubt but which other species gave it its grey exterior I do not know. From its form, it could have had *C. Tomasinianus* or *C. Imperati*; and while the former might have given the grey exterior it seems more probable that the latter species' buff backing really did the trick. Whatever its pedigree it is a very lovely and desirable plant and, judging from its behavior during two years in the garden, it increases most pleasantly.

ALFRED BATE.

New Jersey.

Dianthus "Old Spice"

Years ago when the hybrid garden-pink "Beatrix" made its bow to the public amid much catalog praise it was bought because of its vaunted fragrance and continual bloom. Fragrance it had; but its flowering was only a scattered burst every once and a while during the summer and autumn. Then its type of florescence was not pleasing to me for it is a cluster-pink and I like to see the shape of the individual flowers; and even the cluster is not large enough for the size of the plant, though heaven knows its stem would not bear a larger one. Both of these points the catalogs failed to mention. It lived but did not improve and become a pink colored "Mrs. Sinkins" or "White Reserve" much as I had hoped for. Several years later in a new garden three plants of it were gotten in the hope that a small group would make a better showing which they did not. So it was with much misgiving that sixty cents was doled out for another novelty, "Old Spice." Therefore it was with much delight when it measured up to my fondest expectations even though it suffered much neglect during this past summer. Planted near the group of "Beatrix", now three years old, it has shown itself superior in every way.

The fully double flowers are larger, usually three to a stem but opening one at a time and of a clearer rose color than "Beatrix" and are more strongly scented, a delightfully spicy old-fashion pink fragrance. They are continuously produced on stems from twelve to fifteen inches tall above a bluer green foliage than that of its older sister. Also it makes a more sturdy and compacter growth, not sprawling about as the other does. What it will do in its second year remains to be seen but I am certain it will not fall short of its promise and will predict a happy future for it both for garden and for cutting.

ALFRED BATE.

New Jersey.

SOCIETIES AFFILIATED WITH THE AMERICAN HORTICULTURAL SOCIETY

(*Continued from page* i)

State Agricultural Society,
P. O. Box 2036,
Sacramento 9, Calif.

Takoma Horticultural Club,
A. C. Barret, Pres.,
4719 Brandywine St., N. W.,
Washington, D. C.

The San Francisco Garden Club,
465 Post St.,
San Francisco 6, Calif.

Trinity County Garden Club,
Mrs. Rose N. Grigsby, Treas.,
Weaverville, Calif.

The Trowel Club,
Mrs. J. Douglas Rollow,
4524 Cathedral St., N. W.
Washington, D. C.

Tulsa Garden Club,
Mrs. Allen Henry, Pres.,
1301 South Yale,
Tulsa 4, Okla.

Victoria Horticultural Society,
Mr. Jack G. Beastall, Sec'y.,
255 Battleford Ave.,
Victoria, B. C., Canada

Vivian Garden Club
Vivian, La.

West Hills Horticulture Society,
5420 S. W. Alfred St.,
Portland 19, Oregon

Welcome Garden Club
Mrs. J. A. Reid, Pres.,
400 Speed Drive,
Monroe, La.

Winnsboro Garden Club,
Winnsboro, La.

Woodridge Garden Club,
Mrs. Alma E. Marshall
1326 Allison St., N. E.,
Washington, D. C.

Worcester County Horticultural Society,
30 Elm Street,
Worcester, Mass.

The American Horticultural Society

INVITES to membership all persons who are interested in the development of a great national society that shall serve as an ever growing center for the dissemination of the common knowledge of the members. There is no requirement for membership other than this and no reward beyond a share in the development of the organization.

For its members the society publishes THE NATIONAL HORTICULTURAL MAGAZINE, at the present time a quarterly of increasing importance among the horticultural publications of the day and destined to fill an even larger role as the society grows. It is published during the months of January, April, July and October and is written by and for members. Under the present organization of the society with special committees appointed for the furthering of special plant projects the members will receive advance material on narcissus, tulips, lilies, rock garden plants, conifers, nuts, and rhododendrons. Membership in the society, therefore, brings one the advantages of membership in many societies. In addition to these special projects, the usual garden subjects are covered and particular attention is paid to new or little known plants that are not commonly described elsewhere.

The American Horticultural Society invites not only personal memberships but affiliations with horticultural societies and clubs. To such it offers some special inducements in memberships. Memberships are by the calendar year.

The Annual Meeting of the Society is held in Washington, D. C., and members are invited to attend the special lectures that are given at that time. These are announced to the membership at the time of balloting.

The annual dues are five dollars the year, payable in advance; life membership is one hundred dollars; inquiry as to affiliation should be addressed to the Secretary, 821 Washington Loan and Trust Building.