



Newsletter

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International Lilac Society, Inc.

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NEWSLETTER

VOL.2, NO.1, 1973

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Front Cover: top left- Winter buds 'Marechal Foch'; top right- winter buds 'Moonlight'; middle left/right- colchicine treatment 'Flora' seedlings, Spring buds 'Maud Notcutt', scale infesting lilac; bottom- seed planting 'reticulata' Hara, seedlings *S.Tigerstedti*.

(photos courtesy: Robert B. Clark, John L. Fiala)

In the interest of the membership of the Society a wide variety of information on lilacs is sought. The Society is anxious to obtain original pictures of hybridists, lilac gardens and items of interest to members. Send articles on lilacs or material for print to: Editor, John L. Fiala, 7359 Branch Rd. Medina, Ohio 44256

JANUARY 1973

SPECIAL MEETING OF I.L.S. BOARD CALLED

At a special Board Meeting called because of the resignation of President Bernard Harkness, because of reasons of health, Board members present voted to have Executive Vice-President Dr. Robert B. Clark assume the office of President until the elections at the Annual Convention in May. The Special Meeting was held at Medina, Ohio (the first Board Meeting in the Midwest). Clare E. Short of Elyria, Ohio, and president of The Local Ohio Chapter, was nominated to fill the vacancy on the Board for the Regional Vice-President of Mid-Western Region as was approved and directed at the May Annual Convention held in Rochester last Spring. Board members present also directed the new President Clark to implement all necessary committees for the effective operation of the Society. Board members also toured the lilac plantings at 'Falconskeap' of Editor Fr. John L. Fiala. (Because of distance and inclement weather some Board members were unable to attend.)

PRESIDENT'S MESSAGE . . .

Sate of the Society, Lilac that is.

As the year 1973 unfolds International Lilac Society looks ahead to Boston, the Arnold Arboretum and its famous lilac collection, to New England where so much of New World lilac history has taken place, and to greeting new members and renewing acquaintance with lilac friends of long standing.

In the brief span of the year ILS has achieved much. Last May it gathered in convention at Rochester to visit and study the comprehensive lilac collection founded by John Dunbar eighty years since (as he would say), expanded by Barney Slavin, and now maintained by the capable hands of Alvan Grant and Richard Fenicchia. ILS has published the proceedings of that event, also four newsletters. It achieved in that first year a membership roster of 172 friends of the lilac, pioneers willing to support a society devoted to the promotion and advancement of lilacs worldwide.

Not all events which ILS have experienced since the annual conclave, I am sorry to report, have been glorious. The Board of Directors lost to illness and incapacity first its treasurer, Fred Van Orden, then its president, Bernard Harkness, each of whom has felt it necessary to lay aside the mantle of office with its accompanying responsibilities during these formative years when leadership of dynamic quality is demanded. We, therefore, tender to both Bernard and Fred our sincerest gratitude for services rendered and wish them many years of happiness ahead among their lilacs and with their families.

The watchword now is "close ranks". Membership needs to be increased in number to reach out to all interested in The Lilac. The number of "life members" is doubled! We are most gratified that so many persons believe in ILS's viability and potential for growth. Let us each one step forward, offering freely what special talent he is endowed with for the betterment of the lilac and ILS.

Robert B. Clark, President

1973 LILAC CONVENTION . . .

THE ARNOLD ARBORETUM MAY 25 - 26
OF HARVARD UNIVERSITY

THE ARBORWAY · JAMAICA PLAIN · MASSACHUSETTS

Host . . . Richard A. Howard, Director & Staff

The Arnold Arboretum has one of the finest collections of lilacs in the world plus its world-renown arboretum. An exciting program is planned by Convention Chairman Dr. Owen Rodgers of University of New Hampshire. See the "Convention Issue" of the *NEWSLETTER* next month.

HDG: MARRIOTT MOTOR HOTEL
COMMONWEALTH AVENUE
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Sterile medium, warmth and humidity



S. Wolfi seedlings

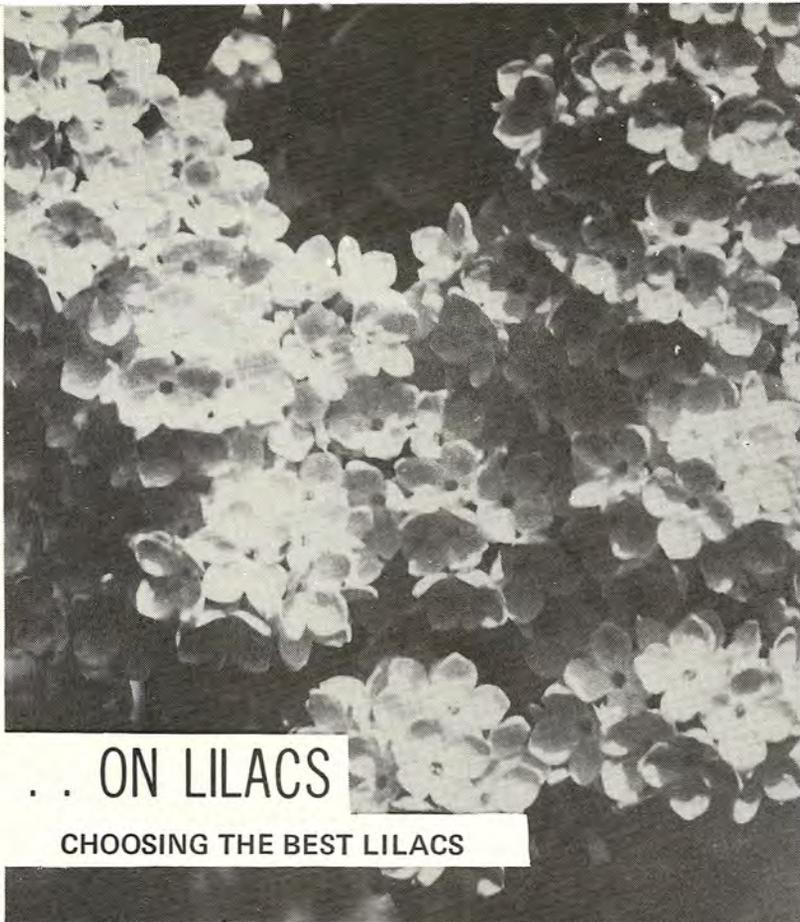
SOWING LILAC SEEDS

by Robert B. Clark

Lilacs are easily raised from seed so long as you take necessary precautions and have patience. Remember that nearly every lilac cultivar was once a seedling. Assuming that the seed was ripe when picked and is viable when you sow it, you need only provide moisture and warmth while being sure air is present in the seedbed for germination. If a seed is alive it will take up water and swell. If sufficient warmth is provided it will sprout. Seeds of hardy shrubs germinate at temperatures between 40° and 70° F.

Indoor sowing in March or April in a flat, flower pot or plastic container, gives a lilac seedling a headstart for summertime outplanting to a suitable nursery. The soil mixture need only be screened garden loam which has been "pasteurized" at 140° F. for a half-hour in the oven to neutralize damping-off organisms. Level and firm the seedbed especially around the edges and either drill the seed in rows or scatter them over the surface. Cover the seeds with a thin layer by screening. Water by immersing the flat or porous container in a sink up to the soil surface, but not flooded, or by overhead sprinkling with a fine hose nozzle at low pressure onto a paper towel spread over the seedbed which prevents washing out of seeds.

Germination usually takes from three to seven weeks. Do not forget to inspect the seedbed occasionally so that it does not become dried out. But do not overwater thereby excluding air from the seedbed. The tiny seedlings may be pricked off as soon as a pair of true leaves are well developed. The first two leaflike structures are actually cotyledons or seed leaves. Or you may leave the entire seedbed undisturbed for the first year. Then, in a few years hopefully, you, too, will raise a seedling lilac worthy of naming.



... ON LILACS

CHOOSING THE BEST LILACS

S. vulgaris 'Gen. Sherman'

WHAT LILACS SHOULD OUR MEMBERS PLANT? (AND WHERE, OH WHERE ARE THEY GOING TO GET THEM?)

by Dr. John C. Wister

Many of us are happy that we now have a Society devoted to the Lilac. We are proud that it is pledged to make the Lilac more appreciated and more widely planted. We applaud its daring announcement that it will try to improve the plant and the flower, which after all is what other plant societies have done with their special plants.

But where do we start? We can't, right off the bat, put dozens of skilled breeders into the fields and say to them, "Go to it." Even if we could, what instructions could we give them? I contend that we don't really know what improvements we want, let alone how to go at the job of trying to get them.

So where do we start? I think it must begin by letting our members see the best of the modern Lilacs at our annual conventions and other meetings — regional, state or local. That alone will take time. Then we must encourage them to try to get the ones they like best and to try to grow as many as their individual gardens can probably hold.

We can assume that all our members have room for at least from one to a dozen good sized plants. If not they would hardly have joined. We know some members have space for one, two or three dozen plants. We know that a few of our luckier members work in arboretums, parks or nurseries where they can grow thousands of plants in hundreds of varieties.

These few professional members can advise amateurs and beginners what varieties to plant and they have been doing that for at least this last half century. But garden needs and personal tastes differ, and no one person is really even qualified to tell another person what to do.

The American Association of Botanical Gardens and Arboretums, through its 1941 and 1953 Surveys, did help to straighten out the chaos of over a thousand different named varieties (cultivars) of one group, the "Common" or "French" Lilac (*Syringa vulgaris* and its relative or ally, *Syringa oblata*). The Surveys also added at least a little garden information section concerning the over twenty-five other species and their hundred or more hybrids. And finally, while they were wise enough not to attempt to name "Best" varieties, they did try to call attention to about a hundred "Recommended Common Lilacs and Early Hybrids" and to what was called a "Tentative" list of what seemed to be an important garden dozen species and a couple of dozen of their "Midseason" and the "Late Hybrids."

I believe these Surveys made a beginning by giving to the cooperating institutions and individuals (nearly a hundred in all) information concerning the relative garden merits of the varieties named. In addition, as a thousand or more copies of "Lilacs for America" (the official title of the published results of the Survey) were sold to the general public, they must have had some general influence in determining which varieties were propagated and offered for sale by nurseries and hence made more available to the general garden public.

I have come to believe that the efforts of the two Survey Committees were very worthwhile and that they led, though exasperatingly slowly, to the organization of our Society, which once again leads us to ask (1) "Where do we go from here?" (2) What Lilacs should our members plant; (3) What can the Society do to encourage the members to buy not just the general run of varieties but also the very best of each different group and each different color? (4) What can the Society do to persuade our members to be willing to pay higher prices for well grown plants of fine varieties instead of looking for so-called "bargains" at cheaper prices? And finally (5) What can the Society do to make it easier for the members to get the fine varieties we wish to encourage them to grow?

What can our Society do to answer these questions? I would say right off, "Not much yet." But I would add, "in time and a little at a time, a great deal that will be very important."

Let me try to answer or at least discuss the above few questions: First, we should go on and on in our happy way holding conventions and also similar meetings in places where good lilacs may be seen. If a picture is worth a thousand words, how many words is a visit to Rochester or Arnold worth in Lilac time? We must go and go and go to these, to Hamilton, Holden, Morton, Des Moines, St. Paul and other big collections to let the beauty of the different varieties really sink in; make our members want to try some of them and make them willing to pay higher prices for good plants. This brings us to our title question and question 3. The Society cannot now — or ever — tell our members what Lilacs to plant. That involves personal opinions. What the Society can do and has already begun to do is to allow the members to see many varieties and let them choose for themselves, but please not let the beginner choose without hearing some well chosen remarks or questions from someone or preferably from many, who are older and wiser in Lilac lore at least. Let the sages ask the beginner, "Have you noticed that this white variety that you have chosen does not have as many flowers, or is not growing as well as another variety near it?" or "Have you noticed it shows more frost damage than others near it which may mean it is not suitable to this particular climate?" or "Can you come back tomorrow for another look to see if today's hot sun has wilted its flowers compared to the flowers of another variety of the same color only a few yards away?" or "It looks as if we were going to have a thunderstorm — why not come back tomorrow and see which of three or four similar varieties has come through the best?" or "Have you noticed how straggly and leggy the plant is or

that it has flowers only on the top compared to a variety just across the way?" or even "You better come back in August or September to see how mildew has ruined the appearance of this plant compared to the relatively clean foliage of a neighboring plant."

The list of questions that could be asked of the beginner who has in the opinion of veterans made a poor choice is almost infinite for beginners may and often do overlook faults. Let me emphasize that, while the most experienced of us cannot tell the new member which variety he *ought* to plant, we can and should try to help him by pointing out the need for more careful observation over a longer time.

Now to answer question 4. It may be hard at first to make anyone pay \$5 or more for a plant when he has seen an attractive advertisement offering one for \$2 or so. And perhaps the \$2 plant is good after all and only a little smaller. I don't think size is important, and I'd rather have a good sturdy 1-2 ft. plant than a 3-4 ft. or larger plant with weak or crooked growths. And that brings us right off to the never ending controversy of own root versus grafted plants.

It takes longer and therefore costs more to produce plants from cuttings rather than by grafting. Those who wish cutting grown plants must be willing to pay more for them. Many nurseries insist that they graft plants, plant them unusually deep, and get them on their own roots (even sometimes cutting off the graft stock) before offering them for sale. If they really do, the plants are as good as cutting grown plants but a beginner can hardly tell if this is really true; and if it is not true he may get a fine appearing young plant which does well for only a few years and may then succumb.

We come now to my fifth and last question: What can the Society do to make it easier for our members to get the fine varieties we wish to encourage them to grow (or in other words what can be done to persuade nurseries to grow more plants of the finer varieties?)

As far as the largest and best known nurseries are concerned we can do absolutely nothing. Lilacs have not proved profitable to them in the past and we cannot pretend to offer them a large market.

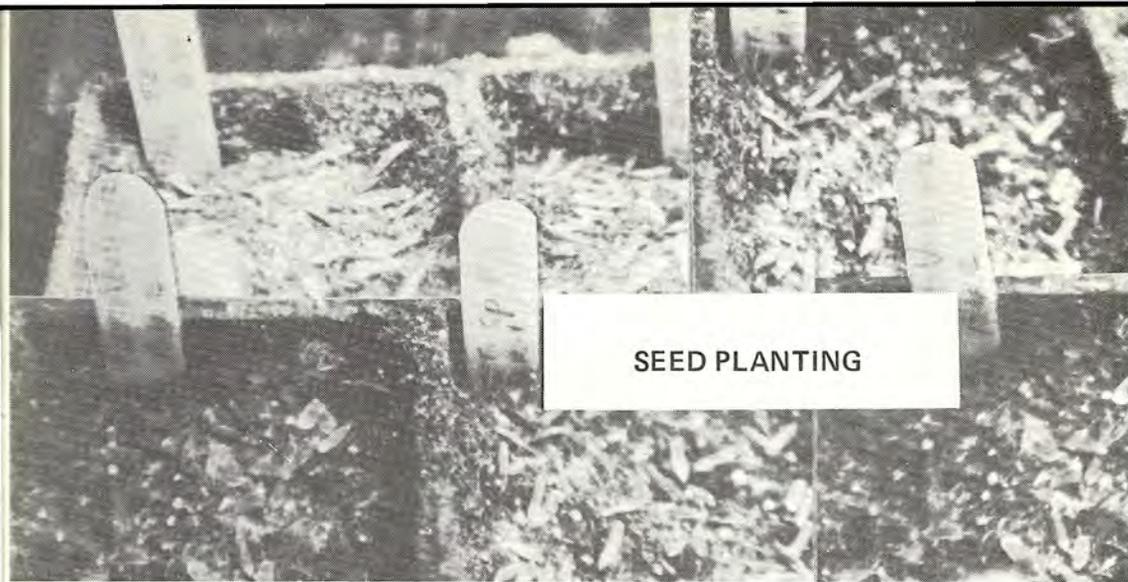
The 1941 Survey listed 64 nurseries with representative collections. The 1953 edition only 38. Our present list of nurseries is still smaller and the number of varieties offered is smaller also. It is evident that we shall have to rely upon and hence must encourage the development of small size backyard specialty nurseries. This has happened in some other special plant Societies and our own Society should encourage it even though we know that not very many people will attempt it.

In the meantime our Newsletter should list, by paid advertisement or even without charge, the names and addresses of nurseries that our members have tried and found satisfactory. It should also go a step further and arrange with arboretums and botanical gardens to furnish scions or cuttings and then arrange to have these rooted and offered for sale at our meetings.

But first of all and most important, let our members speak up. Let them tell us which varieties they grow and why and where they got them and what other varieties they are looking for and what nurseries they have tried and on the whole what nurseries do they like best. We can learn a lot that way. If our members don't speak up then the officers and directors really can't do much to correct the present day garden apathy towards the Lilac. It will take the help of all our members to build up the Society we all want.

Let's get to it.

John C. Wister



SEED PLANTING

INDUCING POLYPOIDS IN THE GENUS SYRINGA

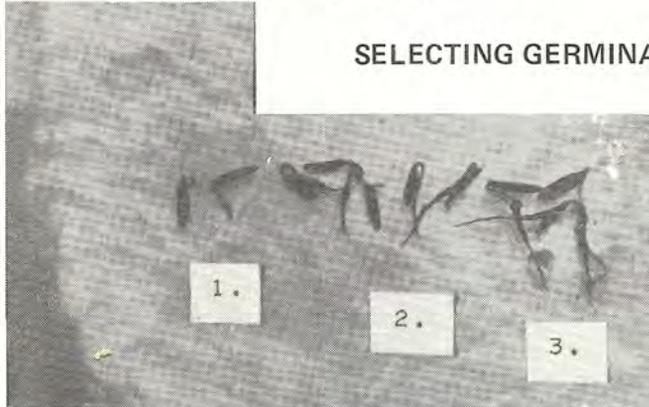
by Fr. John L. Fiala

As far as is known to date no polyploids of the genus *Syringa* have been found in nature. At least they have not been scientifically reported. With the great advances made in other families of flowering plants by the introduction and hybridizing of polyploid plants, it would only be natural to assume that could *Syringa* be made into polyploid forms similar advances should be expected in this genus.

A polyploid is a plant with an increased number of chromosomes other than is ordinarily found for that species. In *Syringa* the number of chromosomes is $x=22, 23, 24$ (haploid numbers) giving the diploid numbers as 44, 46, 48 depending upon the particular species¹. *S. vulgaris* has been found by Taylor to have diploid counts of 46, 47, 48 chromosomes. This irregular count for a *Syringa* species has also been found by Sax & A in *S. josikaea*, *S. Komarowi*, *S. Meyeri*, *S. tomentella* and *S. villosa*. (At least with the considerable variations in *S. patula* (*Meyeri*) these chromosome variations may have significance to lilac taxonomists in sorting out the various forms.) Whether the variation of chromosome counts is due to fractures or losses is an interesting area for botanical research but need not concern us here.

By increasing the chromosome number, either by doubling (the ordinary procedure) or by tripling, quadrupling or by other increases we do certain significant things to a plant species. First we immediately increase its genetic possibilities very significantly e.g. by tetraploiding *S. vulgaris* we increase by doubling the ordinary genetic possibilities from 44 chromosomes to 88 chromosomes, mathematically increasing the genetic combinations considerably. To the hybridist this is a most significant factor as a plant may now have far more recessive characteristics present in

¹Darlington, "Chromosome Atlas"



SELECTING GERMINATED SEEDLINGS

1. Insufficient growth.
2. Growth below optimum.
3. Close to the optimum for treatment.

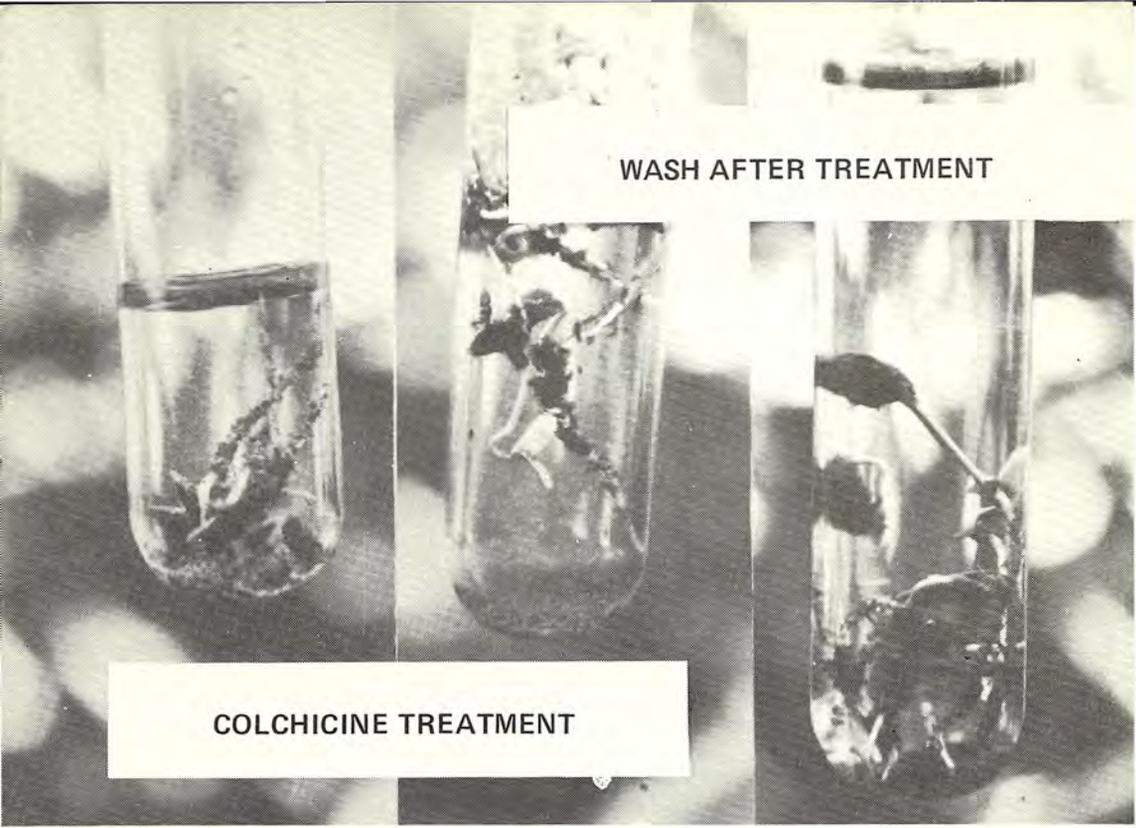


WASH AFTER TREATMENT

COLCHICINE TREATMENT

its genetic makeup. The effects of this increase has many important ramifications. We can breed in more color inheritance, more disease resistance factors (or more susceptibility ones as well), we can increase vigor characteristics, pod colors etc. Secondly: the very physical nature of polyploid cells gives the polyploid heavier tissues both in leaf and flower structure. Although the full import and value of increased chromosomes cannot be measured in one generation, especially in the induced-polyploid first generation, the full effects become apparent in the third and succeeding generations where a full variety of genetic characteristics can by then be bred into the plant's inheritance.

Polyploids are often induced in nature by various means — by intense pressures, electrical charges (lightning) by certain chemical reactions which effect the growing plant cells in mitosis (the time of cell division) and disrupt this process. In the laboratory various means have been used; heat, radiation and chemicals. For all practical purposes this consideration is limited to the use of the chemical, "colchicine" a substance obtained from the autumn crocus (*colchicum autumnalis*). Presently this drug is restricted by the Federal Drug Commission and is very difficult to obtain. Colchicine has been most effective for inducing polyploids in many kinds of plants and fruits for a number of reasons: it is easy to work with, i.e., it is soluble in water, does not disintegrate or contaminate too rapidly and is reasonably stable in its activity. (One must remember it is a strong drug and must be used with caution that it does not contact skin or eyes.) Since the best results are obtained at the most crucial time of cell division it is always a near-lethal cause that produces the disruption of cell division that produces a polyploid. To be effective colchicine must be used on a "growing plant" that is, on one undergoing cell division (it is of no use on dormant seed or dormant wood). The author has found that the most effective and economical use of colchicine has been with germinating seeds.



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STRENGTH AND USE OF COLCHICINE SOLUTIONS

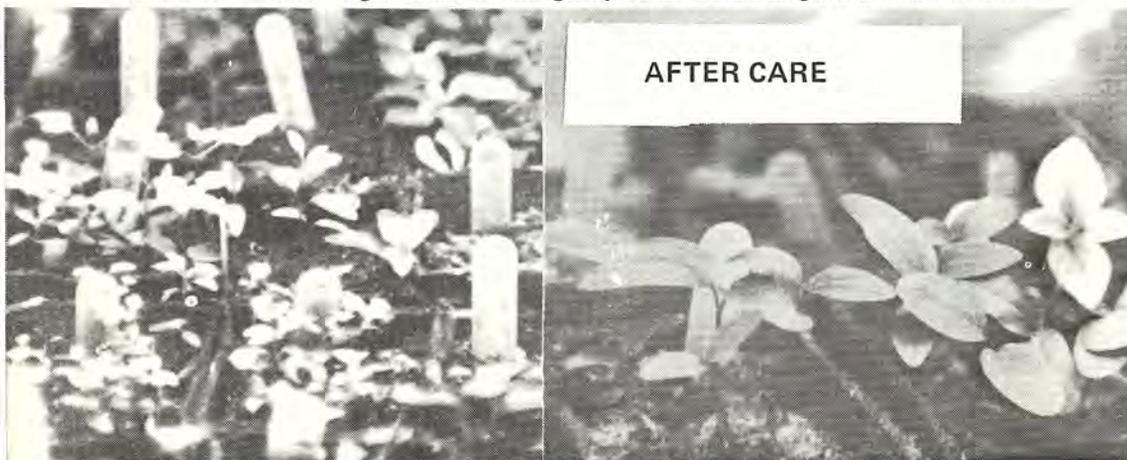
Although complete work has not been done on all species it has been found that most seeds of *Syringa* react well to solutions of .048 to .06% of an aqueous solution of colchicine (1 gram to 1000 milliliters or 100 c.c. of distilled water (1 liter) gives a .1% solution, 1/2 gram to a liter gives a .05% solution). Perhaps a .055 solution gives the most beneficial results. Care should be exercised to keep this solution from adulteration by any addition of water that would weaken it.

Although colchicine solutions hold up rather well for a long time they should be stored in a cool place in colored bottles away from the light, properly marked and kept AWAY FROM ALL CHILDREN. The solution can be reused several times if it is not diluted.

PREPARATION OF MATERIALS TO BE TREATED

Treatment of germinated seedlings: The least bothersome and easily used method is to treat the germinating seedlings. Since colchicine is effective only at the time of cell division it is necessary that the material be in an active growth stage and not dormant. Lilac seed is pre-germinated, that is, allowed to swell and begin growth just as the white rootlet emerges (between 1/4 and 1 inch) and as the seed shell loosens but before the cotyledons fully open (good results have been obtained with just opened cotyledons. In fact with hard covered seeds such as *S. reticulata* it is imperative that the seed shell be completely loose or off as treated plants will not have the strength to break the hard covering and will get a set back of such length as to rot the cotyledons and growing tip before it can be pushed off.) Seeds may be germinated in any of several ways — by placing on damp sphagnum covered with a glass for moisture, or in any good germinating mix preferably with some bottom heat to encourage germination. Dry seed may be washed in a chlorox solution (a tablespoon to a gallon of water — wash for 3 to 5 minutes — rinse in sterile water and prepare for germination or plant. Or seed may be sown in sterile soil, very lightly covered until germination begins. Seedlings at the proper stage can be gently lifted, roots shaken from germinating medium and placed directly in large test tubes for colchicine treatment. Do not wash the seedlings as this merely weakens your solution.

Length of Treatment and After Care: The author uses heavy test tubes (glass cigar tubes are ideal) just covering the tops of the seedlings with colchicine solution completely. It is somewhat easier to treat smaller quantities as treated rootlets become quite brittle and are easily broken. Seedlings are left in the solution for from 10 to 12 hours (occasionally the test tube is gently shaken to make certain all parts are in contact with the solution). At the end of treatment time the colchicine is poured off into a container for further use and the seedlings are washed a few times with sterile water after which they are covered with sterile water completely and remain in this wash 2 to 4 hours — again shake or stir gently to be certain all parts are well washed.



After wash time is complete drain off wash and plant in sterile soil (sphagnum and perlite are good but do not have enough nourishment thus producing thin plants and considerable die-off. DO NOT OVERWATER or let dry out completely. The after care of treated seedlings is the MOST IMPORTANT for it is during this time you will experience most of the drug kill. Thin root tips suffer most but frequently can be cut off and a sufficient amount of root remains to keep the seedling going. Plastic covering or glass covering of treated flats generally provided too much moisture. Lilacs even untreated will not tolerate desert conditions. Since colchicine treatment is a major chromosome disruption recovery is very slow. Plants are placed under continuous GRo-lights at about 70°. Within ten days plants that have received a lethal dosage during treatment begin to die and rot — very similar to dampening — off. Those that have not received enough treatment continue recovery rather rapidly and remain diploids, while those that have become polyploids or chimeras (only some but not all cells are polyploid) grow very slowly — cotyledons become thickened, deeper colored and somewhat larger than untreated seedlings; stems are thicker and stubbier; first true leaves are very long in coming and are often thick and curled — sometimes not appearing for a month or more. After initial recovery and growth progresses they can be handled as regular seedlings but should not be pricked-off but allowed to continue growing without disturbance. Since both leaf and root growth are shocked by the treatment they do not develop as large a root system as untreated plants and are more susceptible to drying out. Planting out of treated plants should be done only after they have been kept somewhat sheltered the first two years in a lath house or with some protection from severe sun and wind. Treated plants frequently grow very slowly. Often not more than a few inches in their first years (some plants are only a foot high after ten years, others are four or five feet) so care must be used in placing them where they receive proper attention. It is only the first induced, treated plants that have this slow growth, F2's grow quite normally and lose their rough polyploid characteristics. First bloom on induced plants will probably not be spectacular. Save this first generation seed and plant ALL OF IT! Preferably hand pollinate with other tetraploid plants of other clones to introduce as many genetic characteristics as possible. Continue this for two or three generations. Each progeny should be a "giant step forward". May you live to see the fourth and fifth generations which from all other comparisons using tetraploids, should be Fantastic!

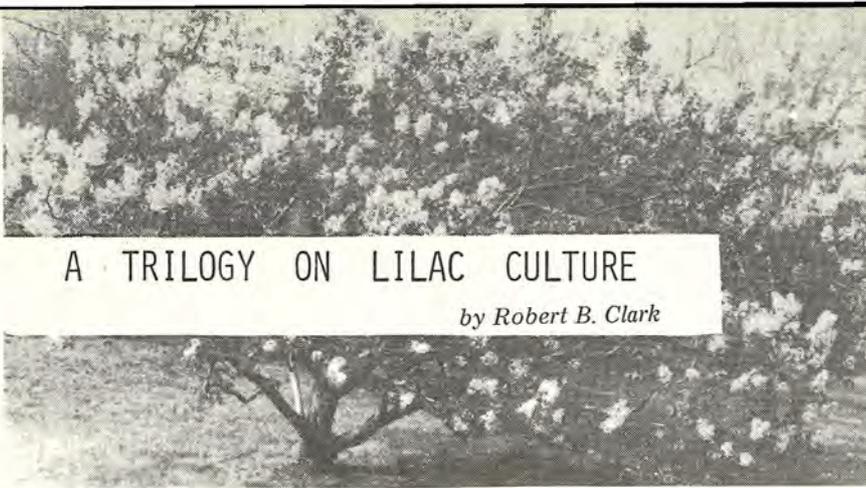
Note: The author has several treated clones of vulgaris, a few early hybrids, and the following species and species hybrids: S. Wolffi, S. tigerstedti, S. reticulata, S. pekinensis pendula, S. sweginzowi 'albida', S. villosa, S. Kamarowi, S. tomentella, S. yunanensis, S. pinetorum, S. pinnatifolia, S. rhodopea, S. reflexa, S. oblata Giraldi, S. oblata dilatata and several open pollinated seedlings of S.xPrestonaea "Ursula", "Isabella", "Kim", "Royalty", "Hiawatha", "Prarial", "James McFarlane", "Ethel Webster" and a few others. Also S. tomentella aurea "Kum-Bum" and S. velutina and S. potanini (this being a very difficult plant which will probably die).

LOCAL CHAPTERS MEET

I.L.S. ROCHESTER CHAPTER met in March with demonstrations on pruning and rejuvenating lilacs, election of officers and discussion of plans for attending the Annual Convention at the Arnold Arboretum on May 25-26.

I.L.S. OHIO CHAPTER will meet at Gardenview Horticultural Park, Strongsville, Ohio on Sunday, May 20.

Members will make arrangements to attend the Boston Convention at Arnold Arboretum; tours of local lilac plantings and special lilac plant exchange. Show of Lilac varieties.



A TRILOGY ON LILAC CULTURE

by Robert B. Clark

ENJOY LILACS FROM EYE LEVEL

Some lilacs will grow to fifteen or twenty feet if allowed to. Most French lilacs are vigorous plants too large for the average city lot. Lilacs may however be grown successfully in urban gardens provided the gardener keeps the older canes from reaching to the sky. This takes courage and industry because seldom are we willing to disturb whatever seems to be doing all right — and lilacs six feet tall are indeed at their peak of perfection!

A close inspection while lilacs are leafless reveals that one or a few suckers have developed in the last year or two. These robust shoots are getting set to displace the oldest canes. The wise gardener recognizes this fact and encourages their development. If older canes are already occupying space which the vigorous canes need, then the gardener without hesitation will eliminate the twiggy cane. If slender suckers challenge, he suppresses these, allowing only those shoots which hold the greatest promise of quality blooms for the coming season. Regular attention each year repays the gardener manifold with quality blooms, moderate-sized plants which are always in top productivity and health.

FAILURE OF LILACS TO BLOOM

Occasionally lilacs are growing under conditions which inhibit flowering. First, as flowering plants, the lilac in time — usually from three to seven years from seed — reaches the stage in its life cycle that it produces bloom. In cultivation, however, where the stimuli frequently are exaggerated beyond those of the natural environment, lilacs fail to set flower buds and consequently do not bloom.

Lilacs, even though they are classed as “heavy feeders”, nevertheless cannot produce flower buds in the immature or vegetative stage, that is, prior to attaining the physiological balance of carbohydrates to nitrogen. To hasten maturity, therefore, withhold fertilizers, especially those with high nitrogen content; also do not prune shrubs at this stage.

Alternatively, lilacs which fail to bloom may have become submerged in shade such that insufficient light in midsummer reaches the leaf surface in order to promote the initiation of flower buds. Lilacs are sun loving plants. Imperceptibly as the years go by neighboring plants must have extended a canopy above the lilacs or have made strong roots which have invaded the ‘feeding territory’ of the lilac’s to rob them of moisture and nutriment.

In summary, lilacs require a sunny location where the soil is both fertile and well drained, but not too acid.



CUTTING OUT OLD WOOD TO REJUVENATE

KEEPING LILACS EVER YOUTHFUL

by Robert B. Clark

Quality production of lilac blooms comes with close attention to the gentle art of gardening, especially of pruning. Of the latter there is no mystery beyond using one's eyes and common sense. Basically pruning is the removal of certain plant parts in order to improve the plant in some way: better flower or fruit production, invigorated shoots, etc.

French, or common, lilacs are hardy shrubs which renew themselves from time to time by sending up from the crown or roots new canes or shoots, commonly called "suckers". Over the years these canes increase in height and girth, their bark eventually becoming dark gray and shredded.

The secret of understanding the change wrought in lilac blooms lies in observing the quality of the flower buds as the cane matures. At first the cane is a sturdy light gray upright shaft beset with paired buds. After two or three years the uppermost two sets of buds become noticeably larger. The tipmost pair are flower buds which expand early, before the lower pair begin to elongate into shoots. Each year the shoots whose terminal buds produce the pair of lilac blooms become progressively shorter and thinner. After ten years or so these stunted twigs are fairly hidden among the spent pods of yesteryears. This twiggyiness I call "blueberrying" for its resemblance to the highbush blueberry as it occurs in the wild. With lilacs too this appearance is an indication of neglect. Lilac clusters borne on such branchlets are assuredly of inferior quality. The flower clusters or thyrses, although many, are small and not very showy. The time for corrective action is at hand.

Because pruning is a mixture of science and art, and also because each overgrown lilac is an individual problem, it is hard to give explicit instructions how to rejuvenate a lilac with the least interruption in blooming. First, though, I would tackle the job during the dormant season when I can see what I am doing. Be assured that I am not taking out quality bloom when I decide to prune in wintertime. Secondly, for efficiency I will use sharp tools (pruning saws, lopping shears, etc.) and make only so many cuts as needed to get the job done. Finally, for simplicity, I assume that the lilac is growing on its own roots, that is, not grafted, and therefore all growth is of the one plant. But still before proceeding, I must decide whether the lilac's condition is worth the effort to restore its youth. If drastic pruning only disfigures the landscape picture, would not it be better to cut all canes right to the ground at the beginning? The abundant strong roots will send up many strong shoots and in three or four years the lilac will be completely renewed.

If, however, an overgrown lilac holds the prospect of partial rejuvenation with a minimal interruption in blooming, I would select from one-third to one-fifth of the older, least promising canes for elimination. Of the suckers I would take out all but the strongest and most promising 20 to 33 per cent. In this way over a three or five year period the lilac will be producing quality blooms once again.

J. HERBERT ALEXANDER AND GRANDSON JACK,
Middleboro, Mass.

. . . a regular NEWSLETTER feature

There is a "specialist type" of nursery, only a few are still in existence, where one comes face to face with exciting plant discoveries and unforgettable nurserymen who keep these fine nurseries going. Last October I drove down to Plymouth, Massachusetts where within 500 feet of Plymouth Rock an ancient twisted lilac, undaunted by the salt mists, threw its wonderful head of branches against the blue waters of the bay. Down through the back roads to Middleboro and 4 or 5 miles beyond one comes to the unpretentious sign: "J. Herbert Alexander". Truly a "specialist's nursery where one finds not hundreds of one variety but perhaps two or three dozens of this choice variety, a dozen of that and so on! All in all the Alexanders offer some of the finest, newer lilacs in very well grown plants (young and all on their own roots!) The "green thumb" of the elder Alexander has definitely rubbed off on grandson Jack — both are veritable dynamos of horticultural energy. Tucked away in various beds are many choice plants other than lilacs — but the lilacs are among the best newer sorts — I took home with me to Ohio such choice goodies as *Ferna Alexander*, *Nellie Bean*, *Beth Turner*, *Fantasy* and other choice items including *daphne mezereum* along with Alexander's late blooming *reticulata x laciniata* (a beautiful plant but perhaps not a true *laciniata* cross). The Alexander's late blooming hybrids are sturdy shrubs with large leaves and we are looking forward eagerly to their reaching blooming size (which they do very early). Both of the Alexanders are interested in the deep-purple flowering lilacs and you may be certain that with all the planting going on, with the new introductions and with grandson Jack's help, you will be hearing a great deal from this "specialist" nursery for many years to come. For those who can find a little time this Spring at the Convention, it is well worth the short drive through the beautiful countryside to see some of their exciting introductions in bloom — their outstanding blueberries and plant treasures. It's a place for lilac browsing, for talking lilacs, for making friends, seeing fine plants and taking some home with you!

Editor: J. L. Fiala



NEW VARIETIES OF SYRINGA PRESTONIAE OBTAINED IN THE KORNIK ARBORETUM

by Wladyslaw Bugala, Kornik Arboretum, Kornik, Poland
(Translation by Fr. John L. Fiala, Editor I.L.S.)

Summary of the Article in the Kornik Arboretum Journal Vol. 15, 1970

Dr. Wladyslaw Bugala has been involved in lilac breeding at Kornik since 1952, especially interested in the *Villosae* lilacs. Working with *S. x Prestoniae* lilacs obtained from Ottawa in 1929 at Kornik (cultivars: Charmian, Valeria, Ursula and Octavia) the two cultivars Octavia and Ursula were used. Open pollinated seeds of these two were planted in 1954-1955 and a few thousand seedlings resulted. A few hundred were outplanted to selection fields for further evaluation. In 1963 the best 15 were selected and vegetatively propagated. These were sent to three different locations in Poland (Chorzow, Lublin and Bialystok) for observation under various site conditions. Of the 15 Dr. Bugala has selected 9 as deserving to be introduced for general cultivation in parks and gardens.

The following described cultivars are Dr. Bugala's selections.

S. x Prestoniae cv. 'Telimena' (type 1)

A strong growing shrub, somewhat spreading and upright, well leafed with large leaves to 15 cm, broadly elliptical heavily undulating. Buds on opening are pale pink turning to a white, somewhat spreading panicles of about 22cm long. Blooms about from 1st to 12th of June. The very large, shiny leaves make this lilac outstanding as a shrub compared to other cultivars.

S. x Prestoniae cv. 'Jaga' (type 2)

A fairly strong grower, somewhat spreading, of regularly round form. Blossoms are somewhat small, purple in bud opening to a light violet fading to a light lavender. Panicles are wide and loose spreading to 15-25 cm long. Blossoming time is from June 1 to 15. At time of bloom the plant is very effectively covered with flowering panicles. The plant should be given room to spread for best effect in cultivation.

S. x Prestoniae cv. 'Basia' (type 3)

Strong growing shrub of wide spreading habit. Leaves are fairly wide to 12 cm long, bright green and slightly fluted. Buds are a deep pink; upon opening a pink, fading to a light pink. Flowering spikes are broadly fingered about 20-25cm long, very showy. Time of bloom is from the 5th to 15th of June. The outstanding trait of this type is its colorful effect in bloom.

S. x Prestoniae cv. 'Jagienka' (type 4)

Shrub growth is rather strong to 3-4 m, dome shaped upright form. Leaves elliptical, length of 8-10 cm. lustrous and fluted. Buds deep purple, opening to lavender-violet, fading to light lavender. Showy panicles in varied hues, length 15-20 cm. The early abundant bloom is this type's outstanding trait. Blooms about June 1-10.

S. x Prestoniae cv. 'Nike' (type 8)

A smaller shrub, more delicate to 1.5 m, broad and spreading. Leaves are dull, slightly undulated. Buds deep purple opening to bright purple fading to purplish, flowering

spikes quite showy in length from 25 to 30 cm, broad and divided, hanging because of their weight. The showiness of the blossoms and the lateness of bloom from June 5-15 are the outstanding traits.

The plants of this type are different from all others by their broad and regular form and the dark purple color of the blossoms.

S. x Prestoniae cv. 'Goplana' (type 9)

A strong growing shrub to 4 m., broad and somewhat weeping. Leaves are bright green, slightly hairy, heavily leafed. Buds carmine-pink, on opening the flower is light pink and fades to a paler pink. Even side shoots are heavily spiked; flowering panicles are broad and spreading, 15-20 cm long, very showy. Blooms between June 6 to 15.

The outstanding trait of the plant is the carmine-pink effect of the blossoms that differs from other crosses of *S. x Prestoniae*.

S. x Prestoniae cv. 'Esterka' (type 11)

A tall shrub growing to 3-4 m, an unusually strong grower, rather broad and spreading. Heavily leafed, plane, dull, at tips of new growth (especially on blossom tips) leaves are a characteristic reddish color. The buds are a very deep carmine-rose, turning to a lighter pink on opening and somewhat lighter after full bloom, which are plentiful, broad and slightly divided. Blossoming panicles are to 15 cm long, weeping. The blossoming time differs from other types being later from the 8th to the 20th of June.

The early leaf color and the intense carmine color of the budded plant and the outstanding total color of the plant in bloom make it one of the finest.

S. x Prestoniae cv. 'Danusia' (type 12)

Shrub is quite slender and a weaker grower to 2-3 m, weeping and wide spreading. Dull deep green leaves, smooth. Quite a heavy bloomer, panicles funneled and deep red in bud opening to pink and fading to a light pink. Flowering panicles to 20 cm long, broad, somewhat nodding and openly divided. Blooms from 1st to 10th of June.

S. x Prestoniae cv. 'Diana' (type 13)

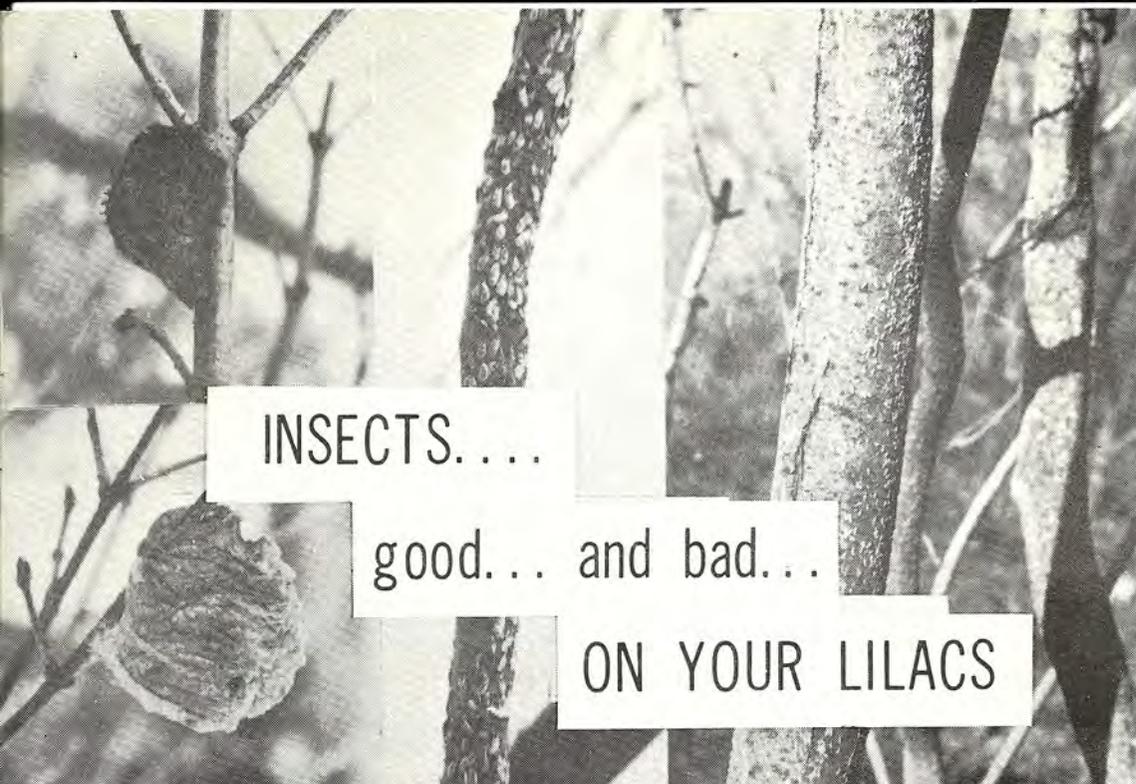
Shrub rather a weaker grower to 1.5- 2 m. Somewhat compact, restricted upright growth. Leaves dark green, long, sharp pointed and undulated. Deep purple buds opening to rosy-lilac fading to a pale lilac, quite heavy bloomer. Upright panicles spreading and divided about 15-20 cm long. Blooms rather late from 5th to 15th of June.

Outstanding trait is the effect of the upright growth, the crown like form of the blossoms and their abundance.

L. R. Sjulín

IN MEMORIAM . . .

Word has reached us that one of the leading Lilac Nursery men, a member of the International Lilac Society and a great plantsman, Mr. L. R. Sjulín of Inter-State Nurseries, Hamburg, Iowa, has passed away. His loss will be keenly felt by all in the field of horticulture but especially by the members of I.L.S. and lilac lovers throughout the world. Mr. Sjulín worked to bring some of the newer lilacs into the trade and was an interesting correspondent to all who sought his advise. His work is being continued by his son at the nursery.



INSECTS....

good... and bad...

ON YOUR LILACS

When one goes over lilac bushes in early Spring not only the health of the lilacs is seen but also the insects that either inhabit lilac shrubs or host upon them. Winter and Spring are ideal times to discover the extent of scale (both the San Jose and the oyster Scale) and when weather warms above 50 degrees to do something about it. Scale begins to move with the first warm weather and BEFORE leaves begin to burst. The lilac grower should spray his bushes before it reaches 60° and above.

We have polled several of our lilac growers in the Society and have a variety of answers:

Walter Oakes, Rumford, Maine: Thorough spray before foliage breaks with miscible oil. If infection is severe follow with Malathion twice at 2 week intervals in early June.

Alice Foster, Union Grove, Wisc.: "Spray with Malathion."

Donald Lupold, Muncy, Pa.: "Lime-sulphur spray before leaves bud out".

Dr. W. A. Cumming, Canadian Agr. Research Station, Morden, Manitoba: "We use Malathion".

Dr. Robert B. Clark, Monroe County Parks, Rochester, N. Y.: "Superior type dormant oil spray before temperatures reach 60 degrees F. and does not go to freezing at night. Alternate method is Malathion fortnightly.

Walter E. Eickhorst, MORTON ARBORETUM, Lisle, Ill.: "Summer spray when nymphs are present."

Arch McKean, Elmhurst, Ill.: "Always cut branch out and burn it. Sounds harsh but it is the most satisfactory in the long run!"

John Bakker, Putnam, Conn.: "Oil spray in Spring; Malathion if needed in Summer."

Marie Chaykowski, Mantua, Ohio: "Early Spring spray with miscible oil".

Dr. Joel Margaretten, Margaretten Park, Leona Valley, Calif.: "Spray with diesel oil. Diesel oil used for weed control also cuts down on scale. It also kills any young suckers coming through the ground. You can't have everything!"

INSECTS . . . GOOD . . . AND BAD . . . ON YOUR LILACS

Mrs. Elizabeth Stone, Ashland, Ohio: "Oil spray in Spring".

Joerg Leiss, Sheridan Nurseries, Oakville, Canada: "Oil emulsion spray in April. Malathion in June".

Francis A. Alley, Boxwood Bend, Short Hills, N. J.: "Dormant oil!"

Kenneth Berdeen, Kennebunk, Maine: "Dormant oil spray usually clears all up, if not, use light spray of Malathion."

Any or all of the above advise will certainly take care of scale (both kinds). Take your choice of weapons.

In regard to "good insects" we frequently see egg capsules of the praying mantis. Often these will be killed by the scale spray. Should you see them — remove them and place them among other non-sprayed plants. They will emerge and be savage predators of aphids in your garden. They seem to like the strong branches of lilacs to place their winter egg capsules. If these are systematically destroyed you will soon have no beneficial praying mantis in your garden.

GROWING LILACS IN LEONA VALLEY, CALIFORNIA

A most interesting and welcome letter from Dr. Joel Margaretten, MARGARETTEN PARK (Cattle, Lilacs, Peonies), Leona Valley, California . . . gives us some of the conditions encountered in that area . . .

. . . "Just a few notes on my special problems on raising lilacs. First of all I raise them for cut flowers for the wholesale market. Because of our peculiar climate they blossom early, usually before Easter, last for a week or two and then fade and go to seed. Our soil is adobe, muddy in the winter and hard as a rock in the summer. Except when the ground is frozen, it is almost impossible to cultivate. Luckily this year we are getting some rain, otherwise I have to use power drills to get the holes dug to plant new bushes. Our normal rainfall except for 1969-70 is about two inches so we have a problem with water. Irrigate all summer until August, then quit to let them go dormant. Continued irrigation after that brings a new crop of flowers out that abort in a week. The temperature even in the winter can go from zero in the morning to 75 degrees at noon. Snow lasts for a day or two and does more havoc than good. It bends the branches down to the ground, freezes the young shoots and involves more pruning.

Pruning is usually done in the winter time when it is easier and have more time. I prune severely, to get rid of all dead and crossed branches. The shrubs stay about 5-6 ft. in height partly from cutting for the market and they are easier to work.

I used to throw the fertilizer into the bush but found that produced scale. I now side dress.

Diesel oil used for weed control also cuts down on the scale. It also kills any young suckers that are just coming through the ground. You can't have everything.

Most of my hybrids are grown on terraces, in rock gardens a lot of rock mosaic work to beautify the place. The vulgaris are out in the fields where I can use a tractor, and easier to irrigate . . .

Dr. Joel Margaretten

LETTERS TO THE EDITOR

Question: "Will all the plants on your seed exchange list come true to Name? I've . . . (always) . . . thought that these hybrids rarely ever reproduce in the true image of the parent plant, and likewise, some of the species become all messed up when seed is collected where other species blooming at the same time are in close proximity. If you have observed results contrary to this, my thinking surely goes down the drain! Maybe *Syringa* behaves differently, but I do know that plants like *Lonicera*, *Philadelphus*, *Betula* and many other genera usually spread out into real unidentifiable freaks."

Befuddled for Science sake

Answer: "Open pollination does indeed raise havoc with cultivars. However, we offer material under cultivar name so that the seed sower knows the source of at least one parent. Caveat Emptor! Much of the seed material we offer is just not available anywhere in plant form. Therefore, in view of the interest in lilacs, we offer seeds of species, "varieties" and cultivars. True, you may not get a pedigree plant, but you will get a goodly number of superior seedlings, and you may even get a worthy new cultivar. Anyway the seedling plant will bear a close resemblance to the original. Many of the species were originally collected in the field by plant explorers as 'seeds' and not living plants and have come down to us in this fashion. Hybridists also testify to the fact that many species have great difficulty in crossing with others. Yes, we should say our plants are from open pollinated seed of 'whatever it be'. If one never takes courage to plant a seed, he will never get an improved plant (lilac)."

Robert B. Clark
Chairman Seed Exchange

BULLETINS, ARTICLES, NOTES . . .

Received from . . .

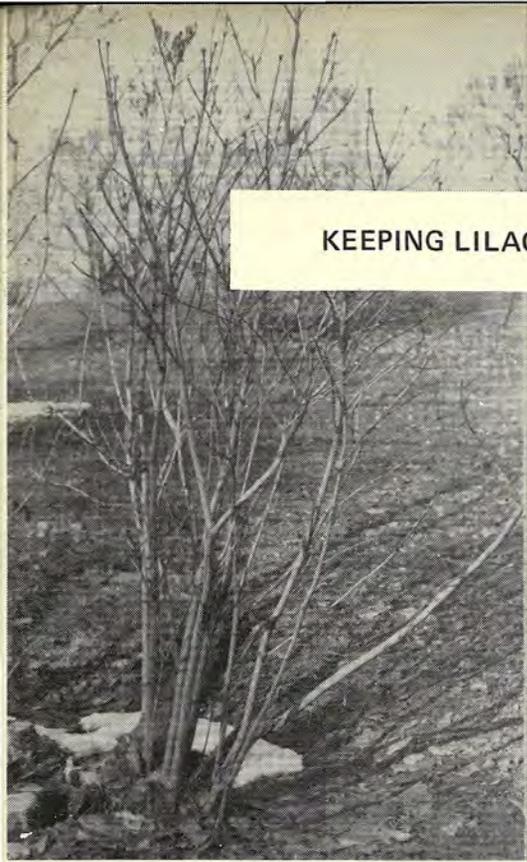
Royal Botanical Gardens, Hamilton, Ont. Canada, *The Gardens' Bulletin*, Vol. 27, No. 1, Feb. 1973, featuring "The Garden Lilac" by Freek Vrugtman, Curator of Collections. Excellent history of the lilac and the Katie Osborne Lilac Collection.

Botanischer Garten, der Stadt Dortmund, Dortmund-Brunninghausen, W. Germany. Published in German, *Deutsche Baumschule*, published in Aachen 1960, "Vorarbeiten fur eine Flieder-Sichtung", Teil 1 & 2 by G. Krussmann, Director Botanical Garden. A German summary of lilac history, listing of introducers of lilacs German, French, Dutch, Canadian and American. Giving distribution of 100 best Lilacs of 1953 Lilac Survey. A valuable contribution of information of 1953 Survey for German growers and lilac fanciers plus a good consideration of color in lilacs combining McKelvey's use of Ridgeway Chart and 1953 7 color classification.

Arboretum Kornickie, published in Polish; *Arboretum Kornickie*, Waszawa-Poznan in 1964, Vol. 9, pp. 59-96, 'Lilaki w Arboretum Kornickim i dotychczasowe wyniki ich aklimatyzacji', by Wladyslaw Bugala. A fine summary of the Kornik lilac collection of 20 species, 4 hybrids and 130 varieties. Dr. Bugala describes each and their acclimatization to arboretum conditions.

Arboretum Kornickie, published in Polish; *Arboretum Kornickie*, at Warszawa-poznan in 1970, Vol. 15, pp. 61-70 'Nowe odmiany lilaka ottawskiego (*Syringa x Prestonae McKelvey*) otrzymane w Arboretum Kornickim' by Wladystaw Bugala. See translation of "New Varieties of *Syringa Prestoniae* Developed in Kornik Arboretum" by Fr. John L. Fiala, NEWSLETTER of I.L.S. Spring 1973, Vol. 2., No. 1.

KEEPING LILACS EVER YOUTHFUL



REJUVENATED 'ALBA GRANDIFLORA'

REJUVENATED 'EDMOUND ABOUT'



'MELLE. FERNANDE VIGER'

SUCKERS ON OLD SHRUB OF 'DR. LINDLEY'