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Lilac Collection



University of Wisconsin-Madison Arboretum

This field book is dedicated to Mrs. Jean Otto who loved the Arboretum and visited it often.

Mrs. Otto had a deep appreciation and understanding for the natural world and readily transmitted it to those who knew her. For her each season brought its own delights; migrating birds, colors of fall, the stark beauty of bare branches against the winter sky, the tender wild flowers poking through soft earth in spring, and lush green of summer—all were part of the rhythm of her life.

We hope that those who use this booklet will gain a deeper feeling and understanding of the natural world thereby making this a suitable memorial for Jean Wilson Otto.

THE ARBORETUM LILAC COLLECTION

Introduction:

Let those who, having seen one lilac think they have seen them all, beware. Because of the many naturally occurring lilac species and the many years of careful research into the breeding of new lilacs by hybridizers, there are today many hundreds of different lilacs. Probably no one person has seen them all.

That the lilac is one of our most favored flowering shrubs seems self-evident. The many old clumps of common lilac found on abandoned farm sites testify not only to its long popularity but to the durable nature of the plant itself.

This article will introduce visitors to the Arboretum's lilac collection, to the great diversity currently available in garden lilacs, and will acquaint interested persons with a facet of the Arboretum which has been little appreciated apart from its few weeks of spectacular bloom every spring.

Taxonomy

Lilacs are placed by botanists in the Olive Family. This large group of plants includes trees and shrubs of temperate regions in both the eastern and western hemispheres and the old-world tropics. Familiar members of the family are privets, ashes, jasmines, forsythias, lilacs and, as the name suggests, the true olive. The generic term given the lilacs more than two centuries ago by Linnaeus is *Syringa* (abbreviated here *S.*), derived from the Greek word meaning "pipe." It is thought that this term was originally used in connection with similar shrubs notable for their hollow, or pipe-like, branches.

All of the approximately twenty-five species of lilacs occur naturally in temperate areas of the eastern hemisphere, from central and eastern Europe to Asia. None are native to America, though most thrive in the rigorous continental climate of the northern parts of our country. The common lilac (*S. vulgaris*), from which the greatest number of cultivars have come, is native to a region of central Europe including Bulgaria, Hungary, and Rumania.

Several other species of lilacs are presently represented in our Arboretum collections. A few of these will be mentioned here briefly, with more detailed information given later. The early lilac (*S. oblata*) is very closely related to the common lilac. They look very similar, but the early lilac occurs naturally further east, in China. Other lilac species often grouped with the common lilac and which bloom at about the same time include: the littleleaf lilac (*S. microphylla*), native to northern China; the Manchurian lilac (*S. velutina*), native to north-eastern China and Korea; Meyer's lilac (*S. meyeri*), also native to northern China; and the cutleaf lilac (*S. laciniata*), which occurs naturally in northwestern China. Two hybrid lilacs often mistakenly called species are the Chinese lilac (*S. x chinensis*), more appropriately called Rouen lilac, as it originated in a botanical garden in Rouen, France; and the Persian lilac (*S. x persica*), probably occurring naturally in western China.

Another group of lilac species is typified by the late lilac (*S. villosa*), which has large leaves and coarser stems than the common lilac. The late lilac is native to China, as is Wolf's lilac (*S. wolfii*). A third late-blooming species is the Hungarian lilac (*S. josikaea*) which, as its name suggests, comes from Hungary.

A final group within the genus *Syringa* includes two very similar species which differ markedly from other lilacs. These are the Pekin lilac (*S. pekinensis*) and the Japanese tree lilac (*S. amurensis japonica*). Both are very large shrubs or small trees from the orient which bloom the latest of all our lilacs.



Common lilac flowers vary not only in color but in shape of petals and florets; in being single or double; and in the overall shape of the trusses or clusters.

Lilac Care

Many references are available concerning the culture of lilacs. The serious gardener is referred to these (see bibliography). Very briefly, the following points can be considered:

Site—While basically a very tolerant plant, the lilac does have its preferences. A rich, loamy, well-drained soil is best and lilacs prefer a limestone or neutral soil to an acid soil. The common lilac is more tolerant of adverse soil conditions than are many of the other species and cultivars. All lilacs require full sun for best bloom. An exposed site with adequate air movement helps discourage certain disease problems.

Obtaining plants—Lilacs should be purchased from a reputable dealer in plant materials and specified as “own root” plants. This is important since cultivars grafted onto common lilac roots may revert to common lilac flowers as they are pruned. In addition, varieties grafted on privet roots may not do well under renewal pruning. Grafted material may also be less winter hardy and is subject to certain grafting diseases.

Pruning—Newly established lilacs generally need little pruning other than to discourage unwanted suckers or to trim out branches which may rub together. A new plant usually takes about three years to bloom and becomes well established only after five or more years. Fertilization is generally unnecessary except on poor soils. High-nitrogen fertilizers should be avoided as they tend to encourage excessive weak vegetative growth at the expense of flowers. As a plant reaches the flowering stage, the spent flower clusters should be removed to encourage the formation of larger clusters the following year. This is best done in June, just after the flowers fade. Well-established plants should be renewal pruned to maintain them in a vigorous, blooming condition. This involves removing a few of the largest canes every year or two and allowing one or two new suckers to develop in their place.

Diseases and pests—Lilacs, like other plants, are attacked by certain insects and diseases. However, they are relatively pest-free shrubs. There are two important pests. One is oyster shell scale, which produces gray infestations on the bark. The second, a borer, is less obvious until it has seriously damaged a portion of the plant. Borers are the larval form of a clearwing moth which tunnels into the trunk, eventually causing the whole branch to wilt and die. Borers are not usually a problem on plants which are regularly renewal pruned. Scale can best be treated by the use of a dormant spray.

A third problem with lilacs, more common but less destructive than scale or borers, is mildew. Powdery mildew is evident on lilacs as a whitish coating on the leaves in July and August. It is more often a problem on crowded plants without free air movement about them. It is generally a matter of aesthetic concern, seldom causing serious harm to the plant.

Flowers of late-blooming lilacs have larger, more pyramidal trusses, and individual florets are narrower. Few late lilacs have the familiar fragrance of the common lilac.



Development and Classification of Hybrids

Features used in distinguishing among the hundreds of cultivars of the common lilac, many (too many) of which look almost identical to the untrained eye, include such characteristics as overall form of the shrub, form of the clusters and their abundance, shape of petals, and the single (S) or double (D) flowers. Some cultivars are considered semidouble. And, of course, flower color is important.

Further comment is in order regarding the color of lilacs. The American Association of Botanical Gardens and Arboreta (A.A.B.G.A.) has attempted to standardize color ratings of lilacs in seven general color groupings. These are as follows:

- | | |
|--------------|--------------|
| I - White | V - Pinkish |
| II - Violet | VI - Magenta |
| III - Bluish | VII - Purple |
| IV - Lilac | |

It must be remembered that flower color varies considerably according to several environmental factors. Perhaps even more significantly, many lilac cultivars change color as the buds open and fade. With these limitations in mind, the interested reader can refer to the cultivar lists in the appendices to obtain a general description of a particular plant. For example: "Macrostachya" (S V) is single and pinkish, while "Jeanne D'Arc" (D I) is double and white.

Much can be said about the development of the large array of modern lilac cultivars. Basically, we can consider two main groups of lilacs—the approximately twenty-five naturally occurring species, and the very large assortment of horticulturally produced hybrid lilacs. More detailed information is available in many of the resources listed in the bibliography.

Hybrids occur when lilacs of different species or cultivars within a species are crossbred. The seed from these crosses is grown and selected for desirable new characteristics. Hybridization greatly increases the range of colors and forms which occur in many of our ornamental plants.

It is surprising to realize that of all the hundreds of lilac cultivars developed by horticulturists over the past two centuries, by far the majority have been developed at a single nursery—the Lemoine nursery, at Nancy, France. From the early 1870's until about 1950, Victor Lemoine and son Emile introduced many of the finest lilacs into commercial use. Three-quarters of the one hundred best lilacs, as recommended by the A.A.B.G.A., were developed at this nursery. Over one hundred of the cultivars in the U.W. Arboretum collection are Lemoine lilacs. This predominance has led to the practice of calling hybrids of the common lilac "French Hybrids." This term is somewhat misleading as much lilac breeding has occurred elsewhere around the world. Most of these varieties have been developed directly from the common lilac.

The list of "French Hybrid" lilacs is so extensive, even in a relatively small collection such as ours, that each cannot be discussed separately. Interested persons are referred to the list of recommended lilacs in Appendix #2. The Boener Botanical Garden at Hales Corners, Wisconsin, also has a publication, "Lilacs," which lists these recommended varieties.

Though not commonly available from commercial sources, the lilacs of two Wisconsin breeders have been represented in the Arboretum's collection. Two hybrids introduced by the late Edward J. Gardner of Horicon, Wisconsin, "Edward J. Gardner" (D Pinkish) and "Jessie Gardner" (S Violet) are currently being replaced. Dr. A. H. Lemke, of Wausau, Wisconsin, introduced "Silver King," a single, bluish cultivar with distinctive, large gray-blue flowers. "Silver King" can be seen in Beds 18, 31, and 32. These three cultivars all belong to the group of common lilac hybrids.

The Lemoines and other breeders have also used the common lilac in crosses with the early lilac (*S. oblata*). These crosses have produced several varieties, collectively known as the Early Hybrids, which provide a greater diversity of color among lilacs blooming about a week to ten days before the common lilac and its cultivars. Examples of Early Hybrids which can be found in our collection are: "Lamartine" (Pink, Bed 10); "Pocahontas" (Purple, Bed 17); "Louvois" (Violet, Bed 17), and "Montesquieu" (Magenta, Bed 14). These particular cultivars are all single-flowered.

A few lilac breeders have explored the possibilities of breeding later-blooming species lilacs, as for example: the late lilac (*S. villosa*) and the nodding lilac (*S. reflexa*). Notable among the breeders of these "Late Hybrids" are Dr. F. L. Skinner of Dropmore, Manitoba, and Isabella Preston who worked at the Central Experimental Farm in Ottawa, Ontario. "Hiawatha" (Bed 37) is an example of Dr. Skinner's work, and among Miss Preston's many introductions, "Isabella" (Bed 37) and "Jessica" (Bed 37) are considered quite distinctive. These varieties are particularly useful in lilac collections because they extend the season of bloom by about two weeks.

The U.W. Arboretum's Lilac Collection

Little information is available regarding the original plantings in the lilac display area. The first plantings were made in 1935, under the direction of G. William Longenecker, Professor of Horticulture and then Executive Director of the U.W. Arboretum. Funds for purchasing the lilacs were donated by the former Madison Garden Club.

From its beginning, the Arboretum was envisaged as an outdoor laboratory for the study of plant communities native to Wisconsin or nearby regions. However, a certain area was set aside for testing the hardiness and desirability of exotic plant material for Wisconsin and Midwest conditions. The lilac display area is now a part of this test area, known since 1967 as the G. William Longenecker Horticultural Gardens. Plantings have continued, in the form of replacements and introduction of new varieties, to the present. The gardens are now under the supervision of Edward R. Hasselkus, a professor in the Department of Horticulture.

Soon after the original plantings were made, the lilac display area became one of the major spring attractions at the Arboretum. In 1973, bus tours of the area on "Lilac Day" were initiated. On this "Bike and Bus Day," more than 2,000 persons visited the lilac collection.

Lilac fruit clusters, often considered an unattractive nuisance should, in most cases, be removed to encourage formation of new flower buds. The tree lilac, however, has attractive, tan fruits retained throughout the winter. The seeds are particularly relished by pheasants.



Viewing the Collection

For a proper understanding of the variation to be found among lilacs, the collection should be visited several times during the spring. On a blustery early May day the visitor can see the first of the early species. The great mass of bloom of the common lilac cultivars occurs in about the second and third weeks of May. Most of the Preston hybrids and several other species of lilacs begin to bloom late in May and continue through the first week or two in June. Finally, the early summer visitor will find the white, cloudlike flowers of the Pekin and Japanese tree lilacs. Thus various species of lilacs or their cultivars are in bloom at the Arboretum for almost two months.

TOUR I

For the visitor who comes in mid-May, the common lilac, its closely related species and the many hybrid lilacs derived from them will be of particular interest. Walk along Administration Drive to McCaffrey Drive, the entrance of the lilac collection. Beds 1 and 2 are to the south, Beds 7 and 8 to the north (see map, centerfold). Chinese lilacs (*S. x chinensis*) can be seen facing each other at both corners of these beds. These are shrubby lilacs, not suckering as freely as the common lilac. Flowers are small, but very profuse. The leaf is smaller and narrower than that of the common lilac. Note also the two Japanese tree

lilacs planted as single specimens and trimmed into tree form at the corners of the drive. These bloom in late June.

Two common lilacs (*S. vulgaris*), salvaged from old farm sites when the Arboretum was being developed, are now growing beside the star magnolia in Bed 8. Note the heart-shaped leaves, typical of the common lilac, and the vigorously suckering habit. Most of the hybrid lilacs inherit both these features from this species.

Proceed north between Beds 8 and 9 to the vicinity of Bed 33. The three plants here are Persian lilacs (*S. x persica*). Often confused with the Chinese lilac, a close look will show that the leaves are even smaller and narrower. Occasional lobed leaves testify that the cutleaf lilac is a parent of this species. Flower clusters are similar to those of the Chinese lilac but of a paler color.



Chinese Lilac



Common Lilac



Persian Lilac



Manchurian Lilac

The white form of the Chinese lilac (*S. x chinensis* "Alba") can be seen nearby in Bed 34 or the specimen plant beside Beds 33 and 34. Also in Bed 34 is the Manchurian lilac (*S. velutina*) which has leaves somewhat larger than the Chinese lilac, though usually smaller than common lilac leaves. This particular plant seldom blooms, perhaps due to competition from the walnut tree nearby. Look for it again in Bed 29. Another Chinese lilac (*S. x chinensis* "Metensis") is also in Bed 34. It has whitish flowers with a pale lilac center.

Continue to the end of Bed 34. From here through Bed 35 and into part of Bed 15 one will find the early lilac (*S. oblata*) and two of its varieties. Very closely related to the common lilac, it is distinctive because of its lower growth, early bloom, and very wide leaves which often taper to a long, narrow point. The early lilac is the first of our lilacs to bloom, sometimes two weeks ahead of the common lilac. It has been used extensively by lilac breeders and has given us a large group of "Early Hybrids" which bloom somewhat earlier than common lilac cultivars. The early lilac is the only lilac which can claim a respectable fall foliage color, in this case a rich maroon red.



Early Lilac



Cutleaf Lilac



Meyer's Lilac



Littleleaf Lilac

Other interesting lilac species in this area include the cutleaf lilac (*S. laciniata*) and Meyer's lilac (*S. meyeri*), both in Bed 15. The cutleaf lilac is quickly recognized by its deeply lobed leaves. It is considered one of the parents of both the Chinese and Persian lilacs.

Meyer's lilac is a low-growing species, one of the few lilacs which can be used effectively in small gardens. It has distinctive, small, almost round, crisp leaves which are shiny and scalloped or fluted. This plant, in Bed 15, is trained as a standard, in tree form. Other Meyer's lilacs can be seen nearby in Bed 14.

Another interesting species can be seen in Bed 16. This is the littleleaf lilac (*S. microphylla*). It has small oval leaves which are actually slightly larger than the leaves of Meyer's lilac. Littleleaf lilac flowers are lilac in color tone and among the most fragrant of lilac flowers. This species is unusual in that it regularly reblooms in late July or early August. The shrub is of medium size and somewhat less aggressive than the common lilac.

The common lilac, its hybrids and relatives, such as the Chinese, Persian, early, cutleaf, littleleaf, and Meyer's lilacs all bloom from late April to mid or late May in Wisconsin.

From Bed 16 one can proceed through the collection of "French Hybrids" (Beds 6, 18, 20, 21, etc.) in which case note more Manchurian lilacs in Bed 29 and additional Meyer's lilacs in Bed 30. Another alternative would be to proceed more directly to the parking lot through some of the "French Hybrids" in Beds 11, 12, 14, 28, etc.

TOUR II

Later-blooming lilacs

Another major group of lilac species and hybrids is the group which is related to the late lilac (*S. villosa*). This group is easily recognized by its coarse stems and large leaves. Flowers in all late lilacs are narrower than those of the common lilac, but the trusses (clusters) are often very large. As the name suggests, these lilacs all bloom after the lilacs mentioned above. In Wisconsin, the late lilacs usually reach their peak bloom in the first week of June.



Felty Lilac



Wolf's Lilac



Late Lilac

The long bed near the parking lot, Bed 37, contains several of the late hybrids and a few of the late species lilacs. Preston hybrids ("Isabella" and "Jessica") are represented in this bed. Also present here are two notable species of late-blooming lilacs. One, the felty lilac (*S. tomentella*), has very large leaves which taper gradually to a long point. Its flowers are single and pinkish. The other, Wolf's lilac (*S. wolfii*), has more deeply colored flowers of magenta or purple. Wolf's lilac has a particularly dense, well-rounded form, bearing leaves down to ground level. Its leaves are among the smallest of the late lilac group, ending in a blunt tip. Other late-blooming species of interest are located in Bed 4, near the middle of Administration Drive. In this bed is the late lilac (*S. villosa*), one of the parent species used in developing the Preston hybrids. The late lilac has leaves very much like Wolf's lilac, though slightly larger. Flowers are pinkish. This is one of the hardiest of lilacs, enduring even the severe climate of central Manitoba. Also in this bed is the Hungarian lilac (*S. josikaea*). Leaves of the Hungarian lilac are intermediate in size, short tipped, and fairly broad. Its flowers are placed in the lilac (IV) color class.

An additional late-blooming hybrid can be seen in Bed 16. This is (*S. x henryi* "Lutece"). "Lutece" is a very large shrub with thick, upright branches. Its flowers are violet in color and appear quite late, usually mid-June at the Arboretum.

CRABAPPLE COLLECTION

TREE

LILAC

DISPLAY

AREA

McCAFFREY DRIVE

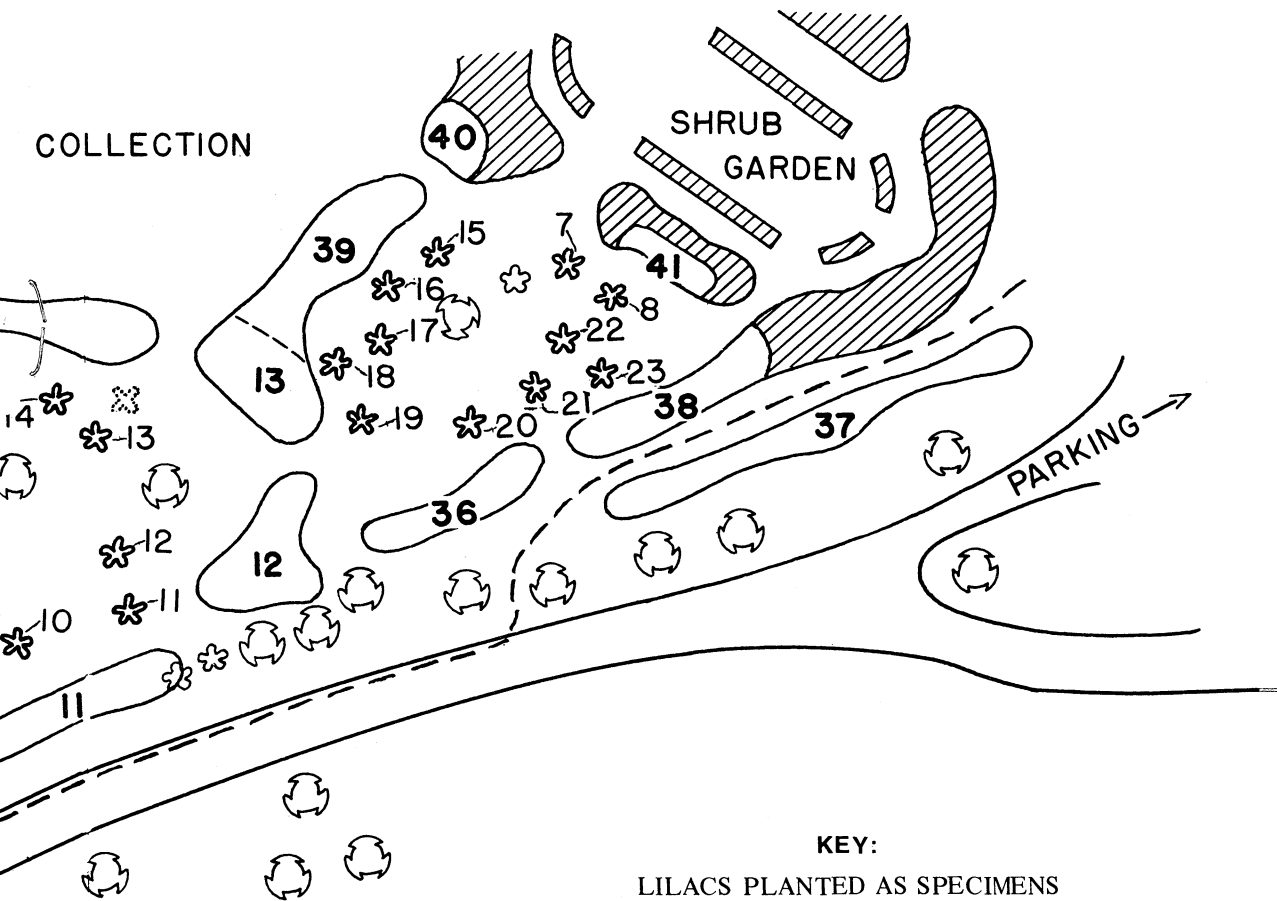
ADMINISTRATION DRIVE

DIAGRAM OF THE LILAC DISPLAY

UNIVERSITY OF WISCONSIN



ARBORETUM






KEY:

LILACS PLANTED AS SPECIMENS
(Not in Numbered Beds)

-  1-5. *Syringa amurensis japonica* (Japanese Tree Lilac)
-  6-8. *Syringa x chinensis* "Saugeana" (Red Chinese Lilac)
- 9. *Syringa x chinensis* "Alba" (White Chinese Lilac)
- 10. *S.* "Rhum Von Horstenstein"
- 11. *S.* "City of Gresham"
- 12. *S.* "A. M. Brand"
- 13. *S.* "General Pershing"
- 14. *S.* "Vivian Evans"
- 15. U.W. Arboretum Seedling #8
- 16. U.W. Arboretum Seedling #9
- 17. U.W. Arboretum Seedling #10
- 18. U.W. Arboretum Seedling #2
- 19. U.W. Arboretum Seedling #6
- 20. U.W. Arboretum Seedling #7
- 21. U.W. Arboretum Seedling #5
- 22. U.W. Arboretum Seedling #3
- 23. U.W. Arboretum Seedling #4

- Tour I, Midseason Lilac Species (see text)
- Tour II, Late-Blooming Species

-  Other trees and shrubs in the lilac display area

PLAY AREA

NSIN



Hungarian Lilac



Pekin Lilac



Japanese Tree Lilac

Few of the later-blooming lilac species have the fragrance of the early-blooming lilacs. Many of them are very large, coarse shrubs which tend to become somewhat open at the base (“leggy”) in maturity. Yet their graceful blossoms are much appreciated as they appear well after the early blooming species have faded. For these reasons, research will continue into the development of improved “late hybrid” lilacs.

TREE LILACS FOR EARLY SUMMER

Late in June, long after the mass of “French Hybrids” have passed and the late hybrids have bloomed, the two tree lilac species come into their own. Unusual because of their cherrylike bark and treelike growth, these plants form quite a distinctive group among lilacs. Their flowers are tiny, creamy white and give off an odor which many people find objectionable. However, the individual flowers are borne in huge, pyramidal clusters which give the tree a very attractive, cloudlike appearance when in full bloom.

The two species in our collection, the Pekin lilac (*S. pekinensis*) (Bed 16), and the Japanese tree lilac (*S. amurensis japonica*) (Map No. 1-5), are very similar in overall appearance. The Pekin lilac tends to be the shrubbier of the two and has a more delicate texture since its leaves are relatively small. The Japanese tree lilac, on the other hand, is more readily trained into tree form, and has very large, oval leaves. Four Japanese tree lilacs, three trimmed into tree form, can be seen along Administration Drive as one passes through the lilac collection.

Come look, smell, learn; and be glad that
others left things untouched for you to enjoy!

—Kenneth W. Wood

A native Madisionian, Kenneth W. Wood received the B.A. degree from Earlham College, Richmond, Indiana and the M.S. degree in Horticulture from University of Wisconsin—Madison. He has served with the Peace Corps in Liberia, West Africa and as a teaching assistant with the U.W. Department of Horticulture. During the past two years he has devoted his attention to sorting out the proper identification and nomenclature of the trees, shrubs and vines in the Longenecker Horticultural Gardens, with special emphasis on the lilac collection.



ACKNOWLEDGEMENTS

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1970

APPENDIX #1

University of Wisconsin Arboretum Lilac Collection - 1974

LILAC SPECIES

<i>Scientific Name</i>	<i>Location</i>	<i>Common Name</i>
<i>Syringa amurensis japonica</i> (S,I)*	near Beds 1,4,8,10	Japanese Tree Lilac
<i>Syringa x chinensis</i> (S,IV)	Beds 1,2,7,8	Chinese Lilac
<i>Syringa x chinensis</i> "Alba" (S,I)	Bed 34	White Chinese Lilac
<i>Syringa emodi</i> (S,IV)	Bed 3	Himalayan Lilac
<i>Syringa josikaea</i> (S,IV)	Bed 4	Hungarian Lilac
<i>Syringa josikaea eximia</i> (S,V)	Bed 3	Pink Hungarian Lilac
<i>Syringa laciniata</i> (S,IV)	Bed 15	Cutleaf Lilac
<i>Syringa meyeri</i> (S,IV)	Beds 14,15,30	Meyer's Lilac
<i>Syringa microphylla</i> (S,IV)	Bed 16	Littleleaf Lilac
<i>Syringa microphylla</i> "Superba" (S,V)	Bed 16	Pink Littleleaf Lilac
<i>Syringa oblata</i> (S,V)	Bed 35	Early Lilac
<i>Syringa oblata dilatata</i> (S,V)	Beds 15,35	Korean Early Lilac
<i>Syringa oblata giraldii</i> (S,V)	Bed 34	Purple Early Lilac
<i>Syringa pekinensis</i> (S,I)	Bed 16	Pekin Lilac
<i>Syringa x persica</i> (S,IV)	Bed 33	Persian Lilac
<i>Syringa x persica</i> "Alba" (S,I)	Bed 31	White Persian Lilac
<i>Syringa x swegiflexa</i> (S,V)	Bed 36	Swegiflexa Lilac
<i>Syringa x sweginzowi albida</i> (S,I)	Bed 37	White Chengtu Lilac
<i>Syringa tomentella</i> (S,V)	Bed 37	Felty Lilac
<i>Syringa velutina</i> (S,IV)	Beds 29,34	Manchurian Lilac
<i>Syringa villosa</i> (S,V)	Bed 4	Late Lilac
<i>Syringa vulgaris</i> (S,VI)	Bed 8	Common Lilac
<i>Syringa wolfii</i> (S,VI)	Bed 37	Wolf's Lilac

LILAC CULTIVARS

Adelaide Dunbar (D,VII) Bed 14	De Miribel (S,II) Bed 14
Aladdin (S,V) Bed 37	De Saussure (D,VII) Bed 18
Alexander's Pink (S,V) Bed 38	Desfontaines (D,VI) Bed 8
Alice Eastwood (D,VI) Bed 17	Deuil d'Emile Galle (D,V) Bed 6
Alphonse Lavallee (D,IV) Bed 6	Diderot (S,VII) Bed 10
Ambassadeur (S,III) Bed 17	Diplomate (S,III) Beds 17,38
A. M. Brand (S,VI) near Bed 12	Dr. Charles Jacobs (S,VII) Bed 30
Annabel (D,IV) Bed 39	Dr. Lemke Bed 34
Anna Amhoff (S,I) Bed 10	Duc de Massa (D,III) Bed 7
Assessippi (S,IV) Beds 6,41	Edith Cavell (D,I) Bed 21
Belle de Nancy (D,V) Bed 24	Edmond About (D,VI) Bed 6
Berryer (D,V) Bed 11	Edmond Boissier (S,VII) Bed 27
Bleuatre (S,III) Bed 21	Edouard Andre (D,V) Bed 24
Blue Hyacinth (S,III) Beds 6,41	Ellen Wilmott (S,I) Bed 7
Buffon (S,V) Bed 13	Emile Gentil (D,III) Bed 27
Capitaine Baltet (S,VI) Bed 11	Emile Lemoine (D,IV) Bed 9
Catinat (S,V) Beds 5,38	Esther Staley (S,V) Bed 38
Charles Joly (D,VI) Bed 10	Ethel M. Webster (S,V) Bed 37
Charles Nordine (S,III) Bed 9	Etna (S,VII) Bed 14
Charles Sargent (D,III) Bed 32	Excel (S,IV) Bed 10
Charles X (S,VI) Bed 10	Firmament (S,III) Beds 14,38
Cheyenne (S,III) Bed 12	Floreal (S,V) Bed 25
Christophe Colomb (S,IV) Bed 14	Frank Klager (S,VII) Bed 17
Churchill (S,V) Bed 13	Frau Bertha Dammann (S,I) Bed 24
City of Gresham (S,VII) near Bed 12	Frau Wilhelm Pfitzer (S,V) Bed 7
Clarke's Giant (S,III) Bed 17	French Giant (S,III) Beds 2,22
Claude Bernard (D,V) Beds 6,22	Fuerst Lichtenstein (S,V) Bed 30
Comtesse Horace de Choiseul (D,V) Bed 27	General Pershing (D,V) near Bed 14
Congo (S,VI) Bed 21	General Sheridan (D,I) Bed 30
Coral (S,V) Bed 37	Gertrude Leslie (D,I) Bed 12
Decaisne (S,III) Bed 16	Glorie de Lorraine (S,VI) Beds 5,6
De Croncels (S,VII) Beds 18,23	Glorie de Moulins (S,V) Beds 7,25

Glory (S,VI) Beds 6,20
 Grand Duc Constantin (D,III) Bed 5
 Guizot (D,IV) Bed 3
 Hecla (S,I) Bed 39
 Henri Martin (D,IV) Bed 11
 Henri Robert (D,II) Bed 38
 Herman Eilers (S,V) Bed 3
 Hiawatha (S,VI) Bed 37
 Hippolyte Maringer (D,IV) Bed 14
 Hugo Koster (S,IV) Bed 26
 Hyacinthiflora (D,III) Bed 3
 Isabella (S,IV) Bed 37
 Jacques Callot (S,IV) Bed 3
 James MacFarlane (S,V) Bed 38
 Jan Van Tol (S,I) Bed 9
 Jean Mace (D,V) Bed 8
 Jeanne D'Arc (D,I) Bed 8
 Jessica (S,II) Bed 37
 Jules Ferry (D,V) Beds 5,30
 Jules Simon (D,III) Bed 14
 Kate Harlin (S,I) Bed 11
 Kate Sessions (S,V) Bed 17
 Katherine Havemeyer (D,V) Bed 6
 Lamartine (S,V) Bed 10
 La Mauve (D,V) Bed 26
 Laplace (D,VII) Bed 14
 La Tour d'Auvergne (D,VI) Bed 23
 Le Notre (D,II) Bed 14
 Leon Gambetta (D,IV) Bed 8
 Louvois (S,II) Bed 17
 Lucie Baltet (S,V) Bed 12
 Ludwig Spaeth (S,VII) Beds 3,20
 Lutece (S,II) Bed 17
 Macrostachya (S,V) Bed 3
 Marc Michelli (D,V) Bed 11
 Marechal Lannes (D,II) Bed 9
 Marengo (S,IV) Bed 12
 Marie Finon (S,I) Bed 36
 Marie Legraye (S,I) Beds 6,22,26
 Mathieu de Dombasle (D,IV) Bed 9
 Maud Notcutt (S,I) Bed 11
 Maurice Barres (S,III) Bed 2
 Maurice de Vilmorin (D,IV) Bed 11
 Metensis (S,I) Bed 34
 Mirabeau (S,IV) Bed 11
 Mireille (D,I) Bed 27
 Miss Kim (S,III) Bed 14
 Mme. Abel Chatenay (D,I) Bed 11
 Mme. Antoine Buchner (D,V) Beds 12,13
 Mme. Casimir Perier (D,I) Beds 6,34
 Mme. Catherine Bruchet (D,I) Bed 3
 Mme. Charles Souchet (S,III) Bed 12
 Mme. de Miller (D,I) Bed 3
 Mme. Florent Stepman (S,I) Bed 5
 Mme. F. Morel (S,VI) Bed 13
 Mme. Lemoine (D,I) Bed 23
 Mme. Leon Simon (D,IV) Bed 25
 Monge (S,VII) Bed 14
 Monique Lemoine (D,I) Bed 39
 Montaigne (D,V) Beds 22,24
 Mont Blanc (S,I) Bed 10
 Montesquieu (S,VI) Bed 14
 Moonlight (S,III) Bed 39
 Mrs. Edward Harding (D,VI) Bed 6
 Mrs. McKelvey (D,IV) Bed 4
 Mrs. W. E. Marshall (S,VII) Bed 39
 Nerissa (S,VI) Bed 37
 Night (S,VII) Bed 36
 Nocturne (S,III) Bed 36
 Nokomis (S,IV) Bed 17
 Olivier de Serres (D,III) Bed 30
 Pascal (S,IV) Bed 6
 Paul Deschanel (D,VI) Bed 20
 Paul Hariot (D,VII) Bed 18
 Paul Thirion (D,VI) Bed 26
 Perle Von Stuttgart (D,IV) Bed 27
 Pocahontas (S,VII) Bed 17
 President Carnot (D,IV) Bed 8
 President Fallieres (D,IV) Bed 1
 President Grevy (D,III) Bed 9
 President Lincoln (S,III) Bed 14
 President Poincare (D,VI) Bed 5
 President Roosevelt (S,VII) Bed 16
 President Viger (D,III) Bed 39
 Primrose (S,I) Bed 40
 Princess Alexandra (S,I) Bed 25
 Princess Clementine (D,I) Bed 18
 Priscilla (S,VI) Bed 36
 Prodige (S,VII) Bed 14
 Professor E. Stoeckhardt (S,IV) Bed 26
 Reaumur (S,VI) Bed 6
 Redwine (S,VI) Bed 21
 Reine Elisabeth (S,I) Bed 27
 Rene Jarry-Desloges (D,III) Bed 3
 Roi Albert (S,VI) Bed 28
 Romeo (S,V) Bed 37
 Royalty (S,VII) Bed 37
 Ruhm Von Horstenstein (S,VI) near Bed 11
 Rutilant (S,VII) Bed 37
 Sarah Sands (S,VII) Bed 39
 Saugeana (S,VI) Beds 1,2,8 & near 4,41
 Senateur Volland (D,VI) Bed 19
 Siebold (D,I) Bed 28
 Silver King (S,III) Beds 18,31,32
 Souv. de Henri Simon (S,III) Bed 27
 Thunberg (D,IV) Beds 28,38
 Toussaint l'Ouverture (S,VII) Bed 14
 Turgot (S,V) Bed 9
 Ursula (S,V) Bed 39
 Vauban (D,V) Bed 1
 Vestale (S,I) Bed 28
 Victor Bed 36
 Victor Lemoine (D,IV) Beds 28,39
 Ville de Limoges (S,V) Bed 6
 Violetta (D,II) Bed 14
 Virginite (D,V) Bed 30
 Vivian Evans (S,IV) near Bed 14
 Vivand Morel (D,IV) Bed 28
 Volcan (S,VII) Bed 14
 Waldeck-Rousseau (D,V) Bed 22
 White Swan (S,I) Bed 40
 Arboretum Seedling #1 Bed 39
 Arboretum Seedling #2 near Bed 13
 Arboretum Seedling #3 near Bed 36
 Arboretum Seedling #4 near Bed 38
 Arboretum Seedling #5 near Bed 39

Arboretum Seedling #6 near Bed 13
 Arboretum Seedling #7 near Bed 38
 Arboretum Seedling #8 near Bed 38

Arboretum Seedling #9 near Bed 39
 Arboretum Seedling #10 near Bed 39

*(S,I) refers to color and whether a plant is single (S) or double (D). Color categories are: I White; II Violet; III Bluish; IV Lilac; V Pinkish; VI Magenta; VII Purple. Bed locations refer to centerfold map.

APPENDIX #2

THE BEST OF THE LILACS¹

Good Common Lilac Cultivars (Midseason Bloom)

Color Group	Single	Double
I White	Vestale (Bed 28) ²	Ellen Wilmott (Bed 7)
	Jan Van Tol (Bed 9)	Edith Cavell (Bed 21)
	Mont Blanc (Bed 10)	Mme. Lemoine (Bed 23)
II Violet	De Miribel (Bed 14)	Violetta (Bed 14)
	Cavour	Marachel Lannes (Bed 9)
III Bluish	President Lincoln (Bed 14)	Ami Schott
	Firmament (Beds 14,38)	Olivier de Serres (Bed 30)
	Decaisne (Bed 16)	President Grevy (Bed 9)
IV Lilac	Christophe Colomb (Bed 14)	Victor Lemoine (Bed 36)
	Jacque Callot (Bed 3)	Henri Martin (Bed 11)
		Leon Gambetta (Bed 8)
V Pinkish	Lucie Baltet (Bed 12)	Alphonse Lavalle (Bed 6)
	Macrostachya (Bed 3)	Mme. Antoine Buchner (Beds 12,13)
		Katherine Havemeyer (Bed 6)
VI Magenta	Capitaine Baltet (Bed 11)	Montaigne (Beds 22,24)
	Mme. F. Morel (Bed 13)	Belle de Nancy (Bed 24)
	Congo (Bed 21)	Paul Thirion (Bed 26)
VII Purple	Ludwig Spaeth (Beds 3,20)	Charles Joly (Bed 10)
	Mrs. W. E. Marshall (Bed 39)	President Poincare (Bed 5)
	Night (Bed 36)	Adelaide Dunbar (Bed 14)
	Monge (Bed 14)	Paul Hariot (Bed 18)

¹Adapted from 1968 survey by the American Association of Botanical Gardens and Arboreta; with additional late lilacs recommended by Donald Wyman in "The Preston Lilacs," *American Nurseryman*, 1 Dec., 1974.

²Bed numbers refer to centerfold map showing bed locations in the Lilac Display Area. Cultivars without bed numbers are not presently in the collection.

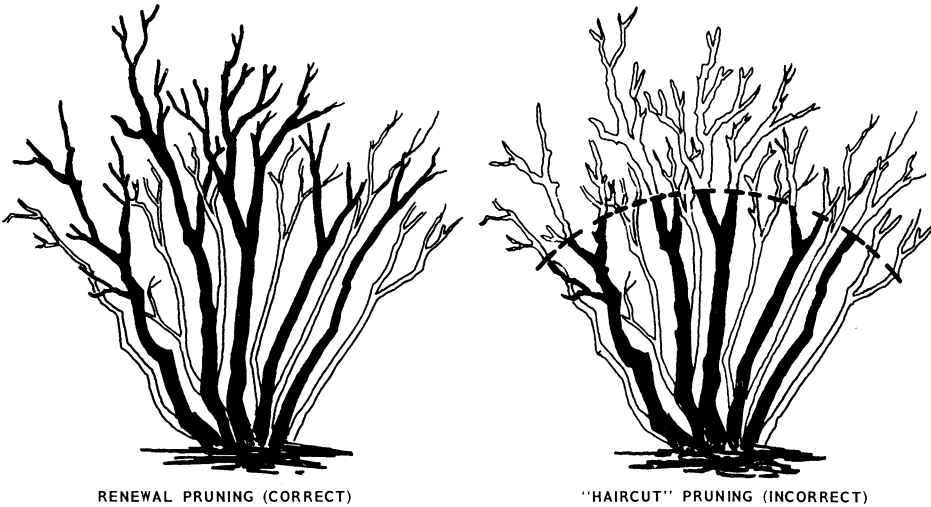
Color Group	Good Early Hybrids	Good Late Hybrids
I White	Gertrude Leslie (D ³ , Bed 12) Sister Justena (S) Mount Baker* (S)	Anna Amhoff* (S, Bed 10) Hecla (S, Bed 39)
II Violet	(None reported)	Jessica (S, Bed 37) Lutece (S, Bed 16)
III Bluish	Clarke's Giant (S, Bed 17) Blue Hyacinth (S, Beds 6,41) Charles Nordine* (S, Bed 9) Laurentian* (S)	Nocturne* (S, Bed 36) Miss Kim* (S, Bed 14)
IV Lilac	Assessippi (S, Beds 6,41) Nokomis (S, Bed 17) Excel (S, Bed 10) Annabel* (D, Bed 39)	Isabella (S, Bed 37) Elinor (S) Celia (S)
V Pinkish	Esther Staley (S, Bed 38) Necker (S) Buffon (S, Bed 13) Turgot* (S, Bed 9) Fenelon* (S)	James MacFarlane (S, Bed 38) Ethel M. Webster (S, Bed 37) Coral (S, Bed 37) Romeo* (S, Bed 37) Alexander's Pink* (S, Bed 38) Dawn (S) Prairial (S) Ursula (S, Bed 39) Enid (S) Floreal (S, Bed 25)
VI Magenta	Evangeline (D) Montesquieu (S, Bed 14) Missimo* (S) Alice Eastwood (D, Bed 17)	Hiawatha (S, Bed 37) Lucetta (S) Redwine (S, Bed 21) Guinevere (S) Nerissa (S, Bed 37)
VII Purple	Tom Taylor* (D) Purple Heart* (S)	Royalty (S, Bed 37) Donald Wyman (S) Rutilant (S, Bed 37) Lynnette (S)

³S = single, D = double * = tentative, meager reporting



RENEWAL PRUNING OF DECIDUOUS SHRUBS

Tall, overgrown and "leggy" deciduous shrubs may be given a new lease on life through proper pruning. *Renewal pruning* simply involves the selective removal of the oldest, heaviest canes as close to the ground as possible. Because pruning usually results in the stimulation of new shoots just below the pruning cuts, all subsequent shoot growth takes place at the base of the shrub. If the "haircut" method of pruning is practiced, as illustrated below, the attractive natural form of the shrub is destroyed and all new shoot growth will arise just below these pruning cuts to result in an even taller, more "leggy" plant.



Proper timing of renewal pruning is important. Severely overgrown shrubs will respond best to pruning done in early spring, just prior to the advent of new growth. The more usual practice is to renewal prune spring-flowering deciduous shrubs just after their flowers have faded. This would include shrubs like forsythia, mockorange, lilac, weigela, double-flowering plum, flowering quince and others that bloom prior to the end of June. Pruning at this time will not sacrifice part of the flower display and will insure maximum flower bud development on the remaining branches for the following year. Summer-blooming shrubs such as snowhill hydrangea and froebel spirea should be pruned in early spring.

The renewal pruning of badly neglected, overgrown and "leggy" shrubs may have to be a gradual process. If there are few, if any, young canes arising from the ground, only one-third to one-half of the old, heavy canes should be removed at a time to allow for the development of new shoots. The renewal pruning process is thereby accomplished over a period of two or three years.

It is a good practice to regularly remove two or three of the older canes from shrubs that have reached their mature size. Shrubs maintained in this manner will always be attractive, vigorous and healthy.

Tools needed for renewal pruning are a long-handled lopping shears and a pointed, curved-blade pruning saw.

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