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# ARNOLD ARBORETUM

HARVARD UNIVERSITY

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## BULLETIN

OF

## POPULAR INFORMATION



JAMAICA PLAIN, MASS.

JUNE 30, 1914



The most important summer-flowering trees, the Lindens (*Tilia*) are beginning to bloom and the fragrant flowers of the different species will perfume the air during a large part of the month of July. In the collection are the three species of the northern United States, *Tilia americana*, *T. Michauxii*, and *T. heterophylla*, all the European species, and several species from eastern Asia. Usually the trees of eastern Asia are more successful in this climate than those of the same genus from Europe, but to this general rule *Tilia* is an exception. All the European species and their hybrids and varieties flourish in New England, but the Asiatic species are showing themselves bad growers here, and only the Japanese *T. japonica* and the north China *T. mongolica* have ever grown large enough in the Arboretum to flower and produce seeds. The latter is a small and apparently short-lived tree of only botanical interest. *Tilia japonica* is also a small tree here with drooping branches and light green foliage; it is one of the late-flowering species and is conspicuous in early spring as it unfolds its leaves a week or two before those of any of the other Lindens in the collection appear.

The flowers of *Tilia platyphyllos* have been open for several days. This is the most widely distributed of European Lindens especially in the south, and it may be recognized by the yellow tinge of the leaves, by the thick covering of short hairs on their lower surface and on the leaf-stalks, and by the prominent ribs of the fruit. It is not the handsomest of the European Lindens, but it is the tree which is usually sold by American nurserymen as "the European Linden." There are varieties with leaves larger than those of the type (var. *grandifolia*), with erect branches forming a broad pyramidal head (var. *pyramidata*) and with variously divided leaves (vars. *lanceolata* and *vitifolia*). A handsomer tree, *Tilia cordata*, is the common Linden of northern Europe where it sometimes grows to a large size, the old historical Linden-trees of the north and central countries usually being of this species. This tree may be recognized by its small, thin, more or less heart-shaped leaves which are pale on the lower surface and furnished with conspicuous tufts of rusty brown hairs in the axils of the principal veins. It has not been often planted in this part of the country, although it is specially valuable, for it is the latest of the Lindens to flower and supplies bees with food after the flowers of the other Lindens have faded.

The handsomest, perhaps, of the Lindens of western Europe is by many students considered a natural hybrid between the two species already described, and is variously called *Tilia vulgaris*, *T. europaea*, *T. intermedia* and *T. hybrida*. Although widely distributed in Europe, this tree appears to be much less common than either of its supposed parents. It is a tall, round-headed tree, and large noble specimens can be found in the neighborhood of Boston where formerly it must have been more often planted than any of the other foreign Lindens.

Two Lindens occur in eastern Europe, the Silver Linden, *Tilia tomentosa*, and *T. petiolaris*. The former is a tree with erect-growing branches which form a broad, compact, round-topped, rather formal head, and erect leaves dark green above and silvery white below; this distinct-looking tree is not very common in eastern Massachusetts, but it can be often seen in the neighborhood of New York and Philadelphia. *Tilia petiolaris* is a more beautiful tree; this also has leaves which are silvery white on the lower surface, but drooping on long slender stalks they



flutter gracefully, in the slightest breeze. The branches, too, are drooping and form a narrow open head. This tree is not known in a wild state, and all the plants in cultivation have been derived from a single individual found many years ago in a garden in Odessa. A supposed hybrid of this tree with *Tilia americana* (*T. vestita*), often sold in nurseries as *T. alba spectabilis*, is one of the most beautiful Lindens with leaves of the size and shape of those of *T. americana* but silvery white on the lower surface. In Europe much attention is paid to another supposed hybrid Linden, *T. euchlora* or, as it is more generally known, *T. dasystyla*. This is a fast-growing, pyramidal tree with dark green leaves, and is now largely planted as a street-tree in Germany and Holland. It is hardy here and promises to be a useful tree in New England.

*Tilia americana*, which will not be in flower for several days, is a common northern tree, growing probably to its largest size along the northern borders of the United States from Nova Scotia to Minnesota, and easily distinguished by the green and shining lower surface of the large leaves which have no hairy covering with the exception of the conspicuous tufts in the axils of the principal veins. The leaves of this tree cultivated near Boston are often made brown, especially in hot dry summers, by the red spider which, however, can be controlled by spraying with arsenate of lead. *Tilia spectabilis* is believed to be a hybrid between this American tree and the European *T. tomentosa*. It is a vigorous, fast-growing tree, and holds its foliage in the autumn much later than its American parent. In some European nurseries it is sold under the name of *Tilia Moltkei*. *Tilia Michauxii* is a common tree in the northern states and is distributed from the valley of the St. Lawrence River to the mountains of North Carolina, and to Missouri and Arkansas. It may be readily distinguished by the thin covering of pale brownish hairs on the lower surface of the leaves. The third of the Linden trees of the northern states grows from western New York to northern Alabama, and through Kentucky to southern Indiana and Illinois, reaching its largest size and greatest beauty in the forests which cover the high slopes of the mountains of North Carolina and Tennessee. The leaves of this tree are larger than those of the other American Lindens, oblong in shape, very oblique at the base and silvery white on the lower surface, and, hanging on long slender stalks, the slightest breeze makes them turn first one surface and then the other to the eye. This beautiful and perfectly hardy tree appears to be rarely cultivated. The Lindens, of which there is a large collection in the Arboretum, may be seen in the meadow on the right-hand side of the Meadow Road entering from the Jamaica Plain entrance.

The collection of Grapevines on the trellises at the eastern end of the Shrub Collection is one of the most complete and important groups in the Arboretum and should be visited by every one interested in hardy vines or in seeing the decorative value of some of our native Grapevines which are still little known to gardeners. All the species of eastern North America, with the exception of two or three from the extreme south, and several exotic species are well represented in the collection and they all have decorative value.

In the Shrub Collection *Hypericum Buckleyi*, the earliest of the St. John's Worts to bloom, is now covered with its small yellow flowers. It is a dwarf plant only a few inches high, but spreads into a broad mat. In the Shrub Collection, too, the two forms of *Zenobia* are in bloom, and among Andromeda-like plants hardy in this climate none



produce such large and beautiful flowers. This inhabitant of the coast region of the southern United States is perfectly hardy in northern gardens.

In the Shrub Collection the European *Cytisus nigricans*, with its erect racemes of bright yellow pea-shaped flowers, is now in bloom, and this little shrub is one of the best plants of its class which can be grown successfully in this climate. The latest flowering Bush Honeysuckles, the European *Lonicera iberica*, with pale yellow flowers, and *L. involucrata*, var. *serotina* from the Rocky Mountains, with its yellow tubular corollas, are still in flower, although the fruits of some of the early-flowering plants in this group are already ripe, like the different forms of the blue-fruited *L. coerulea* and the red-fruited *L. Altmannii* from central Asia. From now until December there will be beautiful and often showy fruits on some of the Bush Honeysuckles.

Conspicuous plants now in bloom are the Silky Cornel, *Cornus Amomum*, the last of the genus to flower, and *Viburnum Canbyi*, the latest species of this interesting genus. In cultivation this shrub grows to a large size, forming a broad, round-topped bush ten or twelve feet high and flowering freely every year. The fruit is larger and ripens later than that of the other blue-fruited species. Several species of Tamarisk are now in flower and can be seen in a bed by the path in the rear of the Linden Collection where this genus has been planted. The pure white fragrant flowers of *Rhododendron (Azalea) viscosum* are open; those of *Magnolia glauca* still fill the air with delicate perfume, and the flowers of *Rhododendron maximum*, the last of the evergreen-leaved Rhododendrons to bloom, can be seen at the base of Hemlock Hill. The Sumachs are beginning to open their flowers, and many different kinds of the Burning Bush (*Evonymus*) are in bloom opposite the group of Sumachs on the Meadow Road, among them the broad-leaved form of the evergreen *Evonymus (E. radicans* var. *vegetus*) is unusually full of flowers this year and therefore will be exceptionally beautiful in autumn when its fruit ripens. Attention is again called to this plant as the best of the various forms of this Japanese *Evonymus*, which is the only perfectly hardy evergreen vine which can be grown in this part of the country.

There are still several interesting trees and shrubs to flower. Among them are the North American Sorrel-tree, *Oxydendrum arboreum*, and the North American Hercules' Club, *Aralia spinosa*. These two trees are among the Laurels at the base of Hemlock Hill. Other trees to flower are the Chinese *Koelreuteria paniculata*, with its great clusters of bright yellow flowers, *Sophora japonica*, *Maackia amurensis*, *Aralia chinensis*, and *Acanthopanax ricinifolius*, all natives of eastern Asia, and the last one of the rare trees of the Arboretum, where it is conspicuous with its great leaves like those of some tree of the tropics and large clusters of small white flowers. The Yuccas, the lovely *Clethra alnifolia* of the Atlantic coast, and *Panax sessiliflorus* from the coast of northeastern Asia, are still to flower. The Chinquapin (*Castanea pumila*) is already covered with flowers, and these in a few days will be followed by those of the native Chestnut-tree. For many weeks to come, therefore, the lover of flowers can find much of interest in the Arboretum.

These bulletins will now be discontinued until the autumn.

**The Arboretum will be grateful for any publicity given these Bulletins.**



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