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# ARNOLD ARBORETUM

HARVARD UNIVERSITY

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BULLETIN

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The Persimmon of the eastern United States, *Diospyros virginiana*, is rarely cultivated. This, however, is a perfectly hardy, fast-growing and shapely tree. The leaves are thick and leathery, dark green and shining above and pale below. The male and female flowers are produced on different individuals and are not conspicuous. They open when the leaves are nearly fully grown and are pale yellow, those of the female tree being about three-quarters of an inch long and nearly three times as long as those of the male tree. The fruit, which ripens late in the autumn and does not become sweet and succulent until after it has been touched by the frost, remains on the branches during the winter; it is globose or oblong, about two inches in diameter, pale orange color often with a bright red cheek and is covered with pale bloom. Occasionally plants with exceptionally large or well-flavored fruits have been propagated by nurserymen, but there is still opportunity to improve this fruit, which is one of the best produced by any North American tree. In New England the Persimmon grows naturally only in a few stations in southern Connecticut, but in the middle and southern states it is very common, often covering by means of its suckers barren fields, and springing up by the sides of roads and fences. As an ornamental tree and for the value of its fruit it should be more often planted. A group of this tree can be seen on the right-hand side of the Bussey Hill Road just beyond the Cornell Group. The tree nearest the road is a male and is now covered with flowers; the largest tree in the group is a female on which the young fruits are just beginning to form.

This is a good time to study the Grapevines on the trellis along the eastern side of the Shrub Collection as the leaves are now fully grown and the fruit is formed on some of the species, while on others the flower-buds have not opened.

Many of the early travelers in the northeastern part of North America spoke of the abundance and beauty of the Wild Grapevines and were enthusiastic over the wine that was to be made from the great store of grapes which they found hanging over lakes and streams and along the borders of the forest. These high hopes have not been realized and the fruit of the American Grapevines, with some notable exceptions, unless improved by the blood of the Old World wine grapes, is of little value. American Grapevines, however, have played a great part in restoring the vineyards of Europe ruined by the Phylloxera and among them are some of the most splendid ornamental vines of all temperate regions. No other vines are better suited to cover trellises and arbors, to climb high into old trees, to hang gracefully over walls and fences, to spread over rocks and to clothe barren slopes. The value of Grapevines for covering walls can be seen near the Jamaica Plain entrance, on the wall between the Jamaica Plain and the Forest Hill entrances, and on the Center Street wall, and their value for covering the ground can be seen at the corner of the Meadow and Hemlock Hill Roads opposite the Rhododendrons where there is a bed of Grapevines which are cut back close to the ground every spring. All the North American species which are hardy are growing in the Shrub Collection. Among the little known species best worth cultivation are perhaps *Vitis Doaniana* and *Vitis cinerea*. The first is a native of the Texas Panhandle where it was discovered a few years ago. This is a fast-growing plant and appears to be perfectly at home in New England. The leaves are large, thick and firm, and rather pale bluish green in color. The fruit, which grows in small clusters, is blue covered with a pale bloom and of fair quality. *Vitis cinerea*

is an inhabitant of the river banks of the Mississippi Valley from Illinois to Kansas and Texas and sometimes grows to a great size. This species bears very large leaves which are dark green and dull on the upper surface and ashy gray on the lower surface and, like the young shoots, are clothed when they unfold with a thick, felt-like gray covering. Some of the other species in the collection which should be studied by persons interested in handsome vines are *Vitis vulpina*, the Frost Grape, the species which grows the furthest north; *Vitis rotundifolia*, the Muscadine or Southern Fox Grape, often cultivated in selected forms in the southern states as the Scuppernong Grape; *Vitis monticola*, the Sweet Mountain Grape of the limestone hills of southwestern Texas; *Vitis rubra* or *palmata*, a slender graceful plant found from Illinois to Missouri, Louisiana and Texas; *Vitis arizonica*, with small, pale gray-green leaves; *Vitis aestivalis*, the Summer Grape of the middle states, with large leaves dark green above and covered below through the season with rusty brown hairs, and small blue-black berries; *Vitis bicolor* of the northern and middle states, a magnificent plant with large deeply-lobed leaves dark green on the upper surface and pale blue-green on the lower surface; *Vitis Labrusca*, the common Fox Grape of New England, with leaves covered below with tawny white, tan-colored, or red-brown felt and dull green above and large berries which vary in color from dark purple to reddish brown or amber color. The Delaware, Concord, and other well known table grapes are selected varieties of this species, and this is one of the parents of most of the hybrid grapes which are now largely cultivated in the United States. *Vitis cordifolia*, the Frost Grape, an inhabitant of the middle states, with thin leaves light green on both surfaces and with large clusters of small blue fruit which becomes edible after frost, is one of the largest and most vigorous of the American species, often growing into the tops of the tallest trees and forming stems from one to two feet in diameter. In spite of the beauty and value as ornamental plants of the American Grapevines which can be seen in the Arboretum it is impossible to obtain more than one or two of them in nurseries, as American nurserymen have not yet learned the value of these plants or that a demand for them exists or would exist if plants could be bought.

Among Old World Grapes the most interesting as ornamental plants are *Vitis Coignetiae* and *Vitis amurensis*; the first, which is an inhabitant of northern Japan, grows to a large size and produces enormous, thick, prominently veined leaves pale on the lower side which turn scarlet in the autumn. This is a very vigorous and hardy plant here, and for northern countries one of the most valuable of all the ornamental Grapevines. *Vitis amurensis* is a native of eastern Siberia and, although less vigorous than *Vitis Coignetiae*, it is a hardy and valuable plant for covering walls and trellises. The Chinese *Vitis Davidii* is interesting because, unlike the New World Grapevines, the stems are thickly covered with spines, a character which at one time caused French botanists to consider it the type of a new genus, *Spinovitis*. The leaves of this plant turn red in the autumn. In severe winters the stems are killed back to the ground. Equally curious, perhaps, is another Chinese Grapevine, *Vitis Pagnuccii*, with leaves which are sometimes shaped like those of an ordinary Grapevine and sometimes deeply and variously lobed much like those of the Virginia Creeper.

There are still a number of plants in bloom or still to bloom in the Shrub Collection, and these late-blooming shrubs are valuable and interesting because summer-blooming shrubs are not numerous. These flowering shrubs, the ripening of early fruits and the full development of the leaves

on most of the trees make a visit to the Arboretum in July interesting and important.

Among the shrubs now in bloom the most showy are perhaps the Hydrangeas, and of the species cultivated in the Arboretum *Hydrangea paniculata* is now the most conspicuous. The most generally planted of the forms of this plant is the one in which all the flowers are sterile, known as *Hydrangea paniculata grandiflora*. This plant produces large conical clusters of white flowers which turn rose color in fading; it will not be in bloom for several weeks. There are two other forms in which only a few of the flowers are sterile and are called ray flowers because they surround the clusters of small fertile flowers. These are the wild plants from which the form *grandiflora*, with all the flowers neutral, has been developed probably by long cultivation and selection in Chinese and Japanese gardens. There are two forms of this *Hydrangea* with perfect and ray flowers and one of these, variety *praecox*, is just coming into flower and the other, variety *tardiva*, will not be in flower for several weeks. There are three plants of the variety *praecox* in the collection, differing in the size of the flower-clusters and in the size of the ray flowers. The handsomest and the earliest of these was raised from seeds collected by Professor Sargent in Hokkaido where it grows into a small tree sometimes twenty or thirty feet tall. Individuals of two of the American species of *Hydrangea* have been found with sterile flowers only. The handsomest of these is the variety of *Hydrangea arborescens*, known as *grandiflora*. This plant was found a few years ago growing wild in one of the western states and has been largely distributed in this country and in Europe. It is a handsome hardy plant, of good habit, and it produces its large clusters of white flowers in great profusion. It is just coming into flower a few days before *Hydrangea arborescens* growing next to it. Of *Hydrangea cinerea* of the southern states there is also a form with all sterile flowers, the variety *sterilis*. This is also a good garden plant, blooming rather later than *Hydrangea arborescens grandiflora*.

Several shrubs of the Pea Family with yellow flowers are in bloom. Most interesting, perhaps, are the Coluteas, or Bladder Sennas, inhabitants of southern Europe, the Caucasus and Asia Minor. *Colutea arborescens* and *Colutea cilicica* are in full flower now, but *Colutea orientalis* is already covered with its large thin-walled inflated pods which are now tinged with pink and are more ornamental even than the flowers.

Three small yellow-flowered European shrubs are also in flower, *Cytisus nigricans*, *Cytisus capitatus* and *Genista elata*. These are all good garden plants not often seen in American collections. *Holodiscus discolor*, a near relative of the Spiraeas, is covered with its long drooping clusters of white flowers. This is a common shrub in the region west of the southern Rocky Mountains and one of the few shrubs of that part of the country which is perfectly at home in New England.

Of the Sorbarias, which are also of the Spiraea relationship, *Sorbaria sorbifolia* of eastern Siberia and Japan, and *Sorbaria stellipila* of Japan are in flower. These, like the other species of this Old World genus, are handsome shrubs with dark divided leaves and large erect clusters of small white flowers which remain for a long time in good condition.

Some of the Deutzias are still in flower. The handsomest of them now is perhaps the plant known as the Pride of Rochester, with flowers slightly tinged with pink. This is a form of *Deutzia scabra*, and other garden forms of this species now in bloom are the varieties *Watereri* and *Wellsii*.

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