ARNOLD ARBORETUM
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The number of woody plants that produce flowers in New England after the middle of October is not large. The most important of them is, of course, the native Witch Hazel (*Hamamelis virginiana*) which is a true autumn bloomer, that is, it does not begin to flower until after the first of October. Its small clusters of flowers with their long pale yellow strap-shaped petals are now partly hidden by the leaves which are bright yellow and very conspicuous. As the leaves fall the flowers seem to cover the branches and form one of the most interesting features of the autumn flora of the northern United States. Occasionally a plant can be found in flower with leaves still retaining their summer color, and on such plants the beauty of the flowers is increased by the contrast between the bright green leaves and the yellow flowers. There is another species of Witch Hazel in southern Missouri and Arkansas which blooms in early spring, and the two Japanese species and the species of central and western China are also spring bloomers. The Witch Hazel Group, containing besides *Hamamelis*, the Sweet Gum, Liquidambar and Fothergilla, is on the south side of Meadow Road at its junction with the Bussey Hill Road. Large specimens of *Parrotia persica*, a shrub or small tree of this family, can be seen on Hickory Path near Centre Street. This plant grows in the Arboretum into a broad round-headed shrub with erect stems and, as the flowers and fruits are not conspicuous, is chiefly valuable for the orange and scarlet tints assumed in autumn by its ample leaves.

A plant still in flower is *Lonicera Heckrottii*. This is one of the climbing Honeysuckles and is of hybrid origin. It was described in Bulletin No. 29, issued on July 2nd last, when it had already been in flower two or three weeks. From the middle of June until the middle of October it has been covered with flowers. Although not fragrant, they are very beautiful; the outer surface of the corolla is deep rose color and the inner surface is pale yellow, and as closed buds and open flowers appear together in the same cluster beautiful contrasts of color are produced. This vine flowers more constantly and more persistently than any other plant in the Arboretum, and it might well find a place in every New England garden in which beautiful flowers are valued. A few belated flowers are still opening on the climbing semi-evergreen, Hall's Japanese Honeysuckle (*Lonicera japonica Halliana*), and on the still more beautiful Chinese form of the same species, *L. japonica chinensis*, distinguished by the red color of the young stems and leaves. Two eastern American species of climbing Honeysuckles, *L. hirsuta* and *L. prolifera*, are interesting at this time as they are covered with compact clusters of bright red fruits surrounded by the cups formed by the union of the two upper leaves. These climbing Honeysuckles are on the trellis at the north end of the Shrub Collection. The leaves of many of the climbing Honeysuckles are often disfigured by the attacks of an aphid and can only be kept in good condition by careful spraying early in the season and just as the leaves are unfolding.

A few belated flowers are still to be found on the lovely *Daphne cneorum* of the mountains of central Europe. The prostrate stems of this little shrub are covered with light green leaves which persist during the winter and in early spring bear terminal compact clusters of delightfully
fragrant rose-colored flowers. In summer a nearly full second crop of flowers is sometimes produced, and flowers occasionally continue to appear until November. This Daphne is one of the most attractive of the evergreen shrubs which can be grown in this climate. It is usually perfectly hardy but sometimes suffers in winter, and as often in mild as in exceptionally severe winters. It is rather capricious, too, in matters of soil and situation, flourishing for years in some gardens and failing in others.

There are flowers, too, on some of the forms of the Heather (Calluna vulgaris) in the Shrub Collection, and the Cornish Heath, Erica vagans, which has been covered with flowers during the last two months, is still flowering abundantly. This is one of the few Heaths which can be grown in New England. Equally hardy is the red-flowered Erica carnea which blooms in early spring and only for a short time. This is a smaller plant than E. vagans and a native of the Alps of central Europe; while the Cornish Heath, of which there are both red and white-flowered forms, is rather widely distributed in western Europe.

There are still flowers on the plant of Vitex incisa in the Shrub Collection. This is a member of the Verbena Family and a native of northern China and Mongolia. It is a large shrub of open graceful habit, with compound leaves and erect clusters of small bright blue flowers, and is valuable for its good habit, attractive leaves, and late flowers. It is not so showy, however, in flower as the Chaste Tree, Vitex Agnus-castus, a native of southern Europe and western Asia which, unfortunately, is not hardy in New England.

Abelia grandiflora is flowering on Hickory Path near Centre Street. Abelia is a genus related to the Honeysuckles, of some twenty-five species in eastern Asia and a single representative in Mexico. Several species have been recently introduced into the Arboretum by Wilson from western China and some of these lived through last winter in the open ground. It is too soon, however, to speak of their value here as garden plants; and the only plant of this interesting genus which can now be depended upon here is A. grandiflora. This is a hybrid between two Chinese species, A. chinensis and A. uniflora, and is found in gardens under a number of names. It seems, however, to be most often cultivated as A. rupestris. This is the Mexican species which is sometimes grown in greenhouses in this country and in the gardens of southern Europe. A. grandiflora is a shrub from two to three feet high with slender arching branches, small pointed leaves dark green and very lustrous on the upper surface and paler on the lower surface, and axillary clusters of small pale pink tubular flowers. The leaves do not fall until the beginning of winter; and their semi-persistent character, the autumnal flowers and excellent habit of this little plant make it a desirable subject for the rock garden or the margins of shrubberies.

It is not, however, the occasional flowers which can be found in the Arboretum in the middle of October which chiefly make it interesting at this time, but the Autumn condition of the trees and shrubs which flower in the spring or summer. Valuable lessons in decorative gardening can now be learnt here, for nowhere else are the colors assumed by the fading leaves of hardy trees and shrubs more varied and interesting; no other part of the world can equal the northeastern United States in the abundance of the fruits produced by these plants, and in New England the most beautiful of all autumn gardens can be made.
The difference between eastern North America and western Europe in the autumn coloring of the native plants of these two regions is now well shown in the Arboretum. The leaves of the plants of eastern North America are now for the most part brilliantly colored or have colored and fallen, while the leaves of the trees and shrubs of Europe are still green, and in the case of many of these plants the leaves fall and wither with little change of color. This interesting fact is seen in the American species of the genus *Fagus*. The American Beech now enlivens the forest with the yellow tints of its leaves, while the leaves of the European Beech are still almost as green as they were at mid-summer. The leaves of the American Elm have already fallen except in the case of vigorous trees which still show the yellow tints of autumn, while the leaves of all forms of European and Asiatic Elms are still fresh and green. The leaves of *Viburnum Lantana*, the Wayfaring-tree of Europe, are still dark green or only slightly tinged with red along the margins, while the North American *Viburnum Lentago*, *V. prunifolium* and *V. cassinoïdes* are splendid in their autumn dress which is set off by their dark blue fruits. The contrast between old and new world plants in this respect is even more marked in the Viburnums of the *Opulus* group. Of these the leaves of the European *Viburnum Opulus* are still dark green and as fresh as in July; those of *V. americanum*, the native High-bush Cranberry, so-called, have turned to shades of yellow and red and are fast falling, while those of *V. Sargentii* of northeastern Asia, which were bright orange-red two weeks ago, have almost disappeared.

Many of the trees and shrubs of eastern Asia, however, are as brilliant in color in autumn as those of related American species. On a few Asiatic plants the autumn foliage is even more beautiful than that of the American plants in the same genus. The collection of grapes (*Vitis*) illustrates this fact. This collection, which is now well established on the trellis at the east end of the Shrub Collection, is one of the most successful groups in the Arboretum, and is particularly valuable in showing the decorative value of many of the grapevines of eastern America which have not before been often cultivated. The autumn leaves of American species turn yellow or remain green until touched by frost, to which they are very sensitive, but on the principal Japanese species, *Vitis Coignetiae*, a large and vigorous vine with immense semicoriaceous leaves, the leaves in the autumn turn brilliant scarlet. They are not always as brilliant here, however, as they are this season for *Vitis Coignetiae* is a plant from the far north and it is possible that the climate of eastern Massachusetts is not severe enough to bring out every year all its autumnal beauty. It is, however, one of the handsomest of the grapevines in the Arboretum collection, and for Canada and other cold regions it may be expected to become the most valuable of hardy vines.

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