BULLETIN NO. 50.

The exceptionally wet and cloudy weather of October has lessened the beauty of the fading leaves of many trees and shrubs in the Arboretum this autumn. From some American plants the leaves have fallen with little change of color, on others the colors are dull, and on many plants which are usually brilliant the first of November the leaves are still green and will probably be destroyed by the first serious frost before assuming their usual autumn colors. There are, of course, many exceptions to this general statement. The clear yellow tints of the leaves of the Japanese Cercidiphyllum have never been more beautiful than during the past few weeks. From some of the trees the leaves have already fallen or are falling rapidly, on others they are yellow, and on others still green or only slightly turned. As this tree is better known in this country its value is more appreciated. First introduced into the United States by the Arboretum in 1878, Cercidiphyllum has become thoroughly established in several collections in the neighborhood of Boston and has flowered and produced abundant crops of seeds here for several years. Cercidiphyllum is the largest tree of extratropical Asia, growing often to the height of one hundred feet or more and forming an enormous trunk composed of a number of secondary stems. The trees are fastigiate in habit with erect branches and slender branchlets, and the flowers and fruit are inconspicuous. The leaves somewhat resemble those of the Redbud or Cercis in shape, whence the name Cercidiphyllum. As they expand in very early spring, they are a dark bronze-red in color, and during the summer are rather dull blue-green. There are a number of these trees on both sides of the Meadow Road just beyond the Administration Building.

A plant of much beauty at this time owing to the dark wine color of its ripening leaves is the Japanese Stuartia pseudocamellia. This is a small slender tree common on the mountain slopes of central Japan, belonging to the family to which the Tea-plant and the Camellia belong. The white, cup-shaped flowers resemble those of a single-flowered Camellia; they are smaller, however, than those of the two American Stuartias, S. pentagyna of the Appalachian Mountains and S. virginica of the southeastern states. These are both shrubs, and the flowers of the latter are larger and more beautiful than the flowers of the other Stuartias, but this handsome plant is not hardy in New England and is now rarely found in European gardens, although it was introduced into England more than a century ago and appears to be perfectly hardy in the neighborhood of London. Stuartia pentagyna is perfectly hardy here and is one of the most desirable of the summer-flowering shrubs which can be grown in this climate. It is a large, free-flowering shrub and there is a form with bright purple stamens which make the flowers more conspicuous than those of the common form with yellow stamens. There is a good plant of the Japanese species on the upper side of Azalea Path, and there are plants of this and of Stuartia pentagyna in the Shrub Collection.

The three species of the eastern American genus Aronia, or Chokeberry, are beautiful plants in the autumn. Some of the forms of Aronia nigra are the largest in this group, sometimes growing to the height of eight or ten feet. The shining black fruit of these plants,
hanging in large and abundant clusters, contrasts well with the red and orange tints of the autumn leaves. *Aronia intermedia*, of the same general appearance, has earlier ripening, dark wine-colored fruit, while *A. arbutifolia* has erect clusters of smaller fruit and narrower leaves which are bright scarlet before falling. This plant late in the autumn is one of the showiest of all the shrubs of eastern North America. All the Aronias are easily cultivated and excellent garden plants; the flowers are abundant and handsome, and they have great value for the decoration of the autumn garden.

The leaves of no other shrub in the Arboretum are now so bright scarlet as those of the common Highbush Blueberry of New England swamps (*Vaccinium corymbosum*). This plant has much to recommend it for general cultivation; the habit is good, the flowers are beautiful, the large bright blue fruits which cover the branches in early summer are very handsome and of better quality than those of any other Blueberry, and the autumn foliage is unsurpassed in brilliancy. Young plants can be easily transplanted from the swamps and succeed in any good garden soil in which they grow rapidly and flower and produce fruit in abundance. The Highbush Blueberry has been largely planted in the Arboretum shrubberies and there is a group of these plants on both sides of Azalea Path at its entrance from the Bussey Hill Road at the base of the Overlook.

Some of the new Cotoneasters discovered by Wilson in western China are shrubs of much beauty at this season of the year, and among them are several of the handsomest and most desirable garden shrubs of recent introduction. Some of the species grow six or eight feet high and some form dense mats of prostrate stems: some have bright red and others shining black fruits, and nearly all of them have dark green and very lustrous leaves which retain this color until the late autumn. One of the handsomest plants of this group is *Cotoneaster hupehensis* with erect and spreading stems, larger and more conspicuous flowers than other species of Cotoneaster, and exceptionally large red fruits which have already fallen. *Cotoneaster foveolata* is a tall shrub with black fruit and leaves which turn late in the autumn to brilliant shades of orange and scarlet. For its autumn foliage this plant might well find a place in every garden. Although no longer a novelty, *Cotoneaster horizontalis* is one of the most useful and interesting of the Chinese species of Cotoneaster. It is a low plant with spreading and arching stems which in time form a broad mat not more than a foot high. The small leaves are dark green and very lustrous: the minute flowers are dark red and these are followed by innumerable small red fruits. This is a most desirable plant for the borders of small shrubberies, for the rock garden and for covering low walls. A collection of several species of the new Chinese Cotoneasters can be seen in the long bed of new Chinese plants on the southern slope of Bussey Hill, and there is a large specimen of *C. horizontalis* on the upper side of Hickory Path near Centre Street which is now covered with fruit and well shows the decorative value of this plant.

Unfortunately only a few species of the genus Callicarpa are hardy in this climate, and the beautiful *C. americana*, the so-called French Mulberry, which makes such a brilliant display in the southern woods at this season of the year with its large clusters of rose-purple fruit, cannot be grown here. The decorative value of plants of this genus
for the autumn garden can now be seen, however, at the entrance of Azalea Path from the Bussey Hill Road where there is a group of *Callicarpa japonica* covered with the small, shining, light purple fruit of this hardy little shrub. There are two forms of this plant in the group, the larger, with larger fruit having been raised from seed collected in Corea, and the smaller plants with smaller fruit raised from seeds gathered on the mountains of Japan.

Almost as conspicuous as the fruit of this Callicarpa is that of the Japanese *Symlocos crataegoides*, although it is still somewhat hidden by the ample foliage of the plant. This native of Japan is one of the few shrubs with bright blue fruit which can be grown in this climate. It is a large and perfectly hardy shrub which in late spring is covered with clusters of small white flowers and these are followed by small fruits which in the early autumn become bright blue and remain in good condition on the branches until after the leaves have fallen. Large plants of this *Symlocos* can be seen on the Bussey Hill Road above the Lilac Group, and it is in the Shrub Collection.

The fruit of most of the Bush Honeysuckles ripens and falls in summer, but a conspicuous exception to this general statement is found in *Lonicera Maackii* and its variety *podocarpa*. *Lonicera Maackii*, which is a native of the Amoor River region in northeastern Asia, is a large shrub with erect stems and white flowers which are larger and perhaps more beautiful than those of any other Bush Honeysuckle. The fruit of this plant is bright red, of medium size, and remains on the branches after the leaves have fallen, making it a valuable decorative plant in the late autumn. The flowers of the variety *podocarpa* which was discovered by Wilson in western China, are smaller, tinged with yellow or rose color, and less beautiful, but the fruit is larger and the leaves remain much later without change of color on the branches. At this time, therefore, the plant is covered with bright green leaves and bright red or orange fruit, making it one of the most attractive shrubs in the Arboretum at this season. There are large specimens of the Chinese and Siberian plants side by side in the Shrub Collection, and there are plants of the latter also covered with fruit in the Chinese collection on the southern slope of Bussey Hill.

An illustrated guide to the Arboretum containing a map showing the position of the different groups of plants has recently been published. It will be found useful to persons unfamiliar with the position of the different groups of plants. Copies of this guide can be obtained at the Administration Building in the Arboretum, from the Secretary of the Massachusetts Horticultural Society, 300 Massachusetts Avenue, Boston, from The Houghton, Mifflin Company, 4 Park Street, Boston, at the Old Corner Bookstore, Bromfield Street, Boston, and at the office of the Harvard Alumni Bulletin, 50 State Street, Boston. Price, 30 cents.

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