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To the general rule that the leaves of European trees are not brilliantly colored in the autumn in comparison with those of eastern North American and eastern Asiatic trees of the same genera there are a few exceptions. The most conspicuous of these exceptions is perhaps found in the so-called Norway Maple (Acer platanoides), a large tree of northern and central Europe which has been much planted in the northern and middle states where it succeeds better than most European trees. This tree almost equals the native Sugar Maple in the bright clear yellow tints of its fading leaves which do not take on their greatest beauty until after those of the Sugar Maple have mostly fallen. This tree is very beautiful, too, in the early spring when the leafless branches are covered with dense clusters of bright yellow flowers. In cultivation a number of seedling forms of this tree have been developed and many of the most important of these are established in the Maple Group. The best known of these horticultural varieties is the form with purple leaves (var. Schweidleri) which has been often planted in this country. The leaves of this form are deep reddish purple early in spring, but their color is not persistent and nearly disappears before midsummer, leaving the leaves a dull shade of green. The var. globosum is a broad shrub only a few feet high and one of the most valuable of all the dwarf Maples. There is an unusually fine specimen of this form in the collection. The var. columnare is a pyramidal tree with erect branches, and the var. nanum, sometimes known in gardens as Acer platanoides pyramidal nanum, is dwarfer than the last mentioned variety and is an attractive and useful plant for small gardens. There are several forms of this tree with deeply divided or otherwise abnormal leaves. Some of these are var. laciniatum, the Eagle-Claw Maple, var. euculatum and var. palmatum.

The American Horsechestnuts lose their leaves early and without much change of color, although occasionally those of the Ohio Buckeye (Aesculus glabra), when the tree is grown under exceedingly good conditions, turn bright red early in October. The tree from the south of Greece, however, the familiar and common Horsechestnut of parks and gardens and one of the most splendid of all hardy trees holds its leaves later than any of the American species, and on trees grown in damp moist soil they are only now beginning to fall after having turned bright yellow.

The American Lindens have now lost their leaves, but those of one species from western Europe, Tilia petiolaris, are only just falling, having first turned bright yellow. This is a handsome tree with rather pendulous branches and leaves which are silvery white on their lower surface and hang on long drooping stalks. This is not a very common tree in the neighborhood of Boston but it was largely planted on many estates in Newport, Rhode Island, from fifty to seventy years ago and some of these Newport trees have grown into beautiful specimens.

The three European Oaks which are usually cultivated in the eastern United States, Quercus pedunculata, Q. sessiliiflora, and Q. Cerris, the
Turkey Oak, hold their leaves late and show no bright autumn colors. These three trees grow very rapidly here while they are young but are short-lived as the stems are usually cracked by the cold and, like the European Ash (*Fraxinus excelsior*) and the Sycamore Maple (*Acer Pseudoplatanus*), they are unsatisfactory to plant in New England. One of the Oaks of western Europe, *Quercus conferta*, or, as it is often called, *Q. pannonica*, promises to be a much more valuable tree here. This is a large and common forest tree in some parts of Hungary and is easily distinguished by the leaves which are deeply divided into numerous narrow lobes and which turn bright yellow at this season. It is a perfectly hardy, shapely, fast-growing tree which promises to succeed in this region as it has in western Europe, and it is surprising that it is still so little known and so seldom planted in the United States. The largest plant in this country which has been reported to the Arboretum is growing on what was formerly the estate of George W. Carpenter in Germantown, Pennsylvania, and is now about forty feet high. Mr. Carpenter, who was a lover of trees and had a large collection of them, was a friend of Thomas Nuttall, the distinguished botanist, who paid him frequent visits about 1850 and probably procured this then little known tree for him. There is a fine specimen, too, on the estate of Mr. John T. Morris at Chestnut Hill, Philadelphia, which produces acorns freely, but outside the Arboretum it does not appear to be growing in Massachusetts. The Hungarian Oak may be seen near Oak Path among the other exotic Oaks.

Five eastern Asiatic Oaks are well established in the Arboretum and nearly all of them produce fruit here; they are *Quercus crispula*, *Q. grosseserrata*, and *Q. glandulifera* from Japan, and *Q. dentata* and *Q. variabilis* from China and Japan. They are all interesting and attractive trees, and *Q. grosseserrata* will probably grow here, as it does in Japan, to a large size and become a valuable timber tree. The leaves of these Asiatic Oaks turn yellow or yellow and red in the autumn; they can be seen on Azalea and Oak Paths and on the left-hand side at the foot of Azalea Path where there is a large plantation of Asiatic Oaks. In this collection are the Oaks discovered by Wilson in western China; these are growing well and appear to be perfectly hardy, but it is too soon to speak of their value in this country.

The leaves of nearly all the Sumachs turn scarlet or red in the autumn. The last of them to lose its leaves is the native *Rhus copallina*. This plant at the north is a low shrub which spreads into thickets, but at the south, especially in southern Arkansas and in Texas, it sometimes becomes a slender tree thirty or forty feet high. The leaves are rather more lustrous than those of the other Sumachs, and this species can also be distinguished by the wings on the stalks between the leaflets. Few plants present a more brilliant appearance in the autumn when the leaves turn bright scarlet. In the Sumach group, which is on the east side of the Meadow Road, there is a plant which is of exceptional beauty in the autumn; this is the American Smoke-tree (*Cotinus americanus*). It is a rare tree found only in the south in a few isolated stations from northern Alabama to southwestern Missouri, eastern Oklahoma, and western Texas. In the Arboretum, where it grows
in the form of a large shrub rather than a tree, it is perfectly hardy in the most exposed positions. The flowers are small and the hairy stems of the fruit, which form the conspicuous “smoke” of the Old-World Smoke-tree, do not make much show; but the leaves are large and of a pleasing shade of green, and in the autumn turn orange and scarlet, making this one of the handsomest October plants in the Arboretum. This plant was introduced into cultivation by the Arboretum many years ago from northern Alabama and it is now often cultivated and much valued in Europe where it appears to be better known than in the United States. The bright orange-colored heartwood is very durable and yields an orange dye used in the south during the Civil War when most of the large trees were destroyed.

In the Shrub Collection the leaves of two currants are just turning scarlet. These are Ribes curvatum and the Chinese form of Ribes fus-ciculatum. Ribes curvatum is a little known plant found a few years ago in the neighborhood of Stone Mountain in central Georgia. It has long white flowers gracefully drooping on long stems and in cultivation has proved to be one of the attractive plants in the large collection of this genus. The beauty of the Chinese Currant at this season is increased by the bright red fruits which are still on the branches. It is the only representative of the genus in the collection with fruit which ripens in the autumn, and is well worth a place in every collection in which handsome autumn fruits are valued.

The Japanese and Chinese Wistaria, W. sinensis, is the species which is commonly cultivated in this country. The leaves are usually destroyed by frosts while they are still green, but the leaves of another Chinese species, W. multiflora, usually turn a brilliant clear yellow before falling. This species, which is less commonly found in American gardens than W. sinensis, blooms later than that species and has longer flower clusters on which the flowers are set further apart and are more fragrant. It is a form of this species with abnormally long flower clusters which is so highly valued and so often cultivated by the Japanese. There are forms with pale blue, white and rose tinted flowers. This Chinese vine appears to be hardier than W. sinensis.

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 theseBulletins.