The first week of August finds the Arboretum badly in need of rain and many plants suffering from the effects of heat and drought. While both spring and summer have brought a moderately good rainfall this has not been sufficient to offset the lack of snow during the winter months. A much longer period of drought last year saw plants less distressed than they are at the present time. In the Arboretum fruits are ripening on tree and bush and vine but flowers are scarce. The Silk-tree (Albizia julibrissin rosea) is still in bloom on Bussey Hill and Heather (Calluna) continues to make a fine display, especially in the Shrub Garden and among the Azaleas on Bussey Hill. Different species of Hypericum are covered with yellow blossoms, the Pepperbushes (Clethra) fill the air with fragrance, the gaudy Trumpet-vine (Campsis radicans) is flowering profusely on the trellis in the Shrub Garden, where the Pea-bush (Lespedeza spp.) and Hydrangea paniculata in its different forms are opening their blossoms. The Pagoda-tree so-called (Sophora japonica) is in full bloom, and flower buds are showing on handsome leaved Acanthopanax ricinifolius and on Hercules' Club (Aralia chinensis). The tree foliage is in splendid condition and the vines on trellis and walls could not be more luxuriant; shrubs, however, are feeling the drought and this is particularly noticeable where they are growing in close proximity to trees.

Clethra alnifolia, the common Pepperbush, is one of the most abundant and one of the most fragrant shrubs native of eastern North America, being found from Maine to Florida and at this season of the year the countryside is fragrant from its myriad blossoms. While it is usually found in woodlands and often in moist places it is a very accommodating plant, doing well in almost any situation where the soil is acid. It is a shrub from 6 to 12 feet tall and more in diameter, with very many upright stems forming a rounded mass; the leaves, more or less oblanceolate, each from 3 to 5 inches in length, and serrated along the margin, are lustrous, shining green on
the upper surface. The flowers are white with prominent yellow-brown anthers and are borne many together in erect terminal racemes which may be simple or paniced. Usually this plant suffers from the attacks of red spider but this year for no apparent reason it is remarkably free of this pest.

**Clethra acuminata**, a native of the southern Appalachian Mountains, while less conspicuous in blossom than other species that are hardy in the Arboretum, is worth growing for its polished smooth, cinnamon-brown stems. In this respect it is not a bad substitute for the Madrona of California. It is a bush or small tree of rather open habit sometimes 20 feet tall. The leaves are long-pointed, dull green, prominently nervet, serrate and vary in shape from lanceolate to lanceolate-ovate. The racemes spread horizontally and the flowers are so arranged as to point downward; the calyx, pedicel and peduncle are covered with a grayish woolly tomentum.

**Clethra barbinervis**, the first of the Pepperbushes to open its blossoms is past blooming. This, the handsomest of the species hardy in the Arboretum, is a native of Japan, where it is found widespread on the mountains and more especially on the margins of woods and in thickets as a large bush or slender tree sometimes 40 feet tall with a trunk 5 feet in girth clothed with smooth, gray-brown bark. The leaves are long-pointed, more or less oblong-ovate in shape, each from 3 to 5 inches long, sharply serrate and pubescent on both surfaces. The flower clusters are paniced and spread horizontally and the individual blossom is larger and the panicle more showy than those of other species.

**Buddleia Davidii** in its several forms is an extremely useful August and September flowering shrub. In the Arboretum where it has not proved perfectly hardy the stems winter-kill each year, nevertheless, with a little protection the plant throws up stout shoots each spring. In a way winter killing is not a bad fault since it obviates the necessity for hard pruning absolutely essential in this plant for otherwise it becomes weedy in appearance. Planted in rich soil in a situation where it can enjoy abundance of water this plant will produce shoots 5 to 8 feet in length each terminating in a tail-like panicle of blossom from 18 to 30 inches in length; every lateral shoot also ends in a panicle of lesser size. Of the several forms *magnifica* with dark purple flowers and crinkled petals is perhaps the best; another excellent form is *superba*, characterized by its thick and very dense inflorescence. A native of central and western China where it is common in the stony beds of mountain torrents and in thickets, this plant was introduced into cultivation by E. H. Wilson in 1900. It quickly attained popularity and owing to the ease with which it can be propagated it is now found in gardens the world over. Butterflies are exceedingly partial to this plant and the fact has given rise to its being called the Butterfly-bush.
Japanese Pepperbush (*Clethra barbinervis*)
Vitex Negundo incisa, the Chaste-tree, may now be seen in full blossom in the Shrub Garden. This member of the Verbena family would be well worth cultivating for its leaves alone. These are long petioled, palmately five-lobed, each lobe being deeply dissected. The flowers are borne in erect, much branched panicle masses, each from 6 to 10 inches long, at the end of the current season's shoot; they are pale blue in color, prominently lipped and decidedly verbena-like in appearance. This Chaste-tree is native of northern China, Mongolia and Korea and is also found naturalized in the temperate regions of both hemispheres. In severe winters it suffers but although it has been cultivated in the Arboretum since 1890 it has not been killed outright. Each year it puts forth a great number of shoots forming a broad, rounded shrub 12 feet high and as much in diameter. It will grow in almost any soil but prefers a sunny, well drained situation. The typical V. Negundo has not proved hardy in the Arboretum.

Campsis radicans, otherwise known as Tecoma radicans and Bignonia radicans, the Trumpet-vine, is one of the most familiar of native climbing plants, having been cultivated since 1640. It is a handsome strong growing vine but its flowers are of a rather harsh shade of red. Much more pleasing in color are those of C. hybrida Madame Galen, which is a hybrid between the American species and the Chinese C. chinensis, alas! not hardy in New England. In the hybrid the flowers are a pleasing orange-red. This year owing perhaps to excessive heat these plants are flowering uncommonly well on the trellis in the Shrub Garden.

Lespedeza bicolor is in flower in the Shrub Garden and is well worth growing for the multitude of rose-purple blossoms it produces. Like the other Pea-bushes it is a plant of twiggy growth with three-foliolate leaves and pea-shaped flowers in abundance at the end of the current season's shoot. These August blooming plants are useful and may be well associated with herbaceous plants in a border. Of the several sorts in gardens L. bicolor and the late blooming L. formosa, better known under the erroneous name of Desmodium penduliflorum, are the best. Like other members of the tribe they are not particular as to soil and are valuable for clothing gravelly banks.

Hibiscus moscheutos, the Swamp Rosemallow, is a handsome suffrutescent plant well suited for planting by the side of ponds and streams. The leaves are dull green, more or less ovate with three long-pointed lobes, dull green on the upper and hoary on the under surface. The flowers are handsome pale pink and borne singly in the axils of the upper leaves. A native of eastern United States, being found in swampy places from Massachusetts to Florida, it was in years past more popular in gardens than at the present time. On the margin of the small ponds several plants may be seen in bloom.

E. H. W.