



LISLE, ILLINOIS

MORTON ARBORETUM

JOY MORTON · FOUNDER

BULLETIN OF POPULAR INFORMATION

PROBLEM PLANTS

There is nothing more disappointing to anyone trying to acclimate plants of borderline hardiness than the unexpected loss of some specimen whose reliability in a given area is thought to have been conclusively established.

In Arboretum trials where disappointments of this nature are of frequent occurrence, these failures have forcefully demonstrated the necessity of subjecting all questionable materials to an extended probationary period before officially recognizing their adaptability. This accounts for the cautious attitude so often evident in Arboretum plant recommendations.

Many factors, some known, others unknown, enter into the hardiness picture, complicating the explanation as to why a certain plant thrives in one location and sulks or completely fails to survive in another. The fact that hardiness varies among individuals of a given species and among geographical strains should, however, emphasize the importance of selectivity as well as the value of repeated testing under diverse conditions, as a means of extending the range of cultivation beyond established limits.

Redbud, *Cercis canadensis*, and Flowering Dogwood, *Cornus florida*, are two outstanding examples of native plants which have proved their ability to adjust to changed environments. At one time Redbud winterkilled regularly in the Chicago area, but plants grown from seed collected from trees growing at the northernmost limits of the range now winter consistently without injury. Native Flowering Dogwood brought from Southern Michigan has shown a similar climatic tolerance, especially when planted in lighter soils affording more perfect drainage.

All members of the Heath family (*Ericaceae*) are problem plants in the Chicago region, but the existence here and there of an old established specimen lends encouragement to those interested in attempting to grow these acid lovers locally. In the near-by suburb of Wheaton, for example, is a 39 year old Rhododendron bush of unknown identity, more than 5

feet tall, vigorous in appearance and a regular bloomer. While undoubtedly given special soil preparation originally, its present owner has not pampered it in any way. And, other than allowing the fallen leaves to accumulate beneath the plant, no attempt has been made to maintain acidity. Until inadvertently destroyed a few years ago, there was another notable Rhododendron in the area, an excellently shaped 5 foot specimen of one of the "molle" hybrids in Warrenville. It was at least 25 years of age and never failed to flower profusely.

Equally noteworthy is a persistent specimen of the Mountain Andromeda, *Pieris floribunda grandiflora*, which for 25 years has thrived and blossomed in the Arboretum in a partly shaded area to the north of the Administration Building. In more favored sections of the country this performance record would scarcely merit notice, but here where temperature extremes and an uncongenial soil impose a real test for all broad-leaved evergreens, it offers the encouraging prospect that ultimately this interesting April flowering southeastern native may be added to our list of reliable landscape materials. As the illustration shows, the bush is of low stature and furnished with dense evergreen foliage. The taller growing, more graceful Japanese species, *Pieris japonica*, is another highly desirable subject. Further testing must be done before it can be recommended, however, as several attempts with it have proved unsuccessful. Lustrous dark green foliage and pendulous flower clusters are its distinguishing features.

Notwithstanding its reputation as the only broad-leaved evergreen



Mountain Andromeda, *Pieris floribunda grandiflora*.

tree that can stand sub-zero temperatures, the performance locally of the American Holly, *Ilex opaca*, has been extremely disappointing. It is true a creditable appearing hedge of it is growing in the upper level of the Hedge Garden, and several isolated specimens of sparse growth are to be found elsewhere in the Arboretum, but the largest, bushiest and most shapely specimen we were ever able to grow killed back to the ground in 1942 after doing well for 17 years. To our knowledge the largest American Holly in this part of the country is a 25 foot tree approximately 1 foot in diameter, in Central Illinois about two miles north of Monticello, Piatt Co., on State Highway 47. Sizeable American hollies may also be found in the vicinity of Ottawa and in several places along the North Shore. The few shrubby hollies which would conceivably have a chance here have proved even less congenial. Even the highly praised Convexleaf Japanese Holly, *Ilex crenata convexa*, is extremely tempermental, as is also the hardier Inkberry, *Ilex glabra*. Both burn badly in winter and last but a few years.

The erratic performance of the evergreen Barberries, which in this area invariably kill to the ground during severe winters, obviously greatly limits their usefulness, too, but the fact that several of them can as a rule be counted on to send up new shoots from the base, gives them some value worth considering. The Wintergreen Barberry, *Berberis Julianae*, is the hardiest of the lot here and the one apt to cause the least disappointment, with the Threespine Barberry, *B. triacanthophora*, Chenault Barberry, *B. Chenaultii* and the Warty Barberry, *B. verruculosa*, being somewhat less reliable. Hardier strains of any of these would find a ready welcome.

The Leatherleaf Viburnum, *Viburnum rhytidophyllum*, another winter interest plant, is not a broad-leaved evergreen, but rather a distinguished appearing deciduous species valued for its long persistent foliage. The coarse texture of its bold leaves suggest Rhododendron, and like the latter they droop dejectedly during cold spells. At one time we succeeded in growing a bushy specimen 5 feet in height, but a severe winter some ten years after planting killed it to the ground. Its original vigor was never recovered and it eventually succumbed.

A recent discovery of several good sized fruiting specimens of the Laland Firethorn, *Pyracantha coccinea Lalandi* in Homewood, some 25 miles south of Chicago, indicates the possibility of ultimate acclimatization of this ornamental semi-evergreen shrub famed for its showy bright orange fruit. Used in a foundation planting of south exposure, these plants have survived the vicissitudes of 10 winters. Tests at the Arboretum with plants of the same variety have been less successful.

Other problem plants include such highly desirable, though difficult or impossible subjects as, the Japanese Maples, *Acer palmatum* in var.; the Common Boxwood, *Buxus sempervirens* in var.; Chinese Kousa Dogwood, *Cornus kousa chinensis*; Rock Cotoneaster, *Cotoneaster horizontalis* in var.;

the various Winterhazels, *Corylopsis*; Spreading Euonymus, *Euonymus kiautschovicus* (syn. *patens*); Franklinia, *Franklinia alatomaba*; Winter Jasmine, *Jasminum nudiflorum*, the Laburnums, *Laburnum* in var.; most Firs, *Picea* in var., all but a few Japanese Cherries, *Prunus* in var.; and the Linden, Doublefile and Japanese Snowball Viburnums, "*dilatatum*", "*tomentosum*" and "*tomentosum plicatum*" respectively. These in addition to numerous Azaleas and Rhododendrons, Mountain Laurel, *Kalmia*, *Leucothoe* etc.—.

E. L. Kammerer.

Leatherleaf Viburnum specimen, (*Viburnum rhytidophyllum*), which persisted for over 10 years.



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