

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

64-27

American HARDY RHODODENDRONS

THE RIGHT WAY TO GROW THEM

THE BEST NATIVE SPECIES and HYBRIDS
and OTHER PLANTS and BULBS
for the RHODODENDRON BED

U. S. Department of Agriculture

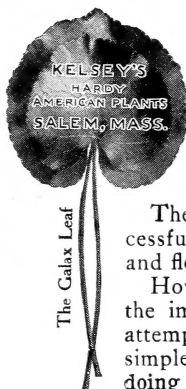


Nature's planting of Rhododendrons and Kalmias along a Carolina mountain stream

Andromedas, Azaleas, Kalmias, Galax, Leucothoe,
Rare Ericaceae

Owner *HIGHLANDS NURSERY*
in the Carolina Mountains
3,800 feet elevation, and
SALEM BRANCH NURSERY

HARLAN P. KELSEY
SALEM, MASS.



The Successful Rhododendron Bed

SIMPLE RULES AND SURE RESULTS

The highest ambition of the plant lover is to have a successful bed of Rhododendrons, together with other ericaceae and flowering plants that naturally go with them.

How few succeed, is well known. Many, discouraged by the imagined or heard-of difficulties, never even make the attempt. And yet, under average conditions, success is as simple and sure as with ordinary shrubs. It is a question of doing just the right thing, before, during and after planting.

Nature Knows Best

Rhododendrons—and I include under this term Azaleas, Kalmias, Leucothoës, and other ericaceous genera and similar native (and exotic) plants—grow naturally in shady, damp situations, being **surface feeders with fine hair-like rootlets**. Plainly, therefore, dry, hard ground or drought checks growth or kills outright; nature provides against this; yet how many gardeners do?

First Excavate The Bed

A deep, porous soil prevents; drought so excavate 2 to 3 feet or more and see that in clay soils good drainage is provided for, so that water will not stagnate in the bottom and make "sour ground."

Material for the Bed

Rhododendrons live largely on vegetable mold and humus; therefore, fill in with a mixture of leaf-mold, rich loam, field sods, swamp muck or peat, with one-tenth sharp sand and one-tenth at least of **well-rotted manure**. The center of the bed should be raised above surrounding ground from 6 to 12 inches or more, according to diameter of beds and elevation of nearby features.

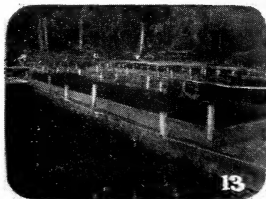
Planting

Plant same depth as before (shown by earth line on "collar" of stem) and firmly press soil around roots with foot, but don't pack earth too solid—**Rhododendrons are not bricks**. Lilies and other bulbs and smaller ground-covering species should be planted after the larger plants are all in.

The Great Secret

Mulch, and yet mulch again, all the year round. This is the great Rhododendron secret. As soon as planted, cover the entire surface of the ground with a vegetable mulching—preferably hardwood leaves—to the depth of a foot when reasonably well packed.

Never remove this mulching, but let it remain the year round, and every fall add a new layer of similar depth. A foot of leaves in the fall means but a half inch or so of humus

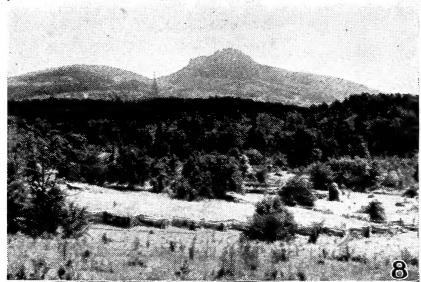


Young Rhododendrons by tens of thousands in lath-covered beds at Highlands Nursery, 3,800 feet elevation.

the coming season—the future food of the Rhododendrons or Azaleas. A dressing of loam and well-rotted manure should be used to hold down the fresh leaves till they begin to decay. The leaves keep the surface cool in summer and warm in winter. This is the great secret of Rhododendron-growing.

Winter Protection

If convenient protect them with pine or other evergreen boughs, particularly where exposed to the sun



Grandfather Mountain, 6,000 feet elevation. Four miles from Highlands Nursery

and wind; yet Rhododendrons rarely suffer in the latitude of Boston or Buffalo if properly planted and mulched.

In the latitude of Ottawa and Quebec, Canada, a board fencing may be placed around the edge of the bed and much heavier temporary mulch-



A small corner of Highlands Nursery in the Carolina Mountains, 3,800 feet elevation

ing of straw, etc., filled in almost or quite to the tops of the plants. It is rarely necessary to build a board cover, except on southern exposures to prevent sun-burn, or with tender varieties not suitable for general planting, and then good ventilation must be provided.

Selecting the Location

For the Rhododendron bed select a northern exposure where possible, especially at low elevations in the South, or elsewhere where freezing and thawing is quite continual. A direct winter sun on the frozen leaves of any broad-leaved evergreen often kills outright, or spoils foliage. The north side



Second year the shade comes off. All my Rhododendrons have balls



Single truss of *Rhododendron catawbiense*

of the building, wall, woods or hill is always preferable, and wind-swept locations should be avoided.

Limestone Most
Soils Mean erica-
Death ceous
 plants,
 and particularly Rhododendrons, Azaleas, Kalmias, Andromedas, Galax, Epigæa and similar species, and some Lilies, will not endure large quantities of lime in any form. Permanent satisfactory results

cannot be had, therefore, in soils strongly impregnated with lime.

Woods and
Mass Plantings

Where large mass plantings are made in woods, using large clumps, it may be necessary only to see that the ground is fairly porous and rich, with otherwise little or no preparation. Such plantings should of course be mulched, as above described, and splendid results should follow.

The True Rhododendron catawbiense Of the Carolina Mountains

THE HARDIEST RHODODENDRON KNOWN

It is this magnificent Rhododendron that over a hundred years ago was introduced into Europe, supplying, together with *Rhododendron maximum* and *R. punctatum*, color and hardy blood to the cultivated "hybrids," but with a consequent loss of hardiness; and so today, for American gardens where ironclad hardiness is essential, we must turn to the true original species, found on the highest, coldest peaks of the southern Alleghenies.

Considering the extreme hardiness, color of flower, compact growth and remarkable texture of foliage, which is a deep shiny green and far superior to the better known *Rhododendrom maximum*, we can unhesitatingly recommend the true native Catawbiense as the finest of all Rhododendrons for general use, withstanding successfully exposure and extremes of temperature where other Rhododendrons fail.

Do not confuse this true species, which is absolutely hardy, with the common so-called Catawbiense hybrid seedlings so freely imported from Europe, which is at best half-hardy, and even when branched above is a single stem, showing bareness underneath for years.

Unlike *Rhododendron maximum*, it is a very free bloomer with foliage of

a dark, rich lasting green, which never rusts. The trusses are a bright red-purple, in marked contrast to the muddy purple of the semi-hardy half-breed imported variety noted above, and, as sent out by Highlands Nursery, are always on their own roots.

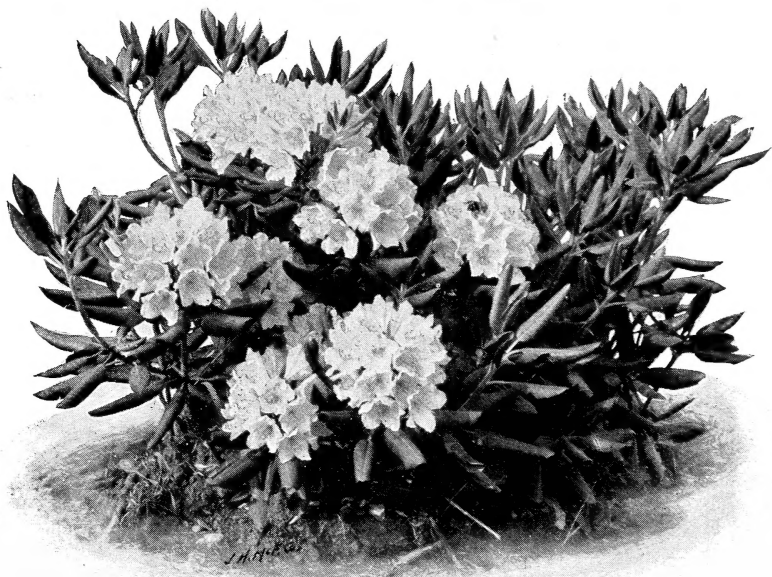
For massing to produce a broad-leaved evergreen landscape effect, there is no plant equal to it in the latitude of the northern United States and Canada, where strictly hardy plants must be employed. As a rich, finished border to plantations of the commoner *Rhododendron maximum* and *Kalmia latifolia*, the value of *Rhododendron catawbiense* cannot be overestimated. Attains a height of 20 to 30 feet in the southern Alleghanies.

Rhododendron maximum

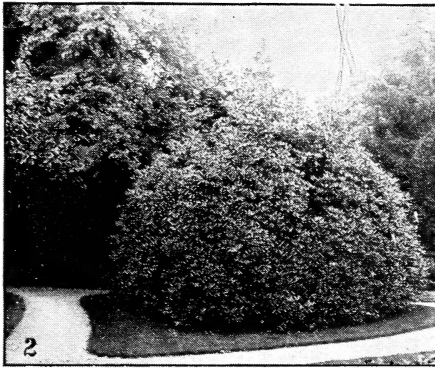
THE GREAT AMERICAN ROSE BAY

Perfectly Hardy in the Latitude of Quebec

Rhododendron maximum is, without doubt, the noblest of American broad-leaved shrubs. It is found growing sparingly in New England and New York, more abundant in the Pennsylvania mountains, but reaching perfection only in the southern Allegheny mountains, where it grows in such luxuriance as to form a striking feature in the mountain landscape. Its large waxy white or delicately pink flowers appear in large trusses in July, the latest of all the Rhododendrons, greatly enhancing its ornamental value as a broad-leaved evergreen for finished landscape effect.



Rhododendron catawbiense. The Highlands Nursery way of growing bushy clumps. 15 to 50 stems. Photographed at our Salem Branch Nursery



Rhododendron maximum in cultivation

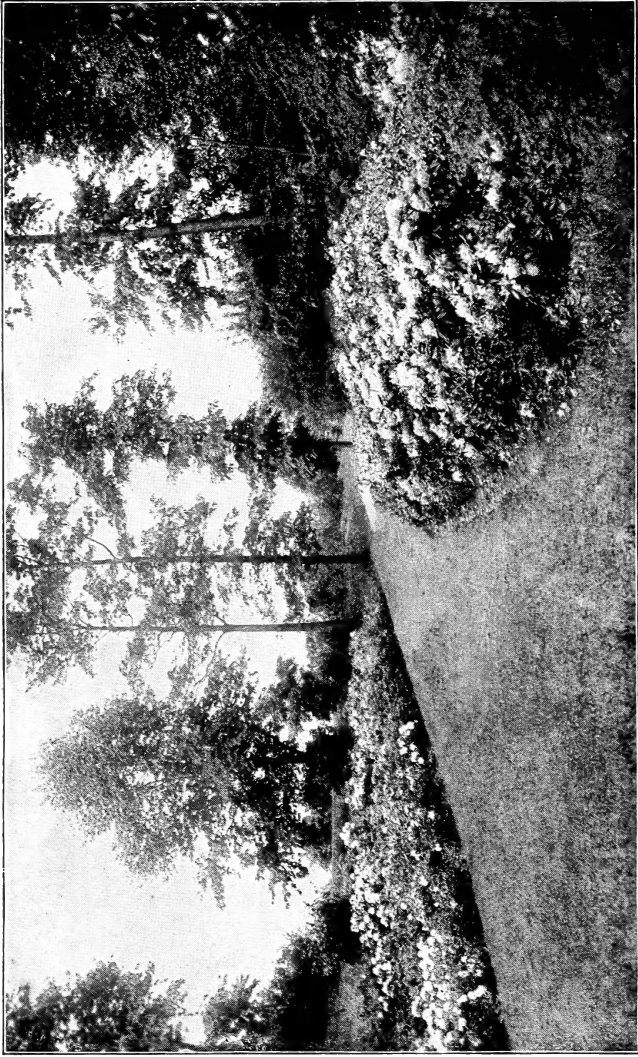
Not even in Asia do Rhododendrons grow more luxuriantly than in our own southern Alleghany mountains, where they attain a height of 30 feet and more. They must be seen in their native lavishness of growth and bloom, on the mountain sides or hanging over the dashing ice-cold streams and waterfalls, to be properly appreciated, and a trip to the high Carolina mountains in spring and early summer is a never-to-be-forgotten series of joys to the lover of nature.

Rhododendron punctatum. This is the smallest Alleghanian species, though it often attains a height of 15 feet and is wide-spreading. It is a very graceful shrub, with a totally different aspect from the two species described above. The leaves are dark green, rather blunt and narrow, covered with rusty dots below, and much smaller than either *maximum* or *catawbiense*. Its flower clusters appear in the greatest profusion in June, literally covering the plant with a pink- or rose-colored mantle. Fine for rocky slopes or hillsides, standing exposure unusually well and invaluable as a single specimen or for massing with the other species.

Hybrid Rhododendrons. Having had a continued call for the hardier varieties of Hybrid Rhododendrons for use in planting with our native species, I have imported a fine lot of the best ones. By growing several seasons in nursery under favorable conditions I have acclimated them, and the stock I send out is as reliable as can be had. With careful protection, gorgeous color effects may be obtained.



Rhododendron maximum, single specimen well developed



Young planting of Native and Hybrid Rhododendrons in Highland Park, Rochester, N. Y.
Photographed by W. R. Graves

Other Rhododendrons

- R. hirsutum** and **R. ferrugineum**. Two fine hardy European species (not hybrids) of compact growth and masses of small bright pink flowers. Of great value for the rock-garden and for planting with other Rhododendrons. They differ but little in general appearance, but the leaves and twigs of *hirsutum* are quite hairy.
- R. arbutifolium** (*wilsonianum*). This hybrid between *R. punctatum* and *R. ferrugineum* is one of the very best hardy sorts. A mass of pink fragrant flowers in July.



The hardiest Hybrid Rhododendrons, growing at Salem Branch Nursery

Kalmias

Kalmia latifolia. The Mountain Laurel. One of the grandest of our native broad-leaved evergreen shrubs, attaining tree-like proportions in our southern mountains. In cultivation it is a broad, thick shrub, and, when in full bloom, of surpassing beauty. The wheel-shaped flowers are set in close corymbs on the ends of the stems, pure white to pink, and appear in May or June in such profusion as almost to smother the foliage. Its thick, shiny leaves are conspicuous the year round, making it a shrub of greatest value for massing and giving a striking evergreen effect. The hardiness of *Kalmia latifolia* is beyond doubt, it being found sparingly in Nova Scotia and increasing in abundance through New England and the middle Atlantic states (particularly in the higher altitudes), till the crest of the southern Alleghanies is reached, wherein, the true American home of the broad-leaved Ericaceæ, perfect conditions of soil and climate are found,



Rhododendron catawbiense massed around colonial building in Salem, Mass. Low ferns and evergreens for edgings. Planted by Harlan P. Kelsey

Kalmia latifolia, continued

producing such a luxuriance of growth as to form veritable jungles of gorgeous beauty, miles in extent. It is found, strange to say, much further south, throughout South Carolina, Georgia and northern Florida along the banks of streams and cypress swamps. This proves it to be a plant that will stand almost semi-tropical conditions as well as extreme cold. It is therefore an extremely valuable plant for the southern states, taking its place with the magnificent Indian Azaleas, which are not hardy in the North.

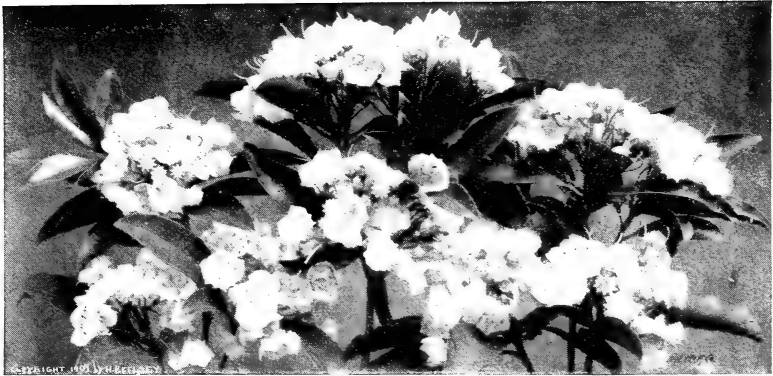
K. angustifolia. Dwarf Laurel. 1 to 3 ft. A charming dwarf sort of the same general habitat as the former species, forming dense, low clumps, which in very early spring are covered with showy clusters of wheel-shaped, deep rose-colored flowers.

K. glauca. Pale Laurel. 1 to 2 ft. Larger flowers than last species; crimson-purple and very showy. Both *K. glauca* and *K. angustifolia* are invaluable for the Rhododendron border.

Hardy American Azaleas and the Rhodora

The American Azaleas are among the choicest of all ornamentals, whether exotic or native, and were but rarely seen in cultivation before being disseminated by Highlands Nursery. Large masses of "Great Flame-colored Azalea," *A. lutea (calendulacea)*, when seen in flower, present the most gorgeous effects, in shades varying from deep crimson to a bright sulphur-yellow. The foliage of *A. arborescens* is the finest of all Azaleas, remaining a clear, shiny green throughout the summer, a characteristic not usual with this family. The large white, sweet-scented flowers appear the last of all the Azaleas, and the numerous pink-tipped stamens protruding give a most beautiful effect. *A. vaseyi* is one of the finest introductions of late years, the white to deep pink flowers appearing before the foliage in April in the greatest profusion. *A. nudiflora*, deep pink, and *A. viscosa*, white, sweet-scented, are pretty dwarf varieties, very useful in the under shrubbery.

Azaleas are seen at their best when planted in large masses and in properly prepared beds, and they richly repay any unusual care given them. Like most ericaceous plants, they love deep, moist, well-drained soil, and these showy native species are particularly adapted to planting in shrub borders and with Rhododendrons, their brilliant blossoms being set off by a background of dark foliage. Azaleas can be successfully grown almost anywhere, following same instructions given for Rhododendrons. The complete hardiness of all the species we offer is unquestionable. No American shrubs equal the native Azaleas, particularly *A. lutea*, for woodland and hillside plantings.



Kalmia latifolia, the Mountain Laurel



Rhododendron punctatum, the smallest Alleghanian species

Hardy American Azaleas and the Rhodora, continued

Our cold Carolina mountains have added no more beautiful plants to gardens than these American Azaleas, not even excepting the magnificent broad-leaved evergreen Rhododendrons of world-wide fame.

Azalea arborescens. Fragrant White Azalea. In June the delightfully spicy fragrant white flowers appear in profusion, lasting for weeks. Becomes a spreading clump 3 to 6 feet broad in cultivation; easy culture. The leaves of this variety often color striking shades of red in late autumn.

A. arborescens rosea. A beautiful and rare form, with bright pink, fragrant flowers. Introduced by Highlands Nursery.

A. lutea (calendulacea). Great Flame Azalea. The most regal of all the species, native or exotic, and a noble representative of our rich Carolina mountain flora. Bartram, speaking of it in his "Travels" calls it the "fiery Azalea," and says: "This epithet fiery I annex to this most celebrated species of Azalea as being expressive of the appearance of its flowers, which are in general of the color of the finest red lead, orange and bright gold as well as yellow and cream-color. This is certainly the most gay and brilliant flowering shrub yet known." No more striking landscape effect can be produced than a hillside of *A. lutea* in full bloom.

A. nudiflora. Pinxter Flower. Smaller species, with showy deep pink flowers in April and May while quite bare of leaves. Stands sun and exposure well.

A. vaseyi. Southern Azalea. April and May. This elegant and showy Azalea was only discovered as late as 1878, and introduced by Highlands Nursery very soon after. The most profuse bloomer of all the native species. Flowers pink or deep rose-colored. Foliage deep crimson in autumn.

A. viscosa. Early White Azalea. A late-blooming species with small, white, fragrant flowers in June and July. Azaleas do well along the water's edge, and *Arborescens* and *Viscosa* love moisture.

A. amœna. This is an evergreen form fairly hardy in the latitude of Boston. Large reddish purple flowers in greatest profusion in April or May.

Azalea Hybrids, Ghent and Mollis. These hybrids have much blood of our native Azaleas in them and are considered hardy. They give a great range of color from white thro' shades of yellow to pink and red. For mass plantings "seedlings" are very satisfactory.

Rhodora canadensis. Rhodora. Of the Azalea family and no less showy than some of its species. The purplish rose-colored flowers are borne in profusion in May or June. Forms thick clumps and flourishes in very moist situations. A most dainty and elegant shrub.

THE BEST HARDY AMERICAN AZALEAS



1. *Azalea viscosa*

2. *Azalea nudiflora*

3. *Azalea vaseyi*

4. *Azalea lutea*

5. *Azalea arborescens*

Other Rare Evergreen Shrubs

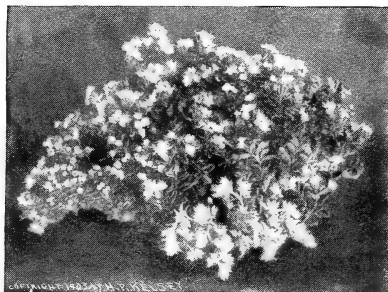
FOR THE RHODODENDRON BED



Leucothoe catesbaei



Andromeda (pieris) floribunda



Dendrium prostratum

LEUCOTHOE catesbaei. Few if any shrub evergreen of the broad-leaved sorts has the grace and elegance of this one. The thick shining green leaves are evenly disposed on long, recurved branches along which the dense racemes of beautiful white bell-shaped flowers hang. As an under shrub for Rhododendrons or for banks and borders of streams it is without a rival. The sprays make beautiful winter decorations indoors and turn a rich bronze in the fall where exposed to the sun.

ANDROMEDA (pieris) floribunda. Mountain Andromeda. 2 to 4 ft. Compact bush with shining evergreen leaves and abundant racemes of showy white flowers in May. The choicest Andromeda for massing or as single specimens.

A. polifolia. Wild Rosemary. 1 to 3 ft. Forms a compact mass of beautiful evergreen foliage, 1 to 2 ½ ft. across and a foot high. The profuse urn-shaped flowers are of a delicate flesh-color, covering the plant in May. Fine for borders.

DENDRIUM (leiophyllum) prostratum. Mountain Heath. The Carolina mountain prostrate form of this beautiful genus. A fine rockwork evergreen, closely covering the surface with a bed of green. When in full bloom in May or June it produces a wonderfully showy effect. The delicate flowers are often tinged with pink. Plant in edge of Rhododendron bed.

D. buxifolium. Grows 1 to 3 ft. high and upright. Flowers same as in *prostratum*.

LEDUM groenlandicum. Labrador Tea. 1 to 3 ft. Another fine under shrub of rather compact growth, loving moisture. White terminal clusters of flowers.

Low Evergreen Ground Covers

FOR THE RHODODENDRON BED

EPIGÆA repens. Trailing *Arbutus*. 2 to 4 in. White and rose-colored, one of the most popular of all our native flowers, but difficult to transplant. Flowers fragrant in clusters in May.



Arbutus, or Mayflower

GALAX aphylla. Galax, or Colts-foot. A low ground-covering evergreen, with heart-shaped, crenate-toothed leaves of striking beauty, and white flowers borne on a graceful scape 12 to 18 inches high. The thick leaves turn brilliant shades of bronze, red and crimson in autumn, remaining so through the winter. A remarkable ground-covering plant, particularly for use in the Rhododendron bed.



Wintergreen

GAULTHERIA procumbens. Wintergreen. 3 to 8 in. Bright red clusters of edible berries all winter. Highly aromatic dark green leaves. Flowers white.

HOUSTONIA serpyllifolia. Bluets. 3 to 6 in. Light blue or white, blooming intermittently all summer. Forms carpet of minute leaves. It is easily forced and a most exquisitely beautiful dainty window plant.



Shortia

H. cœrulea. Species much like the above, but not so evergreen in character.

MITCHELLA repens. Partridge-Vine. 3 to 5 in. White. A small trailing evergreen, with white or purple-tinged, very fragrant flowers in June. Berries bright red, persistent through winter.

SHORTIA galacifolia. 6 to 8 in. Introduced by Highlands Nursery. The daintiest of rare plants with clusters of large wavy leaves, from which flower-stems rise bearing white or pink flowers with crimped petals in early April. Thrives best in Rhododendron bed. Leaves colored rich bronze in fall.

Low Evergreen Ground Covers, continued

VACCINIUM (*oxycoccus*) *macrocarpon*. American Cranberry. 8 in. By accident I discovered that this little bog evergreen thrives in **ordinary garden soil**, forming a complete carpet a few inches high. As a border plant or along edges of streams or ponds, or as a bog feature it is unequaled. The foliage turns rich shades of bronze and red in autumn and with the scarlet fruit presents charming effects the year round. Over 20,000 plants used on a single estate as above at my suggestion with beautiful results.

VINCA minor. Periwinkle. 4 to 6 in. Not native. Blue. An evergreen ground-covering plant, and particularly under trees and on banks. The blue flowers are showy and appear in May. Of greatest value and beauty.

V. minor alba. White Periwinkle. 4 to 6 in. Not native. White variety of above.

Berry-Bearing, or Bright-Twigged Deciduous Shrubs

FOR CONTRAST AND WINTER EFFECTS

ILEX, *Species*. The deciduous *Ilexes* or **Hollies** are indispensable for the brilliant effect their scarlet or yellow berries give in winter with the dark leaves as a background; *decidua* and *verticillata* are the two best for this purpose.

SHRUB DOGWOODS, or **CORNELS**. No less attractive are the bright red and yellow twigs of the shrub Dogwoods contrasted with green of the Rhododendrons, Kalmias and Andromedas. The most suitable sorts are *amomum*, dark red; *sanguinea*, scarlet; *stolonifera*, bright red; *stolonifera aurea*, yellow, and *baileyi*, crimson.

XANTHORRHIZA *apiifolia*. Yellow-root. Undoubtedly the finest American deciduous under shrub for planting under trees, along roadways, walks and borders, and again where conditions of extreme moisture prevail. Finely cut foliage

remains a good green till autumn, when it turns shades of orange and yellow. Now used by thousands in parks and private grounds. Peculiar brown-purple flowers in pendulous racemes, appearing early with the leaves. For "filling-in" Rhododendron beds or any shrub plantings and where a permanent and beautiful edging or fringe is desired, there is no plant to take its place. The photograph shows a planting of this beautiful shrub in Salem, Mass., as a border for Kalmias.



Xanthorrhiza apiifolia
As an edging for kalmias in a Salem garden

Lilies, Trilliums and Other Herbaceous Plants

FOR THE RHODODENDRON BED

This group of plants is one of the most indispensable for showy effects, particularly the Trilliums and Lilies. The former blossom in earliest spring and delight in rich, moist, shady locations; while the latter thrive in the more open places and produce most gorgeous results in summer when planted in masses, as nearly all plants should be for best effects. Lilies require rich soil, with plenty of moisture, but well-drained, and make a grand show planted among rhododendrons or other shrub evergreens or in a deciduous shrub border. For best effects, Lilies and Trilliums should be planted in masses of hundreds, if not thousands.

LILIUM superbum. Turk's Cap Lily. 3 to 6 ft. No description will do justice to this magnificent American Lily. Golden recurved petals, the flowers in perfect pyramids, often 40 on a single stalk. A clump of them is literally a blaze of scarlet and gold.

L. grayi. 1½ to 3 ft. Introduced by me in 1888, it has proven the leader in the bell-shaped type of hardy Lilies. Dark red-brown petals beautifully spotted. An exquisite species and very rare. Bulbs are never large.

L. carolinianum. A beautiful new species of the recurved type, with orange and very fragrant flowers. Usually from one to three flowers on a stem.

L. canadense. Wild Yellow Lily. 2 to 5 ft. Yellow or orange, usually spotted with brown. July.

L. catesbæi. Southern Red Lily. 1 to 2 ft. Scarlet, with dark purple and yellow spots. Erect. Early spring.

L. columbianum. Columbia Lily. 1½ to 3 ft. A rare species from Oregon with reddish yellow flowers.

L. humboldtii. 4 to 5 ft. Reddish orange, spotted purple.

L. pardalinum. 2 to 4 ft. Orange-red flowers. A tall western species.

L. parvum. 1 to 2 ft. Yellow species from California.

L. philadelphicum. Wood Lily. 1 to 3 ft. Another erect species, very hardy. May and June. Reddish, orange-purple spots.

L. puberulum. Humboldt's Lily. 3 to 5 ft. A rare Californian species with reddish orange flowers.

L. speciosum (lancifolium). Hardy Japanese Lily. 3 to 4 ft., branching habit. Pure white or spotted with deep crimson. In bloom from August until frost.

L. washingtonianum. 2 to 6 ft. A rare Californian species with fragrant white flowers tinged with purple.

TRILLIUM erectum. Erect Wake Robin. 8 to 16 in. Large red fruit, very ornamental. Brown-purple, often greenish. April and May.

T. grandiflorum. Large-flowered Wake Robin. 8 to 18 in. The finest and largest species. Flowers 2 to 3 inches across, in April and May. White, turning rose-color or marked with green.

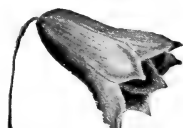
T. sessile californicum. White. A beautiful Californian species.



Lilium canadense



Lilium carolinianum



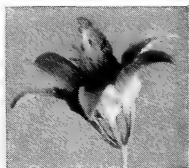
Lilium grayi



Lilium superbum



Lilium speciosum



Lilium philadelphicum



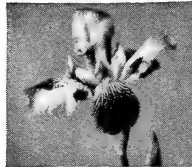
Trillium, var. californicum



Trillium grandiflorum



Trillium erectum



Iris versicolor



Showy Ladies' Slipper



The Bloodroot

Trillium stylosum. Nodding Trillium. 1 to 1½ ft. Our rarest mountain species. April and May. Large wavy petals of beautiful pink.

T. undulatum. Painted Wake Robin. 8 in. Earliest, blooming in April. Showy flowers and fruit. White, with purple stripes.

HARDY FERNS. Many varieties are at home and thrive in the rhododendron bed, and the graceful dainty fronds make a beautiful border. They aid in conserving moisture and keep the ground cool. Many rare species are offered in our large illustrated catalogue.

IRIS. Many species of Iris are very suitable to plant in the rhododendron bed. These include *verna*, bright blue; *cristata*, light blue, crested; *missouriensis*, lilac-purple, all low-growing, and *pseudacorus*, yellow, variegated, blue, averaging 2 to 3 feet high. Then there are the German and Japanese varieties with their gorgeous flowers in many colorings, and other sorts of great value for these plantings.

ORCHIDS. Some species thrive under rhododendrons and delight in cool, peaty soil, of which the following are the best:

Cypripedium hirsutum. Large Yellow Ladies' Slipper. 1 to 2 ft. Bright yellow flowers called slippers, sometimes three to five on each stem.

C. reginae (spectabile). Showy Ladies' Slipper. 1 to 2 ft. The handsomest and one of the rarest of hardy Orchids. The broadly ovate sepals and petals are pure white, while the large inflated pouch is a beautiful soft red rose-color.

Habenaria ciliaris. Yellow-fringed Orchid. 1 to 2½ ft. Bright orange-yellow, the most handsome species of Habenarias; very free bloomer.

Limodorum tuberosum. Grass Pink. 1 to 1½ ft. Pink-purple. Very showy and of easy cultivation.

BICUCULLA (dicentra) eximia. Mountain Bleeding Heart. Exquisite little perennial. Feathery light green leaves, producing charming rose-colored flowers from early spring until frost.

CONVALLARIA majalis. Lily-of-the-Valley. A dainty plant for use in woods plantings of rhododendrons.

ERYTHRONIUM americanum. Yellow Adder's-tongue. 6 to 12 in. Large bright yellow lily-like flowers rising from green mottled leaves. April.

E. grandiflorum. From Pacific coast. Large yellow flowers.

E. hartwegii. Light yellow, orange center.

E. hendersonii. Pale purple, deeper shades toward center.

Erythroniums must be planted in the fall to secure good results, as they start growth as soon as frost leaves the ground.

PÆONIA. Peony. Planted as a foreground to rhododendrons there is no flower that equals the Peony for gorgeous color effects. The best effect is produced by border planting, seen from not too short a distance.

SANGUINARIA canadensis. Bloodroot. No early-flowering perennial is more satisfactory than this for woods planting. Thrives in the soil of the rhododendron bed.

Highlands Nursery Price-List

RHODODENDRONS, KALMIAS, ANDROMEDAS AND OTHER EVERGREENS

Prices are given for stock packed and delivered f. o. b. cars at Pineola, N. C., or at Salem, Mass., for shipment by **freight** or **express**. As a rule, the larger sizes only are kept at the Salem branch. **All stock is nursery-grown, unless specially noted.**

Special selection at either nursery will be charged for according to value of specimens. I send out no poor stock. Car lots a specialty.

SHRUBS

Do not compare our many-stemmed clumps with the single-stemmed, "bushy," half-hardy Rhododendrons offered by importers. There is no comparison.

Rhododendron catawbiense

Prices, at Pineola, N. C.

Bushy plants, with balls—	Each	10	100
6 to 9 in.....	\$0 25	\$1 50	\$12 00
9 to 12 in.....	35	2 00	18 00
1 to 1½ ft.....	60	4 00	35 00
Clumps, with balls; diameter proportionate to height—			
1 to 1½ ft.....	1 00	7 50	60 00
1½ to 2 ft.....	1 75	15 00	125 00
2 to 3 ft.....	3 00	25 00	200 00
3 to 4 ft.....	6 00	50 00	400 00
4 to 5 ft.....	10 00	90 00	
Extra large or selected clumps, \$12 to \$20 each according to furnishings.			
Collected clumps, bushy and with heavy balls—			
1 to 2 ft.....		12 00	50 00
2 to 3 ft.....		16 00	125 00
3 to 4 ft.....		35 00	250 00
4 to 5 ft.....		50 00	400 00

Prices at Salem, Mass.

Clumps, with balls; diameter proportionate to height—	Each	10	100
1 to 1½ ft.....	1 25	9 00	80 00
1½ to 2 ft.....	2 00	18 00	150 00
2 to 3 ft.....	3 50	30 00	250 00
3 to 4 ft.....	6 00	50 00	450 00

Rhododendron maximum

Prices at Pineola, N. C.

Bushy and with balls—	Each	10	100
3 to 6 in.....	15	60	4 00
6 to 12 in.....	20	1 00	8 00
1 to 1½ ft.....	35	2 50	15 00
1½ to 2 ft.....	50	4 00	30 00
2 to 3 ft.....	75	6 00	50 00
Clumps—			
1 to 1½ ft.....	75	5 00	40 00
1½ to 2 ft.....	1 25	10 00	80 00
2 to 3 ft.....	2 00	15 00	140 00
3 to 3½ ft.....	4 00	30 00	250 00

Collected clumps, bushy and with balls—

Prices f. o. b. station in North Carolina or station in Pennsylvania

1 to 2 ft.....		4 00	35 00
2 to 3 ft.....		10 00	90 00
3 to 4 ft.....		20 00	160 00
4 to 5 ft.....		40 00	200 00

Specimen clumps, 4 to 8 ft., perfect plants, \$6 to \$25 each.

Clumps—

Prices at Salem, Mass.

1 to 1½ ft.....	1 00	8 00	60 00
1½ to 2 ft.....	1 50	12 50	110 00
2 to 3 ft.....	2 50	22 00	180 00
3 to 4½ ft.....	4 00	30 00	250 00

Extra selection and size from \$5 up.

Rhododendron punctatum

Prices at Pineola, N. C.		Each	10	100
9 to 12 in.		\$0 65	\$5 00	\$40 00
1 to 1½ ft.		1 25	10 00	
1½ to 2 ft.		1 75	15 00	

Prices at Salem, Mass.

9 to 12 in.	85	6 00	
1 to 1½ ft.	1 60	12 00	
1½ to 2 ft.	2 00	18 00	

Hybrid Rhododendrons, Named Varieties. Caractacus, everestianum, roseum elegans, H. W. Sargent, Parson's gloriosum, Bertie Parsons, General Grant, album elegans, Abraham Lincoln, delicatissimum, gloriosum, purpureum grandiflorum, catawbiense album, and others. Nearly all heavily budded.

Prices at Pineola, N. C.

3 to 4 yr., bushy plants	\$1.50 to 2 00
--------------------------	----------------

Prices at Salem, Mass.

3 to 4 yr., bushy plants	\$1.75 to 2 50
--------------------------	----------------

Rhododendron arbutifolium (wilsonianum)**Prices at Salem, Mass., only**

9 to 12 in.	1 00	9 00
12 to 15 in.	1 50	12 50

Kalmia latifolia. All bushy plants.

Prices at Pineola, N. C.

3 to 6 in.	10	75	5 00
6 to 9 in.	15	1 00	8 00
9 to 12 in.	25	1 75	12 00
1 to 1½ ft.	35	2 50	20 00
1½ to 2 ft.	75	5 00	40 00
9 to 12 in., clumps	50	3 25	30 00
1 to 1½ ft., clumps	1 00	6 00	50 00
1½ to 2 ft., clumps	1 50	12 00	100 00
2 to 3 ft., clumps	2 00	25 00	175 00

Collected clumps, 1 to 4 ft high and corresponding diameter.
50 cts. to \$10 each. Prices in car lots on application.

Prices at Salem, Mass.

12 to 18 in., clumps	1 25	8 00	65 00
1½ to 2 ft., clumps	2 00	15 00	125 00
2 to 3 ft., clumps	3 50	30 00	200 00

angustifolia Prices at Pineola, N. C.

6 to 12 in.	15	75	6 00
12 to 18 in.	25	1 50	10 00

Prices at Salem, Mass.

12 to 18 in.	35	3 00	
--------------	----	------	--

glauca Prices at North Carolina only

6 to 12 in.	25	2 00	
-------------	----	------	--

Azalea arborescens. Mostly with buds.

Prices at Pineola, N. C.

6 to 12 in.	30	2 50	20 00
12 to 18 in.	45	4 00	35 00
18 to 24 in., clumps	1 00	8 00	70 00
2 to 3 ft., clumps	1 50	12 00	100 00
Extra diameter clumps, 1 to 3 ft., from	\$2 to 3 00		

Prices at Salem, Mass.

All heavily budded—			
12 to 18 in., clumps	1 00	9 00	80 00
18 to 24 in., clumps	1 50	12 50	110 00
24 to 30 in., clumps, \$1.75 to \$3 each, according to selection.			

arborescens rosea**Prices at North Carolina, only**

Small plants	4 00		
--------------	------	--	--

Azalea lutea (calendulacea). Mostly budded.

Prices at Pineola, N. C.		Each	10	100
6 to 12 in.....		\$0 20	\$1 25	\$10 00
12 to 18 in.....		35	3 00	18 00
18 to 24 in.....		60	4 50	35 00
2 to 3 ft.....		1 00	8 00	60 00
Clumps, 1½ to 4 ft., at \$1 to \$3 each, according to selection.				

Prices at Salem, Mass.

6 to 12 in.....	35	3 00
12 to 18 in.....	50	4 50
Extra selection.....	75 cts. to	1 00

nudiflora Prices at Pineola, N. C.

6 to 12 in.....	20	1 50	10 00
12 to 18 in.....	35	3 00	20 00
18 to 24 in.....	60	4 50	40 00
Larger.....	75 cts. to	1 00	

Prices at Salem, Mass.

12 to 18 in.....	50	4 00
------------------	----	------

vaseyi. Mostly budded.

Prices at Pineola, N. C.

6 to 12 in.....	25	2 00	16 00
12 to 18 in.....	40	3 00	25 00
18 to 24 in.....	60	5 00	40 00
2 to 3 ft.....	1 25	10 00	

Prices at Salem, Mass.

12 to 18 in., budded.....	65	6 00
---------------------------	----	------

viscosa. Mostly budded.

Prices at Pineola, N. C.

6 to 12 in.....	20	1 25	10 00
12 to 18 in.....	30	2 00	15 00
18 to 24 in.....	50	4 00	

Prices at Salem, Mass.

12 to 18 in., budded.....	50	4 00
---------------------------	----	------

amoena. Prices at Salem, Mass., only

6 to 10 in.....	60	4 50	40 00
10 to 12 in.....	1 00	8 00	

Hybrids, ghent and mollis

Prices at Salem, Mass., only

Named Varieties.

12 to 18 in., budded.....	1 25	10 00
18 to 24 in., budded.....	1 75	15 00

Seedlings, in variety of color.

12 to 18 in., budded.....	75	6 00
18 to 24 in., budded.....	1 25	11 00

Rhodora canadensis

Prices at Pineola, N. C., only

6 to 12 in.....	20	1 50
12 to 18 in.....	40	3 00

Leucothoe catesbaei

Prices at Pineola, N. C.

6 to 12 in.....	15	1 00	8 00
12 to 18 in.....	25	2 00	15 00
18 to 24 in.....	40	3 00	25 00
18 to 24 in., clumps.....	75	5 00	40 00

Andromeda (pieris) floribunda

Prices at Pineola, N. C.

6 to 12 in.....	50	4 00	35 00
12 to 18 in.....	75	6 50	60 00

Prices at Salem, Mass.

6 to 12 in.....	60	5 00	45 00
12 to 18 in.....	90	8 00	75 00
Extra clumps, \$1.50 to \$3 each.			

polifolia Prices at Pineola, N. C., only

6 to 12 in.....	20	1 75	15 00
-----------------	----	------	-------

Dendrium (leiophyllum) prostratum			Each	10	100
Prices at Pineola, N. C., only			\$0 20	\$1 50	\$12 00
3 to 6 in., clumps			35	3 00	
6 to 9 in., clumps					
buxifolium Prices at Pineola, N. C., only					
6 to 12 in.			15	1 00	
12 to 18 in., clumps			35	3 00	
Epigaea repens Prices at Pineola, N. C., only					
Established clumps			35	2 50	20 00
Galax aphylla Prices at Pineola, N. C., only					
Established clumps			30	2 00	15 00
Gaultheria procumbens					
Prices at Pineola, N. C., only					
Strong collected clumps			15	1 00	
Houstonia serpyllifolia					
Prices at Pineola, N. C., only					
Strong collected clumps			15	1 00	
coerulea. Prices at Salem, Mass., only					
Strong, collected clumps			15	1 00	
Mitchella repens Prices at Pineola, N. C.					
Established clumps			30	2 50	
Collected clumps; strong			20	1 75	12 00
Shortia galacifolia					
Prices at Pineola, N. C.					
Established plants			35	3 00	20 00
Prices at Salem, Mass.					
Established plants			45	4 00	35 00
Vaccinium (oxycoccus) macrocarpen					
Prices at Pineola, N. C.					
Strong clumps	per 1,000, \$50..		15	75	6 00
Vinca minor Prices at Pineola, N. C., only					
Clumps			20	1 00	7 00
alba Prices at Salem, Mass., only					
Clumps			20	1 00	7 00
Ilex decidua Prices at Pineola, N. C., only					
6 to 12 in.			20	1 25	10 00
1 to 2 ft.			30	1 75	15 00
verticillata Prices at Pineola, N. C., only					
6 to 12 in.			20	1 25	10 00
1 to 2 ft.			25	1 75	15 00
2 to 3 ft., clumps			75	6 00	40 00
Cornus amonum Prices at Pineola, N. C., only					
1 to 2 ft.			15	1 00	6 00
2 to 3 ft.			20	1 50	12 00
3 to 4 ft.			30	2 50	18 00
4 to 5 ft.			50	4 00	25 00
Baileyi Prices at Salem, Mass., only					
1 to 2 ft.			25	2 00	18 00
sanguinea Prices at Pineola, N. C., only					
1 to 2 ft.			20	1 50	12 00
2 to 3 ft.			30	2 00	15 00
3 to 4 ft.			40	3 00	25 00
stolonifera Prices at Pineola, N. C., only					
1 to 2 ft.			15	1 25	
3 to 4 ft.			30	2 50	
stolonifera aurea					
Prices at Pineola, N. C., or Salem, Mass.					
1 to 2 ft.			20	1 75	
2 to 3 ft.			35	2 50	
3 to 4 ft.			50	4 00	
Xanthorrhiza apiifolia					
Prices at Pineola, N. C., or Salem, Mass.					
6 to 12 in., clumps			25	1 50	12 00
12 to 18 in., clumps			35	2 50	20 00

The prices of all the following, unless especially noted, may be considered for plants packed ready for shipment at Pineola, N. C. station.

	Each	10	100	1,000
Lilium superbum. 1st size bulbs.....	\$0 20	\$1 25	\$8 00	\$60 00
2d size bulbs.....	10	75	5 00	35 00
grayi. 1st size bulbs.....	25	2 00	15 00	
2d size bulbs.....	15	1 25	8 00	65 00
carolinianum. 1st size bulbs.....	20	1 50	12 00	
2d size bulbs.....	15	1 00	8 00	60 00
canadense. Prices at Salem, Mass., only.....	20	1 25	8 00	60 00
catesbaei	30	2 50		
columbianum	35	2 50	20 00	
humboldtii	50	5 00	35 00	
pardilinum	30	2 00	15 00	
parvum	35	2 50		
philadelphicum	20	1 50	12 00	
puberulum	40	3 50		
speciosum. In variety.....	25	2 50	16 00	
washingtonianum	40	3 50		
washingtonianum purpureum	40	3 50		
Trillium erectum		50	4 00	25 00
grandiflorum. 1st size.....		60	4 00	25 00
2d size.....		40	2 50	14 00
sessile californicum	25	2 00	15 00	
stylosum		75	5 00	35 00
undulatum		60	4 00	25 00
Hardy Ferns. In variety.....		1 00	8 00	50 00
Iris cristata. Clumps.....	20	1 25	8 00	
missouriensis	25	2 00		
pseudacorus	20	1 50	12 00	
verna. Clumps.....	20	1 25	8 00	
versicolor. Clumps.....	15	1 25	8 00	
germanica (German) —				
Prices at Salem, Mass., only				
Named varieties	20	1 50	12 00	
Mixed colors	15	1 25	10 00	
Iris kaempferi (Japanese)				
Prices at Salem, Mass., only				
Named varieties	30	2 00	15 00	
Mixed colors	20	1 50	12 00	
Cypripedium hirsutum	15	1 25	10 00	
reginae (spectabile)				
Prices at Salem, Mass.				
1 to 2 crowns.....	30	2 00	18 00	
3 to 4 crowns.....	60	5 00	45 00	
Habenaria ciliaris	15	1 25	7 00	
Limodorum tuberosum	15	1 25	7 00	
Bicuculla (dicentra) eximia. Clumps.....	20	1 50	10 00	
Convallaria majalis. Clumps.....	15	75	6 00	
Erythronium americanum	10	50	2 00	15 00
grandiflorum	25	2 00	10 00	
hartwegii	25	2 00	10 00	
hendersonii	25	2 00	10 00	
Sanguinaria canadensis	20	1 25	8 00	60
Paeonia Prices at Salem, Mass., only				
Mixed colors, double				
Strong roots, 2 to 4 eyes.....	30	2 00	15 00	
Strong clumps, 10 to 15 eyes.....	75	6 00	50 00	
Named varieties				
Strong roots, 2 to 4 eyes.....	40	3 50	30 00	
Rare varieties, from 75 cts. to \$3 each.				

Rhododendron and Freight Information



The Galax Leaf

My facilities for growing and collecting are approached by none, and the quality of my stock cannot be duplicated elsewhere. Hundreds of carloads of my plants, now growing and flourishing in many of the leading estates and public parks in America, conclusively show the value of twenty-one years' experience.

To save freight charges, to northern points only, I ship carload lots of *Rhododendron maximum* and *Kalmia latifolia* from special supplies in the Pennsylvania mountains, but, to all southern points, shipments are made from the southern mountains, the best clumps coming from the South. *Rhododendron catawbiense* and *R. punctatum* grow only in the southern mountains.

Always buy "per plant"—you then know what you are getting, or ought to get. As a bait to catch orders, certain dealers in *R. maximum*, collected in Pennsylvania, offer "by the car" at low rates. Usually such cars contain about one-half to one-fourth of a real carload; you thus pay a high cost per plant, and high freight rate per plant. A full car contains from 40 to 1,000 clumps, according to size.

The freight rate per car, from Pennsylvania points to eastern and northern points generally, is from \$25 to \$45. From North Carolina to similar points, the rate is from \$60 to \$100 per car, depending, in part, on car's contents. My cars are always packed to the limit, unless otherwise ordered.



Rhododendron catawbiense growing wild at 5,000 feet elevation, western North Carolina. (Mt. Mitchell, 6,600 feet, the highest point east of the Rockies in the distance.) This is the hardest *Rhododendron* known, enduring 30 degrees below zero and vigorous exposure. Nature protects by mulching heavily.

At Highlands Nursery, 3,800 feet elevation in the high North Carolina mountains, in Mitchell county, I have the largest collection of strictly Hardy American Plants—and especially *Rhododendrons* and *Azaleas*—in existence. Over 100 acres and 600 hundred species of native plants.

At Salem Branch, Salem, Mass., is kept a fine stock of large specimen clumps, mostly budded. Car shipments are made from both nurseries.

Twenty-one years ago I began growing and disseminating our beautiful American plants, and particularly *Rhododendrons* and *Azaleas*, and Highlands Nursery has the distinction of introducing these most beautiful of all plants to American gardens. Highlands Nursery is still the only large collection of American plants exclusively in existence. Over 100,000 *Rhododendrons* and *Azaleas* actually growing in nursery. Always address,

HARLAN P. KELSEY, Owner, SALEM, MASS.