

After our plants have grown to a desirable size, they are held in pine-shaded areas until sold. They are then shipped, packed in wax-coated boxes, by customer truck.

*Benlate - benomyl, DuPont

Du-ter - triphenyltin hydroxide; Duphar, Thompson-Hayward

Roundup - glyphosate, Monsanto

Paraquat - paraquat, Chevron

PROPAGATION AND CULTURE OF *PIERIS JAPONICA* CULTIVARS

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Pieris japonica is a broad-leaved evergreen shrub of neat, compact habit, valued in the landscape. It is native to eastern Asia and was introduced into culture around 1870. Most *Pieris japonica* cultivars are of slow to moderate growth rate, seldom exceeding 6 ft. in height and width after many years of growth. *Pieris japonica* offers attractive dark green leaves with a prolific display of flowers in early spring that range in color from white, pink, pink and white bicolor, to red. The young foliage is highly colored with some selections having a most brilliant red new growth. Leaves are alternate, from 1 to 3½ in., with a slightly toothed margin. Flower buds are formed in late summer and are held in terminal, drooping clusters 5 inches long. When open, the flowers resemble those of lily-of-the-valley.

Propagation. *Pieris japonica* can be successfully propagated from seed and by cuttings. Seed can be collected as soon as it is ripe. The seed is sown in flats of peat from late summer through early spring.

We propagate *Pieris japonica* from softwood and greenwood cuttings. The cuttings are collected in the early morning hours during July and August from plants growing in production blocks. The terminal growth of new wood is preferred. Cuttings are trimmed to 4 to 5 in. in length. Lower leaves are easily stripped by hand, leaving only the uppermost 3 to 6 leaves. We prefer to use a single wound but are not at all convinced that wounding is a necessity.

In years past we have used IBA in talc at the rates of 5,000 to 8,000 ppm. Presently we are using IBA in a quick-dip solution. The IBA crystals are dissolved in isopropyl alcohol to yield 3000 ppm IBA. The basal end of the cutting is dipped into the solution. Combinations of IBA and NAA are being tested and the resulting trials evaluated.

The cuttings are placed at 2 per container into 2½ in. wide by 5 in. deep open-bottomed tree pots. The tree pots are filled into a basketweave-bottomed flat. The rooting medium consists of equal portions, by volume, of peat moss, pine bark, and perlite, to which slow-release fertilizer and trace elements have been added. The cuttings are watered and then placed in rooting beds under a white poly tent. The cuttings are checked several times throughout the day and mist is applied as necessary. Rooting is slow, often taking 6 weeks or more. While under the mist cuttings are sprayed with Manzate D and Benlate. As the cuttings are rooted, the mist is gradually reduced until it is cut off altogether. The poly tent is then covered with a sandwich-like layer of white poly, microfoam, and clear poly. No supplemental heat is provided during the winter. In the spring the young plants break into new growth very uniformly with plants in harmony with the production cycle.

The use of proper timing, hormone treatment, and after-care give an actual yield of about 95% rooting. The use of two cuttings per container gives an effective yield of very high 90% rooting. By using the open-bottomed tree pots, we have promoted an elongated root system that is well defined, well branched, and transplants easily with very little shock.

Culture. The successful production of *Pieris japonica* requires many of the same conditions as *Rhododendron* production. In our geographical area it requires partial shade with high filtered shade preferred. The amount of water held in the root zone should be closely monitored. Too much available water invites problems. We finish the plants in a gravel-covered production area. Success in the landscape requires a soil that provides excellent drainage. Most soils should be amended with peat moss, pine bark, and sand.

***Pieris* cultivars of merit:**

1. *Pieris formosa* var. *forrestii* (Chinese pieris). Introduced from China by George Forrest around 1910; used widely in Europe where it is hardy; young foliage is brilliant scarlet when it emerges.
2. *Pieris* 'Forrest Flame'. Hybrid of *Pieris formosa* var. *forrestii* 'Wakehurst' × *Pieris japonica*; chance seedling in Sunningdale Nurseries about 1946; bright red new growth with white flowers; larger than *Pieris japonica*; hardy.

3. *Pieris japonica* 'Daisen'. Selection by K. Wada from Mount Daisen in Japan; flowers deep pink in bud, fading upon opening, leaves are wider and smoother than most; deserves more use.
4. *Pieris japonica* 'Valley Rose'. Introduced by Dr. Robert Ticknor of North Willamette Valley Experiment Station in Oregon; very compact habit, deep pink buds fade when open; delivers what *Pieris japonica* 'Dorothy Wyckoff' promises.
5. *Pieris japonica* 'Variegata'. Slow growing; leaves green edged with cream; new growth green, pink, and cream; very attractive.
6. *Pieris japonica* 'Pygmaea'. A novelty; in growth and form similar to *Rosmarinus officinalis*.
7. *Pieris japonica* 'Christmas Cheer' and *Pieris japonica* 'Valley Valentine', two of the more colorful flowering cultivars.
8. *Pieris japonica* 'Mountain Fire'. Introduced by Dr. Robert Ticknor; superb brilliant red new growth emerges several times a year; excellent.

PROPAGATION OF SOME RARE TROPICAL PLANTS

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The purpose, objectives and goals of this article are to provide an overview of the propagation, multiplication, and production techniques of some rare and tropical plants grown and utilized in Florida rural and urban landscaping. From several thousand rare, exotic and tropical plants, only a few of the most that are highly utilized for residential as well as for commercial landscaping were selected for discussion.

The opinion, comments, remarks, suggestions or criticisms offered or most encountered problems within this article should be useful to plant propagators and nurserymen throughout southeastern United States. It may bring or provide to the average nurserymen information and practical propagation knowledge of plants used in landscaping in our subtropical parts and provide a guideline in the choice of plants that do well in the warmer regions of the state of Florida.

(1). *Acacia auriculiformis*, Leguminosae. Earleaf acacia is native to Australia. Best adapted to cool, sub-tropical, or warm temperate climates, this medium-sized tree is semi-deciduous