HRI’s Mission:

To direct, fund, promote and communicate horticultural research, which increases the quality and value of ornamental plants, improves the productivity and profitability of the nursery and landscape industry, and protects and enhances the environment.

The use of any trade name in this article does not imply an endorsement of the equipment, product or process named, nor any criticism of any similar products that are not mentioned.
Cultivar Release

Rhododendron ‘Northern Hi-Lights’¹

Nancy Rose and Harold Pellett²
University of Minnesota Landscape Arboretum
Chanhassen, MN 55317

Origin

*Rhododendron* ‘Northern Hi-Lights’ was selected from a hybrid population of *Rhododendron* sp. crossed with an unnamed Exbury azalea seedling. The *Rhododendron* sp. was received as *R. atlanticum* but appears to be a hybrid of *R. atlanticum* with an unknown *Rhododendron* pollen parent. The original cross was made in 1978. This azalea was named Northern Hi-Lights and was registered in 1992 through the American Rhododendron Society.

Description

Northern Hi-Lights azalea is a dense, spreading deciduous shrub which grows approximately 1.25 m (3.5 ft) tall and 1.5 m (4 ft) wide. Leaves are flat, obovate, and have acute tips and oblique bases, growing to 6.4 cm (2.5 in) long and 2.5 cm (1 in) wide. Leaf color is dark green above, lighter green below. Northern Hi-Lights azalea flowers in late May in Chanhassen, MN. Flower trusses are ball shaped, 13–18 cm (5–7 in) wide by 7.5–10 cm (3–4 in) high, and average 7–10 flowers per truss. Individual flowers are tubular funnel-shaped and have a corolla width of 6 cm (2.4 in) and length of 3.5 cm (1.4 in). Flower color is creamy white (RHS 11D when opening, 155D when mature), highlighted with a bright yellow (RHS 17B) blotch on the upper corolla (1).

Adaptation

Northern Hi-Lights azalea has proven hardy in USDA zone 4a. Plants and flower buds have survived temperatures of −35.5°C (−32°F) without injury. No serious insect or disease problems have been noted on Northern Hi-Lights. In an evaluation of susceptibility to powdery mildew conducted in late summer 1993, Northern Hi-Lights had little or no powdery mildew present on the foliage. Weather conditions in the summer of 1993 were very favorable for powdery mildew development on susceptible azaleas.

Cultural Conditions

As with other azaleas, Northern Hi-Lights requires moist, well-drained, acid soil for best growth. Substantial amounts of acid peat moss added at planting and yearly application of sulfur and ammonium sulfate may be necessary to prevent chlorosis in basic soils. Application of an acidic mulch such as pine needles is beneficial, providing protection and moisture retention for the shallow, fibrous root system. Plant in full sun or light shade.

Performance

This azalea cultivar has performed well at the University of Minnesota Landscape Arboretum in Chanhassen. USDA hardiness zone 4a is probably the northernmost range in which adequate flowering can be expected. Because of Northern Hi-Lights’ hardiness level it will be a good choice for the north central and northeastern states.

Propagation

Northern Hi-Lights is produced in commercial quantities by tissue culture propagation of microshoots, using procedures and media formulations typically used for *Rhododendron* cultivars. Northern Hi-Lights can be rooted from early softwood cuttings (early to mid June in Chanhassen) treated with 0.8% IBA, stuck in 1:1 peat:perlite, and placed in 95% to 100% relative humidity. Cuttings are very slow to root and must be given long day lighting in late summer and early fall in order to force new growth. Survival of cuttings is very poor if they are allowed to go dormant before new growth occurs.

Landscape Uses

Northern Hi-Lights azalea provides an outstanding floral display in late spring. Its dense form and relatively clean foliage make it a good candidate for use with other flowering shrubs, small evergreens, perennial flowers, and spring bulbs. Northern Hi-Lights’ flower color combines well with virtually any other color, including the often difficult-to-mix shades of purplish pink.

¹Received for publication April 9, 1994; in revised form May 31, 1994. Journal Series paper 21.116 of the Minnesota Agricultural Experiment Station. This research has been supported in part by grants from the Horticultural Research Institute, 1250 I Street, N.W., Washington, D.C. 20005 and the American Rhododendron Society, P.O. Box 1380, Gloucester, VA 23061.

²Scientist and Professor, respectively.


Fig. 1 Flowers of *Rhododendron* ‘Northern Hi-Lights’
Availability

Northern Hi-Lights azalea has been released through the royalty program of the Minnesota Nurserymen’s Research Corporation. These royalties help provide funding for further landscape plant breeding efforts. Growers interested in producing this cultivar should contact the authors or Mr. Don Selinger, Minnesota Nurserymen’s Research Corporation, 1325 Bailey Road, St. Paul, MN 55119.

Literature Cited