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Rhododendron 'Connecticut Yankee' and 'Wojnar's Purple'

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Hybrid rhododendrons are among the most popular flowering, broadleaf evergreens, and demand for new flower colors is high (Dirr, 1990). Relatively few truly purple-flowered, cold-hardy rhododendron cultivars are available for landscapes in the northern United States. 'Connecticut Yankee' and 'Wojnar's Purple' rhododendron were released by the Dept. of Plant Science, Univ. of Connecticut, to broaden the range of available flower colors in cold-hardy rhododendrons. These two cultivars combine cold hardiness, easy culture, and improved growth habit with purple flowers that are darker than the flowers of existing lavender-purple cultivars.

Origin

G.A.L. Mehlquist raised 'Connecticut Yankee' from open-pollinated seed collected from an unnamed lavender-flowering *Rhododendron catawbiense* (Michx.) growing on the Connecticut College campus in New

London. The seed was collected because of the plant's high-quality foliage. The origin of the seed parent could not be determined, but little variation existed in the ≈40 seedlings that were raised; therefore, we assumed that the seed parent was largely *R. catawbiense*.

'Wojnar's Purple' came to the university's rhododendron breeding program from the late John Wojnar of Thompsonville, Conn., who operated a retail nursery and hybridized rhododendrons as a hobby. The seed and pollen parent of this hybrid are unknown. Both 'Connecticut Yankee' and 'Wojnar's Purple' are elepidote rhododendrons.

Description

The original 27-year-old 'Connecticut Yankee' plant measured 2.6 × 4.3 m (height × width). Overall growth habit is dense and rounded, and the growth rate is moderate. The leaves are 12.7 to 15.9 cm long and 3.8 to 5.1

cm wide. Simple leaves are elliptical and possess entire margins, acute tips, and cuneate bases. Petioles range from 1.9 to 3.2 cm and are glabrous. Mature leaves have a glabrous surface and are dark forest-green [RHS 139A (Royal Horticultural Society, 1986)]; the blades are flat to slightly convex. The full, dense foliage resembles that of *R. catawbiense* and is retained for 3 to 4 years. The original 'Connecticut Yankee' seedling first flowered in 1969, 6 years after sowing. Seedlings were transplanted to the field after 2 years of growth in propagation facilities and did not benefit from accelerated growth conditions. In Storrs, flowering occurs during mid-June, and plants are very floriferous, often with multiple flower buds per shoot tip. The funnel-shaped flowers are not fragrant. Trusses are 12.7 to 15.3 cm wide, 10.2 to 12.7 cm high, and dome-shaped, and are comprised of 16 to 20 individual flowers (Fig. 1). Flower clusters are tight, compact, and frilled.

The corolla of 'Connecticut Yankee' is 5.7 to 7.0 cm wide × 3.8 to 4.5 cm long and has a wavy margin and five lobes. The calyx and pedicels are <0.2 and <4.5 cm long, respectively. Each flower has 10 straight stamens of uneven length and a curved pistil. Overall corolla color is a vibrant bluish-purple, the margin is light violet (RHS 87B). The interior corolla changes from RHS 82B to RHS 81B to RHS 81C to RHS 80C (purple-violet group). The corolla flare changes from RHS 152B to RHS 152C to RHS 152D (yellow-green group). Buds change from RHS 81A to RHS 80A

Fig. 1. Flower trusses of *Rhododendron* (left) 'Connecticut Yankee' and (right) 'Wojnar's Purple'.

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(purple-violet group). Pedicels are bright yellow-green (RHS 150D).

The original 'Wojnar's Purple' seedling was 2.3 × 3.2m (height × width) after ≈30 years. The overall growth habit is broad-spreading and dense, although individual branches tend to be upright. Leaf length ranges from 11.4 to 17.8 cm and width from 4.5 to 7.6 cm. Petioles are 1.9 to 2.5 cm and glabrous.

Mature leaves of 'Wojnar's Purple' are simple, elliptical, and dark forest-green (RHS 139A). They possess entire margins, acute tips, and cuneate bases. Leaves, which are retained for 2 years, are also flat or slightly cupped and glabrous. Young leaves lack pubescence.

In Storrs, 'Wojnar's Purple' flowering peaks the first week of June. Plants are moderately floriferous. Trusses are 12.7 to 16.5 cm wide, 12.7 to 15.2 cm tall, and dome-shaped, and are comprised of 15 to 20 individual flowers (Fig. 1). Flowers are openly funnel-shaped.

The corolla of 'Wojnar's Purple' is 5.7 to 7.6 cm wide × 4.5 to 5.1 cm long and has a wavy margin and five lobes. The calyx is <0.2 cm long, and pedicels are 3.8 to 4.4 cm long. Each flower has 10 curved stamens of even length and a curved pistil. Overall corolla color is plum purple (RHS 80A) at the margin, changing to a moderate purple (RHS 78A) and red-purple (RHS 74B) in the interior, with a very dark purple blotch (RHS 79A) on the upper inside. Buds are dark purple (RHS 77A), in sharp contrast to open florets.

Cold hardiness

'Connecticut Yankee' is cold hardy to -31C based on survival in the field and landscape. We have not conducted cold hardiness evaluations below -31C. No disparity exists between flower bud hardiness and shoot har-

diness at temperatures to -31C. 'Connecticut Yankee' has been one of the most durable plants in our test sites and is suitable for hardiness zones 4b to 5a (U.S. Dept. of Agriculture, 1990).

'Wojnar's Purple' flowers and foliage are cold hardy to -28C, but slight foliar burn is possible at this temperature in open, exposed locations. 'Wojnar's Purple' is suitable for U.S. Dept. of Agriculture hardiness zone 5a and warmer zones.

Disease and insect resistance

'Connecticut Yankee' and 'Wojnar's Purple' have not been tested specifically for resistance to insect attack or disease. Observations taken in the field indicate that both cultivars are relatively free of typical rhododendron insect pest problems and are not highly susceptible to phytophthora root rot.

Propagation

Limited studies conducted at commercial nurseries, the Univ. of Connecticut, and the Univ. of Rhode Island indicate that 'Connecticut Yankee' and 'Wojnar's Purple' fall shoot cuttings are rooted easily using 8000 ppm indole-3-butyric acid in talc, 1 peat : 1 perlite (v/v), bottom heat, and intermittent mist. Cuttings of both cultivars can be rooted on a commercial scale.

As an alternative to cutting propagation, 'Connecticut Yankee' and 'Wojnar's Purple' can be micropropagated readily using procedures that are effective with other rhododendrons. Tissue cultures initiated from actively growing shoot tips and shoots were proliferated on woody plant medium (Lloyd and McCown, 1980) containing 15 µm *N*-(3-methyl-2-butenyl)-1 *H*- purin-6-amine (2iP), 3% sucrose, 0.1% phytigel (Sigma, St. Louis),

and 0.3% agar (Sigma) at medium pH 5.2. Microcuttings were rooted easily using nonsterile rooting techniques.

Principal merits

The majority of large-leaf rhododendrons that are reliably hardy in the colder regions of the United States and generally categorized as purple really have lavender flowers. 'Connecticut Yankee' and 'Wojnar's Purple' offer flower colors that are deeper and closer to purple than currently available cultivars. These two cultivars also offer exceptional cold hardiness, compact growth, and high-quality foliage. Easy culture, both in production and the landscape, is an added asset.

Registration

These cultivars are registered with the Royal Horticultural Society, which acts as the international registrar for the genus *Rhododendron*.

Availability

A limited number of plants and cuttings are available to institutions and commercial nurseries from the Dept. of Plant Science, Univ. of Connecticut. Stage-two tissue cultures are also available to micropropagation facilities.

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