



This Journal of Environmental Horticulture article is reproduced with the consent of the Horticultural Research Institute (HRI – [www.hriresearch.org](http://www.hriresearch.org)), which was established in 1962 as the research and development affiliate of the American Nursery & Landscape Association (ANLA – <http://www.anla.org>).

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.

## *Exochorda serratifolia* 'Northern Pearls'<sup>1</sup>

Steve McNamara<sup>2</sup>, Nancy Rose<sup>2</sup>, Kathy Zuzek<sup>2</sup> and Harold Pellett<sup>3</sup>  
University of Minnesota Landscape Arboretum  
Chanhassen, MN 55317

### Origin

'Northern Pearls' is a new cultivar of *Exochorda serratifolia* S. Moore (Pearl Bush) from the University of Minnesota Landscape Arboretum. The original plant was selected from an open-pollinated seedling population obtained from Beijing Botanic Garden, Beijing, China in 1980. Clonal propagules from the original plant were grown on at the Minnesota Landscape Arboretum and at Bailey Nursery, St. Paul, MN, for long-term evaluation. The cultivar was named 'Northern Pearls' in 1993.

### Description

'Northern Pearls' is an upright rounded shrub 2.0–2.5 m (6–8 ft) tall and 1.5–2.0 m (4–6 ft) wide at maturity with a more compact appearance than is typical for the species (Fig. 1). Texture of 'Northern Pearls' is medium in leaf and coarse during the dormant period. Leaves are deciduous, alternate, 5–10 cm (2–4 in) long, elliptic, serrate near the apex. Summer leaf color is dark olive-green above (RHS 146A [1]), lighter green beneath with red midrib and veins. Fall leaf color is golden yellow (RHS 13B (adaxial), RHS 11B (abaxial)). Flowers appear on 'Northern Pearls' in mid-May in Chanhassen, MN. Borne in terminal racemes, the expanding, white flower buds resemble a string of pearls (Fig. 2). Mature flowers are white, 4–6 cm (2 in) across with five emarginate petals, 5 short sepals, 5 pistils, and 30–40 stamens. The bloom period typically lasts for 7–10 days. Fruit is a 5-valved, dehiscent capsule, 0.8–1.3 cm (1/3–1/2 in) in diameter that changes from green to brown at maturity and remains on the plant throughout the winter. Bark of current year's growth is grayish brown (RHS 199D).

### Adaptation

'Northern Pearls' has exhibited excellent cold hardiness throughout twelve years of field trials at the University of Minnesota Landscape Arboretum, Chanhassen, MN (USDA Zone 4a). Plants have flowered prolifically every year, even after exposure to –36C (–34F) in mid-January 1994. 'Northern Pearls' also withstood several occurrences of exceptionally cold early-season temperatures [–26C (–14F) and –23C (–9F)] on November 29, 1985, and November 7, 1991, respectively, without injury. Laboratory freezing tests conducted in mid-January 1995 measured wood and flower bud hardiness levels of –40C (–40F) and –44C (–47F), respectively.

No serious insect or disease problems have been observed.

### Cultural Conditions

'Northern Pearls' achieves its best growth in a well-drained, slightly acid, loam soil in full sun. Growth rate is approximately 6–12 in/yr. The cultivar appears to be adaptable to a range of soil types and pH conditions and has performed well in clay loam soils at the University of Minnesota Landscape Arboretum.

### Performance

'Northern Pearls' has performed well at several locations in central Minnesota. 'Northern Pearls' has demonstrated greater hardiness than *Exochorda racemosa* and *Exochorda x macrantha* 'The Bride', both of which experience severe



Fig. 1. Mature plant of *Exochorda serratifolia* 'Northern Pearls' in full bloom.

<sup>1</sup>Received for publication March 27, 1995; in revised form May 8, 1995. Contribution no. 21,736 of the Minnesota Agricultural Experiment Station based on research supported by the Station.

<sup>2</sup>Scientists, University of Minnesota Landscape Arboretum.

<sup>3</sup>Professor, Department of Horticulture and Landscape Architecture, University of Minnesota Landscape Arboretum, Chanhassen.



Fig. 2. Flowers of *Exochorda serratifolia* 'Northern Pearls.'

winter injury in Chanhassen. Due to the limited distribution of this plant to date, performance data for other regions are lacking.

#### Propagation

'Northern Pearls' has been successfully propagated from softwood cuttings collected in early June in Minnesota, treated with 8000 ppm K-IBA, and stuck in 1:1 (by vol)

perlite:sphagnum peat moss under intermittent mist. Rooting typically occurs within 6–8 weeks.

#### Landscape Uses

With its spectacular display of pearl-shaped buds and large, white flowers, 'Northern Pearls' produces a striking effect in the spring landscape. The attractive golden-yellow fall foliage and persistent seed capsules provide additional seasonal interest. 'Northern Pearls' can be used effectively either as a single specimen or as a grouping in the shrub border. The white flowers are particularly effective against a backdrop of evergreen plants or darker colored hardscape elements such as brick walls or foundations.

#### Availability

'Northern Pearls' has been released through the royalty program of the Minnesota Nurserymen's Research Corporation. Royalties collected will help provide funding for further landscape plant breeding efforts. 'Northern Pearls' is currently being propagated for distribution and should become available in 1996. 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

1. Royal Horticulture Society. 1966. The Royal Horticultural Society Colour Chart. Royal Hort. Soc., London.
2. USDA Plant Hardiness Zone Map. U.S. Department Agriculture, Agricultural Research Service Misc. Pub. No. 1475.