‘Morden Snowbeauty’ Rose

Campbell G. Davidson
Morden Research Centre, Agriculture and Agri-Food Canada, Unit 100-101 Route 100, Morden, MB, R6M 1Y5, Canada

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Inflorescences contain three to 10 flowers (mean 5). Semi-double flowers are 6 to 12 cm in diameter (mean 8 cm) and appear almost flat (=2 cm deep) when fully open. Flower buds (color 157A) are acutely pointed. Flowers have a weak fragrance. At Morden, the receptacle is green (138B), round, and generally <2 cm in diameter.

Sepals are 2 to 3 cm long, acute, green (143C, adaxially, 148D, abaxially), and have a tomentose inner surface. There are seven to 18 petals, “snow” white in color. Petals average 2.2 to 3.3 cm (mean 2.8 cm) in length and 1.8 to 3.6 cm (mean 2.6 cm) in width and are smooth, orbicular with rounded tips and reflexed outer edges, and, in many cases, have raised midribs. Several petaloid stamens, 1 to 2 cm wide, are often present. Anthers produce fertile pollen and are medium yellow with filaments almost completely white. Styles are yellow and medium in length, and stigmas are exerted slightly.

‘Morden Snowbeauty’ is a low-growing, everblooming shrub rose (Fig. 1). Plants have a sparse to moderate amount of reflexed prickles, 3 to 7 mm in length (mean 5 mm). On current-season stems, smaller prickles are also present.

The compound leaves (odd pinnate) have three to nine leaflets per leaf, with seven leaflets predominating. The terminal leaflet ranges from 2.1 to 7.5 cm in length (mean 5.9 cm) and 2.4 to 4.8 cm (mean 3.8 cm) in width. Leaflets are serrate, acute, rotund, dark, shiny green (137A) on the upper surface, and dull, lighter green (138B) below. Petioles are green (137B) with a distinct groove in them. Petiolules are very small (<2 mm).

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‘Morden Snowbeauty’ rose (Rosa L. sp.) is a new, disease-resistant, semi-double, white-flowered introduction of the “Parkland Series” from the Agriculture and Agri-Food Canada (AAFC)–Morden Research Centre rose breeding program. ‘Morden Snowbeauty’ rose will survive to zone 2 with only minor injury (Ouellet and Sherk, 1967; Sherk and Buckley, 1968). Repeated crossing with the more traditional shrub and garden roses has resulted in recombinants with good floral qualities and greatly improved hardiness. Hardiness in this rose series was obtained originally from R. arkansana Porter, a species native to the Great Plains region of North America (Collicutt, 1992). ‘Morden Snowbeauty’ combines hardiness, abundant flowering, disease resistance, and excellent plant form in a hardy shrub-type “Parkland” rose.

Origin

‘Morden Snowbeauty’ has a complex pedigree (Fig. 1). ‘Prairie Princess’ is a shrub rose developed by G. Buck in 1972 and ‘Mount Shasta’ a grandiflora rose (Rosa sp.) developed in 1963 by Swim & Weeks (Cairns, 1993). ‘Morden Amorette’ and ‘Adelaide Hoodless’ are both “Parkland” roses, while R. arkansana Porter is a prairie-hardy, native tetraploid rose (Collicutt, 1992; Marshall, 1977). The final cross was completed in 1984. The name was selected to reflect the white flower color and the excellent field performance of the plant.

Description

Plants are relatively open, have semi-erect upright canes and range from 31 to 96 cm in height (mean 74 cm) and 46 to 128 cm (mean 98 cm) in width (Fig. 2). Current-season bark is green-gray (144B, Royal Horticultural Society, 1986), which changes gradually to green-brown (144A) on mature stems. Mature stems have a sparse to moderate amount of reflexed prickles, 3 to 7 mm in length (mean 5 mm). On current-season stems, smaller prickles are also present.

The compound leaves (odd pinnate) have three to nine leaflets per leaf, with seven leaflets predominating. The terminal leaflet ranges from 2.1 to 7.5 cm in length (mean 5.9 cm) and 2.4 to 4.8 cm (mean 3.8 cm) in width. Leaflets are serrate, acute, rotund, dark, shiny green (137A) on the upper surface, and dull, lighter green (138B) below. Petioles are green (137B) with a distinct groove in them. Petiolules are very small (<2 mm).

Fig. 1 Pedigree of ‘Morden Snowbeauty’ rose.

Fig. 2 ‘Morden Snowbeauty’ rose.
been under evaluation at the AAFC–Morden Research Center for >10 years. In addition, plants have been entered into regional trials conducted across western Canada. Plants have survived in Agriculture Canada hardiness zone 2 with no protection (Ouellet and Sherk, 1967; Sherk and Buckley, 1968). Stem dieback may occur in severe winters, but regrowth generally is very good.

Mature plant size is ≈85 cm. Juvenile cane growth is more arching and less erect than subsequent growth. At Morden, flower production begins in early June from previous season’s buds, continues on current-season growth, and generally is completed by the middle of September (mean duration 14 weeks) (Table 1). The blossom coverage (0 = no flowers; 100 = 100% coverage of the whole plant) compares favorably with that of other "Parkland" roses, other white-flowered shrub plants have been entered into regional trials conducted across western Canada. Plants have been under evaluation at the AAFC–Morden Research Center for >10 years. In addition, plants have been entered into regional trials conducted across western Canada.

Table 1. Mean percentage of flower cover* and flowering duration of selected rose cultivars at the AAFC–Morden Research Centre during the growing seasons of 1994–97.

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>23</th>
<th>24</th>
<th>25</th>
<th>26</th>
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<th>28</th>
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<td>Adelaide Hoodless (P)</td>
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<td>0.0</td>
<td>15.0</td>
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<td>5.0</td>
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<td>10.0</td>
<td>15.0</td>
<td>10.0</td>
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<td>21.7</td>
<td>11.7</td>
<td>8.3</td>
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<td>14.3</td>
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<td>6.1</td>
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</table>

*0 = no flowers, 10 = 10% coverage of the whole plant, etc.
1Week 23 = 4 June; Week 37 = 16 Sept.
2P = Parkland roses; R = R. Rugosa shrub rose; B = hybrid roses developed by the late G. Buck, Iowa State Univ.

Disease screening trials indicate excellent resistance to local populations of blackspot (Diplocarpon rosae [Wallr. ex Fr.] Lev.) powdery mildew (Sphaerotheca pannosa [Wallr. ex Fr.] Lev.), and rust (Phragmidium sp.) (data not presented). Xue and Davidson (1998) identified the importance of partial resistance to black spot as a key component in the future development of garden roses. Components examined included incubation period, leaf area with symptoms, number of lesions, lesion length, and sporulation capacity. Differences in cultivar/selection responses were found for all components. ‘Morden Snowbeauty’ was identified as having a high level of partial resistance, which was critical in the decision to release this cultivar.

‘Morden Snowbeauty’ can be distinguished from other white-flowered shrub roses based on a number of characteristics: semi-double flat white flowers; petaloid stamens; disease resistance (especially to blackspot); low stature; long period of bloom; dark, shiny, green leaves; and hardiness.

Propagation and uses

‘Morden Snowbeauty’ is propagated by softwood cuttings, as are other members of the “Parkland” series. This is important for colder regions, where most budded or grafted roses often suffer winter injury to the scion portion of the plant, and the resulting growth may be from the rootstock only. Softwood cuttings of one to three nodes in length, taken during late spring through midsummer, treated with rooting hormone (e.g., 300–5000 mg L-1 indole butyric acid), and placed under intermittent mist or fog will root at high rates (>85%). Plants also may be propagated by tissue culture.

‘Morden Snowbeauty’ is suitable for a wide variety of landscape applications from individual plants to mass planting. This is the first white-flowered “Parkland” cultivar and has excellent blackspot disease resistance. Both characteristics should contribute to wide-scale utilization in the landscape.

Availability

‘Morden Snowbeauty’ rose is registered with the Canadian Ornamental Plant Foundation (COPF), P.O. Box 21083, North Bay, ON, P1B 7N8, Canada, and with the American Rose Society, P.O. Box 30,000, Shreveport, LA 71130-0030. Exclusive propagation and distribution rights have been awarded to: COPF for Canada, Bailey Nurseries, Inc., 1325 Bailey Road, Newport, MN, 55055-9597, in the United States; and Pan American, 5151—152 St. Surrey, BC, V4P 2J9, Canada, in the ASEAN and EC countries. Research propagation material is available on a limited basis after signing a nonpropagation agreement.

Literature Cited

Royal Horticultural Society Color Chart. London.