'Chorus Magenta' Limonium

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Species and interspecific hybrid selections of *Limonium* have been developed as commercial cut-flower crops (Harada, 1992). All of these selections grow from basal rosettes except for *L. perigrinum* Bergius 'Ballerina Rose', which is an evergreen, semierect shrub with shoots that form terminal inflorescences (Lewis and Borst, 1993). However, its short inflorescence stems (35–45 cm) limit its popularity as a cut-flower crop, although cut stems have a long vase-life (Lewis and Borst, 1993).

Morphologically, *L. purpuratum* L. differs from the closely related *L. perigrinum* in having longer stems (≈60 cm) and a less attractive inflorescence. Interspecific hybridization offered a means of combining the desirable long stem characteristic of *L. purpuratum* with the attractive flower color and inflorescence form of *L. perigrinum*, and led to the development of 'Chorus Magenta'.

Limonium perigrinum 'Ballerina Rose' has very low seed set in greenhouse situations. A study was therefore conducted (Burge and Morgan, 1993) to determine the cause of this problem, as this was a possible barrier to the production of interspecific hybrids. The low seed set was found to be the result of poor pollen transfer and a postzygotic self-incompatibility system, but these factors were not considered to be barriers to the production of an interspecific hybrid.

Origin

Just-opened *L. perigrinum* flowers were emasculated each morning prior to anther dehiscence and pollinated 2–6 h later with freshly collected *L. purpuratum* pollen. Unfortunately, fruit left to mature on the plant developed no seeds. This barrier to hybrid production was circumvented by rescuing the embryos 12–14 d after pollination (Morgan et al., 1995). Of 648 pollinated flowers, 49 contained embryos, and 15 embryos were successfully rescued. Plants derived from these embryos were propagated in culture and then placed on a rooting medium before being

transferred to the greenhouse for assessment. All of these hybrid plants had similar flower color and plant growth characteristics, although inflorescence length varied from 25 to 65 cm. 'Chorus Magenta' was selected for further evaluation because it produced the longest inflorescences.

Description

'Chorus Magenta' is an evergreen, semierect shrub that produces inflorescences mainly during the spring and summer in unheated greenhouses in New Zealand. Typically, it is harvested from November to March (summer months). There is little growth during the winter (June–August) in unheated greenhouses. The plants produce 8–16-cm shoots bearing 20–30 lanceolate leaves (35–50 mm wide × 120–200 mm long) on opposite sides of the shoot. These shoots terminate in an inflorescence, and subsequently 1–2 shoots develop from buds in leaf axils just below the inflorescence. The leaves are dark green and quite glossy when young, but with age a salty deposit develops on the leaf surface.

The inflorescence is a panicle with 400–700 flowers (Fig. 1) and the flower buds open acropetally. Flower buds are pointed and the pink-purple calyx (RHS 71b) (Royal Horticultural Society, 1982) extends past the epicalyx and provides color at the tip of the bud. The inflorescence stem is dark green, 8–10 mm in diameter at the base and very rigid. The flowers have five, nonfused petals (color RHS 72c) (Royal Horticultural Society, 1982) ≈8 mm in length, which remain open for only 1–2 d. The fused papery calyx is the same diameter as the petals at anthesis, but remains open after the petals shrivel, giving the appearance of many open flowers on an inflorescence.

Performance

After planting in midsummer (26 Jan. 1995) in beds with two rows (50 cm between rows and 50 cm between plants in the row) one inflorescence developed per plant the same summer, and 8, 25, and 42 in the subsequent three seasons. Most inflorescences were 50–70 cm long, with a mean length of 61, 56, and 57 cm in the 1995–96 to 1997–98 seasons, respectively. Stem length and weight tended to decline during the season.

'Chorus Magenta' is apparently relatively resistant to diseases and pests. However, we recently identified a weak pathogen (a *Phomopsis* sp.) that can cause plant losses (Harvey et al., 2000). Thrips can also damage plants during the hot summer months.

The cut inflorescences can be used in both fresh and dried forms, as the papery calyx remains open and retains its color. Flower buds on harvested inflorescences open for only several days after harvest when placed in water. However, if the stems are given a 24-h pulse treatment with a wetting agent before transfer to a vase-solution containing a biocide plus sucrose, the flowers continue to open for over 16 d (Burge et al., 1998).

Availability

Plant variety rights for 'Chorus Magenta' have been obtained in New Zealand and Israel. Green Harvest Pacific, Box 43188, Mangere, Auckland, NZ, has the international rights to this cultivar.

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Fig. 1. *Limonium* 'Chorus Magenta' inflorescence.

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