‘Amatola’, a Dwarf Cultivar of White African Iris

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Additional index words. *Dietes*, Iridaceae, geophyte, ornamentals, landscape, groundcover, subtropical, floriculture, herbaceous perennial

Dietes Salisb. ex Klatt is a genus of Iridaceae with six species (Goldblatt 1981), five of which are endemic to Africa and one found only on Lord Howe Island between Australia and New Zealand. All six species are rhizomatous, evergreen, herbaceous perennials. Several have been popular landscape plants in subtropical regions, most notably *D. bicolor* (Steud.) Sweet ex Klatt, *D. grandiflora* N.E. Br., and *D. iridioides* (L.) Sweet ex Klatt (Broschat and Meerow, 1991; Huxley et al., 1992).

Dietes iridioides is the most widespread species in the genus (Goldblatt, 1981), occurring from Kenya through eastern South Africa, where it occupies the understory of evergreen forest. *Dietes iridioides* is distinguished from other species of the genus by its small white flower with light purple-blue style branches and a beaked, cylindrical capsule (Goldblatt, 1981). Goldblatt (1981) characterized the species as 30–60 cm tall (with 15 cm noted as a rare occurrence). The seed-propagated plants representing the cultivar *Amatola* have a unique, compact, dwarf habit and stem orientation that present a much different architectural effect than the typical, taller, erect-stemmed individuals of the species as currently known in horticulture. These characteristics present a very different landscape effect than the typical cultivated representatives of the species, and are worthy of cultivar recognition.

Origin

‘Amatola’ was identified from seedling populations grown from plants of *D. iridioides* collected from Afromontane forests of the Amatola Mountains in East Cape Province, South Africa. These plants are designated as ‘Amatola’. The dwarf habit and unique branching characteristics of this cultivar are consistent and uniform among seed-propagated plants.

Description

Color descriptions below are based on the RHS Colour Chart (Royal Horticultural Society, 1998).

Received for publication 17 Nov. 2000. Accepted for publication 28 Feb. 2001.

Dietes iridioides ‘Amatola’ is an evergreen, rhizomatous, herbaceous perennial reaching 15–20 cm in height. The rootstock is

a thick, fibrous, irregularly branching rhizome with short internodes resulting in a tight cluster of aerial stems spreading 50–60 cm in 3 years, each consisting of 6–8 distichous, equitant leaves (Fig. 1). Stems are oriented at an acute angle from the rhizome, always between 45 and 60° from the vertical. Leaves are green (≈RHS 146A), tough, leathery, acute, narrowly ensiform in shape, sheathing at the base, 10–20 cm long, and 1–1.5 cm wide. Inflorescences are produced from the lower leaves, sheathed by bracts, 30–35 cm long, and are rarely once-branched. Flowers (Fig. 2) are 3–4 cm wide, white with yellow (9A) nectar guides on the upper surface of the limb of the outer tepals, the claws dotted yellow-orange (15A) with minute papillae. The outer tepals are 24–30 mm long, unguiculate; the claw is 12–15 mm long; the limb is 10–15 mm wide, and spreading; inner tepals are 20–26 mm long, 7–10 mm wide, and spreading. The stami-

Fig. 1. Vegetative plant of *Dietes iridioides* ‘Amatola’ in the landscape

Fig. 2. Flower of *Dietes iridioides* ‘Amatola’.

nal filaments are 5–9 mm long; the anthers are 3–6 mm long, and the pollen white. The style is 2–3 mm long; the upright crests are 1–1.3 mm long and 4–6 mm wide, violet blue (94B–C) above, whitish-violet blue (94D) below. The inferior ovary is 8–15 mm long and lightly ridged. The capsule is ovoid-cylindrical, apically beaked, 20–30 mm long, 14-mm diameter, and only apically dehiscent (if at all). Seeds are numerous, dark-brown (grayed-orange 166A), wedge-shaped, and 3×5 mm.

Seed-propagated material of *D. iridioides* 'Amatola' is consistently dwarf, rarely exceeding 20 cm in height. Rhizomes are densely branched, leaf fans are oriented uniformly at 45 to 60° from the vertical, and the inflorescences are displayed laterally (not erect). The production of stolons on the old inflorescences, a characteristic of other clones of the species, has not been observed to date on 'Amatola'. Flowers last a single day, and each inflorescence produces several flowers successively. Flowers appear sporadically throughout the year, but most frequently from April through October, and seed capsules are set readily.

Cultural notes

Dietes iridioides 'Amatola' is grown easily from seed that germinate under intermittent mist in 6 to 8 weeks. Seedlings reach flowering size in 12–18 months. Seedlings were transplanted into cell packs, then moved to 0.5-L, then 2.7-L containers. High-quality plants were produced utilizing a mix (by volume) of 5 aged pine bark : 4 coconut coir dust : 1 coarse sand, modified subsequently to 25% total volume with coarse perlite. A pH of 6.5 is recommended. The substrate was amended with 5.0 kg·m⁻³ 17N–2.3P–10K Osmocote (Scott's, Milpitas, Calif.), 4.2 kg·m⁻³ dolomite, and 1.2 kg·m⁻³ Micromax (Scott's). Plants are grown during production at $PPF = 1000 \mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$. Dwarf African iris grows best at 500–1000 $\mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$ in the landscape. Flowering is increased at the higher light level, but foliage color is darker in denser shade. 'Amatola' should be used as a groundcover. Expected hardiness is to USDA Hardiness Zone 8B (Cathey, 1990). Plants are tolerant of pH as high as 7.5 in the landscape. However, iron deficiency symptoms were observed at soil pH

in excess of 8.0. Supplementary irrigation was unnecessary after the first year of landscape growth in the Miami, Fla., area.

Availability

Small samples of seed of *D. iridioides* 'Amatola' are available for research purposes only by request through the USDA-ARS National Germplasm System as accession PI-614821.

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