Dichopogon fimbriatus

Synonyms:

Arthropodium fimbriatum

Common name: Nodding Chocolate Lily

Family: Liliaceae/ Anthericaceae

Similar species: Dichopogon strictus (Chocolate Lily), Arthropodium milleflorum (Vanilla Lily), Thysanotus spp. (Fringe Lilies).

Conservation status: Not listed as there are no known threats.

Description

Dichopogon fimbriatus is a tufted erect herb, up to 35 cm tall.

Roots: long, fibrous, ending in numerous slender tubers.

Stems: flower-stem usually unbranched, always exceeding the height of the leaves.

Leaves: linear, 5-35 cm long, 1-4 mm wide, grasslike, in basal clusters of 2 to 10, usually withering before flowering starts.





Distribution



Map fromAustralia's Virtual Herbarium: http://avh.chah.org.au/

Ecology

Habit	Perennial herb.
Growth period	After flowering in spring and summer, the plant dies down to an underground tuber and re-shoots in autumn.
Life expectancy	Unknown.
Habitat	Grasslands, open woodlands and sclerophyll forests. More frequent in higher rainfall areas.
Site tolerance	Full sun position.
Soil tolerance	Found on a wide range of soils from brown clays to sands.
Drought tolerance	Unknown.
Frost tolerance	Hardy.
Fire tolerance	Can survive a fire event by regrowing from underground tubers.
Grazing tolerance	Tolerant.
Pests	Aphids (but not a major problem).

Reproduction

Flowers

Lilac or violet, chocolate or vanilla-scented flowers in clusters of 2 to 6, borne on down-curving stalks in pairs or threes. Three broad petals alternate with 3 sepals. The flowers dry off rapidly.

Flowering occurs from late spring through summer.

The flowers are insect-pollinated.

Fruit: capsules

Globular, with a papery covering, 5-7 mm long, on a stalk which remains downturned. There are 3-4 seeds in each cell.

Seeds

Black, firm, to 1.5 mm in size. There are approximately 400 seeds per gram.







Germination requirements

No pre-treatment is required before germination. Seeds germinate in 2 to 6 weeks. Try germinating at temperatures around 18°C as hotter temperatures prevent germination.

Genetic seed viability

No chromosomal differences were detected for *Dichopogon fimbriatus*. It is recommended that large populations be used as the primary seed source to ensure that enough genetic diversity is held within the Seed Production Area to ensure viable seeds are set.



How to grow the species in a Seed Production Area (SPA)

Seed collection and storage

Collect the seeds during summer. Harvest the stalks by hand or with secateurs when the papery capsules turn brown. Place the stems upside-down inside large paper bags and dry until the capsules have opened. Thresh lightly to extract the seeds from the capsules and sieve clean.

When collecting or sourcing seed for restoration or propagation it is recommended that local variation is taken into account and that, where possible, local seed sources are used from populations with similar forms.

According to germination tests done at the National Seed Bank, the viability and the germinability of the seeds decrease as the age of the seed increases. However, more germination tests are needed to verify this hypothesis. The seeds should be dried down to 5-6% seed moisture content and then be stored in a freezer for no more than 5 to 7 years to ensure the best viability and germinability rates.



Propagation

D. fimbriatus can be propagated from seed or plant division.

Seeds can be sown from autumn to early winter (2-3 months after collection). Sprinkle seeds over standard potting mix or bush sand. Cover with a thin layer of potting mix or vermiculite. Keep moist and place out in an open sunny position. *Dichopogon fimbriatus* is a useful plant for direct hand-seeding at revegetation sites but it is difficult to source large enough quantities of seed.

The space between plants should be from 15 to 20 cm.

Growth at the SPA

The plants respond well to some water when in flower (late spring through summer).

To encourage growth, the plants can be fertilised with slow-release fertiliser and seaweed fertiliser in spring. Seaweed fertiliser can also be combined with a water-soluble fertiliser and applied during establishment.

Plants grown in pipes with potting mix grow slightly quicker than those in beds made of crushed sandstone.



Uses

- Horticulture: the species is an attractive garden plant suitable for rockeries and cottage gardens. It is suitable for limited spaces such as window boxes, small containers and tiny rock pockets. Mass planting will maximise the chocolate scent of the flowers. Trim off finished flowers and older leaves.
- **Bush tucker:** Aboriginal people ate the tubers raw or roasted on the fire. The tubers are usually sweet but can be bitter. The flowers were eaten and were believed to help cleanse the blood.
- **Fodder**: the plants are grazed in the early stages of growth but they rarely occur in sufficient quantity to be considered a valuable component of pasture.

References

Bonney, N. (2003). What Seed Is That? A guide to the identification, collection, germination and establishment of native plant species for central southern Australian landscapes. Tantanoola, SA: Neville Bonney.

Carr, D. (1997). *Plants in Your Pants: a pocket guide for the identification and use of the common plants of the northwest slopes.* Greening Australia NSW, Armidale.

Fairley, A. (2001). Wildflowers of Sydney and adjoining areas. Bloomings Books, Melbourne.

Parry, N., Jones, J. (2009). Small native plants for Australian Gardens. Reed New Holland, Sydney.

Peate, N., MacDonald, G., Talbot, A. (2006). *Grow what where*. Bloomings Books, Melbourne.

Internet links

Australian National Botanic Gardens: http://www.anbg.gov.au/apu/plants/arthfimb.html

A view from Yalaroo: http://www.yallaroo.com.au/Chocolate_lily.htm

Friends of Black Hill and Morialta: http://www.fobhm.org/noframes/arthropodium.htm

PlantNET National Herbarium of New South Wales: http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl &lvl=sp&name=Dichopogon~fimbriatus

Photo source

Australian Plant Image Index (APII): http://www.anbg.gov.au/photo/





