The dwarf irid genus *Geissorhiza*, often referred to as ‘wine cups’, has a number of exceptionally beautiful species. Many are well suited to container cultivation, provided that certain requirements are met. The approximately eighty species are almost all winter-growing and summer-dormant, and are concentrated in the south-western Cape, where several are now critically endangered because of agricultural expansion. Here are ten of the best species recommended for cultivation, all of which are regularly available.
Cultivation of geissorhizas

The complaint is often heard that the most desirable Geissorhiza species like *G. radians* and *G. eurystigma* are difficult to bring into flower, and even more difficult to maintain in cultivation over an extended period. Firstly, it must be remembered that with one or two exceptions, all the species require a definite summer dormant period during which the corms have to be kept completely dry. This makes them unsuitable for general garden cultivation in summer rainfall areas (they are also frost tender), as well as in winter rainfall areas where most gardens are irrigated during summer. The depredations of guineafowl, mole rats and porcupines make it quite impossible to cultivate geissorhizas successfully in open garden situations over an extended period, with the single exception of the ubiquitous and prolific *G. aspera*. The only successful way to cultivate them is in containers or in raised beds that are mole-proof and can be protected from other wildlife.

Secondly, it is important to note that many geissorhizas occur in waterlogged soil in their natural habitat (like *G. radians* and *G. mathewsii*), so under cultivation, the soil medium should never be allowed to dry out during the growing period. A single short period of excessive soil desiccation can result in the flower-buds aborting, followed by rapid yellowing of the leaves and premature dormancy. A position receiving full sun or very good light for at least half the day is required by all species listed here. Deep plastic pots with a diameter of 20-25 cm are recommended, and I suggest a growing medium of equal parts finely sifted, well-decomposed compost, and fine river-sand. Terracotta pots are unsuitable as they dry out far too rapidly. Plant corms in late autumn (April – May) in a thin layer of pure river-sand, fill up the rest of the pot with the recommended growing medium up to 10 mm above the top of the corm, and water well. After the leaves have appeared, water twice a week, and increase watering as the flower-buds begin to appear as well as throughout the flowering season in spring.

Pots of species like *G. radians* and *G. mathewsii* like being placed in saucers kept filled with water over the flowering period. The flowers of geissorhiza open fully on hot, still days, and this is a good time to hand-pollinate them in order to ensure a successful seed harvest. Gather ripe pollen from a few flowers by lightly pinching the anthers with the thumb and index finger until it adheres, then transfer the pollen by very lightly pinching the delicate, branched stigmas of flowers other than those from which the pollen was taken. Seeds mature within four to six weeks and watering should be gradually reduced once the leaves begin to turn yellow, when the containers should be allowed to dry out completely and can then be moved to a cool dry location for the summer.

Ten of the best

*Geissorhiza aspera* (blou sysie) is a very common species found growing in large colonies in many parts of the south-western Cape, where it flowers from late winter to spring. It is probably the easiest one to grow, and the only species that could be considered for garden cultivation in mild climates with dry summers (such as in moist pockets in a rock garden) as it seeds itself prolifically. Its flowers are small and come in many shades of blue – and occasionally – pure white.

Opposite page. *Geissorhiza mathewsii*.
Above. *Geissorhiza darlingensis*.
Below. *Geissorhiza monanthos*.
**Geissorhiza darlingensis**
(geel kelkiewyn) is an exceptionally rare species from the Cape west coast which is very easily cultivated. It has very large, lemon yellow flowers and a deep purplish-black throat, and flowers relatively late in the season - from early to late October. The base of the leaves and peduncle are sticky and always have sand grains attached to them. This species usually sets copious seed without the need to hand-pollinate, and has been available from the Kirstenbosch seed catalogue for many years.

**Geissorhiza eurystigma**
(wine cup, kelkiewyn) is one of the most attractive geissorhizas with large, dark blue flowers with red centres (see cover photograph). It looks very similar to *G. radians*, but differs mainly in its distinctive feathery stigma and lacks the thin, bright white band dividing the petals, as well as the single dark purple marking near the base of each petal. Hand-pollination of flowers is essential in order to ensure a good seed crop. It is very easily cultivated and flowers from mid to late September.

**Geissorhiza imbricata**
(geel sysie) is a very variable, relatively tall species with a wide distribution in seasonally inundated areas of the south-western Cape. It is a very easily cultivated, free-flowering plant with small, white or pale yellow flowers often flushed with red on the undersides of the outer petals. It usually sets seed without the need to hand-pollinate, and flowers in September and October.

**Geissorhiza inflexa**
(syblom, witsyblom) is a common species that occurs in many colour forms, ranging from white and many shades of pink to deep pinkish-red, and is one of the most reliable flowerers. It has distinctive hairy leaves, and under ideal conditions, it can be induced to flower in as little as seven months from sowing the seed. It can tolerate less moist conditions than most other geissorhizas, and is one of the earliest species to bloom - from early August to mid-September.

**Geissorhiza mathewsii**
(wine cup, kelkiewyn) is a critically endangered species, known from just a few sites on the Cape west coast. Newly introduced into cultivation from Kirstenbosch, this plant is one of the easiest to grow, provided the growing medium is kept constantly moist throughout the growing and flowering period. Its flowers resemble those of *G. radians*, but are smaller and less cup-shaped, and it has distinctive flat, ribbed leaves. This highly recommended plant flowers from late August until the end of September.

**Geissorhiza monanthos**
(bleek sysie). The large, deep violet or purplish-blue flowers of this plant from the Cape west coast make it one of the most desirable in the genus. Seedlings can flower in as little as seven months from seed, but mature corms appear to be rather short-lived - and it is advisable to re-propagate this plant regularly from seed, or remove and 'grow-on' the many cormlets produced at the base of the mature corm. It flowers from September to the end of October.

**Geissorhiza radians**
(wine cup, kelkiewyn, witring kelkiewyn). This west coast endemic is one of the most desirable and well-known of all geissorhizas. However, successful cultivation requires a constantly moist growing medium during the winter growing period, as well as during the spring flowering period. It prefers being grown in raised beds out in the open, but can also be successfully grown in plastic containers placed in full sun and immersed in water during the flowering period. Hand-pollination of flowers is essential in order to ensure a good seed crop, and it flowers in September and October.

**Geissorhiza splendidissima**
(blue pride-of-Nieuwoudtville) is one of the most beautiful blue-flowered plants in the bulb world! Endemic to the...
Propagation of geissorhizas

Geissorhizas are propagated mainly by seed, and by the removal of cormlets from the base of the mature corm. Seed size varies considerably among the species, from the tiny rounded seeds of *G. mathewsii*, to the comparatively large ones of *G. splendidissima*. Seeds are best sown in late autumn (late April or May in the Southern Hemisphere) after cooler weather has definitely set in. Deep plastic seed trays or deep seedbeds are recommended, and a situation receiving morning sun or at least very good light is required. Protection from heavy winter rains is recommended, such as is experienced in the southern suburbs of the Cape Peninsula. The sowing medium should be well drained yet it should not dry out too quickly, and a recommended sowing medium is equal parts of fine river-sand and finely sifted compost. It is very important to sow seeds thinly and evenly, in order to reduce the risk of attack by damping-off fungi, to which the seedlings are very susceptible. Species with very small seeds like *G. mathewsii* and *G. radians* can be covered with a layer of about 2 mm, while those with larger seeds like *G. tulbaghensis* and *G. splendidissima* can be covered by up to 4 mm.

Fresh seeds usually germinate within four weeks, and it is important to keep the medium constantly moist by regular watering every two to three days with a fine rose. It is best to water in the morning so that excess moisture can evaporate from the minute hair-like leaves during the rest of the day, to lessen attack by damping-off fungi. Under ideal conditions, some species like *G. radians* and *G. mathewsii* can be brought into flower in as little as seven months from seed, but generally, first flowers can be expected towards the end of the second year of growth.

During the summer dormant period, dry soil containing mature corms can be placed over a fine sieve, in order to remove daughter jorms, which are easily detached from the base of mature corms. These can be replanted immediately in dry growing medium, or be stored in paper packets until the following autumn. Be sure to dust the corms with Bexadust when storing them loose in packets, as they often fall prey to attack by mealy bug when stored loose.

Pest and disease control

Geissorhizas are not particularly susceptible to pest attack, but aphids do frequently feed on developing flower-buds, which can be controlled with Bio Kill garden spray. *Geissorhiza* corms are susceptible to infestation by mealy bug, which is best treated by drenching plants in active growth with chlorpyrifos. Adult corms are subject to fungal rot when not allowed a completely dry dormant summer period. Seedlings very often fall prey to the *Pythium* damping-off fungus, which can be overcome by sowing the seeds thinly in a well-aerated environment, and by dusting the seeds with Kaptan immediately prior to sowing.

Geissorhiza *tulbaghensis*.

Bokkeveld Plateau around Nieuwoudtville, this early-flowering, large-flowered species with shiny petals is easily cultivated, and can tolerate drier conditions than species like *G. radians* and *G. mathewsii*. It is essential to hand-pollinate the flowers in order to ensure a good seed crop. Seeds have been available from the Kirstenbosch seed catalogue for many years. Its flowering period is early August to mid-September.

*Geissorhiza* *tulbaghensis* is one of the most easily cultivated geissorhizas, yet in its restricted wild distribution in the south-western Cape, it is becoming increasingly rare because of continued agricultural expansion. This highly recommended, very floriferous plant has one of the largest flowers in the genus, and is a particularly good subject for containers. It is essential to hand-pollinate the flowers in order to ensure a good seed crop. Regularly available from the Kirstenbosch seed catalogue, this species flowers from mid-August until the end of September.

**SOURCES OF SUPPLY**

Seeds of *Geissorhiza* species are regularly available from the annual Kirstenbosch seed catalogue, available free to members of the Botanical Society of South Africa. Corms can sometimes be purchased at the Society's annual Garden Fair, and specialist seed and bulb nurseries such as those which advertise in *Veld & Flora*, also stock several species.