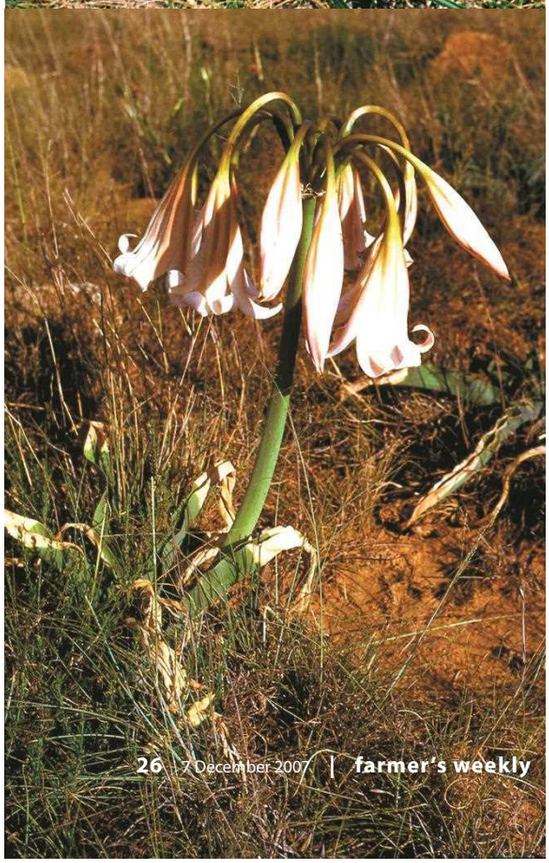
The stately Crinum lilies

Often found in river basins and streambeds there are 21 Crinum species in South Africa and they occur in all provinces and in many different habitats – mostly in highly specialised areas like vleis.



THIS SPRING WAS A BUMPER season for Crinums. Anyone travelling through the Free State or the Mpumalanga Highveld could not fail to notice the masses of elegant pale pink lilies flowering in depressions and damp spots along the road. These lilies were probably *Crinum bulbispermum*, one of the commonest and most widespread of the many species of Crinum in South Africa. Because this species occurs almost throughout the Orange and Vaal River basins, its common names are Orange River lily or Vaal River lily. The very similar *Crinum graminicola* also occurs in this region, typically in grassveld.

Crinums belong to the large family Amaryllidaceae, and in common with most members of this family, they are large deciduous bulbous plants. The name is derived from the Greek *krinon* meaning lily. The large umbels of numerous spectacular trumpet-shaped flowers, often heavily scented, are borne on sturdy stalks up to 90cm high, with fairly long strap-like leaves. Leaves generally die back in the dry season or in winter, but resume growing after rain or in spring. Crinums have large fleshy seeds borne in membranous capsules at the end of the flowering stalks. When ripe the capsules disintegrate, scattering the seeds which tend to germinate spontaneously, producing young plants which are fairly tough and can survive for some time until conditions are favourable for them to take root and develop.

A widespread species

Crinums, of which over 130 species have been described, occur throughout the world – even in a continent as isolated as Australia.

- Crinums flower at the start of the rainy season and often grow near water.
- Several species are threatened by urban development.
- They are easily grown from seed and do well in gardens.

I saw the sole representative that occurs there, *Crinum flaccida*, flowering in the Macquarie River basin in New South Wales. The last comprehensive revision of the genus by IC Verdoorn in *Bothalia 11* in 1973 listed 21 species in South Africa, occurring in all provinces but not in the south of the Western Cape. In fact there is only one species in the winter rainfall zone, in the north of the Western Cape – *Crinum variabile*. It has a very specialised habitat in the usually dry sandy or rocky beds of streams in the Roggeveld, Bokkeveld and Namaqualand. They are opportunistic growers, flowering from autumn to early winter, at the start of the rainy season. There is a healthy population in the streambed above the famous waterfall near Nieuwoudtville which is easily accessible to the public.

Crinum macowanii is very widespread in the summer rainfall region. It is equally at home in grassland and thicket vegetation and can be recognised by its low rosette of slightly undulate (wavy-margined) leaves. It flowers in spring and early summer and is traditionally used as a remedy for various complaints. Over the years populations have declined drastically, particularly in areas such as the King Williamstown-Berlin region where there are burgeoning townships and the

TOP LEFT: The rare and threatened *Crinum lineare* growing near Port Elizabeth.

BOTTOM LEFT: *Crinum macowanii* growing in the Waku region of the Cathcart district, Eastern Cape.

ABOVE: *Crinum campanulatum* showing its typical habitat in a vlei near Peddie.

ABOVE RIGHT: *Crinum variabile* growing in the stream above the waterfall near Nieuwoudtville.

Crinum delagoense growing in my garden. The species is found in deep sand in the Lowveld, the Limpopo and Zambezi River basins and from Zululand along the coast north to Mozambique.

veld is becoming degraded as a result of overstocking. In fact, cattle seem to be partial to the buds which are often cropped and eaten, severely affecting seed production in areas that are regularly grazed. This will ultimately lead to the demise of this lovely flower unless measures are taken to protect it.

The commoner Crinum species are available from registered indigenous nurseries. They are all easily grown from seed, which can be collected from mature plants and propagated. They are easy-care plants except that they are susceptible to the Amaryllis caterpillar, which attacks the leaves and flowers and can sometimes kill the bulb itself. Fortunately they are easily controlled by most garden insecticides. – *Cameron McMaster (cameron@haznet.co.za).* **|fw**

Specialised Crinum habitats

• The tall and stately *Crinum moorei*, with its large pale-pink flowers carried on tall stems, is confined to shady wooded ravines along the eastern seaboard. It is a very popular garden subject, ideally suited to shade. It produces many offsets that can be divided and planted.

• *Crinum lineare* is probably the most threatened of our Crinum species, confined as it is to a small region along the coast from Van Staden's River Mouth to Port Alfred. Most of its habitat has been destroyed by housing estates and urban sprawl as well as by the inexorable spread of alien acacias in this region. It gets its name from its thin linear leaves, rarely wider than 2cm. This species is in dire need of conservation, and threatened bulbs should be relocated to a safer environment.

• A number of Crinums occur only in seasonal pans or vleis and are known as "vlei lilies". The best-known is *Crinum campanulatum*, named for its bell-shaped flowers, which occurs in pans in the Bathurst and Peddie districts of the Eastern Cape. In winter or during droughts when the pans are dry there is no sign of the plants, but the bulbs are safely nestling deep underground.

Flowering can occur at almost any time and depends entirely on when the vleis fill with water. When the bulbs flower the pans are a spectacular sight of massed blooms in various shades of pink. Some pure white flowers occur in one vlei near Peddie. Seed is set rapidly, and when mature the seed stalks fall and release the seeds which float until they come to rest on mud as the water level drops again. As soon as the seed dries, it germinates rapidly, sends down roots into the mud, and a new bulb and plant develop before the next dry season arrives.

I have tested the germination pattern of *Crinum campanulatum* and proved that as long as the seed is floating and wet, it will not germinate, but within days of drying out it does so – an adaptation specifically suited to its specialised habitat.