

# Flowering in the sky

By Anna Celliers

The concept of using the background landscape as a garden design tool rings true in this rooftop garden.





The folks living in the small Western Cape coastal town of Vermont are very protective of their natural green belts, full of indigenous flowering plants, and see to it that they are maintained and protected, while also planting up pretty private gardens of their own. Sometimes, though, the architecture of a newly-built holiday or retirement complex can be a bit overwhelming, set against the coastline's richly-vegetated dunes. With the help of a professional landscape designer it is possible, however, to soften and scale gardens down to fuse perfectly with the beautiful surroundings, even if it means tackling one of the most daunting projects – a coastal rooftop garden.

This project started off with close collaboration between four parties: the Marais family, the owners of the house, who wanted a rooftop garden in which they could sit to enjoy the magnificent views; an architect, who had to make their dream come true by designing the roof structure of the house to carry the bearing weight of a garden; a building contractor, who had to supply proper waterproofing; and a landscaper, who had to make the right plant choices.

## WATERPROOFING THE ROOFTOP GARDEN

According to Riaan Maritz from The Garden Company, creating a rooftop garden requires quite a few waterproofing and drainage layers, before one can start dreaming about installing plants.

- The building contractor built the drainage systems, according to the architect's specification, to lead the water away via roof drains, and he used agricultural-grade waterproofing methods to prevent damp from coming into the house.
- Next came the installation of different layers of other waterproofing materials. The first layer was an innovative lightweight and dimpled drainage membrane, called Delta®-Floraxx (also commonly referred to as Dorken), followed by a layer of Geotext, or mesh, which acts as a filter fabric to prevent clogging of the first waterproofing membrane.
- A layer of washed stone was spread on top, followed by a last layer of bidim geofabric – a final waterproofing barrier, before the planting area was filled with the growing medium.





### **WHAT SHOULD ROOFTOP GARDEN PLANTS GROW IN?**

The growing medium for a rooftop garden such as this one, which is in reality a very large built-in flower box, must be very lightweight, yet have enough backbone to support healthy plant growth. Riaan asked a local organics supplier to mix a special growing medium of good quality potting soil and bark. There are synthetic products, like perlite, which can also be used to lighten a soil medium for rooftop gardens. The depth of the growing medium on this rooftop garden is about 25 cm.

### **HARD LANDSCAPING**

The overall effect of this rooftop garden relies heavily on the interesting and graphic pathway design. A local sub-contractor, Morné Vercuel, was called in to build it according to Riaan's design. They used lightweight white cement to cast the pathway 5 cm thick, within a mould made of wooden slats and reinforced with mesh.



Diascias, osteospermums, watsonias and aloes combine happily.



Diascia



## TOP CHOICES FOR A HEAVENLY OASIS

Finding the right plants, that fit the criteria, was arguably the most difficult task. They had to have shallow root systems, be able to grow in very windy conditions and to survive a baking-hot roof. With the exception of one exotic ornamental grass, called *Calamagrostis x acutiflora* 'Karl Foerster' (Feather reed grass), the other plants used are all indigenous, and most of them grow quite well in other gardens in this region.

The idea was to create movement in the wind with grasses, like *Eragrostis capensis* (Heart-seed love grass), reeds, like *Elegia tectorum* 'Fish Hoek' (Western Cape thatching reed) and *Restio festuciformis* (Green grass restio) and strap-like plants, like *Aristea ecklonii* (Blue stars) and *Watsonia borbonica*. Low-growing flowering shrubs, perennials and groundcovers, to soften the garden and add flower-power (something one would not expect on an exposed rooftop garden), include the tough *Salvia muirii* 'Blue Eyes', *Coleonema* 'Sunset Gold', some buchu types, the ever-trusty *Euryops pectinatus* (Golden daisy), *Gnidia squarrosa*, which grows wild and free in the vicinity, and *Selago glomerata*. To include warm winter colour and strong architectural growth forms, some of the beautiful new aloe hybrids were planted in small groups.



*Euryops pectinatus* (Golden daisy)



*Gnidia squarrosa*



*Watsonia borborica*

## A GALLERY OF ROOF BEAUTIES

***Euryops pectinatus*** (Golden daisy) – guaranteed to flower for most of the year.

The graceful ***Watsonia borborica*** emerges from its slumber in autumn to flower with gusto until the end of November, when it will start preparing to go dormant once again.

***Gnidia squarrosa*** flowers from spring through summer, and occasionally in winter too. It tolerates regular clipping, poor soil and drought.

***Coleonema 'Sunset Gold'*** is a tough and compact shrub, with golden foliage and pink, confetti-like flowers in spring.

***Salvia muirii 'Blue Eyes'*** thrives in full sun and will produce its very intense blue flowers from November to March.

***Falkia repens*** (African morning glory) should really be used a lot more. It is compact and flat-growing, with rounded leaves and cup-shaped, very pale pink or white flowers. It thrives equally well in dry, moist, sunny or shady conditions, and requires the minimum maintenance.



*Coleonema 'Sunset Gold'*



*Falkia repens*  
(African morning glory)



## GARDEN NOTES

**Region:** Vermont (near Hermanus), Western Cape

**Climate:** Mediterranean (winter rainfall, hot, dry, windy summers)

**Size:** About 100 m<sup>2</sup>

**Age of garden:** about one year

### TRICKS TO GET AERIAL GROWTH

#### 1. Staying put, cool and moist

Establishing young, shallow-rooted plants *in situ*, on a windy rooftop site, was one of the main challenges in this garden. Their roots had to be kept cool, shaded and moist. Merely laying a thick mulch of organic material was not an option, as the wind would simply blow it away. Gravel mulching was not an option either, as it would add extra weight and could also blow away. The solution to this problem was to install a final layer of hessian, which protected the plant's roots, and also kept in place the bark mulch that was spread after planting. The hessian looks quite natural and will have eroded by the time the plants are more mature.

#### 2. Food and drink

A drip irrigation system and fertigator (which feeds the plants with every watering sequence) was installed. The garden is watered three times a week, for an hour each time.

#### 3. Maintenance and ensuring the flower-power goes on

In a tough environment such as this, seasonal colour plants, like spring-flowering diascias, will need to be replaced regularly, as they will succumb to the heat and wind in the long run. Riaan says they are still in a very experimental phase of trying out other plant types as well, such as vygies, gazanias and more fynbos species – the latter including some experimental *Protea* and *Leucadendron* hybrids which are still around, but not doing too well because of the rich soil mix. "But", as Riaan says, "such is the wonder of gardening, one simply has to use one's imagination and take the freedom to try everything once!"

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