

Cultivation of Southern African Succulents®

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INTRODUCTION

There are about 10,000 succulent species in the world of which 30% are native to South Africa. Main succulent plant families found in Southern Africa — 35 main plant families

■	1344	Mesembryanthemaceae	46%
■	392	Asclepiadaceae	14%
■	334	Asphodelaceae	12%
■	239	Crassulaceae	8%
■	180	Euphorbiaceae	6%
■	131	Asteraceae	5%
■	34	Portulacaceae	1%
■	28	Families (249)	8%

SOME FACTS ABOUT SUCCULENTS

- Southern Africa is home to nearly one third of the world's succulents.
- There are just over 4,000 succulent species found naturally in the Republics of South Africa and Namibia.
- With global warming and areas becoming drier, it is predicted that succulents will increase in numbers.
- Succulents are water-wise and are becoming increasingly popular in landscape design.
- Succulents are found on the highest mountains, on coastal plains, on the southern tip of Africa, and in the dry deserts.

PROPAGATION

Succulents can be propagated sexually (from seed) and asexually (vegetative— from cuttings).

Sexual Propagation—Why Propagate from Seed?

- Certain succulent genera and species are easier to propagate in this manner.
- Seed readily available.
- Plants develop faster from a seed than a cutting.
- Many caudiciform plants (plants with thick root stocks) can be propagated asexually but never form a thickened caudex.
- In certain cases stronger plants with a well-developed root system are produced.
- To strengthen genetic diversity within a species.

Some Types of Succulents Propagated by Seed.

Aloe seeds — Some aloes that are best grown on mass from seed: *A. angelica*, *A. broomii*, *A. comosa*, *A. dichotoma*, *A. excelsa*, *A. ferox*, *A. gariensis*, *A. khamiesensis*, *A. marlothii*, *A. lineata*, *A. littoralis*, *A. microstigma*, *A. peglerae*, *A. pilansii*, *A. polyphylla*, *A. pretoriensis*, *A. ramosissima*, *A. speciosa*, *A. striata*, and *A. vryheidensis*

Other types of succulents propagated by seeds:

- *Dioscorea elephantipes*, elephant's foot.
- *Stapelia*, asblom or carrion flower.
- *Lampranthus multiradiatus*, Hout Bay mesembryanthemum.
- *Cotyledon orbiculata*, plakkie or pig's ear.

Asexual Propagation — Why Propagate Vegetatively?

- To copy a characteristic of a certain plant, for example a variegated form, a flower colour, a growth form, etc.
- Have large plants available in a relatively short space of time, for example *Crassula*, *Euphorbia*, certain bush vygies, certain aloes, etc.
- Some succulents do not produce much seed, for example cissus, haworthias, etc.
- Some succulents do not produce viable seeds, i.e., certain succulent senecios, othonnas, etc.
- A number of succulent plants can be propagated with relative ease and minimal propagation facilities

Asexual Propagation Techniques Used on Succulents.

- 1) Stem: stem succulents.
- 2) Leaf: leaf succulents.
- 3) Truncheon: branches.

Stem Succulents.

- *Adenium* — however it does not make a sizable caudex.
- *Aloe* species — *A. barbarea*, *A. plicatilis*, *A. arborescens*, all rambling aloes, grass aloes, etc.
- *Anacampseros* sp.
- *Conophytum* sp. — Looks like lithops (beeskloutjies).
- *Cotyledon* sp., all “plakkies” can be propagated vegetatively.
- *Crassula*, nearly all crassulas can be propagated this way.
- *Euphorbia*, many of the tree euphorbias can be propagated this way.
- *Mesembryanthemum* (vygies), most of the colourful bush vygies are propagated in this manner.
- *Pachypodium* sp. (Kudu lilies), however, they do not make a sizable caudex.
- *Sarcocaulon*, bushmans's candles.
- *Senecio*, all succulent senecios are easily propagated vegetatively.
- *Stapelia* sp., all except a few are propagated asexually.

Leaf Succulents

- *Adromischus* — money plant — pieces of leaf, which fall on the ground, root easily.
- *Conophytums*, similar to lithops.
- *Cotyledon*, can also be propagated by stems.
- *Crassula*, can also be propagated by stems.
- *Gasteria*, grows easily.
- *Haworthia*, certain species, especially the window varieties.
- *Kalanchoe*, easy from a single leaf.
- *Lithops*, “beesklootjies”, living stones.
- *Sansevieria*, mother in law’s tongue.
- *Senecio* can also be propagated by stems.

Truncheon Cuttings. This works for: Aloes, *A. barberea*, *A. plicatilis*; *Ceraria namaquensis*, Namaqualand pork wood; *Commiphora*, succulent types; *Cyphostemma*, Namibian wild grape; *Portulacaria afra*, karoo pork wood; *Tylecodon paniculatus*, botterboom; and *Sesamothamnus lugardii*.

Another Method of Propagating Succulent Plants.

Division. The following can be propagated by division: aloes, asclepiads — certain mat forms, crassulas, gasterias, haworthias, kalanchoes, mesembs — certain creeping forms, sanseverias, and senecios.

Propagating and Growing Media.

- Sieved coarse river sand, sieved loam, sieved well rotted compost, vermiculite, perlite.
- Bone meal, agricultural or dolomite lime.
- A well-drained growing medium ideal for cultivating succulents.

REQUIREMENTS FOR CULTIVATION OF SUCCULENTS

- Good ventilation — good air movement is essential.
- Correct placing of plants — do not over-crowd.
- Correct amount of light needed for optimum growing conditions — too much or too little light can be detrimental.
- Well-drained soils essential in most cases.
- Correct watering of plants — depending on winter or summer rainfall areas.
- Knowing where these occur in nature — thus understanding how they grow.
- Knowing when to sow seed and strike cuttings — depending on if winter or summer growing.