

Tillandsia usneoides

Common name: Spanish moss

One of the most notable things about Spanish moss is that it's not even a moss at all – this *Tillandsia* is a bromeliad, and is a very distant relative of the pineapple.

Their short, wiry roots attach themselves to cliffs, or almost anything, rather than rooting in soil. They make popular and intriguing houseplants, needing air, light, water and warmth.

Silvery in colour, they are coated in special water-absorbent cells that take in moisture from rainfall or fog in the wild. That helps *Tillandsia* cope with drought conditions.



As a houseplant, immerse them in rainwater two or three times a week then leave to dry out – limescale in tap water blocks their cells.

They enjoy excellent ventilation, good light and warm temperatures. Baby plants – offsets – form at the base of the parent, which makes them easy to propagate.

When they flower, they are spectacular! They do this only once, though, because like other bromeliads, they are monocarpic – they flower once and die.

What is my drought-tolerant adaptation?

I'm a fog absorber

My curled leaves are covered with water-absorbing cells which capture and soak up any moisture that lands on them.

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Rhipsalis baccifera

Common name: mistletoe cactus

Mistletoe cactus is a tropical succulent native to rainforests in warm regions. The special thing about these cacti is that they're epiphytic, which means they grow on other plants.

Epiphytes come in many forms. They might have branched stems that are cylindrical, winged or leaf-like, and small funnel-shaped flowers followed by berry-like fleshy fruits. What's more, they grow in rainforests, not deserts.

Commonly known as mistletoe cacti, they are from Central America, the Caribbean and northern regions of South America. They also inhabit isolated locations in Africa and Asia – that makes them unusual for cacti.

Look at their form – their Latin name *Rhipsalis* is from the Greek term for wicker-work because of their interlacing, flexible stems.

What is my drought-tolerant adaptation?

I'm a water banker

I have chunky stems that I use to store water and use during prolonged periods of drought.



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Vriesea splendens

Common name: flaming sword

The flaming sword houseplant is one of the most common bromeliads used for indoor decoration and is one of the most striking in appearance.

With rosettes of leaves holding pools of water and flamboyant spikes of colour, this diverse and exotic group of plants are real show-stoppers. Within the rosette of leaves there's often a water-filled 'well' in the centre. The leaves may be boldly striped or suffused with various hues.

Bromeliads thrive in a warm, bright spot indoors. They like humidity and regular watering during the growing season, and very free-draining compost. For bromeliads that have a 'well' in the centre of the rosette, empty and refill it regularly to keep the water fresh.

Their large exotic blooms comprise vibrant petal-like bracts. A bract is a modified leaf that looks like a petal.

Pineapples are a type of bromeliad.

What is my drought-tolerant adaptation?

I'm a water banker

My rosettes of leaves collect water and act as a water store.



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Echinocactus grusonii

Common name: golden barrel cactus

This unusual and stunning looking cactus is native to Mexico and the USA, but is now becoming rarer to find in the wild.

These spiny, barrel-shaped cacti get their name from the Greek word for hedgehog – “echinos”. These slow-growing cacti have swollen stems covered in strong spines, and bell-shaped flowers in summer. Even their fruits look “woolly”!

As a houseplant they’re easy – just think about their desert homelands. They need little water when in growth, and none at all when dormant, and they’re not keen on humidity.



Echinocactus grusonii is one of the most commonly available to grow at home. Its barrel-shaped stem grows up to 50cm tall, with deep ribs bearing yellowish spines and, on mature plants, yellow flowers up to 6cm in length. It has the common names of golden ball cactus and mother-in-law’s seat. Ouch!

Another species, *Echinocactus texensis* has interesting common names of ground master, horse-crippler cactus and Texas horse-crippler.

What is my drought-tolerant adaptation?

I’m a surface drinker

My shallow roots are able to soak up surface water from dew or occasional rainfall.

Euphorbia obesa

Common name: gingham golf ball

Many *Euphorbia* are cacti-lookalikes. They are fairly unique and intriguing as they are dioecious, meaning male and female flowers occur on different plants.

These euphorbias are from tropical and arid regions and are often grown as houseplants. *Euphorbia* are very diverse in appearance, with succulent species having swollen, sometimes segmented and often leafless stems. Some are ball-shaped, others have long lanky lax stems, others erect, branched and upright. Many produce flower in spring or summer every few years in shades of red, white, pink or yellow.



At home, they are easy to grow in sunny rooms and are ideal for sun-baked conservatories.

Many *Euphorbia* are classed as succulents. Although not related, *Euphorbia* and cacti evolved the same adaptations to survive in hot, dry hostile environments.

Euphorbia horrida is a spiny, cactus-looking example of a succulent *Euphorbia*. It has the common name of African milk barrel because of the milky sap typical of euphorbias.

What is my drought-tolerant adaptation?

I'm a water banker

I store water in my swollen stems.

Aloe 'Lotus Silver'

Pretty spiralling rosettes of leaves make aloes wonderful sculptural plants. They have fleshy, triangular, green or bluish-green leaves, often toothed along the edges, sometimes with a warty surface. Clusters of yellow or red tubular flowers are produced at the ends of tall leafless stems in summer or autumn.

They are easy to grow in containers and are great in conservatories or as houseplants. Place in full light with good ventilation. Aloes will not grow well in continuously wet compost or in shade. They dislike humid atmospheres and cannot withstand freezing temperatures.

An attractive and potentially handy houseplant, *Aloe vera* is traditionally used to soothe mild sunburn.

Commercially, sap is extracted from its leaves for use in the manufacture of cosmetics, medicines and drinks.

What is my drought-tolerant adaptation?

I'm a cell shrinker

I fold my cell walls during drought to reduce losing water.



Sansevieria trifasciata

Common name: mother-in-law's tongue

These sword-shaped leaves look like they could be seaweed wafting in the water under the sea!

A popular houseplant, mother-in-law's tongue, *Sansevieria trifasciata* is a succulent plant that forms a clump of erect, deep green leathery leaves, often attractively marbled. It's sometimes called snake plant because of its mottled grey-green snake-like markings that weave their way across the long leaves.



Although they're robust plants, they can have a slightly weather-beaten appearance, sometimes with rough, brown edges and occasionally some minor leaf cracking. This does not affect the long-term health or vigour of the plant but simply adds to its charm.

It's a member of the asparagus family and comes from Nigeria. At home, grow in bright filtered light, avoiding full summer sun. Good for beginners, *Sansevieria* are tolerant of neglect. Allow the soil to dry out completely before watering.

What is my drought-tolerant adaptation?

I'm a water banker

I store water in my fleshy leaves to use when I need it.

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Curio ficoides

‘Mount Everest’

Easy-to-grow succulents are fascinatingly diverse - spiny or furry, tiny or tall, bold or intricate, with some easy to mistake for a cactus.

Curio ficoides, sometimes called the skyscraper senecio, is a succulent subshrub that can grow to a 1m tall. With erect stems and fleshy, blue-green leaves, the white powdery, waxy substance covering its surface reflects sunlight and helps to keep the plant cool.

As a member of the daisy family it produces small flowers. But unlike the daisy flower we're familiar with, these ones don't have petal-like ray florets. As a result, the flowers look a little bit like pincushions!

What is my drought-tolerant adaptation?

I'm a water banker

My waxy and fleshy leaves protect me against the sun and wind so I can store water in them.



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Agave 'Blue Glow'

These sculptural succulents are often grown for their striking appearance.

Thick, firm, succulent leaves are pointed at the tip and can have spiny margins or curling, thread-like filaments. Most are greyish-green, sometimes edged with creamy white or yellow.

Agaves need very free-draining, gritty soil, in full sun. They will not grow in shade and dislike overly fertile soil, especially if permanently moist.

Commercially, agaves have long been cultivated for their fibres (sisal) and to make alcoholic drinks, including tequila.

What is my drought-tolerant adaptation?

I'm a dew drainer

My fleshy rosettes of leaves, shade each other and funnel water down to my roots.



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Houseplant Takeover – Deep Sea Dive Plant List

Feature Areas

1. Sea Arch – *Tillandsia* (Feature Plant: *Tillandsia usneiodes*)

Tillandsia usneiodes

Tillandsia butzii

Tillandsia ionantha

Tillandsia cyanea Hybrid

Tillandsia meridonalis

Tillandsia tectorum

Tillandsia ‘Samantha’

Tillandsia albertiana

Tillandsia harrisii

Tillandsia aeranthos

Tillandsia juncea

2. Shipwreck – epiphytic cacti (Feature Plant: *Rhipsalis baccifera*)

Disocactus × *weberocereus*

Hylocereus updatatus ‘Dragon Fruit’

Lepismium ewaldiana

Lepismium marnieranum

Lepismium miyagawae

Pseudorhipsalis ramulosa

Rhipsalis ‘Crispata’

Rhipsalis ‘Red Coral’
Rhipsalis baccifera
Rhipsalis burchellii
Rhipsalis cassutha
Rhipsalis cereuscula
Rhipsalis eliptica
Rhipsalis floccosa
Rhipsalis neves-armondii
Rhipsalis pilocarpa
Rhipsalis pulchra
Rhipsalis teres
Selenicereus grandiflorus ‘Queen of the night’

3. Lighthouse Island – bromeliads (Feature Plant: *Vriesea splendens*)


Aechmea caudata
Aechmea chantinii
Aechmea coelestis
Aechmea fasciata
Aechmea orlandiana
Aechmea recurvata
Aechmea victoriana
Ananas ‘Champaca’
Bilbergia ‘Windii’
Bilbergia horrida ‘Fandango’
Guzmania ‘Variada’
Guzmania ‘Fancy’
Guzmania ‘Mia’
Guzmania ‘Priscilla’
Neoregelia ‘Fuego Ancho’
Neoregelia ‘Midas’
Neoregelia pineliana
Neoregelia spectabilis
Neoregelia tigrina
Vriesea splendens

4. Lighthouse Island – cacti (Feature Plant: *Echinocactus grusonii*)

Astrophytum myriostigma
Astrophytum ornatum var. *mirbella*
Austrocylindropuntia cylindrica ‘Emerald Idol’
Austrocylindropuntia subulata *montrose*
Cephalocereus senilis
Cereus peruvianus ‘Monstrosus’
Cleistocactus winteri
Cleistocactus winteri f. *cristata*
Echinocactus grusonii
Espostoa frutescens
Ferocactus pilosus
Gymnocalycium horstii
Hylocereus undatus
Mammillaria hahniana
Mammillaria painteri ‘Supernova’
Mammillaria plumosa
Melocactus matanzanus
Monvillea spegazzinii f. *cristata*
Opuntia jamaicensis
Opuntia microdasys var. *albispina*
Opuntia polyacantha
Opuntia subulata
Parodia leninghausii
Rebutia albispinus
Rhipsalis ‘Red Coral’
Selenicereus grandiflorus
Sulcorebutia heliosoides

5. Palm island – *Euphorbia* (Feature Plant: *Euphorbia obesa*)

Euphorbia obesa
Euphorbia ingens ‘Marmorata’
Euphorbia suzannae
Euphorbia trigona ‘Rubra’
Euphorbia horrida
Euphorbia mammillaris



Euphorbia milii
Euphorbia tirucali
Euphorbia esculenta
Euphorbia alluaudii
Euphorbia stellata
Euphorbia pteroneura
Euphorbia polycantha
Euphorbia ampliphylla

6. Aloe – Feature Plant: Aloe ‘Lotus Silver’

Aloe ‘Lotus Silver’
Aloe ‘Mint Stripes’
Aloe ‘Piranha’ (Fish Series)
Aloe arborescens
Aloe arencola
Aloe brevifolia
Aloe erinacea
Aloe kedongensis
Aloe paradisiacum
Aloe speciosa
Aloe vera
Kumara plicatilis
× *Gasteraloe* ‘Aveo’

Other plants (not Aloe)

Senecio rowleyanus
Tillandsia usneoides

7. Suspended boat (underneath) – *Sansevieria* (Feature Plant: *Sansevieria trifasciata* ‘Laurentii’)

Sansevieria aubrytiana ‘Dragon’
Sansevieria bacularis ‘Mikado’
Sansevieria boncellensis
Sansevieria cylindrica
Sansevieria grandis

Sansevieria trifasciata ‘Laurentii’
Sansevieria cylindrica ‘Star Canary’
Sansevieria trifasciata ‘Victoria’
Sansevieria zeylanica

Other plants (not *Sanseveria*)

Aspidistra ‘Asahi’
Calanthe oculata (in boat)
Calanthe vestita (in boat)
Cannomois grandis
Crassula ovata ‘Gollum’
Crassula ovata ‘Hummel’s Sunset’
Crassula ovata ‘Variegata’
Echeveria ‘Madiba’
Echeveria pulidonis ‘Magma Pearl’
Elegia capensis
Elegia elephantina
Elegia gigantea
Kalanchoe delagoensis
Restio subverticillatus
Rhipsalis baccifera
Rhodocoma gigantea
Tillandsia meridonalis
Tillandisa usneoides

8. Palm Island – succulents (Feature Plant: *Curio ficoides* ‘Mount Everest’)

Aeonium ‘Mardi Gras’
Avonia papyracea
Crassula ‘Curly Green’
Crassula ‘Garnet Lotus’
Crassula ‘Hottentot’
Crassula falcata
Crassula muscosa
Crassula muscosa f. *variegata*
Crassula plegmatoides

Crassula rupestris
Curio ficoides ‘Mount Everest’
Curio rowleyanus
Echeveria ‘Cubic Frost’
Echeveria ‘Lilacina’
Echeveria ‘Madiba’
Echeveria ‘Maradiba’
Echeveria ‘Mars Galaxy’
Echeveria ‘Neonbreaker’
Echeveria ‘Parva’
Echeveria ‘Pluto Galaxy’
Echeveria ‘Preta’
Echeveria ‘Red Ruby’
Echeveria ‘Strawberry Heart’
Echeveria colorata ‘Brandtii’
Echeveria menina
Echeveria pulidonia ‘Magma Pearl’
Echeveria pulidonis
Kalanchoe ‘Chocolate Soldier’
Kalanchoe ‘Maltese Cross’
Kalanchoe fedtschenkoi
Kalanchoe fedtschenkoi ‘Sport’
Kalanchoe fedtschenkoi variegata
Pachyphytum oviferum
Pleiospilos nelii
Sedum

9. Agave (Feature Plant: Agave ‘Blue Glow’)

Agave ‘Bad Hair Day’
Agave ‘Blue Glow’
Agave ‘Clusterfest’
Agave ‘Lavender Lady’
Agave ‘Mission to Mars’
Agave ‘Snaggletooth’
Agave × *arizonica*

Agave arizonica
Agave attenuata
Agave ‘Blazing Saddles’
Agave franzosinii
Agave geminiflora
Agave ‘Joe Hoak’
Agave lechuguila
Agave lophantha ‘Quadricolor’
Agave macroacantha
Agave ‘Man of Steel’
Agave ‘Moonglow’
Agave nana
Agave ‘Navajo Princess’
Agave ‘Night Owl’
Agave parrasana ‘Fireball’
Agave parryi
Agave ‘Pineapple Express’
Agave potatorum
Agave potatorum ‘Cameron Blue’
Agave potatorum ‘Cubic’
Agave ‘Red Wing’
Agave ‘Silver Fox’
Agave titanota FO-076
Agave ‘Tooth Fairy’
Agave utahensis
Agave victoriae-reginae × *lechuguilla*
Agave weberi

Additional Areas

Sunken Boat

Aeonium ‘Schwartzkopf’
Agave ‘Bad Hair Day’
Agave ‘Catch A Wave’
Agave ‘Moon Glow’
Agave ‘Pineapple Express’


Agave attenuata
Crassula arborescens
Crassula arborescens undulatifolia
Crassula falcata
Crassula ovata ‘Gollum’
Echeveria ‘Black Prince’
Echeveria agavoides
Echeveria pulidonis
Echeveria setosa
Elegia tectorum
Euphorbia ampliphylla
Euphorbia horrida
Euphorbia ingens
Euphorbia ingens ‘Marmorata’
Euphorbia tirucalli
Euphorbia trigona ‘Rubra’
Kalanchoe beharensis ‘Maltese Cross’
Mammillaria karwinskiana ssp. *nejapensis*
Rhipsalis mix
Senecio crassissimus
Senecio herrianus

Palm and Lighthouse islands- Pelargonium

Pelargonium ‘Élegante’
Pelargonium ‘Galilee’
Pelargonium [Happy Face Magenta] ‘Pachafmag’
Pelargonium [Ingres] ‘Guicerdan’
Pelargonium peltatum
Pelargonium ‘Ville de Paris’ Lilac-Flowered
Phoenix roebelenii

Shipwreck Treasure Museum

Agave weberi
Aloe dyeri × *arborescens*
Crassula (various)



Echeveria (various)

Elegia elephantine

Pachypodium lamerei

Tillandsia meridonalis

Sea Creatures

Crassula

Cryptanthus

Echeveria

Lithops

Sedum

Tillandsia

