



## **Kalanchoe Daigremontiana: Properties, Habitat, Properties**

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### **Abstract**

Kalanchoe daigremontiana is a succulent herbaceous plant belonging to the family Crassiolaceae, native to the barren and mountainous regions southwest of Madagascar. It is characterized by the formation of pseudo bulbs along the margins of broad succulent leaves, which, when separated, give rise to a new individual. Known as Aranto, the devil's spine, clanchoe, Mexican klanchoe, evil mother, mother of thousands, crocodile plant or azure, it is a plant that is considered offensive. In fact, its high colonial potential has invaded Zerofiles areas in countries such as the United States, Venezuela, Puerto Rico, Spain, South Africa, or Australia. This species is widely used as a medicinal plant due to its medicinal properties. In fact, it has been shown to contain ingredients that may be helpful in cancer, but it is not yet possible to synthesize them so that they can find a suitable drug for consumption. On the other hand, it contains catalytic enzymes that act as cell tissue regenerators, which also strengthen the immune system. Similarly, it contains vitamins and minerals, which are favorable for its use in medicine or as a raw material in cosmetology. However, one should be very careful about

## Kalanchoe Daigremontiana: Properties, Habitat, Properties

its consumption and diet, as it contains glycosidic aglycones and steroids which are toxic to the body. In fact, these compounds combine with carbohydrates to form cardiac glycosides that can cause nausea, vomiting, and a decrease in heart rate.

**Key Words:** Kalanchoe Daigremontiana, Properties, Habitat, Properties

### **Introduction**

Kalanchoe daigremontiana is a monocarpic succulent herbaceous plant with simple, erect or deciduous stems, up to 1 m long. Under certain conditions, the roots of the background grow from the stem, creating new basic stems that will later establish themselves as independent plants. Opposite the lanceolate shape, the succulent leaves are 4-6 cm wide and 12-20 cm long. They are usually dark green, pink, green, purple-green with numerous reddish-brown spots, patelled and occasionally pale. The margins of the leaves are affixed with numerous axillary bubbles, from which new anarchy shoots sprout forth. Kalanchoe is a self-transforming species that produces large numbers of seeds, yet it is reproduced from plants by plant starch.

Flowering occurs occasionally, at which point the plant quickly grows to an average of 30 cm in order to flower. This terminal inflorescence presents small bell-shaped flowers of pink heads from which black ovoid seeds emerge.

### **Chemical compound**

Chemical analysis of kalanchoe has reported the presence of various chemical compounds, most notably fatty acids and carbohydrates. Also carotenoids, phospholipids, triacylglycerol, flavonoids, sterols, amino acids, phenolic compounds and certain triterpenoids such as bifadinuloids.

In fact, bofadeniolides are cardioactive steroids that have been known since ancient times because of their cytotoxic effects on different types of cancer cells. In addition, three types of anthocyanins have been identified, E23 (cyanidin 3-O-glucoside), E24 (delphinin 3-O-glucoside) and E25 (perlargonidin 3-O-glucoside).

### **Classification**

- Kingdom: Plantae

- Division: Magnoliyeva
- Class: Magnolipsida
- Subclass: Rosada
- Order: Sexifragles
- Family: Chrysolasia
- Subfamily: Kalanchoideae
- Gender: Kalanchoe
- Species: Klanchoe daigremontiana Rem - Hamit & H. Pierre 1934

### **Harmony**

- Brifilm Digrimontanium (Rem. Hemat & E. Pierre) Berger

### **Ancestry**

- Kalanchoe: The common name comes from the Chinese expression "Kalanchoe" means "it falls and grows", related to its reproductive capacity. Other authors have linked it to the Hindu word tolanka "what does it mean" stain or rust.
- daigremontiana: A specific prescription that refers to a type of bofadeniold.

### **Accommodation and distribution**

Klanchoe daigremontiana is a native of the Andranolava Mountains, southwest of Madagascar, and the blue of the Firiana River. It is currently an introduced species in tropical and subtropical environments around the world.

It is located off the coast of South Florida and Texas, Puerto Rico and some islands in the Pacific Ocean. Indeed, in the Galapagos Islands, the Marshall Islands, the Fiji Islands, New, New Caledonia as well as the Canary Islands.

In addition, it is found in forests in parts of Africa and South Africa. Similarly, it is common in the regions of Australia, New Zealand, China, India and Pakistan, Queensland and New South Wales.

In the United States, it has been described as an exotic species in Bolivia, Ecuador, Venezuela, Colombia, Nicaragua, Costa Rica, Guatemala, and Mexico. Their preferred habitat is in rocky sites, roadside cliffs, mesophilic

## Kalanchoe Daigremontiana: Properties, Habitat, Properties

forests and from surface to surface. Evergreen forests at an altitude of 1,500 meters below sea level.

This species adapts to pleasant and dry environment due to its satisfactory consistency and characteristic of CAM mechanism of awkward plants. Therefore, these plants thrive in desert environments, zerofiles and thorny shrubs, dry and disturbed forests, meadows, and intertwined areas.

### **Culture**

#### **needs**

Kalanchoe is a complex plant with a wide range of adaptations, taking into account conditions such as sun exposure throughout the environment, such as suspicious environments. However, it thrives effectively in high light intensity and hot environments, as it does not tolerate cold and frost.

In fact, this species is quite resistant to drought, as it has the ability to retain moisture in its succulent leaves. Furthermore, under adverse conditions, the acid metabolism of Crosolisi (CAM) works, minimizing photo-storage, saving water and restricting their growth.

However, in the case of potted plants, it is advisable to keep watering constantly, preventing the subsoil from drying out for a long time. The most important thing is to use an unsafe substrate that has a lot of sand content, but fine particles that retain moisture longer.

#### **Spread out**

Klanchoe daigremontiana It produces pseudobulbs or small plants on the edges of the leaves; In fact, the pseudobulb is a two-leaf primordia and a small, controversial stem that takes root. The easiest way to propagate this species is to collect small twigs or sprouts from the leaves. Later they are placed in a shallow vessel with fresh and well-drained soil, it is not necessary to bury them, just arrange them on the surface. It is recommended to cover the vessel with plastic material to keep it in indirect light and also to maintain temperature and humidity conditions. Under this environment and

maintaining the moisture of the substrate, growth of new roots is observed before 30 days.

Once the sprouts have formed new leaves and become mature and strong, grafting can be done in individual containers.

The calanchoe plant requires minimal maintenance, as it is a rustic species that adapts to a variety of environmental conditions. In fact, as a wild plant or under cultivation, it adapts to hot and dry environments with average temperatures between 20-30 C, not less than 10 ° C.

It grows on loose, well-drained soil, preferably a mixture of moss and peat in equal parts for two parts of sand and soil. Due to its rapid growth, it is recommended to re-employ during the spring to prevent the plants from falling due to the weight of the terminal leaves.

Irrigation is applied only when dry substrate is observed, applied directly to the substrate, does not wet the vegetation area. This way the juicy leaves are prevented from rotting. Water is occasionally watered during the winter.

The incidence of pests and disease is very low in Kalachakra, which is a common occurrence of scabies, aphids or scales. It is controlled mechanically, kills pests directly, or has severely inflamed leaves to prevent the spread of inflammation.

Rehabilitation pruning is recommended to stop the growth of the terminal, remove old leaves and flowers, as well as diseased leaves. This plant restricts the development of other species around it in wild conditions, but it is advisable to remove weeds in pots.

### **Properties**

Its biological activity is based on the presence of various secondary metabolites, including flavonoids, fatty acids, tannins and polysaccharides. Similarly, in addition to vitamin C and bioflavonoids or vitamin P, dehydrogenase and carboxigen enzymes, salts and minerals such as L, C, K, F, C and Mn.

In fact, compounds such as flavonoid glycosides have antiseptic and choleric effects, in favor of eliminating toxic agents from the body. Vitamin

## Kalanchoe Daigremontiana: Properties, Habitat, Properties

C interferes with the oxidation process and increases resistance to infectious conditions, and bioflavonoids guarantee blood circulation.

Tannins provide anti-inflammatory properties, limit the development of inflammation, and kill germicidal microorganisms. In addition, it works in a hemostatic manner, healing the wounds of tissue wounds. Enzymes, on the other hand, act as catalysts in metabolic mechanisms.

### ***Mockery and ointment***

In Artificial Medicine, Klitschko has traditionally been used in general or orally to treat various diseases and conditions. In fact, it acts as an anti-inflammatory to heal external wounds and inflammation of internal organs.

In addition, it prevents cold-related conditions and is used to treat symptomatic flu. The young leaf duct is used to prevent sores and blood swelling, even severe pain.

Similarly, it is used to relieve toothache, to treat mastitis, and to relieve inflammation of the perineum or nail bed. It is also used to apply ointment to wounds caused by burns, colds, sores or runny noses.

As usual On the other hand, one of the main beneficial effects of Kalanchoe is rapid epithelialization of damaged or ulcerated tissue. Indeed, it has the ability to recreate the surface of the skin or the caterpillar.

### **Infusion and decoction**

One of the traditional forms of consumption is infusion or decoction of the leaves, which is widely used in the alternative treatment of various diseases.

Similarly, it is used to treat rheumatic problems, hypertension disorders, kidney pain and diarrhea. Such as infusion heals infections, deep wounds, gangrene, ulcers and abscesses. Also psychological crises such as schizophrenia, anxiety, fear or nervous breakdown.

There is evidence that calendula extract has antioxidant, antimicrobial, cytotoxic and sedative activity. Similarly, it has been studied that it may have antihistamine, anti-leishmaniasis, anti-tumor and anti-cancer effects.

On the other hand, it has the property of healing damage to various organs, such as the lungs, the urogenital system and the digestive system. Kidney and

circulatory system problems, as well as conditions of the uterus, breasts or its development.

Kalanchoe has cholesterol action, regulates gallbladder activity and lowers blood cholesterol levels. In addition to effectively healing changes in the mucous membranes caused by internal inflammatory processes in the intestines, stomach or other active organs.

### **Psychology**

As a medicinal plant, it is recommended to boil the first cut leaves in fresh water and eat it thrice a day. In addition, it can be used as a poultice, plaster or compress on external inflammation or wounds. The leaves are also eaten in salads.

### **Contradictions**

Cultivation and consumption of *kalanchoe daigremontiana* is harmful to the environment and the person who eats it. Adverse effects include allopathy and hostility to other species, as well as allergic reactions or poisoning.

Indeed, at an ecological level, the high incidence of *Kalanchoe* in an ecosystem monopolizes resources and creates extreme sensitivity in other species. Its presence makes it habitable, affects nutrients, creates monotony, reduces natural biodiversity, and ultimately invades the environment.

Naturally, it is a poisonous plant for animals or children who mistakenly use it due to the presence of cardiac glycosides. On the other hand, used as a natural alternative to treat various ailments, can cause toxic symptoms when the recommended doses are exceeded.

Despite reports of numerous medicinal benefits, its use in children, pregnant women and nursing mothers is limited. Furthermore, if medical treatment for any disease is maintained, a doctor should be consulted to rule out possible interactions.

In patients with allergic conditions to certain substances such as sterols, phenols or flavonoids, it can cause irritation in case of topical applications. Recent studies have not reported any side effects, however, as with any pharmaceutical product, its dosage should be reported to the doctor.

## Kalanchoe Daigremontiana: Properties, Habitat, Properties

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