**Croton lechleri** (syn Croton draco)

**Family:** Euphorbiaceae

Names: Sangre de draco, sangre de drago, sangre de grado, drago, sangue de drago, sangue de agua

**Description:** Croton lechleri is a medium-sized to large tree that grows from 33–66 feet high found in many regions of South America. The trunk is usually less than 12 inches in diameter and is covered by smooth, mottled bark. It has large, heart-shaped, bright-green leaves and unique, greenish-white flowers on long stalks. The tree’s red sap or latex gives it the name dragon’s blood.

**Cultivation:** The seedlings are very delicate and frequently die or succumb to grasshoppers. Once the tree is established, it grows quickly, and can become a large tree. The canopy is broad but light, allowing sunlight to filter through it down to crops below. The tree requires fertile soil, and will not tolerate flooding. If properly spaced (at least 10 meters apart), it can be interplanted with many tree crops, especially smaller trees. The tree is highly coveted for its resin. It is common in some parts of the region (such as the Nanay), but entirely absent in others. In fields it is vulnerable to leaf-cutter ants, and often colonized by other species of ants.

**History:** As early as the 1600s, Bernabe Cobo, a Spanish naturalist, wrote about Dragon’s Blood and its healing power. Throughout Latin America it has been listed as a cure for cancer and infections.

**Properties:** antifungal, antiseptic, antiviral, antihemorrhagic; anesthetic, anti-allergic, anti-inflammatory, antibacterial, antidisenteric, antileukemic, antioxidant, antitumorous, neurasthenic

**Constituents:** Alkaloids including taspine, Sinoacutine, glauicine, isoboldine, thaliporphine; proanthocyanidin oligomers; flavonols including Procynidins B1 and B4; Diterpenes: bincatriol, crolechinol, crolechinic acid, hardwickiic acid, and koberins A and B; Steroids: beta-sitosterol and beta-sitostenine; a mixture of Proanthocyanidin oligomers has been isolated from the sap of C. lechleri and is known as SP-303

**Medicinal Uses:** Dragon’s Blood has been used in traditional medicine for diarrhea and wound healing. It has also been used to ease pain and relieve gastrointestinal distress. The sap dries quickly and forms a barrier, much like a "second skin."

Dragon's blood also important in gastrointestinal health. Practitioners are reporting it beneficial for stomach ulcers, ulcerative colitis, and Crohn's disease when taken internally. Preparations made from dragon's blood are found in several pharmaceutical products, some
of them patented. The U.S. Food and Drug Administration approved Fulyzaq (crofelemer) to relieve symptoms of diarrhea in HIV/AIDS patients taking antiretroviral therapy, a combination of medicines used to treat HIV infection.

**TCM:** Croton oil has been used in Chinese medicine to treat severe constipation since its seed can cause diarrhea.

**Dosage:** The traditional dose of latex is 5–10 drops applied topically over lesions or mixed in water, juice, milk, or alcohol and ingested 1 to 3 times a day for up to 3 weeks.

**Research:** In vitro and animal studies show that it can promote the healing of gastric ulcers, and inhibit cutaneous neurogenic inflammation. A proanthocyanidin oligomer isolated from the latex of *Croton lechleri* has shown benefits in the treatment of traveler diarrhea, and diarrhea experienced by AIDS patients. A similar product crofelemer is approved by the FDA as a prescription drug to relieve diarrhea associated with antiretroviral therapy in HIV/AIDS patients.

**Toxicity:** The resin will temporarily stain the skin a reddish-brown, which will wash off, but it will permanently stain clothing. No contraindications or drug interactions reported.

**References:**
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