

***Pluchea carolinensis* (Jacq.) G. Don**  
ASTERACEAE

cure-for-all

Synonyms: *Conyza symphytofolia* sensu Gillis  
*Pluchea odorata* authors, non *P. odorata* (L.) Cass.  
*Conyza carolinensis* Jacq.  
*Conyza coresii* Kunth  
*Pluchea cortesii* (Kunth) DC.



**General Description.**—Cure-for-all, also known as soubush, sweetscent, wild tobacco, cattle tongue, salvia, sauge rouge, guerit-tout, tabak djab, zówèy mouten, is a shrub 1 to 3 m in height and up to 6 cm in basal stem diameter. Stem wood is moderately soft and brittle. Older plants are supported by many flexible, lateral roots and may be sparsely branched to somewhat branchy. The twigs are stout. The foliage is concentrated on the branch ends. Leaves have petioles 1 to 3 cm long, and ovate to elliptic blades 6 to 20 cm long with rounded bases, pointed ends, usually entire edges, upper surfaces glabrate to densely pubescent, and lower surfaces velvety-pubescent. The terminal inflorescences are broadly rounded corymbose panicles of heads of over 500 flowers each. The corollas are usually pink, but vary from light purple to white. The achenes are brown, 0.6 to 0.8

mm long, and have a pappus of 10 to 15 yellowish-white bristles. Chromosome number is  $2n = 20$  (author's observation, Howard 1989, Liogier 1997, Long and Lakela 1976, Stevens and others 2001)

**Range.**—Cure-for-all is native to Florida, Bermuda, the Bahamas, the West Indies, Mexico, Central America, and Colombia, Venezuela, and Ecuador in South America (Stevens and others 2001, Natural Resources Conservation Service 2002). The species has naturalized in Hawaii, Guam and other Pacific Islands, Taiwan, West Africa, and probably in many other places in the tropics (Peng and others 1998, Pacific Islands Ecosystems at Risk 2002, Stevens and others 2001).

**Ecology.**—Cure-for-all is adapted to a wide variety of soils and sites. It tolerates excessively-well to poorly-drained soils, the full range of soil textures, acid and alkaline reactions, salt and salt spray, and compaction. A minimum of about 1000 mm of mean annual precipitation is required in upland sites, but it grows in much drier climates along streams and near mangroves and marshes. Cure-for-all may be found from near sea level to 1,000 m in elevation in Hawaii (University of Hawaii Botany 2002). The species is intolerant and cannot endure overhead shade or severe competition from brush or grass. It is common in disturbed areas such as construction sites, riverbanks, the margins of hammocks, road cuts and fill, vacant lots, eroded sites, landslides, burned areas, and abandoned fields. In Hawaii, cure-for-all quickly invades burned areas, but being early successional, is soon replaced by other species (Smith and Tunison 1992). Plants sprout after fires if they are not too intense (University of Hawaii Botany 2002).

**Reproduction.**—Cure-for-all blooms in spring and summer in Florida (Long and Lakela 1976) and produces seeds prolifically. A collection of

seeds from Puerto Rico weighed an average of 0.000025 g/seed or 40 million seeds/kg. Because the seeds failed to germinate on moist filter paper, it is not known whether this represents a reasonable estimate for the species (author's observation). The seeds are wind-dispersed and probably require wet, bare soil to germinate and establish themselves.

**Growth and Management.**—In Puerto Rico, most cure-for-all live for 2 to 4 years before dying or dying back to the root and resprouting. Sprouts grow about 1.5 m in the first year. Establishment of new plants can probably be assured by scarifying the soil before the wet season in the presence of a seed source. Where it is necessary to eliminate cure-for-all, grubbing out the plants or spraying with broadleaf herbicides is recommended until tested treatments are available. A seed insect, *Acinia picturata* (Diptera: Tephritidae), was introduced in Hawaii and although now well established, has had no significant effect on the shrub (Alyokhin and others 2001).

**Benefits.**—Cure-for-all has an excellent ability to colonize and stabilize disturbed areas and act as a nurse crop for later-successional species. Although not specifically reported, as other members of the family, it probably provides a source of nectar and pollen for honeybees and other insects. It has several herbal applications including aromatic baths, control of fever, treatment of uterine fibroids, relief of sore throat and stomach pain, poultices for wounds and skin ulcers, as an analgesic, and for the treatment of malaria (Balick and others 2000, Liogier 1990, Vélez and van Overbeek 1950). Analgesic and antiinflammatory effects have been demonstrated in laboratory trials with rats (Gavilán-Yodú and Hechavarría 2002).

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