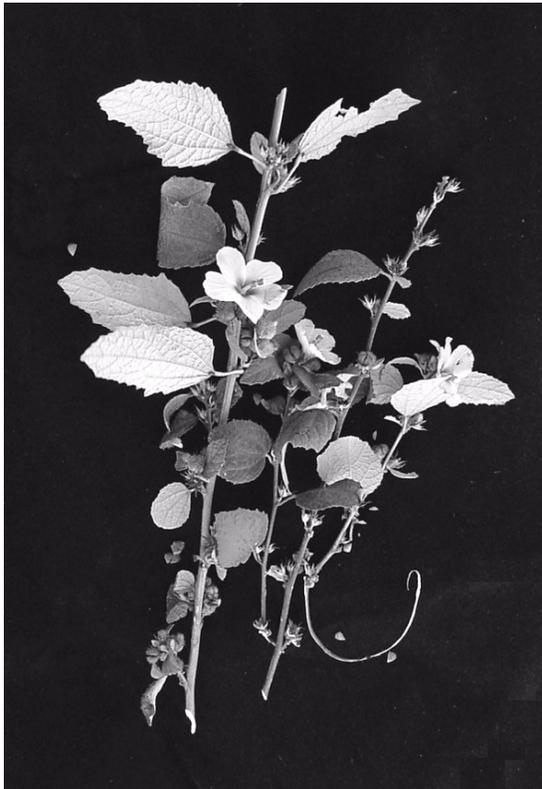


*Urena lobata* L.  
MALVACEAE

Caesar weed

Synonyms: *Urena americana* L. f.  
*Urena grandiflora* DC.  
*Urena trilobata* Vell.  
*Urena lobata* L.  
*Urena diversifolia* Schumach.  
(and others: Institute of Systematic Botany 2003).



**General Description.**—Caesar weed is also known as hibiscus bur, aramina, pink Chinese burr, bur mallow, grand cousin, cadillo, carrapicho do mata, malva, mahot cousin, cousin petit, cousin rouge, jut africain, cooze mahot, dadangsi, and mautofu. It is a subshrub 0.6 to 3 m in height and up to 7 cm in basal diameter. The species usually has a single stem emerging from the ground but normally produces several stems or major branches low on the stem and many branches throughout. The nearly smooth bark is tough and fibrous, brown on the outside and green within. Its pale yellow wood is of medium density. Plants are supported by a tap and lateral root system of tan or ivory-colored, tough and flexible roots. Grayish-green, discolorous, alternate leaves are stellate-

pubescent both above and below, ovate, angulate or shallowly lobbed, 1 to 12 by 1 to 12 cm, and have serrate margins. Axillary flowers are usually solitary and have five pink petals. The flowers are about 1 cm broad. The fruits are 8- to 10-mm globose capsules that break into five fine-barbed (glochidate) mericarps. (Howard 1989, Liogier 1994, Stevens and others 2001)

**Range.**—The original range of Caesar weed is probably Asiatic. Today it grows throughout moist tropic and subtropical regions including American Samoa, Florida, Guam, Hawaii, Louisiana, Puerto Rico, and the U.S. Virgin Islands (Natural Resources Conservation Service 2003, Pacific Island Ecosystems at Risk 2003).

**Ecology.**—Caesar weed readily invades disturbed areas, especially poorly managed pastures, scarified and eroded areas, and perennial crop plantations but is much less of a problem in annual crops. The species does not compete well in tall grass swards and brushlands and does not grow under forest canopies. Caesar weed grows on a wide variety of soils of varying fertility derived from most parent materials. It tolerates salt spray and a moderate amount of salt in the soil but does not grow in saturated soils. The species ranges to elevations of 1,500 m (Pacific Island Ecosystems at Risk 2003). In Puerto Rico, it occurs in areas that receive from about 1400 to 3000 mm of mean annual precipitation, forming thickets in favorable sites.

**Reproduction.**—Caesar weed flowers and fruits throughout the year (Stevens and others 2001). A collection of seeds from Puerto Rico averaged  $0.0239 \pm 0.0003$  or 41,800 seeds/kg. Placed on moist blotter paper without pretreatment, just 3 percent germinated in 9 months. Germination is epigeal (author's observation). Sulfuric acid scarification was tested as a means of breaking dormancy of seed from Sierra Leone. The best

treatment (18 molar solution for 90 minutes) gave 96 percent germination as compared with distilled water that gave 4 percent germination (Harris 1986). Seeds are dispersed by clinging to fur and clothing. Seedlings are common in disturbed sites near seed sources.

**Growth and Management.**—Caesar weed grows rapidly and can reach 0.5 to 2 m by the end of the first year. In Puerto Rico, it can live 2 years, usually dying back to midheight after the first growing season. It is not known whether the shrubs sprout from the roots multiple times. A fiber crop yielding 1,800 kg/ha is ready to harvest after 6 to 7 months and seed crops of 300 to 500 kg/ha are ready after 7 or 8 months (Fagundes 2003). Fiber crops are established with seed. Because of the aggressive nature of the species, wildland plantings are not recommended. The author knows of no published specific control measures.

**Benefits and Detriments.**—Caesar weed colonizes disturbed areas and helps to protect the soil while furnishing cover for wildlife. It has attractive flowers and contributes to aesthetics of areas it has colonized. Tens of thousands of tons of a jute-like fiber from Caesar weed called aramina fiber and Congo jute are produced in Brazil (Fagundes 2003) and Africa (Câmara de Comércio e Indústria Portugal-Angola 2003). Various extracts of leaves and roots are used in herbal medicine to treat such diverse ailments as colic, malaria, gonorrhoea, fever, wounds, toothache, and rheumatism (Forest Research Institute of Malaysia 2003). A semipurified glycoside obtained from Caesar weed leaves was 86 percent as effective an anti-inflammatory as aspirin in rats (Bautista 2000). The leaves and flowers are eaten as famine food in Africa (Freedman 1998). Raw leaves are reported to contain 81.8 percent moisture, 54 cal, 3.2 g of protein, 0.1 g fat, 12.8 g carbohydrates, 1.8 g fiber, and 2.1 g ash, 558 mg calcium, and 67 mg of phosphorous per 100 g (FAO 2003). However, the plant is little browsed by cattle and can become a severe weed in pastures and plantations. Burs that collect on clothing and in animal fur are a nuisance.

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John K. Francis, Research Forester, U.S. Department of Agriculture, Forest Service, International Institute of Tropical Forestry, Jardín Botánico Sur, 1201 Calle Ceiba, San Juan PR 00926-1119, in cooperation with the University of Puerto Rico, Río Piedras, PR 00936-4984