

***Desmanthus virgatus* (L.) Willd.**
FABACEAE

wild-tantan

Synonyms: *Mimosa virgata* L.
Acuan virgatum (L.) Medikus
Acuan guadeloupense Britton & Rose
Desmanthus depressus Humb. & Willd.



General Description.—Wild-tantan, also called prostrate bundleflower, dwarf koa, desmanthus, desmanto, acacia courant, acacia savane, and pompon blank, is a suffruticose shrub or perennial woody herb that reaches 0.5 to 2 m in height and 3 to 10 mm in basal diameter. The plant is supported by a deep woody taproot and descending laterals. Each dry season, wild-tantan dies back to the root crown or lower stems and grows anew when the rains return. The stems and branches are semi-woody to woody, pithy in the center, angular, slender, green turning brown, and erect or semiprostrate. There may be as many as 50 stems, depending on the age, vigor, and disturbance history of the plant. The 2- to 8-cm leaves have a short petiole, less than seven pinnae, 10 to 25 pairs

of leaflets per pinnae that are linear-oblong and 4 to 9 mm long. The flowers occur in axillary heads with peduncles 2 to 7.5 cm long. The petals are white or creamy yellow. The pod, a legume, is linear, 50 to 90 mm long, 3 to 4 mm broad, reddish-brown, and contains 20 to 30 seeds (Howard 1988, Liogier 1988, Skerman and others 1988). There are $2n = 28$ chromosomes (Long and Lakela 1976).

Range.—Wild-tantan is native to the Greater and Lesser Antilles, Trinidad and Tobago, from Texas to Argentina, and the Galapagos Islands (Liogier 1988, Howard 1988, Skerman and others 1988). It has naturalized in Florida and Hawaii (Institute of Systematic Botany 2002, Neal 1965). The species has been planted throughout the tropics and subtropics and has probably naturalized in many other areas.

Ecology.—Wild-tantan grows well in deep, well- to moderately well-drained silts, clays, loams, and sands with pH's from about 5 to about 8, formed over both igneous and sedimentary rocks. It is seldom seen in shallow, rocky sites. The species is recommended for planting in Australia in areas receiving from 550 to 750 mm of mean annual precipitation (Department of Primary Industries 2002) and grows naturally in Puerto Rico in areas that receive from 750 to about 1600 mm of mean annual precipitation. Wild tantan tolerates seasonal drought without difficulty. The species grows from near sea level up to 300 m in elevation (Skerman and others 1988). Wild-tantan is intolerant of shade. It tolerates severe competition from grass and herbs but disappears when overtopped by trees. The species is usually more or less evenly dispersed in stands of grass and herbs, often at 1 or 2 per square meter. Although plants are killed to the ground by heavy frost, they regrow from the root crown (Forlin and others 2000). It withstands heavy grazing pressure and recovers well from fire.

Reproduction.—Wild-tantan blooms at the end of

the wet season, and fruits mature about 1 month later. Seeds collected in Puerto Rico weighed an average of 0.0041 ± 0.0005 g/seed or 244,000 seeds/kg. Placed to germinate on moist filter paper, only 28 percent germinated in 1 year. The remaining seeds were scarified (by nicking) and 100 percent germinated starting in 2 days (author's observation). In nature, scarification occurs by weathering of the seed coat in the soil or while passing through an herbivore. Artificial scarification by treatment with concentrated sulfuric acid for 8 minutes is recommended (Skerman and others 1988). The seeds are dispersed by ruminant animals. Many seedlings spring up under favorable conditions in natural stand, but few survive. The species can be propagated by rooting hormone-treated leaves (Forlin and others 2000).

Growth and Management.—Wild-tantan normally grows from 0.5 to 1.5 m/year in height. After establishment, the root crown gradually increases in size until it reaches 15 cm across in 3 years. Plantations are established by sowing 2 kg of scarified seed per hectare into well-prepared seedbeds at a depth of 1 to 1.5 cm. Plantations can be cut for feed 4 times/year and yield 35 tons/ha/year of dry matter. There is little mortality up to at least the fourth year (Skerman and others 1988).

Benefits.—Wild-tantan is planted throughout the tropics as a forage and hay crop and is appreciated as a forage in range land. The forage is nontoxic and palatable to cattle and other ruminants. It is a favorite of white-tailed deer in southern Texas (Soltero-Gardea and others 1994). Crude protein content of whole plants from plantations ranges from 10.5 to 15.5 percent, the leaves having 22.4 percent and the stems 7.1 percent (Skerman and others 1988). Wild-tantan is planted as a hedge-row plant in the alley cropping system on steep land in the Philippines (Labios and others 1994). It has been shown to be an efficient nursery-stage host for sandalwood (*Santalum album* L.) (Fox and others 1996). The species can become a serious weed in sugar cane fields (Neal 1965).

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