# Spanish Needles (*Bidens pilosa* L.) as a Wild Food Resource[1]

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*Spanish needles* (Bidens pilosa *L.) is a common and pestiferous weed in nearly all tropical and subtropical areas. While it is primarily regarded as a subject for eradication, it has usefulness as a cover crop and fodder and source of nectar for honeybees. It is employed to some extent in native medicine and as food. Culinary trials of* B. pilosa *var.* radiata *in South Florida indicate that the young shoots of this and other varieties might well be more widely eaten as cooked greens.*

A prominent member of the Compositae, *Bidens pilosa* L. (Fig. 1), is known by many vernacular names including Spanish needles, shepherds needles, beggarticks, sticktights, black jack, black fellows, railway daisy, aceitilla and mozote. It is native to tropical America but widely naturalized and, in nearly all subtropical and tropical areas (30), ranks as the most common and conspicuous weed (11) and also as one of the most pestiferous.

It is an erect, branching herb, 2 to 5 feet high, with quadrangular, minutely hairy, stems. The leaves are opposite, toothed; 1½ to 3 inches long; simple and ovate, or compound with three to five, or even seven, lanceolate leaflets. The heads of deep-yellow disk florets may be rayless or encircled by five to eight white rays providing a diameter of ¾ to 1 inch and the pleasant aspect of daisies; but the continuous, year-around blooms are followed by the hated, needle-like, black achenes, ¼ to ½ inch long, tipped with two to five barbed awns which adhere to animal fur and clothing. E. E. Sherff (33) describes nine forms and varieties of *B. pilosa,* some always, some occasionally, rayless. The seeds germinate readily. There may be four or five generations within a year. Each plant bears 80 to 100 flower heads with a potential production of 3,000 plants in a single generation (30).

Most of the literature concerning *Bidens pilosa* is devoted to its eradication, chemically and otherwise (24, 27, 30). L. H. Bailey's statement that it is sometimes grown in botanic gardens (2) seems anticlimactic. Where this species occurs profusely in plantations of low-growing, smotherable crops, such as pineapple or young sugarcane, control is necessary (11). In fruit-tree orchards or groves, while it is never deliberately planted, it may be allowed to remain as a cover crop (Fig. 2), subject to mowing as green manure and having the advantage of decaying rapidly (14, 32).

Like its northern counterpart, *B. bipinnata* L., with which it shares the first two of the common names cited, it has value as a source of nectar for honeybees (23, 27, 38). It is also useful as fodder (7, 28, 41). Cattle are not partial to it in grazing (11) but consume it cut as feed (40). W. L. Barnett says it is "greedily eaten by horses and acts as a pick-me-up for horses off condition" (3). DeWildeman* recommended this forage especially for horses with intestinal parasites (33). The mature plants are apparently slightly purgative (3). Fresh plants placed in chicken pens are quickly stripped of leaves and flowers and are preferred by the poultry to other greens. Rabbit-keepers feed the young growth to their caged animals.

## Medicinal Uses

Three North American species of *Bidens, B. bipinnata* L., *B. frondosa* L., and *B. connata* Muhl., are featured in King's American Eclectic Dispensatory (1855). Similarly, *B. pilosa,* though included as official in the Dutch Colonial Pharmacopoeia (6) only by confusion with another plant (7),

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*Pl. Util. Inter. 556-557. 1903; from footnote in Sherff, *The Genus Bidens,* p. 420.

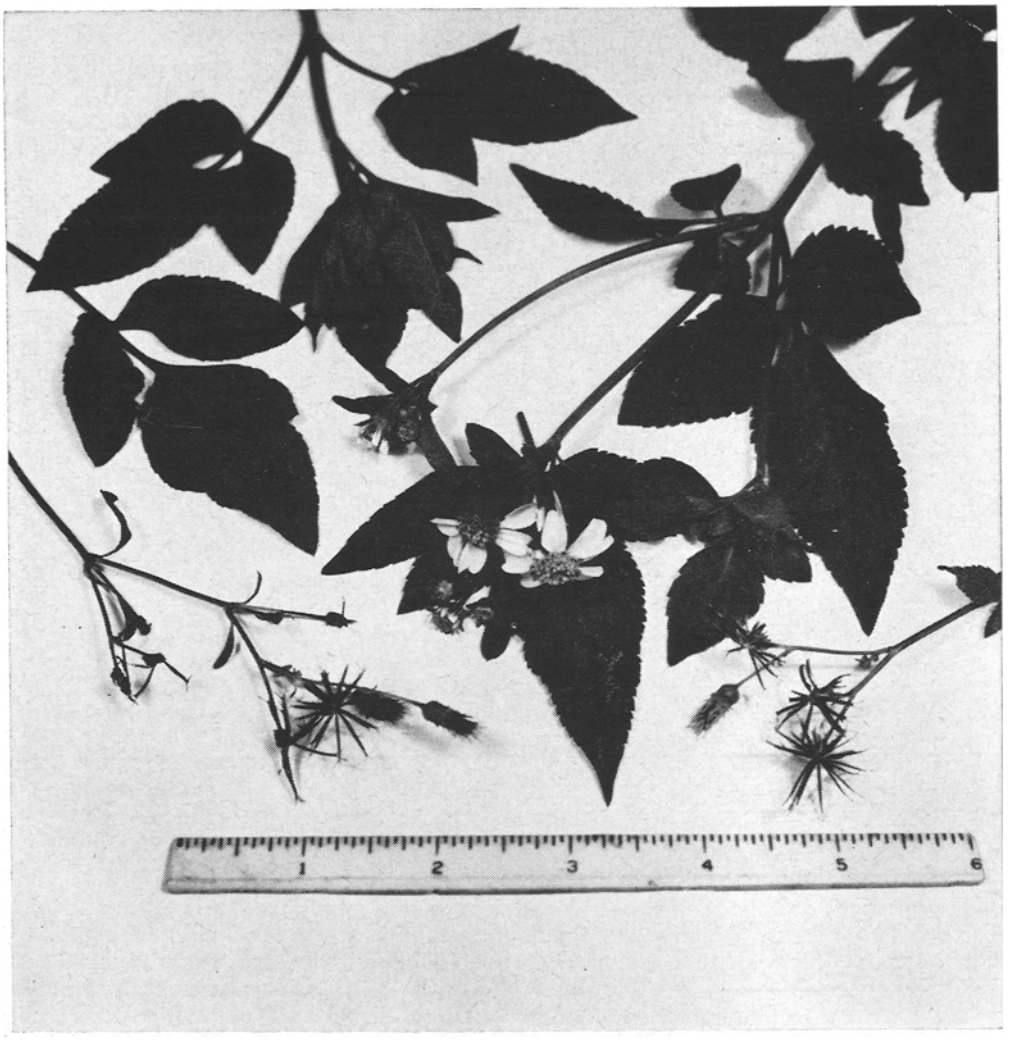


Fig 1. Spanish needles (*Bidens pilosa* var. *radiata* Schz. Bip. (syn. *B. leucantha* Willd.) has opposite leaves which may be simple or compound with 3 to 7 divisions. The annoying, needle-like achenes, tipped with barbed awns, stick to animal fur and clothing.

is resorted to in folk medicine wherever it grows. The heated or crushed leaves are applied as a poultice on wounds and boils (7). The warmed juice is dropped in the ear for earache and is said to act as a styptic, halting the flow of blood from a cut (10, 12). The leaf juice, with or without alum or lime juice, is used in treating eye complaints, as is an infusion of the root. For toothache, the leaves are rubbed on the gums, or a tincture of the flower heads is applied. An infusion of the plant is taken for coughs and colic (39) and the juice as an antidote for poison (7). In abdominal distress, the powdered leaves are employed in enemas while the burnt seeds are rubbed into external incisions (39). The flowers are believed to allay diarrhea, and chewing the shoots or drinking a decoction of the leaves is thought to relieve rheumatism (39) and angina (31). In Florida, some take an infusion for arthritis. In Mexico, the plant was recorded as a curative agent even before mention by Xímenez in 1615; it was included