

Blackjack is susceptible to fungus diseases, which should be controlled with systemic fungicides. The treatment should be done when no flowering is taking place in the garden.

### Harvesting methods

Harvesting is done by hand picking, cutting and uprooting.

### Uses

The tender leaves and young shoots are used as a leaf vegetable. Sundried powdered leaves are preserved to be used during dry seasons or winter. Old leaves are not suitable for consumption because they have a bitter, astringent taste.

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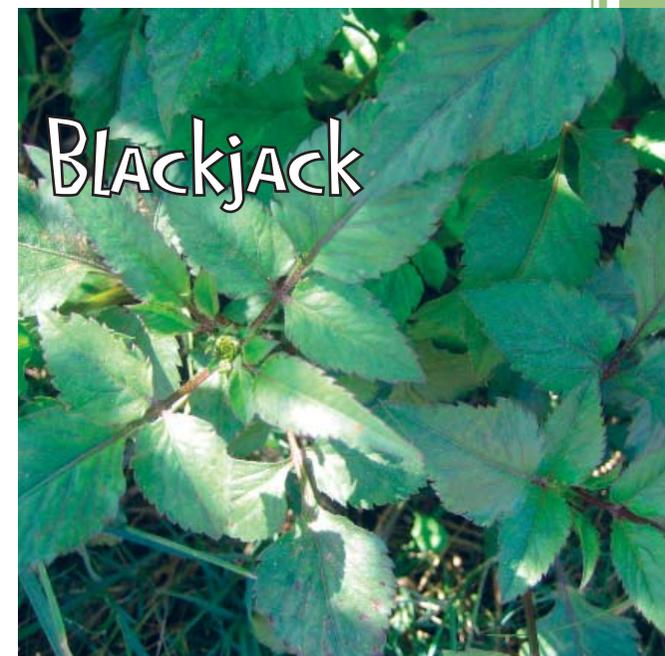
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Scientific name: *Bidens pilosa* L.

Family: Asteraceae

Common names: Blackjack, knapsekêrel,  
Umhlabangubo, Uqadolo, Mushiji,  
Mokolonyane, Muchize



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## Origin and distribution

Blackjack is reported to have originated in South America. It was distributed throughout the tropics in Africa.

## Production areas in South Africa

Blackjack is growing naturally in homestead gardens in KwaZulu-Natal, Limpopo and some parts of Mpumalanga.

## Description

It is an erect, slender, branching, annual herb, growing up to 100 to 150 cm in height.

### *Stem*

The stem is erect, ramified, square and hairless and grows up to 120 cm tall. It has spreading branches, as the season progresses. The major branches tend to be sprawling and root at the lower nodes where they touch the ground.

### *Leaves*

The leaves are opposite and are divided into 3 to 5 leaflets with toothed margins. The terminal and lateral leaflets are ovate to lanceolate shaped. Leaf stalks are very slightly winged.

### *Flowers*

The flowers are small, white and yellow in colour and are 5 to 15 mm in diameter. They are borne on long, slender stalks at the end of the stems. Each flower head has 4 or 5 short, broad, white petals with numerous, yellow disc florets.

### *Fruit*

The fruit of the blackjack is unpleasant, hairy and able to penetrate rapidly through several layers of clothing. It has a dry, pronged fruitlet with hooks.

### *Seeds*

Seeds are small, black and slender with little claws on one end. The seeds are 4 angled, 6 to 12 mm long with 2 or 3 barbed awns (stiff bristles).



## Climate and soil requirements

### *Temperature*

Blackjack grows well in temperatures ranging from 25 to 38 0C. Temperatures above 45 0C are not favourable and it also cannot tolerate frost.

### *Rainfall*

Blackjack thrives with abundant rainfall, but can withstand droughts. The optimum rainfall for growth ranges from 500 to 800 mm.

### *Soil*

Blackjack grows in fertile soil in the wild, planting fields and gardens. It prefers light, medium and heavy soils, but thrives in loose soil high in organic matter. It also thrives in deep, well-drained soil. It can grow in a soil with a pH ranging from 4 to 9 and can tolerate saline soil.

## Cultural practices

### *Propagation*

Blackjack is propagated by seed.

### *Fertilisation*

The plants have to be fertilised often and it is recommended to use manure to enrich the soil at the end of winter. Fertilise every 20 to 25 days when watering. Use a granular fertiliser for 3 to 4 months, if the plants are large. In spring, the use of nitrogen and potassium is recommended to favour the development of new growth and flowering.

### *Irrigation*

The plants can be watered from time to time; irrigate the crop with 4 0/m<sup>2</sup> every 2 weeks.

### *Weed control*

Blackjack often germinates in dense mats. These uniform shallow germination stands are relatively easy to control, especially with post-emergence herbicides. Because of the large seeds, pre-emergence control can be erratic.

### *Pests and diseases*

The most common insect attacking blackjack is aphids. At the end of winter, the application of insecticides is recommended to prevent aphid attacks.