

Coffee Senna, *Cassia occidentalis* L.¹

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Classification

Common Name: Coffee Senna

Scientific Name: *Cassia occidentalis* L., *Senna occidentalis* (L.) Link

Family: Leguminosae (Fabaceae), Bean Family

Seedling

The cotyledons are smooth, round, about 1 cm long, and usually less than 1 cm wide with 3 distinct veins in the upper surface (Figure 1). The stems have visible hairs just above and below the cotyledons.

Mature Plant

Coffee Senna is a smooth annual that can be 2 m tall (Figure 2). The leaves are compound. The leaflets are in 4-6 pairs and have a sharp leaf apex. These leaflets are 2-9 cm long and 2-3 cm wide with a distinct gland 3-5 mm from the base of the stalk. Flowering occurs in the leaf axils. The sepals are green and 6-9 mm long. The petals are yellow and 1-2



Figure 1. Seedling, Coffee Senna (*Cassia occidentalis* L.)

cm long. The 6-7 stamens are of two different lengths. The seed pods are dark brown, 8 to 12 cm long, 7-10 mm wide and curve slightly upward. The seeds are dull brown, 4-5 mm long and flattened on both ends.

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1. This document is an excerpt from Weeds in Florida, SP 37, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: May 1991. Revised: December 2004. Reviewed: November 2006. Please visit the EDIS Website at <http://edis.ifas.ufl.edu>.
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Figure 2. Mature plant, Coffee Senna (*Cassia occidentalis* L.)

History

Cassia is ancient Greek for a particular aromatic plant. *Senna* is an ancient Arabic name for these plants. The Latin word *occidentalis* means western, and refers to the origin.

Habitat

C. occidentalis is widespread in warm areas of the world except for Australasia.

Biology

On two different soil types growth was greater the higher the pH, 4.7-6.3. The seeds are known to be weakly toxic to various stock animals. Animals normally avoid ingesting these seeds. Increased germination is obtained by seed scarification.

Control

Peanuts

There are effectively no preemergence herbicides that provide highly effective coffee senna control. Pursuit, applied preemergence, will deliver approximately 70% control, but all other herbicides will provide 50% control or less.

The most effective herbicide combination is paraquat plus Basagran or Storm applied at-cracking. These combinations will commonly control greater than 90% of all coffee senna present at time of application; no soil-residual activity will be observed.

Conversely, paraquat applied alone will not satisfactorily control coffee senna. Postemergence applications of Cadre or Basagran are effective against coffee senna. Although Cadre and Basagran will generally not provide 100% control, 80 to 90% control is commonly observed.

Cotton

Staple has been shown to provide good control of coffee senna when applied preemergence. All other preemergence herbicides are considered ineffective. Although sicklepod and coffee senna are closely related species, Cotoran does not possess adequate levels of coffee senna activity, as is commonly observed with sicklepod. Postemergence applications of glyphosate and/or Staple provide greater than 90% control of coffee senna. All postemergence directed herbicides, except Cobra and MSMA, provide greater than 90% coffee senna control.