

## **Sharppod Morningglory, *Ipomoea trichocarpa* Ell.<sup>1</sup>**

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### **Classification**

Common Name: Sharppod Morningglory

Scientific Name: *Ipomoea trichocarpa* Ell.

Family: Convolvulaceae, Morningglory Family

### **Seedling**

The cotyledons are broad and flattened at the base with a deep notch (Figure 1). The lobes of the cotyledons extend 2/3-3/4 of the total length. The veins are visible on the upper surface.

### **Mature Plant**

Sharppod morningglory is a sparsely hairy perennial which flowers the first year (Figure 2). The leaves are heart shaped with a sharp tip. The leaf margin may be smooth, 3-lobed or occasionally 5-lobed. The leaf size is usually less than 9 cm long and 7 cm wide, although some specimens may be up to 10.5 cm long and 8.8 cm wide. The flower stalks commonly bear from 1-5 flowers (rarely up to 10) on the non-hairy stalks. The stalks are rough textured due to the presence of short, broad growths or



**Figure 1.** Seedling, Sharppod Morningglory, *Ipomoea trichocarpa* Ell.

protuberances. The sepals (outer layer of the flower) are somewhat leathery, oblong-elliptic in shape and have a sharp tip. They may be as long as 15 mm and range from smooth to hairy at the base, but usually have fine hairs along the margins. The joined petals range from pink to purple (rarely white) in color, and are up to 4.5 cm long and about as broad. The stigma and stamens are shorter than the flower tube. The fruit is a hairy, spherical capsule up to 9 mm broad.

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**Figure 2.** Mature plant, Sharppod Morningglory, *Ipomoea trichocarpa* Ell.

## History

*Ipomoea* is derived from the Greek words *ips* and *homoios* meaning worm-like, referring to the vining habit. *Trichocarpa* is from the Greek words *tricho*, hair, and *carpo*, fruit.

## Habitat

*I. trichocarpa* is native to the southeastern United States and occurs throughout Florida westward into Mexico and northward to southern North Carolina. Within this range it is usually found in thickets, fields, roadsides and disturbed areas.

## Biology

*I. trichocarpa* has hybridized with *I. lacunosa* to such an extent that very few if any pure populations of *I. trichocarpa* exist. Sample measurements have shown a vine weight of 279.7 g when mature seeds were collected, a seed weight average of 19.1 mg per seed, and 8,824 seeds were collected from a single plant. (Note: These measurements fluctuate from year to year.) Germination increased as temperature increased from 16-32°C over a four-day measurement period. (Germination was highest at 32°C.) An osmotic pressure (used to test moisture stress) of 10 bars limited the germination to 58% while at 0 bars germination rose to 86%. These values were measured after a six-day period.

## Control

### Cotton

Preemergence control is difficult to achieve. Cotoran is somewhat effective, but Direx, Staple,

Dual, and Prowl/Treflan have little or no activity. Therefore, postemergence control is particularly important and timing is critical. Glyphosate will control most morningglory species when small, but control with glyphosate decreases dramatically after the plant develops 4 leaves. Early application with glyphosate is critical. Staple and Envoke are also effective, but control is often less than 90% with these herbicides. The most effective over-the-top application is glyphosate plus Staple.

Several post-directed herbicides will effectively control this species. MSMA in combination with Caparol, Direx, Valor, or Suprend are highly effective. However, the most effective treatments are glyphosate plus Valor or Aim.

Also highly effective, but seldom used, is Ignite. Ignite can only be used on Liberty-Link cotton, but can be applied over-the-top throughout the season.

### Peanut

Sharppod morningglory control with preemergence herbicides is difficult. Only Pursuit will consistently provide >80% control. Strongarm and Valor both have preemergence activity, but control is often inconsistent and less than 80%. The postemergence herbicides with the greatest levels of activity are Pursuit, Cadre, Cobra and Ultra Blazer. Each of these herbicides are effective on and will often provide 85 to 90% control of 2 to 4-leaf morningglory. However, 6-leaf morningglory is more difficult to control and after 6-leaf only suppression (not control) can be expected. For large morningglory, Ultra Blazer is the only herbicide option that can be expected to provide acceptable levels of suppression/control.