

## Pasture Weed Profile: Tropical Soda Apple (*Solanum viarum* Dunal)

Jonael Bosques, UF/IFAS Extension Hardee County

This weed is a serious pasture problem in Central and South Florida. Heavy populations of this grass in a pasture can reduce forage yields and cause injury to livestock. Its leaves are broad and unpalatable.

It is estimated that tropical soda apple infests 1 million acres in Florida.

### **Characteristics**

This invasive weed produces a yellow fruit when mature (1–1.5 inches in diameter), which contains 200–400 seeds per fruit. Little or no seed dormancy has been observed, and germination is generally greater than 75%. The plant is readily identified by its immature fruit, which are green with white mottling, similar to watermelon. Fruit production occurs throughout the year, but mostly from September through May, providing 40,000–50,000 viable seeds per plant per year. Wildlife, such as feral hogs, raccoons, and deer, feed on the fruit and are vectors for spreading seed through their feces. Cattle will also consume the fruit and spread the seed in this way.

### **Identification**

At maturity tropical soda apple reaches a height of 3 to 6 feet tall. Stems, leaves and flower stalks have thorns up to 0.4 inches in length. Flowers are white with yellow stamens. Fruits are glabrous, globular and about 1 inch in diameter at maturity. The fruit color is yellow when ripe. Fruit can be slightly toxic (diuretic) if consumed in large quantities by livestock due to the presence of a glycol-alkaloid called solasidone.



Tropical Soda Apple Plant.

### **Population Management Strategies:**

**Dense infestations.** Milestone and GrazonNext HL herbicides are the most effective for controlling dense stands of TSA. These herbicides possess postemergence control of existing plants and preemergence control of germinating seeds for up to six months.

**Sparse infestations.** Areas with low TSA infestation should be targeted, and each plant sprayed individually. Recommended herbicides for 95%–100% control are as follows:

1. Milestone at 0.5–0.8 oz per 2.5 gal (15–20 ml per 2.5 gal) + 0.25% v/v non-ionic surfactant + color marker. (Use a color marker with the herbicide solution to avoid spraying the same plant twice or not spraying a plant at all).
2. GrazonNext HL or triclopyr at 0.5% solution (50 ml per 2.5 gal) + 0.25% non-ionic surfactant + color marker.

**References:**

<https://edis.ifas.ufl.edu/uw097>

[http://www.na.fs.fed.us/fhp/invasive\\_plants/weeds/tropical-soda-apple.pdf](http://www.na.fs.fed.us/fhp/invasive_plants/weeds/tropical-soda-apple.pdf)