

**CONTROL OF VELVETLEAF IN TEXAS
COTTON WITH STAPLE HERBICIDE**
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Abstract

Velvetleaf (*Abutilon theophrasti*) has become an increasingly troublesome weed in Texas cotton cultures. Traditional preplant and preemergence herbicides have had limited success in controlling this specie. Studies conducted in 1994 indicated that Staple (pyrithiobac sodium) was efficacious on velvetleaf and several other broadleaf weed species. Therefore, two studies were conducted in 1995 to evaluate the effects of variable herbicide concentrations applied at three velvetleaf stages of growth.

These studies were located on Ships clay soils at different locations near College Station, TX. Velvetleaf infestations varied between the sites ranging from 2-4 plants/sq. ft. at one location to 10-12 plants/sq. ft. at the other location. Staple was applied early- (1-4" velvetleaf), mid- (6-10" velvetleaf), and late- (12-16" velvetleaf) season. Application rates ranged from 0.5 to 2.0 ozs. a.i./acre.

Staple provided 88-95% velvetleaf control at the low rates of 0.5 and 1.0 oz. a.i./acre, when applied early- and mid-season at the low infestation level site. At the high infestation level site, the same rates and application timings produced less herbicide effectiveness (58-82% control). However, these researchers feel that this reduced efficacy can be attributed to velvetleaf plants emerging after the first application, and reduced spray interception by individual plants due to the high infestation. Staple was efficacious (65-80% control) at higher rates (1.5, 2.0 ozs. a.i./acre) when applied late-season at both locations, but was significantly less effective than when applied to smaller weeds.

No cotton injury was observed from any of the Staple applications. Cotton yields were improved significantly by the use of this herbicide.