

**GAUCHO® PERFORMANCE UNDER  
EXTREME ENVIRONMENTAL CONDITIONS  
AND DIFFERENT SOIL TYPES**

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**Abstract**

Gaucho 480 Seed Treatment Insecticide was evaluated across different areas of the Mid-South to determine the effects of different soil types and environmental conditions. Gaucho performed well across many different soils types, including sandy loam and silt loam soils. Environmental conditions across the Mid-South were relatively warmer with less soil moisture than normal. Gaucho 480 at 8-fl. oz/cwt. reduced the number of adult and immature thrips and the amount of thrips damage. It also increased cotton yields when compared to the untreated check.

**Introduction**

Thrips are usually the first insects that may cause damage to seedling cotton. The most common species of thrips found in the Mid-South are *Frankliniella fusca* (tobacco thrips), *Sericothrips variabilis* (soybean thrips), *Thrips tabaci* (onion thrips), and *Frankliniella tritici* (western flower thrips). Heavy thrips infestations in the young terminal buds of seedling cotton can cause delayed crop growth, which can lead to delay crop maturity. Aphids can also feed on young seedling cotton causing abnormal plant development and delayed plant growth. Gaucho seed treatment insecticide is one of a new class of insecticides called *choronicotinyls*. Gaucho insecticide delivers value and performance against early season thrips and aphids. Gaucho is applied to the seed and provides early season protection that is comparable to conventional in-furrow granular and is superior to other seed applied insecticides. In addition, Gaucho is used at low rates per acre and offers an excellent environmental profile.

**Materials and Methods**

Gaucho 480 at 8.0 oz/cwt. was compared to an untreated insecticide check, as well as other at-plant insecticides across the Mid-South. These areas included soil types that ranged from very sandy soils with very little organic matter to heavy soils with high organic matter. Weather conditions across the Mid-South were mostly warm at planting with very little excess moisture, except in a couple of locations. Ratings taken from these locations included thrips counts, thrips species identification, thrips damage ratings, and yields.

**Results and Discussion**

Gaucho 480 performed well across varying soil types across the Mid-South. Gaucho had less thrips damage and fewer immature thrips when compared to the untreated insecticide check across all locations (Table 1). Gaucho also had higher yields when compared to the check across all locations (Table 2). Gaucho was also comparable to other at-plant insecticides when compared across the Mid-south. Environmental conditions were very similar across the region making it difficult to make any conclusions as to the difference of environmental effects on the performance of Gaucho.

Table 1. Thrips damage rating summarized across four trials in the Mid-South.

Treatment	Rate	Thrips Damage
Untreated	---	2.7
Gaucho® 480	4.0 oz a.i./cwt.	1.4
Adage® 5 FS	4.8 oz a.i./cwt.	1.9
Temik® 15G	3.5#/A	1.2

Table 2. Yields summarized across four trials in the Mid-South.

Treatment	Rate	# Lint/Acre
Check	---	879
Gaucho 480	4.0 oz a.i./cwt.	980
Adage 5 FS	4.8 oz a.i./cwt.	917
Temik 15G	3.5#/A	996