

# Sugarcane Aphid Damage to Sorghum Rating for the Texas High Plains

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Sugarcane aphid (SCA) damage ratings should be based upon percent damaged leaves and severity of damage to leaves of infested sorghum plants. Shortly after moving into sorghum fields, SCA generally establish aphid colonies on the lower leaves and advance higher up the plant to fresh leaves as their population grows. Unchecked SCA populations can grow high enough to cover all plant surfaces including the head / panicle area but tend to stay on the underside of leaves if possible. SCA are not known to inject toxins into sorghum leaves as greenbugs and yellow sugarcane aphids do. Thus, there is no immediate reddening or yellowing resulting from aphid feeding to infested leaves. This absence of stark, aphid caused damage to the leaves can make estimating a percent damaged or infested leaves difficult.

Established, reproducing, and healthy colonies of SCA do secrete copious amounts of honeydew to the leaves and soil underneath infested leaves. These excreted deposits of honeydew are quite shiny and can aid in detecting the presence of established colonies. In cases of extremely high populations of SCA feeding for extended periods, sorghum leaves can take on a 'mottled yellow' appearance. If left unchecked, these extremely high populations of SCA will cause leaf death. High amounts of deposited honeydew left on leaf surfaces over time will also develop sooty mold which will add a darkened appearance to heavily infested plant leaves and plants. If left unchecked, SCA can cause total plant death.



**This damage rating system should be practical for post damage field evaluations but should not replace production action thresholds or research plot aphid counts at this time.**

## SCA Damage Ratings

**0 = No evaluation possible / no aphids or honeydew found**

**1 = 1-10 % of leaf area infested or damaged / colonies establishing on a few lower leaves**

**2 = 11-20 % of leaf area infested or damaged with large colonies**

**3 = 21-30 % of leaf area infested with large colonies, damaged, or dead**

**4 = 31-40 % of leaf area infested with large colonies, damaged, or dead**

**5 = 41-50 % of leaf area infested with large colonies, damaged, or dead**

**6 = 51-60 % of leaf area infested with large colonies, damaged, or dead**

**7 = 61-70 % of leaf area infested with large colonies, damaged, or dead**

**8 = 71-80 % of leaf area infested with large colonies, damaged, or dead**

**9 = 81-90 % of leaf area infested with large colonies, damaged, or dead**

**10 = 91-100 % leaf area damaged or dead plant / lodged plant**

### Visual Examples for SCA Damage Rating



Unchecked population of SCA with heavy damage to a leaf.

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Example of a 2.5 SCA Damage Rating



Example of a 6 SCA Damage Rating



Example of 8.5 SCA damage rating



Example of a 9 SCA damage rating