Georgia Sorghum 9 Steps for Sugarcane Aphid Management

1. **Plant early** – Although the aphid was not in Georgia at planting time last year, experience in the Delta region found that aphids did not usually infest sorghum until later in the season and early planting may avoid very large infestations. In other words, late double-crop plantings are at greater risk of severe infestations.

2. **Use an insecticide seed treatment** – Trials in the Delta region last year found that insecticide seed treatment would limit seedling infestations for 30 – 40 days after planting. All registered neonicotinoid insecticides are effective including thiamethoxam (Cruiser), clothianidin (NipsIt Inside, Poncho) and imidacloprid (Gaucho others).

3. **Scout early and often** – Fields can quickly be inspected for the presence of aphids by looking are on the underside of leaves. Once aphids are detected, scout at least once, preferably 2 times per week, because aphid numbers build very quickly. Shinny lower leaves with honeydew are a clear sign of infestation.

4. **Beneficial insects usually do not control infestations** – SCA and their honeydew attract large number of beneficial insect predators such as lady beetles, syrphid fly larvae and lacewings. No aphid parasites were observed in Georgia last year but a parasitic wasp is present in TX and LA and could move eastward. No aphid fungal disease has been observed either. Generally the rapid rate of increase in aphid populations overwhelms the beneficial insects and severe plant damage usually occurs.

5. **Treat when aphids reach threshold levels** – Several threshold levels are being used in the Delta region for 2015. One conservative threshold is 25% infested leaves with 50+ aphids per leaf at whorl from preboot stage through dough stage. In MS, the threshold at pre-boot and boot stages is 20% infested plants with large aphid colonies (100+) and localized areas of heavy honeydew present. From bloom through dough stage the threshold is 30% infested plants. I think either of these sets of thresholds will prevent serious yield losses and would suggest using whichever threshold is easiest for you to use. Once threshold is reach do not delay application because infestations can very quickly go from the threshold level to 100% infested plants and hundreds of aphids per leaf.
6. **Use an effective insecticide** – PYRETHROID INSECTICIDES ARE NOT EFFECTIVE and may flare infestations by killing all the aphid predators. Regardless of the insecticide, rapidly expanding populations are difficult to control. Foliar insecticide options for SCA are:

- **Transform WG (Dow AgroSciences)** – Transform WG is not fully registered yet, but Georgia, Alabama and several other states have a section 18 emergency exception approved for 2015 until Nov. 20, 2015. In my insecticide trails last season, rates of 1.0 and 1.5 oz per acre were effective. Use the 1.5 oz rate if aphid populations are increasing rapidly. The label allows for 2 applications per season and not more than 3 oz per acre per crop and has a 14 day PHI.

- **Sivanto (Bayer Crop Protection)** – Sivanto has a full section 3 label and a supplemental 2ee label for lower rates on sorghum and other grain crops. The 2ee rates are 4 – 7 fl. oz per acre. Sivanto was very effective in my trials at rates of 3, 5, and 7 fl. oz. per acre, so the 4 fl. oz. rate should be effective. At the 4 oz rate it can be applied up to 7 times during the season but has a 21 day PHI.

- **Chlopyrifos (Lorsban Advanced, Nufos, other)** – Lorsban is labeled at 1 to 2 pints per acre. The 2 pint rate has a 60 day harvest interval and 1 pint a 30 day harvest interval. The 2 pint rate was 80-90% effective in my trial last year but could not be used after the boot stage due the 60 day PHI. The 1 pint rate was variable and only partly effective. **DO NOT USE CHLORPYRIFOS ON SWEET SORGHUM.**

- **Dimethoate (Dimethoate, Cygon)** – Is labeled up to 1 pint per acre with a 28 day PHI. Most dimethoate products cannot be used after head emergence. Dimethoate was variable in my trials and not recommended without further testing.

7. **Good coverage is key to effective control** – Use tips and GPA for maximum coverage especially lower in the canopy. A minimum of 10 gpa by ground and 5 gpa by air is highly recommended.

8. **Avoid pyrethroid insecticides for other sorghum pests** – For sorghum midge try to avoid routine pyrethroid sprays for sorghum midge. Instead scout and treat at 1 adult per panicle. Chlopyrifos (1 pint per are) for low to moderate infestations. Early plantings often avoid serious midge infestations. For fall armyworm in the whorl, the threshold is 50% infested whorls. Use Belt, Prevathon or Lannate which are specific to caterpillars. For headworms, corn earworms fall armyworm, sorghum webworm, the threshold is 1 worm per head and use Belt, Prevathon, Beseige or Lannate.

9. **Check fields 2-3 weeks before harvest for infestations** – A treatment may be needed if large numbers are in the head to prevent damage to combines. Hybrids with taller stalks and more space between the grain and upper leaves may make harvest easier by reducing the amount of leaf material going through the combine. Large infestation producing large amounts of honeydew and sooty mold may interfere with harvest desiccants. Transform WG can be applied up to 14 days before harvest.

**Summary** – Most likely SCA will infest sorghum statewide in Georgia and occur much earlier than in 2014. SCA will be difficult to manage cost effectively. Planning and scouting will be keys to successfully managing this new invasive pest and prevent serious losses to sorghum in Georgia in 2015.