Control of Pyrethroid-Resistant Southern Chinch Bug

Southern chinch bug has become the #1 turf pest facing lawn care operators in Florida and Southern Texas. Control has become increasingly difficult in recent years because chinch bugs in these areas have developed high levels of resistance to commonly used pyrethroid insecticides. Based on university data, Arena® Insecticide is now recognized as the most effective product for the management of pyrethroid-resistant Southern chinch bug.

Arena has three key chemical properties that explain why it provides better performance than other neonicotinoids against Southern chinch bug:

- Optimum water solubility
- Optimum organic matter binding potential
- Optimum aerobic soil half-life

For a product to successfully control chinch bugs, a delicate balance of water solubility and affinity to organic matter (Koc value), such as thatch and plant uptake, must be reached. The lower water solubility of Arena compared to other neonicotinoids and moderate affinity to organic matter mean that it stays at the soil/turf interface, yet is still available for uptake into turf. These chemical properties are especially important during periods of high rainfall. In addition, Arena has a longer aerobic soil half-life than other neonicotinoids, which translates into longer term control of chinch bugs because it remains active for a longer period of time.

The chemical properties of Arena also translate into a wider application window (April to October) and explains why Arena provides both preventive and curative control of chinch bug. In addition to having optimal chemical properties, Arena can also be used to help conserve the longevity of pyrethroid insecticides in areas where chinch bug resistance to pyrethroids has not yet developed.

**Arena = Superior Chinch Bug Performance**

**Water Solubility**

**Aerobic Soil Half-Life**