

Upcoming CEU Events

Pest Management and Pesticide Safety Seminar

Monday, December 6, 2021

[Link for Agenda](#)

2021 Annual Recertification Course

Check the schedule of Continuing Education (CEU) Courses for your area.

[Link for Brochure](#)



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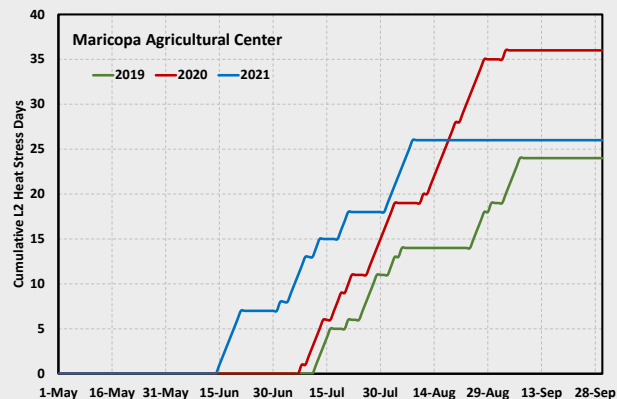
Requests should be made as early as possible to allow time to arrange the accommodation.

2021 Cotton Heat Stress

Blase Evancho and Randy Norton

This year presented some difficult conditions for cotton growers. In Central Arizona many areas began experiencing level 2 heat stress as early as June 15 as shown in the L2 heat stress graph below. This level of heat stress occurs when the cotton leaf canopy temperature reaches 86°F resulting in negative impacts on flowering physiology and inevitably reductions in cotton boll production and retention.

This year we saw L2 heat stress very frequently during the middle of the season resulting in cotton plants with significant gaps in fruit set up the mainstem of the plant. This can be seen in the photo below where the cotton crop experienced heat stress conditions and resulted in very little fruit set for about 7-10 nodes in the middle of the crop canopy. You can also see that when L2 conditions subsided after August 8th the plant once again began retaining bolls and produced a good amount of cotton in the top of the plant. This photo is representative of a fairly heat sensitive variety. Not all varieties respond to heat stress in a similar manner and observations were made across the low deserts of Arizona with varying levels of fruit shed during that period of time.



While there were many challenges this season, if you are seeing reduced yields and bare regions on your cotton plants you may be seeing the effects of cotton heat stress from this summer. Without any proven treatments to combat heat stress the only option is to select cotton varieties that have increased tolerance to heat stress when possible. We are currently developing a method for rating the heat stress tolerance of new cotton varieties. These new heat stress ratings will give growers more information on how new varieties will respond to our intense growing conditions. We have begun gathering this information on some varieties and will continue to compile information and will hopefully be able to begin to deliver this characterization in a formal fashion as early as the spring of 2023.