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Crosby Ag Minute

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South Plains Hires New Cotton Specialist

Dr. Murilo Maeda began his new position as Texas A&M AgriLife Extension Service cotton specialist in Lubbock, on October 1, 2018.

“My responsibilities include providing leadership in cotton production for the Texas High Plains and the development of educational programs and materials related to the profitable and sustainable production of cotton in a challenging, semi-arid environment. My program interacts with farmers, county and IPM agents, extension specialists, research faculty, and allied industry to develop and deliver new technologies and educational programs designed to help cotton producers make timely and informed crop management decisions.”

Maeda earned a bachelor’s degree in biology from Centro Universitário do Triângulo, Brazil, and master’s and doctorate degrees in agronomy/crop physiology from Texas A&M. Before moving to the U.S., he worked at Netafim Brasil assisting in the development of precision irrigation systems for commercial coffee and citrus farms and with TCMA Agropecuária Ltda, assisting with large soybean, cotton, and corn commercial operations across Brazil.

In 2005, he joined Deltapine/Monsanto’s cotton breeding program as a research assistant. In this position, he served as the breeder’s assistant, designed and conducted breeding research trials across the Brazilian cotton-growing regions, managed

breeding-associated field tasks, as well as research databases.

After leaving Deltapine/Monsanto in 2010, Maeda moved to College Station to pursue his master’s and doctorate degrees. While working on his degrees, he served as a graduate teaching/research assistant for the cotton physiology program and the department of soil and crop sciences.

His degrees focused on the morphological and physiological responses of cotton to drought and high-temperature stress, and at Corpus Christi, he was responsible for managing the development of a cropping systems and remote sensing program for agricultural research and crop precision management applications.

Deep Soil Sampling & Water Sampling

Soil sampling is essential to successful production. A soil sample will tell you how much available nutrients you currently have and how much will need to be added to meet a certain yield goal. Fertilizers should never be applied without a soil analysis. With the rising costs of fertilizer and fuel, why apply unnecessary inputs. The County Extension Office will come to your fields and conduct deep soil sampling for **\$30 per field**. This only includes the actual cost of mailing the sample and the analysis. There is a free service. Results will include all routine analysis including sodium.

A deep soil sample will give you results from 0-6 inches and from 6-24 inches. A deep soil sample will tell you how much residual nitrogen you have in your soil profile. These results can help you make better decisions on fertilizer and nitrogen applications.

If you would like any fields deep soil sampled, please contact the County Extension Office by January 20th

We will also be offering a water sampling service. There is no fee for collecting the sample, the only fees incurred are for postage and actual analysis of the sample. You can also bring water and regular soil samples to the office at anytime and we will submit them for you

Basic Irrigation Quality	\$21.75
Drip Irrigation Quality	\$61.00 (meets requirements for Cost Share for new drip installation)
Nitrate & Sulfate	\$8.50
Irrigation Nitrate	\$5.50
Livestock Suitability	\$21.00
Postage	\$5.00



"Agriculture is our wisest pursuit, because it will in the end contribute most to real wealth, good morals, and happiness."

-Thomas Jefferson

Crosby County Cotton Gin Data

As of 9am December 10th, there have been 81,179 bales of cotton ginned in Crosby County. Around this time (December 5, 2017), we were at 112,848 bales

Lorenzo: 11,200
Pleasant Hill: 14,554
Owens: 35,504
ACG: 19,921

Bt Corn Seed Selection in Light of Resistance in Corn Rootworm

Pat Porter & Ed Bynum

As seed purchase decisions are made for next year's growing season, it is time to put the cards on the table and discuss options for corn rootworm management.

By far, the best option is rotating with a NON CORN CROP.

Rotation will result in death of the entire rootworm population in the field because the larvae will not have a suitable host on which to feed and they will die. Since our rootworm beetles don't lay many eggs in non-corn crops, the field can be planted the following year with no risk of a damaging rootworm population. When rotating to a non-corn crop, the volunteer corn that germinates must be killed when small to prevent rootworms from surviving and developing to beetles. The surviving beetles might lay eggs and re-infest the field, and the presence of corn in the field could attract other beetles from a considerable distance. Of course crop rotation is often not an option, so here are the answers to some commonly asked questions. These answers are based on a field being in the resistance zone for Cry3-type toxins. If fields were planted to these toxins for the last several years and had lodging and high numbers of beetles, then resistance is likely.

Is there any difference between a Cry34/35 (only) hybrid and one that has both Cry34/35 and a Cry3-type toxin?

It is better to plant corn with a pyramid of toxins rather than Cry34/35 alone. Resistance to the Cry3-type toxins is not complete so, in pyramids of the two types, the Cry3 will still provide some measure of additional root protection over Cry34/35 alone. This "partial protection" will also help preserve rootworm susceptibility to Cry34/35 because some of the insects with resistance alleles for Cry34/35 will be killed by Cry3-type toxins and won't pass genes on to the next generation.

If I can use a Bt corn that has Cry34/35 without a Cry3-type toxin, will my roots be protected?

Probably. There is no known resistance to Cry34/35 in our area and root protection should be very good. However, there are some caveats. One caveat is that, due to resistance to Cry3-type toxins, some fields have enormous numbers of eggs in them and the Cry34/35 will be challenged. We have seen instances of significant root damage in Cry34/35 corn under heavy rootworm pressure. If a continuous corn field had extremely high numbers of beetles last year and adult control was not used, then it might pay to use a soil applied insecticide when planting Cry34/35 seed. The other caveat is that toxin expression is lower in plants grown under stress, so proper agronomic conditions need to be met if the Cry34/35 is going to do the best job possible.

Corn without a Bt toxin is a good choice for ground coming out of rotation to a non-corn crop because the rootworm pressure will be essentially zero. The seed will be treated with an insecticide and fungicide similar to the Bt hybrids. Planting non-Bt corn in a field that had high rootworm populations the previous year is not a good idea, even with high rates of insecticide in the seed treatment and with soil applied insecticides used at planting.

Unfortunately, seed companies have not put as much breeding effort toward their non-Bt hybrids, so in some cases the agronomics and yield potential are inferior to the Bt hybrids. This is not true across the board, so consult your seed dealer(s) to examine the yield potential of hybrids that do not have rootworm protection.

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: Sue Starkey is retiring after 23 years! Please join us on December 19th from 3:00 to :
: 4:30 @ The County Court Room to celebrate her many years of dedicated service to :
: Crosby County Ag Producers, 4-H members and 14 County Extension Agents!! :
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