

# Organic News

## Cotton Varieties for Organic

by Dr. Jane Dever, TAMU Cotton Breeder - Lubbock



Cotton harvest is wrapping up at the Texas A&M AgriLife Research and Extension Center breeding tests and plots. It was a tough year for cotton. Dr. Carol Kelly, Research Scientist and Assistant Cotton Breeder, pictured here with a plant from the nursery that has bolls, summed 2022 up with a Haiku poem:

*Pretty and green field. Hot and dry summer we had. Leaves fall, no bolls, sad!*

Ginning and data analysis is ongoing, but results from second year testing of candidate organic cultivars at the furrow-irrigated location in Lubbock indicate more bolls than we thought. Twenty experimental lines were tested with four commercial cultivar checks in a randomized complete block design with four replications. Test average for yield was 1,350 pounds/acre and quality, except for higher than desired micronaire (5.1), was excellent. Average fiber length, 1.22 inches; uniformity ratio, 84.1; strength, 36.1 grams/tex. Line 19-4-517 produced 1,622 pounds/acre compared to 'FM 958' at 1,586. Candidate for 2023 release with the first real improvement in Verticillium wilt resistance since the late '90s - early 2000's, 19-4-446, produced 1,503 pounds/acre with 1.23-inch fiber length, 85.5 uniformity ratio, and 37.1 g/tex fiber strength.

Data from other locations will be available soon, so feel free to reach out to us for the results. We did not anticipate harvesting the dryland location at Lubbock but caught some late moisture and ended

up with a nice test. Favorite organic candidate okra-leaf cultivar, in the third year of testing, produced almost 300 pounds on dryland compared to 'FM 958' at 260 pounds. We look forward to analyzing all the test and nursery data and getting fiber quality results early next year.

Happy and prosperous New Year to the organic cotton producers and community from the Texas A&M AgriLife cotton breeding team at Lubbock.  
Jane Dever

## Transition to Organic Partnership Program (TOPP)



The Transition to Organic Partnership Program (TOPP) is investing up to \$100 million over five years in cooperative agreements with non-profit organizations who will partner with others to provide technical assistance and wrap-around support for transitioning and existing organic farmers. Agricultural Marketing Service (AMS) is building partnership networks in six regions across the United States with trusted organizations serving direct farmer training, education, and outreach activities.

As you can see, Texas is in the West/Southwest region. The USDA partner organization for our region is CCOF out of California. We are in meetings with CCOF to determine exactly what we can do to help move producers into a transition organic program as easily as possible.

## Research to Help Organic Citrus Growers Fight HLB



A grant from the U.S. Department of Agriculture's Organic Agriculture Research and Extension Initiative (OREI) is intended to advance research to help organic citrus producers fight HLB disease. The grant awards \$2.03 million to a team of scientists from the University of Florida, **Texas A&M University** and The Organic Center. The Organic Center is a non-profit organization convening evidence-based science on the health and environmental impacts of organic food and farming. The grant funds a four-year project.

Huanglongbing (HLB), also known as citrus greening, is the most serious disease of citrus. The disease is spread by the Asian citrus psyllid (*Diaphorina citri*) (ACP), which has been present in Florida since 1998. ACP transmits the bacteria to the tree when feeding on new shoots. There is no cure for this disease and all commercial varieties of citrus are susceptible to HLB.

"Citrus greening continues to devastate the citrus industry, and organic growers need to have organic solutions to fight this deadly disease without resorting to dangerous chemicals or genetic engineering," said Amber Sciligo, director of science programs for The Organic Center.

I will keep you informed of progress!

## Welcome to Brooks Duffie with Pro Farm Group (formally Marrone Bio)

I was born and raised in SW Ohio on a Brown Swiss dairy farm. I attended The Ohio State University with a BS in Dairy Science, and I eventually received an MBA from Frostburg State University.

I started my career with Monsanto Dairy business and helped launch the first bio tech product in the ag industry, POSILAC (rBST). Eventually I moved on and have had a storied career that has allowed me to live in 9 states and eventually landed in Seminole, Texas 8 years ago.

Having no cotton background, I helped Monsanto (now Bayer Crop Science), develop a strong Deltapine cotton market. This helped me learn and develop knowledge in the cotton business from the grower perspective from planting to marketing.

As I enjoy leading edge technology and do my part to change the world so the industry can continue to thrive in an ever-changing environment, I joined Pro Farm Group in November 2022. This allows me the opportunity to work in the diverse agriculture that TX has to offer from organic to conventional. This is a great time to be in agriculture and see the industry grow and thrive for the next generation.

My wife Jo and I reside in Seminole TX, on a small 4-acre property and have 3 kids (who all have "B" names). We breed and raise Paint race bred horses and she collect and rescues chihuahua's or chihuahua mix dogs. So, you could say, even though we are empty nesters, we are living life to the fullest and busier than ever.

## Email Newsletters versus Mailed Newsletters

It is a sad reality that a stamped and mailed newsletters are disappearing. Stamp prices will increase again in Jan., so I encourage you to sign up for email organic newsletters sent each month!





## Peanut Varieties for Organic Production

by Dr. John Cason, TAMU Peanut Breeder-Stephenville

It was a tough year for all producers around the state and the Texas A&M peanut breeding program were no exception. I heard one producer say, “we had to fight for every pound of yield we got this year,” and I totally agree with him when referring to the 2022 season. Despite the challenges we continue to make headway in developing new germplasm specifically for organic production.

During the 2022 season we had organic trials in Gaines and Wilbarger Co. on certified organic farms. Being able to test our breeding lines in grower fields is crucial for identifying potential lines that will produce good yields in different areas of the state and varying management practices. One hybrid Spanish line in particular, TP210656-2-1, performed well for the second year of testing. It yielded 4,650 lbs./acre in a really tough year compared to a test average of 3,745 lbs./acre. Additionally, it also graded 5.2% points higher than the test average with an average grade of 78.3 for the test. We are very excited about this line performing near the top of our tests for the second year in a row and are hopeful as more results become available for 2022, it performs as well at other locations.

## Upcoming Programs

**Tuesday, January 10** – Blackland Income Growth (BIG) in Waco at the BASE. Agriculture educational seminars, equipment displays and exhibitors. Talk on organic agriculture and assorted certification programs.

**Wednesday, January 18** – Western Rice Conference in El Campo, Texas at the El Campo Civic Center. Plenty of seminars on rice production including organic rice with exhibits for rice production.

**Thursday, January 26** – Southeast Rice Symposium in Winnie, Texas at the Winnie Stowell Community Building. Again, plenty of rice production seminars and organic rice with exhibitors about rice and rice production.

**Sunday, January 29 – Tuesday, January 31** – Texas Organic Farmers and Gardeners Association (TOFGA) Meeting in Mesquite, TX

**Saturday, February 11** – Tarrant County Farmers Market Meeting in Fort Worth. Talk about organic marketing and organic vegetable production.

**Tuesday, February 21** – Soil Health Clinic (morning) in Olton, Texas. Discussion for improving soil health, measuring soil health, cover crops for soil health.

**Tuesday, February 21** - Organic Farm Seminar (TPD Afternoon) in Brownfield, Texas. Updates on organic crops, program, and products.

**Wednesday, February 22** – Sandyland Ag Conference in Seminole, Texas.

**Wednesday, February 22** – Spinach Field Day in La Pryor, Texas. A look at varieties and spinach production systems.

## Biopesticides for the Control of Whiteflies

by Dr. Holly Davis, Field Development Manager-Certis Biologicals

Whiteflies have been a persistent problem this year for Texas growers. These insects can be especially difficult to control in organic production. There are numerous OMRI certified biologicals, or biopesticides, available to growers but, to get the best efficacy, it is important to understand a few things about them.

First, biopesticides need to be applied at the first sign of whitefly activity. Trying to clean up a situation where plants are heavily infested with all life-stages of whiteflies (or any insect or disease) is extremely difficult and there may be no escaping loss of quality and/or yield. The use of yellow sticky cards in greenhouses or around field margins can

help detect whitefly activity early so that applications can begin in a timely manner.

Most biopesticides labelled for whitefly control are contact pesticides, meaning they must either be sprayed directly on the pest, or the pest must move across a treated surface while the biopesticide is still active. This can be tricky for insects like whiteflies which spend the majority of their time on the underside of leaves, sometimes deep within plant canopies. For that reason, it is important to use the correct amount of carrier, the right spray equipment, and nozzles, and to include a spreader sticker when appropriate to ensure product is distributed as evenly as possible and adheres to plant tissue.

Once applied, biopesticides may not persist in the environment for a long period of time. Many are degraded by sunlight and/or other environmental factors. Remember, most do not move through the plant (are not systemic) so any

Mycosis in a whitefly nymph killed by entomopathogenic fungi  
Photo credit: Atlantic Turf & Ornamental Consulting



new plant growth after application will not be protected. For this reason, biopesticides need to be applied on a regular interval, often every 7-14 days, to ensure that whitefly populations do not build up between applications.

Finally, it is important to understand what to expect from different types of biopesticides. For example, while some products like Des-X®, an insecticidal soap concentrate, have the advantage of providing a quick knock-down of whitefly populations by breaking down the insect cuticle, there is no residual efficacy. Any insect that lands on a leaf after the treatment has dried will not be impacted. Other products such as the

entomopathogenic fungi, *Beauveria bassiana*, found in BoteGHA®/BotaniGard®, may take several days to kill whiteflies by overwhelming them with fungal spores, but can persist in the environment and continue to infect immigrating or emerging insects. This typically happens when there is high relative humidity and/or a dense plant canopy. This persistence can be recognized by mycosis, or the presence of emerging spores from a fungus-killed insect. However, lack of visible mycosis does not mean an entomopathogenic fungi is not working. In many cases, whiteflies may simply darken and desiccate.

Showing the darkening and desiccation of entomopathogenic fungi-infected whiteflies lacking mycosis



No matter what biopesticide you chose, it is incredibly important to read the label and understand the product to get the best efficacy possible! For more information on Certis Biologicals, please visit <https://www.certisbio.com/> Holly Davis  
**Email Newsletters and Blog Posts**

I will again say that mailed **Organic News** is about to disappear! It is costing about \$2 per newsletter to mail out to 400 Texas organic farmers. This has been an expense I gladly paid but money is tight. If you want to continue to get Organic News, send me your email address or you can sign up at AgriLifeOrganic.org. Look for the box on the right side that says **MailChimp Newsletters** and put in your email address. They are sent the first of each month and cost **NOTHING** to send! I also write Blog Posts about once a week on things organic. You can sign up for those at the bottom of each post.