



**Sunbelt  
Ag Expo**

## Field Day Guide

**TUESDAY, JULY 24, 2018  
MOULTRIE, GEORGIA**

**Irrigation** systems  
and water management

**Tours** for all major  
Southeast crops,  
seeds, and chemicals

**Precision** ag  
technology

**Meet** university  
researchers and  
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# Please join us for our 2018 Sunbelt Field Day

Get a closeup look at how the crops you grow are performing in real farm conditions.



**Sunbelt  
Ag Expo**

**Tuesday, July 24, 2018**



**T**he 2018 Sunbelt Expo Field Day is carrying on the tradition of showcasing the latest row crop and forage technology that the industry has to offer. We look forward to hosting you at this year's Field Day Tuesday, July 24.

You can see demonstration plots with the latest innovative research, and visit with industry

and university researchers to get up-to-date information on topics such as new seed and forage varieties, irrigation and water management, crop protection, soil fertility and precision agriculture. Come and get a sneak preview of what you will see at the 41st annual Sunbelt Expo October 16-18.

We work with our industry and university partners to conduct agronomic research that addresses real-life challenges that farmers face daily. All of our research is done in collaboration with farmers, industry reps and universities to determine the best approach — economically, environmentally, and socially — for the challenges that confront Southeast farmers. Those attending our field day will take away useful information that they can apply to their operation back home and improve their bottom line.

Field Day is free and open to those involved in agriculture and agribusiness. Registration begins at 7:15 a.m., followed by a complimentary biscuit breakfast, exhibit viewing, and a welcome from the Georgia Department of Agriculture and Georgia Farm Bureau.

You'll also have a chance to win some great door prizes, as well as receive a free Expo cap. The trams will depart for the field tour at 8:00 a.m. sharp and return by 12 noon. A BBQ sandwich lunch will be provided by Ameris Bank and Nichino America.

So, please come see us Tuesday, July 24th, as we highlight the latest world class agronomic research at the 2018 Sunbelt Ag Expo Field Day.

Sincerely,

Executive Director  
Sunbelt Agricultural Exposition

## SCHEDULE OF EVENTS

### RW GRIFFIN BUILDING

- 7:15 a.m..... Biscuit breakfast, door prize registration, static exhibits
- 8:00 a.m..... Trams depart for field tours
- 12 noon..... Trams return. BBQ lunch sponsored by Ameris Bank and Nichino America. Grand prize and door prize giveaways.

### GRAND PRIZES:

**Brown Rotary Mower 416,  
Shotgun,**

**Titan/Goodyear Tire Gift Certificate**

*Grand prize and door prize winners will be posted at the conclusion of field tours.*

*Every attendee will receive a Sunbelt Ag Expo cap.*

## You're invited to join us for Biscuit Breakfast at Expo Field Day

For the seventh year, the Georgia Department of Agriculture and Georgia Farm Bureau will be hosting a complimentary Biscuit and Coffee Breakfast in the RW Griffin building, beginning at 7:15 a.m. A variety of static exhibits, as well as door prize registration, can also be found in this building.

Representatives from both groups will have short remarks before trams depart for field tours at 8:00 a.m. sharp.



Show Dates: **October 16-18, 2018**

# Don't Just Wander The Grounds!

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# See firsthand how things are growing at 2018 Sunbelt Expo Field Day



## BY BRAD HAIRE

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**T**he 2018 Sunbelt Ag Expo Field Day is July 24, and farmers are invited to come and get practical information from the region's top agricultural scientists about the newest technologies farmers can use to improve their operations.

The half-day event will take place at the 600-acre Darrell Williams Research Farm, located at the Expo show site at Spence Field in Moultrie, Ga. Registration is free for anyone who works in agriculture, and the day starts at 7:15 a.m. with breakfast, followed by quick welcomes from the Georgia Department of Agriculture and Georgia Farm Bureau.

Shuttles will be loaded at 8 a.m. to tour the farm; 30 stops are scheduled, with specific time allotted for each stop and crop. Farm Credit will provide water for the tour. Tour shuttles will return to the main building by noon, and Ameris Bank and Nichino America will provide a lunch. Door prizes will be awarded, too.

"We have the unique ability to work with university and corporate researchers on our Darrell Williams Research Farm, where we continue to conduct cotton, peanut, corn, soybean and forage research — all aimed at improving the farmer's bottom line. We look at the latest seed varieties, crop protection methods, soil fertility, irrigation and precision ag technology," says Chip Blalock, Sunbelt Expo Executive Director.

"We test the latest technologies and make sure they're ready to go to work on the farm when farmers adapt them into their operation. And in respect of farmers needing to get back to their own operations, we have streamlined the morning program to

run efficiently and timely.

He also encourages Field Day participants to visit static exhibitors in the RW Griffin building before and after the field tours.

"Our mission is to provide a place where research can be done to benefit all row crop and forage farmers — especially those who might not have the resources or land to just go out and try a new variety or technology on a hunch," says Cody Mitchell, Sunbelt Ag Expo Farm Manager for the Sunbelt Ag Expo, who adds that most farmers can make two-bale cotton and 3,000-pound peanuts.

"We strive to have the best-looking farm around for Field Day visitors," he says. "And we work hard all year to ensure that we make a lifelong impression on the 80,000 to 100,000 guests who come to see us during Sunbelt Ag Expo in October. When they visit here, we want it to be an eye-opening experience that's worth their time."

University of Georgia researchers and Extension specialists conduct numerous trials at the Sunbelt farm for all major southern agronomic crops. UGA Cooperative Extension specialists for cotton, soybeans and peanuts will be at the field day to discuss strategies to better use fertility, manage diseases and pests, and choose the best varieties to use when and where on a farm.

Herbicide resistance and proper application practices continue to be a major focus in the region. UGA weed specialists and company representatives will discuss management strategies and the best ways to use new technologies to deal with weed control issues, plus new products coming down the pipeline.

Corn remains a staple crop for the Southeast, fitting nicely into growers' sustainable crop rotations and management strategies. Monsanto representatives will be on the tour to showcase six top DeKalb corn varieties. Pioneer will discuss six of its popular corn varieties, and Dow AgroSciences will spotlight six Mycogen hybrids.

“ We have the unique ability to work with university and corporate researchers on our Darrell Williams Research Farm, where we continue to conduct cotton, peanut, corn, soybean and forage research — all aimed at improving the farmer’s bottom line. We look at the latest seed varieties, crop protection methods, soil fertility, irrigation and precision ag technology.”

Fertilizer tests are being conducted on corn and other crops being grown at the Expo. Maximizing plant nutrients is a top priority for growers who want to shoot for a variety’s top potential.

Southeast farmers are showing a renewed interest in cotton in 2018, with acreage increasing slightly compared to the previous two to three years, mostly due to improved market prices and federal policies. Cotton genetics and variety packages have also gone through a resurgence, with new technologies becoming more widely available and adopted by growers. The region’s best cotton varieties, based on annual variety tests across the Southeast, will be a primary draw at this year’s Field Day.

Bayer cotton experts will discuss six of their new Stoneville varieties. The Expo farm is a part of Monsanto/Deltapine’s New Product Evaluator program, and many of the same varieties grown at Expo

are grown by farmers across the cotton belt as part of the NPE program.

Americot has developed new varieties that have performed well in OVT testing in the Southeast, and several of their new varieties will be on display at the Field Day.

Dow’s PhytoGen brand cotton has made a push in the Southeast in recent years, and company representatives will highlight six PhytoGen varieties during Field Day stops.

The Expo farm has several large plot soybean OVT variety trials each year. Monsanto and its AsGrow brand soybean seeds will be planted, and company representatives will discuss production opportunities for soybeans in the Southeast. Dow will have CZ varieties available for inspection, and Pioneer will have six of its soybean varieties in the test program.

Forquimica will showcase its peanut plots.



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# UGA Extension and Sunbelt finding answers to peanut farmers' questions



**BY BRAD HAIRE**  
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**M**ajor advancements have been made in peanut yields over the last decade, but growers must continue to seek ways to more economically and efficiently increase yields in order to remain competitive.

To help with that goal, the University of Georgia Peanut Team conducts many

research trials across the state's peanut belt, including work on real farms, on university research farms, and at the Sunbelt Ag Expo Darrell Williams Research Farm at Moultrie, Ga.

At the Expo farm, the UGA Peanut Team generally has trials to determine yield response and economic return for select tillage treatments, biological inoculant products, foliar fertilizers and plant growth stimulants, says Dr. Scott Monfort, UGA Extension peanut specialist who leads the team.

More specifically, he conducted trials last season at the Expo to compare reduced tillage treatments, using single shank and twin shank rippers, to more common conventional tillage treatments, such as deep turning and harrowing. He used no cover crops in the trials.

"Yield in conventional tillage tended to be higher in most of the trials conducted in 2017," he says. "However, yields in the Expo tillage trial were found to be similar across all tillage treatments."

Additional research by Monfort at Sunbelt Expo "will assess the impact of cover crops in reduced tillage systems compared to conventional tillage. Treatments being assessed are intensive broadcast tillage (bottom plow), and two reduced tillage programs consisting of a single ripper shank, with and without a cover crop."

Peanut farmers often ask if foliar fertilizers, plant growth stimulants and nutrient enhancement products help improve crop productivity. The UGA Peanut Team and Jeremy Kichler, UGA Extension coordinator in Colquitt County, where the Expo is located, will evaluate several foliar fertilizer and plant growth stimulant trials in 2018.

"These products will be assessed for their impact on crop growth, yield and quality in large-scale trials," Monfort says. "The peanut team is also trying to confirm potential additive effects of several growth enhancement products mixed with peanut inoculants. This research project is seeking to determine if these nutrient enhancement products increase productivity above and beyond the *Rhizobium* inoculants."

Products being evaluated in the 2018 peanut trial are Optimize Lift (inoculant), TagTeam LCO (inoculant + nutrient enhancement), and Myco Apply EndoPrime (nutrient enhancement) + Optimize Lift (inoculant), and Primo Power CL (inoculant). "Products will be evaluated on emergence rate, root growth, vine growth, yield and grade," he says.

The peanut team's research work and plots will be tour stops during the Sunbelt Ag Expo Field Day July 24.

"The Sunbelt Expo's Darrell Williams Research Farm and research field day provides a great platform to showcase the research efforts of the UGA Peanut Team in answering grower concerns and questions related to new products and changes in Extension recommendations," Monfort said.

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# Cotton at Expo involves timing, varieties, growth regulators and skip-row



**BY BRAD HAIRE**

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**F**rom variety selection to plant growth regulators to skip-row planting trials, the Sunbelt Ag Expo research farm is a primary location for University of Georgia cotton research and Extension educational efforts.

Jeremy Kichler is the UGA Extension coordinator in Colquitt County where the Sunbelt Ag Expo Darrell Williams Research Farm is located. He and members of the UGA Cotton Team annually conduct several research trials here.

He provides an overview of what participants at the Sunbelt Ag Expo Field Day July 24 can expect to see from the cotton team.

"Of course, variety selection is a big part of what we are doing, and with continued commercialization of new varieties each year, we plan to make sure producers in Georgia and throughout the Southeast have unbiased,

## CCA/CEU CREDITS

**All certified crop advisors attending Sunbelt Ag Expo Field Day will have an opportunity to register to receive CCA/CEU Credits.**

**Sign-up sheets will be available at registration.**

research-based information to make the most informed decisions possible," Kichler says.

One project at the Expo farm in 2017 revisited skip-row cotton planting. He and Dr. Jared Whitaker, UGA Extension cotton agronomist, evaluated two varieties in several skip-row patterns. Their research indicates the most-profitable and highest-yielding row configurations in that trial were for the traditionally planted cotton, and not the skip-row patterns.

"This year, we plan to examine additional varieties in a traditional solid planting and in a 2 x 1 skip-row configuration," Kichler says. "This skip-row pattern was the only one that produced similar yields in any of the trials that were conducted in 2017. We hope that the research in 2018 will confirm the results we observed in 2017, and allow us to more adequately respond to grower questions about revisiting skip-row plantings."

Georgia cotton producers use plant growth regulators as much or more than producers in other parts of the country. Research at the Expo farm is used to help make recommendations on proper PGR decisions based on which varieties a farmer grows.

"We've seen that not all varieties are created equal with regard to PGR needs," he says. "Specifically, we see that some varieties need much more intensive PGR management than others that may need no PGR applications at all. Our research here at the Expo will be extremely beneficial to producers when making PGR decisions on new varieties for which they have little experience."

Cotton defoliation and harvest timing can

also significantly impact overall yields and cotton fiber quality, Kichler says, and each year different weather patterns in the fall can have an impact on those decisions. At the Expo farm this season, the UGA Cotton Team plans trials to test decision-making tools used in defoliation and harvest timing.

"The Sunbelt Expo is a tremendous asset to us at UGA, as well as to producers across the state," Kichler says. "The research conducted here has a direct impact on producer decisions, and helps make Georgia cotton what it is."



# Think you have the best hay in the Southeast? Prove it and you could win a nice prize

**H**ay and baleage producers in the Southeast can have a chance at major prizes at the 2018 Sunbelt Ag Expo by participating in this year's Southeastern Hay Contest.

Thanks to Massey Ferguson's sponsorship and major support from sponsors for each of the seven categories in the competition, winners can take home cash and other prizes. The Grand Prize winner could be awarded \$1,000 and free use of Massey Ferguson hay equipment. Winners will be announced at a special ceremony on opening day of Sunbelt Ag Expo Oct. 16.

Since 2004, the Southeastern Hay Contest has been spotlighting high quality hay and baleage production in the region. Cooperative Extension programs in Alabama, Florida, Georgia, and South Carolina have managed the hay contest since its inception.

"We hope every high quality hay producer from Texas to Virginia will enter for a chance to win," says Dr. Dennis Hancock, University of Georgia Extension forage specialist and this year's director of competition. "Our goal is to demonstrate the potential to produce high quality hay and baleage in the Southeast. Just as important, we want to highlight the technology that makes it all possible."

Southeast forage growers have increased the quality of their production as they've recognized a need for greater efficiency due to high input costs.

"The key to success has always been timely management," says Hancock, who also points out that good management has been made more efficient with the use of improved forage varieties, advanced harvest equipment, and other technologies that have come to the market during the last decade. "It is hard to recall a more exciting time in the hay and forage industry," he says.

Massey Ferguson will provide the grand prize — a new Massey Ferguson RK Series Professional Rotary Rake or DM Series Professional Disc Mower for the 2019 hay production season and a \$1,000 cash prize.

Each of the seven categories is sponsored by additional industry partners. These sponsorships will provide cash awards to the top three places in each category, including \$125 for 1st prize, \$75 for 2nd prize, and \$50 for 3rd prize.

Hay and baleage producers from all 13 southeastern states are encouraged to check out the rules and entry forms and enter today. The deadline for entry into the SE Hay Contest is 5 p.m. Sept. 20, 2018. More information about the contest, including rules and entry forms, is available at [sehaycontest.com](http://sehaycontest.com)

Follow the Southeastern Hay Contest on Twitter (@SEHayContest) and Facebook ([www.facebook.com/SEHayContest](http://www.facebook.com/SEHayContest)) for periodic articles, updates, and timely information on producing high quality hay and baleage.



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## 2018 Sunbelt Ag Expo Field Day

**AGRI SUPPLY®** started as a family owned group of farm stores back in 1962, based in Garner, just outside of Raleigh, N.C. Now, over 50 years later, Agri Supply has eight retail locations in North Carolina, South Carolina, Georgia, and Virginia. We release several unique catalogs per year, and we have a thriving website with a huge product selection available. The Agri Supply product line has grown by leaps and bounds — from what began as only farm items, to what now tops over 26,000 items and counting, featuring many categories. Whether it's for your farm, shop or home, Agri Supply has you covered! Look for the newly-named Agribusiness Building 3 on the Sunbelt Ag Expo grounds — now the Agri-Supply Building.

**AMERIS BANK** specializes in ag banking with a team of bankers with over 100+ years of combined ag banking experience. As an FSA Preferred Lender, we continue to build on our ag banking commitment, which started with our founding in 1971. Our bankers understand that the ag industry is constantly changing, and recognize the importance of providing solutions according to your resources, goals, and changing needs. Member FDIC. Equal Housing Lender. Visit us online at [www.amerisbank.com](http://www.amerisbank.com)

**AMERICOT** is committed to providing varieties specifically developed for the Southeast cotton grower. In 2018, Americot released its first NexGen® brand Bollgard® 3 XtendFlex® variety, NG 5711 B3XF. This new variety has all the key features Southeast cotton growers need: mid-full season maturity, smooth leaf and very high bacterial blight tolerance, in addition to excellent yield potential and

fiber quality. NG 5711 B3XF responds well to PGRs and handles heat and drought stress very well. After a very successful 2017, NG 5007 B2XF has become a staple in the Southeast due to its overall versatility. With great yield potential and fiber package and very high turnout, Southeast growers are noticing the outstanding performance of NG 5007 B2XF over the last four years and are making sure to reserve space on their farm for this consistent, reliable variety. If an earlier-maturing variety is preferred, Americot offers three varieties that will fit Southeast growers' needs: NG 3522 B2XF, NG 4601 B2XF and the new NG 3729 B2XF. The NexGen® brand 3522 B2XF is a highly versatile early-mid picker variety in a Bollgard II® XtendFlex® trait package. Double-crop, late planted, irrigated or dryland, NG 3522 B2XF doesn't disappoint in lint yield. For an early-to-mid maturity, it handles drought and heat stress like an indeterminate full-season variety. Adapted across the Southeast and up the Atlantic coast, NG 3522 B2XF is another consistent-performing variety. NG 4601 B2XF is a mid-maturing variety that offers a premium on fiber quality. It performs best on stiffer soils and has excellent seedling vigor and emergence. NG 4601 B2XF also offers very high turnout at the gin. New for 2018, the NG 3729 B2XF is an early-mid maturing variety that performs well across the Southeast. This variety offers a taller plant that likes to be managed in an irrigated environment and demonstrates excellent *Fusarium* and *Verticillium* wilt tolerance. Look for NG 3729 B2XF in the Southeast trials in 2018! The Americot Breeding and R&D Teams are extensively testing Bollgard® 3 XtendFlex® candidate varieties for release in 2019! Americot is committed to providing the Southeast cotton grower with varieties that have the qualities they expect: high yield potential, excellent fiber quality and disease protection, all in the latest technologies available. At Americot, our priorities are simple: excellent performance, quality products and exceptional people. For more information, please visit our NEW website [www.americot.com](http://www.americot.com)

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The profit-making potential of the Stoneville varieties is powered by high performing germplasm, proven traits, and priority characteristics, including dryland performance, seedling vigor and *Verticillium* wilt tolerance. Stoneville will showcase a robust variety lineup:

- Proven performers in ST 4949GLT and ST 6182GLT, which topped the Georgia On-Farm Variety Trials in 2017;
- TwinLink Plus — three-gene Bt technology — in ST 5471GLTP and ST 5517GLTP; and
- New varieties ST 5122GLT and ST 5818GLT.

**BROWN MANUFACTURING CORP.** will be giving away a Brown 416 – 6' cutter. Round Back Deck Design — Reinforced Quick Hitch — Compatible Height of Cut: 2" to 12"; Deck Construction: All welded 7 Gauge Steel 3/16"; Gear Box Ratio: 1 to 1.5; Blades: 1/2" x 4"; Heat Treated/Free Swinging Stump Jumper: 1/4" Bowtie with 1" x 5" Solid Bar Deflector.

**CONGER LP GAS/PROPANE EDUCATION & RESEARCH COUNCIL** — Conger LP Gas has been serving South Georgia since 1989. Conger LP Gas is locally owned and supplies propane in 8 counties in South Georgia, with over 6,000 customers. Conger LP Gas specializes in the agricultural industry as the only propane marketer in Georgia that is a distributor for propane irrigation engines. Bill Moore, Alternative Fuel Sales Manager, actively works with farmers in the area who are looking for ways to improve efficiency on the farm. Conger LP Gas also partners with the Propane Education and Research Council (PERC) to offer incentives up to \$5,000 to the farmer who purchases a propane irrigation engine. In partnership with the Sunbelt Ag Expo, Conger LP Gas and PERC have donated a 200 HP propane irrigation engine for testing purposes against existing diesel and electric irrigation engines. Whether it involves grain, tobacco or peanut drying, propane irrigation engines, or chicken house and greenhouse heating, Conger LP Gas has the experience to sell and maintain every facet of propane on the farm. Conger LP Gas also works with farmers on vehicle and lawnmower conversions to propane. Our service techs have over 100 years of combined propane experience and can repair or replace any appliance from a 5,000 BTU bathroom heater to a 1,000,000 BTU grain dryer. As the only propane marketer in Georgia that carries a full line of propane irrigation engines, Conger LP Gas is able to analyze a farmer's current irrigation needs and

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determine if switching to propane is the most cost-efficient option. Our experience allows us to work with farmers in seeking propane solutions for the farm. This includes helping farmers apply for any rebates or grants that may be available when increasing energy efficiency on the farm.

**DELTAPINE/DEKALB/ASGROW** — DELTAPINE Brand Cotton: The Deltapine Class of 15-18 cotton varieties offer yield and fiber quality improvements over commercial standards. Some varieties contain Genuity Bollgard II with Roundup Ready Flex traits, while others carry the Bollgard II Xtend trait to help maximize performance on fields across the Southeast. First launched in 2015, the Deltapine Xtend Varieties are setting standards in yield, quality and weed control in the Southeast. Take a look at the class of 15-18 Deltapine Xtend varieties — you will like what you see. **DEKALB Brand Corn:** Corn earworms may be small, but they can mean big problems for you and your operation. But thanks to DeKalb GenuityVT Triple PRO corn, VT Double PRO and SmartStax, you're ready to fight back. You already know DeKalb germplasm gives you strong roots, stalks, great disease tolerance and yields — but now, combined with Genuity VT Triple PRO, VT Double PRO and SmartStax, DeKalb brand has a proven line of defense against corn earworms with broad spectrum above and below ground insect protection. **ASGROW Brand Soybeans:** Asgrow continues to research new products and deliver new innovations, and will lead the way with the greatest volume of new Genuity RR2Y and Xtend varieties, the next generation of Monsanto soybean technology that will set the stage for improved performance. The 2018 Asgrow product line delivers a strong portfolio of maturity groups 0 through 7 that are tested and proven to perform well in both optimum and tough growing conditions.

**DOW AGROSCIENCES/PHTOGEN COTTON SEED/MYCOGEN SEEDS** — Outstanding seedling vigor, strong yields, and superior fiber quality are standard with PhytoGen Cottonseed varieties. The 2018 Sunbelt Ag Expo Field Day and October Expo showcase multiple PhytoGen varieties and technologies, specifically PHY 444 WRF and several brand new W3FE entries that include the WideStrike 3 complement of Bt genes and Enlist Weed Control System. Mycogen grain corn and silage corn hybrids, well-adapted to the South, will be featured at the Expo Field Day. Included will be two new grain hybrids with PowerCore® Enlist™ technology: MY18D58 (118 RM) — a medium tall hybrid that is broadly adapted across the Southern Corn and Cotton Belt and MY16M16 (116 RM), a medium tall hybrid that is stable in high yield environments. Also SmartStax®

traited grain hybrid is included: 15T35 (115 RM) — a tall flex ear hybrid with good grain quality and husk cover with good foliar disease tolerance. As for silage corn hybrids, two new PowerCore® Enlist™ silage hybrids will be featured: TMF15H86 (114 RM) — high yielding, flex type ear with good starch levels and TMF 17W95 (117 RWM) — tall, with high tonnage potential, and a full flex ear that provides adaptability across plant densities. Also, a SmartStax® silage hybrid is included: TMF 14R77 (114 RM) — a tall, semi-flex ear hybrid with high tonnage potential.

**FARM CREDIT ASSOCIATIONS OF GEORGIA** have been helping Georgia grow for generations. Celebrating over 100 years, Farm Credit supports rural communities and agriculture with reliable, consistent credit and financial services today and tomorrow. As a member-owned cooperative, our members have been paid over \$900,000,000 in patronage refunds since 1988. It's a tradition of being the only lender who pays you for doing business with us. For more information, contact us at [georgiafarmcredit.com](http://georgiafarmcredit.com)

**FLINT RIVER SOIL AND WATER CONSERVATION DISTRICT** will showcase innovative precision irrigation practices, including remote soil moisture monitoring in peanuts with the newly developed Irrigator Pro scheduling smart phone app, as well as dynamic variable rate irrigation. The purpose of these cutting edge technologies is to optimize irrigation water use. The development of these technologies is being led by the Flint River Soil and Water Conservation District in cooperation with the University of Georgia and the USDA Agricultural Research Service (ARS) National Peanut Research Lab, with support from the USDA Natural Resources Conservation Service (NRCS). Remote soil moisture monitoring improves efficiency by identifying precise periods of time in which a farmer can irrigate less by using objective field data such as soil moisture, soil temperature, crop growth stage and localized evapotranspiration. Variable rate irrigation enables farmers to apply customized rates of water based on individual management zones within a field by utilizing GPS. Remote soil moisture sensing and variable rate irrigation technology are currently deployed on working farms throughout Southwest Georgia and are standard practices available through the USDA NRCS Environmental Quality Incentives Program (EQIP).

**FORQUIMICA CORP** is a technology fertilizers company. Since 1985, FORQUIMICA works along with farmers, committed to agriculture, research and quality on products, service and differential programs. In addition to high quality products and sustainable programs,

FORQUIMICA offers a detailed study of the crop nutrition and soil care, so our sales associates work more like an advisor. FORQUIMICA has many agriculture solutions on foliar fertilizer, metabolic bio activator, adjuvants for spray tank, inoculants and more. Prior to being added to a nutritional program, a product has to be approved by FORQUIMICA R&D department under a detailed study on laboratory and field tests. FORQUIMICA applies resources to conduct scientific studies at public and private institutions, universities, dealers and farmer partners, aiming to strengthen the research and aggregate knowledge. This is what made the difference at the most reliable company for South America, now available to USA farmers for bigger yields and better profit.

**KELLEY MANUFACTURING CO.** has been building dependable equipment for progressive farming for over 50 years. Each piece of KMC equipment is developed and engineered with the farmer's needs in mind, insuring a top quality implement that will produce top quality results. Specializing in peanut harvesting, tillage and poultry cleanout equipment, KMC offers a wide variety of products to their customers. Be sure to check out KMC's newly developed (Patent Pending) Stalk Shredder Puller on display at the Expo Field Day. The Stalk Shredder Puller is a single pass system helping to deliver money back to the farmer through fuel and time savings. It is the ultimate nematode and crop residue management system. Stop by KMC's booth to watch a video of the new Shredder Puller in action. Representatives will be on hand to answer any questions you may have. For more information about KMC and its entire product line, please visit [www.kelleymf.com](http://www.kelleymf.com) or call 1-800-444-5449.

**KUBOTA CORPORATION** introduced its first tractor to the United States in 1969. Filling a product void in the American marketplace, the Kubota 21 horsepower L200 was an overnight success. As a result, Kubota Tractor Corporation (KTC) was formed in 1972 and the company introduced its first 12 hp four-wheel drive tractor in 1974. Although four-wheel drive was common among larger American tractors, it was unheard of in the compact sector and became a benchmark for the industry. Today, Kubota Tractor Corporation is the U.S. marketer and distributor of Kubota-engineered and manufactured machinery and equipment, including a complete line of tractors of up to 170 gross horsepower, performance-matched implements, compact and utility-class construction equipment, consumer lawn and garden equipment, hay tools and spreaders, commercial turf products and utility vehicles. Kubota equipment is sold and serviced in the United States through a nationwide network of more than 1,100 authorized Kubota dealers

supported by the company's corporate headquarters in Grapevine, Texas, and five division offices and warehouses located in Lodi, Calif.; Fort Worth, Texas; Groveport, Ohio; Kansas City, Mo.; and Suwanee, Ga. For product literature or dealer locations, visit [www.KubotaUSA.com](http://www.KubotaUSA.com)

**NACHURS®** — Since 1946 NACHURS® has led the fertilizer industry by offering agriculture's most productive and successful products the highest quality, scientifically based, and agronomically sound fertilizer technologies in the business. NACHURS® technology products continue to lead the industry and provide commonsense solutions for farmers by incorporating science-based fertilizers to enhance nutrient use efficiency. These proven technologies will help maximize crop production potential and overall farm profit. Bio-K® is the most effective, lowest salt, least corrosive, most soluble, and most plant-available potassium source in the industry. Rhyzo-Link® is a fertilizer combined with 5 specific bacillus strains of plant growth-promoting rhizobacteria that link soil health/chemistry and plant productivity through efficient balance, placement, and recovery of soil/plant nutrients. YaraVita® Procote® provides a unique way to coat micronutrients onto dry fertilizer to provide maximum efficiency and nutrient distribution across the field, which greatly improves plant uptake compared to alternative methods of spreading dry micronutrients. Aqua-Tech® fertilizers are designed to be injected through irrigation systems. The exclusive technology of Aqua-Tech® solves the problem of hard water tie-up with phosphorus. This product line boasts the ultimate in nutrient availability, ease of use, and safety (handling and equipment) for most irrigation water, including drip irrigation systems. Maximum efficiency is achieved when combining high efficiency fertilizer with sound soil fertility management. Use NACHURS® beginning with in-furrow fertility for all crops; add the finishing touches with NACHURS® foliar-

applied nutrition, micronutrients, and other unique technologies. The quality of the ingredients used to manufacture NACHURS® liquid fertilizers is second to none. Virgin raw materials are selected for maximum nutrient availability, solubility, and ease in handling, storage, and application.

**NEWTON CROUCH INC.** provided the variable rate spreader equipment used to prepare the fields for the demonstration. Visit NCI at the Sunbelt Field Day to learn how you can leverage precision ag equipment for your farm's needs. NCI is celebrating 78 years in business this year, and has been a part of the agricultural community, promoting service in many commercial and voluntary fields as a family business, since its inception. NCI manufactures an extensive line of dry fertilizer and lime spreaders, as well as liquid fertilizer applicators, sprayers, and nurse trailers. They specialize in precision ag equipment, such as variable rate dry spreaders and GPS guidance systems. Learn how their variable rate technology can improve yields and limit waste, all designed to help promote more efficient farming practices. The NCI equipment line is noted for its high quality components, design, and rugged durability. NCI equipment has a long field life, living up to its motto, "The Spreader of Choice"® The NCI parts department is always ready to help with your pump, parts, tips, and poly tank needs. Newton Crouch has three locations to serve your needs: Griffin, Ga. (800) 241-1350; Albany, Ga. (800) 624-7931; and Sebring, Fla. (877) 605-0273. Visit [www.newtoncrouch.com](http://www.newtoncrouch.com) to learn why Newton Crouch is the Official Spreader of the Sunbelt Expo.

**NICHINO AMERICA, INC.** is a wholly owned subsidiary of Nihon Nohyaku Co. Ltd., based in Japan. Nihon Nohyaku Co. Ltd., established in 1928, is Japan's oldest agrochemical manufacturing company. A research and technology-driven company, Nichino America offers proprietary products to producers of food and fiber. Nichino America produces several products for weed, insect, and disease control, as well as defoliation and desiccation. These crop protection products are known for targeted performance, flexibility, and ease of application. Nichino America strives to be a valuable partner in the agricultural business by offering customers innovative and efficacious products backed by extensive research.

**PENNINGTON SEED** — Pennington's story began in 1945 as a small seed store on Main Street in Madison, Ga. Brooks Pennington, Sr., the company's founder, started by supplying local farmers and ranchers with quality cotton, soybean, and agricultural grass seeds. As Brooks Pennington, Jr., began running the



company, Pennington moved out of the retail seed business and set their sights on supplying agricultural seed to retailers across the southeastern U.S. The company decided to concentrate their efforts on pastures and forage products, and later, lawn and turf. As the company's grass seed business grew, Pennington extended its growing facilities into Missouri, Arizona, and eventually into the fertile Willamette Valley of Oregon. Today, we at Pennington are a part of the Central Garden & Pet Company (NASDAQ: CENT) family of brands, with over 1,000 employees and more than 16,000 dealers worldwide. Grass seed has become our expertise over the last several decades, and we remain dedicated to providing the finest grass seed in the industry. Not only do we grow our grass seed in the U.S., but we have the largest private grass seed research facility in the country, NexGen Turf Research. Along with partnerships at various universities, our research-based breeding program enables us to grow only the best grasses science can deliver. Pennington maintains a strong commitment to farmers, ranchers, and hunters of America with a complete

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line of premium forage, wildlife, and most recently, cover crop seed products. The lineup includes both warm and cool season annual and perennial forage species. Our cover crop products feature exclusive seed varieties such as Wintergrazer 70 cereal rye, AU Sunrise crimson clover, Root Plow radish, and ARG-1 annual ryegrass. These varieties offer several unique plant characteristics that make them ideally suited for cover crop use. They are available individually or in several cool season forage seed mixes sold under Pennington's Field Guard™ product line. In addition, custom seed blending is offered to meet individual farm cover crop needs.

**PIONEER — Pioneer® brand corn hybrids:** P1197YHR — Excellent yield potential in this early maturing, moderately-statured hybrid. This product offers excellent stalks with outstanding staygreen and is best positioned under moderate- to high-yield dryland, as well as pivots with high yield potential. Also available: P1197R and P1197 conventional. P1464YYHR — New mid-season Optimum® Leptra® hybrid offering stable yield potential across dryland to irrigated environments. This product offers very good roots and acceptable stalks. Avoid corn-on-corn in high NLB areas. P1662YHR — Stable workhorse type product, suitable for dryland and limited irrigation situations. Healthy agronomics and good foliar disease resistance with excellent staygreen. Good dual purpose silage option with above average fiber digestibility and good starch content. P1847YYHR — New late-season Optimum® Leptra® hybrid with good ear flex offers maximum yield potential even in lower populations. Moderate stature and lower ear placement, along with above average staygreen, are highlights of this product. Excellent yield potential coupled with moderate root and stalk strength target harvest priority on lighter soils. P1870YHR — Leader product for irrigated and higher yielding non-irrigated environments. Good resistance to northern leaf blight. Lower ear placement and improved standability are key traits of this new hybrid family. P1916YHR — A late-season hybrid that offers short plant stature and low ear placement with excellent yield potential. It delivers excellent grain quality and favorable stress emergence. Position under irrigated and high-yield dryland situations.

**Pioneer® brand soybean varieties —** P76T54R2 — This Mid-Group VII variety offers excellent southern root-knot nematode resistance and above average standability, which provide versatility in planting in wide and narrow rows, as well as dryland and irrigated situations. Works well as a full-season or double-crop soybean. Favored product for full-season irrigated situations. Contains the Genuity® Roundup Ready 2 Yield® trait. P72A21X — Full-season A Series variety with Roundup Ready 2 Xtend® technology. Attractive tawny brown pod color with excellent southern root-

knot nematode resistance, as well as moderate peanut root-knot nematode resistance. Good harvest standability and canopy width. P67T90R2 — Mid-late group VI variety that offers the Genuity® Roundup Ready 2 Yield® trait along with excellent southern root-knot nematode resistance and good standability. Suitable for wide or narrow row plantings under full-season or double-crop plantings. This variety is well-suited to dryland environments. P63A47X — New, early group VI variety with Roundup Ready 2 Xtend® technology. This variety offers excellent southern root-knot nematode resistance. Suitable for wide or narrow row plantings under full-season or double-crop plantings. P55A49X — A determinate A Series variety with excellent root-knot nematode resistance. This variety offers Roundup Ready 2 Xtend® technology. Very good frogeye leaf spot and stem canker resistance, along with excellent harvest standability, provide stability to this variety.

**REINKE MANUFACTURING COMPANY, INC.** is the world's largest privately held manufacturer of center pivot and lateral move irrigation systems. Family owned since 1954 and headquartered in Deshler, Nebr., Reinke develops products designed to increase agriculture production while providing labor savings and environmental efficiencies. Reinke, a continuing leader in industry advancements, was the first to incorporate GPS, satellite-based communications and touchscreen panel capabilities into mechanized irrigation system management. For more information on Reinke or to locate a dealership, visit [www.reinke.com](http://www.reinke.com) or call 402-365-7251.

**RW GRIFFIN FEED, SEED & FERTILIZER, INC.** — The flagship company for RW Griffin, a fifth generation southern agribusiness company leading the way through innovative crop solutions, a team of Certified Crop Advisers, retail farm supply centers, cotton gins, peanut buying points, major terminals, and a large wholesale distribution network. In 2014, RW Griffin Industries, LLC, one of the RW Griffin Feed, Seed & Fertilizer, Inc. companies, joined forces with the UGA Cotton, Corn, and Forage Teams by agreeing to provide nitrogen inputs for both the test plots and production farm at Sunbelt Expo. RW Griffin Industries, LLC, is proud to have supported UGA research efforts on cotton and forage for the past several years. Products supplied will include 19-E, "The Low Cost Solution," a liquid nitrogen input used by growers for more than 40 years. In addition, they will supply 18-0-0-3S, a 19-E based sulphur solution, and Calcium Ammonium Nitrate in dry form, both popular choices among growers. RW Griffin Industries, LLC, continues its commitment to supplying products that are based on agronomically sound principles, have stood the test of time, and are the best value

for its customers. For more information, please contact Rudy Hancock at [rudy.hancock@rwgriffin.com](mailto:rudy.hancock@rwgriffin.com) or visit us at [www.rwgriffin.com](http://www.rwgriffin.com) or [www.19-e.us](http://www.19-e.us)

**S&S MARKETING/MONOSEM** — The versatility of the Monosem vacuum meter is demonstrated in its ability to consistently meter many different seed types. This multi-crop option provides adaptability to market trends that more specialized, single-crop planters don't allow. A Monosem owner can plant row crops such as corn, soybeans, milo, and cotton with accurate precision, and then also use the same planter for specialty crops such as sugar beets, peanuts, sweet corn, edible beans, etc. All Monosem planters are custom built to the specifications of each operation, for tillage style, inputs, row spacing, and row types including single, twin-row, and ultra-narrow row.

**SePRO CORPORATION** is a research-based life sciences company providing innovative products and services for specialty markets worldwide. Our mission is to provide plant protection and plant management products and services that fit market needs. In cotton, SePRO offers Brake herbicide. Brake is a broad-spectrum grass and broadleaf weed control product. Brake delivers a pre-emerge foundation of residual control that is excellent on pigweed (Palmer amaranth). Brake is safe for your cotton. Brake is a unique mode of action that offers resistance management benefits. Stop Pigweed. Protect Cotton.

**TITAN/GOODYEAR FARM TIRES** — American made and owned, Titan Tire Corporation is proud of the hardworking American citizens who produce the best tires and wheels for our country every day. Titan and Goodyear Farm Tires have the largest selection of quality products in the industry, with the greatest servicing dealer network. Stop by the Titan/Goodyear booth and remember: Buy American!

**UGA COTTON TEAM** is exploring various production issues at the Sunbelt Expo. In 2018 the Cotton Team will conduct experiments across several disciplines. Soil Fertility: field experiments will investigate nitrogen and potassium fertilization programs. The Sunbelt Expo will be one of the three Colquitt County sites that are planned for the annual UGA County on-farm variety trial.

**UGA FORAGE SPECIALIST** — This demonstration site will highlight UGA and USDA-ARS research with forage bermudagrass, including the new "bermudagrass variety gar-

den,” which will illustrate the advantages and disadvantages of six of the most popular hybrids. Also at this site, a brief summary of bermudagrass stem maggot research will be presented, including a discussion of varietal differences in BSM tolerance and insect control options. We also will share the results of our research on a locally produced, liquid nitrogen fertilizer product from RW Griffin Industries, LLC, which has proven that their 18-0-0-3 19E blend is an economical and effective N source. This is year two of a three-year study.

**UGA PEANUT TEAM** is conducting several trials at the Sunbelt Expo’s Darrell Williams Research Farm. The 2018 Research trials include: Trial 1 — foliar fertilizer and plant growth stimulant; Trial 2 — yield response of peanut to various tillage practices; and Trial 3 — impact of inoculant and growth enhancement additives on peanut growth and yield. The foliar fertilizer and plant growth stimulant trial (1) will evaluate the growth, yield and quality responses of commercially available foliar fertilizers and plant growth stimulants. In Trial 2, growth, disease, yield and grade responses will be evaluated for Georgia-06G across intensive broadcast tillage (bottom plow) and two reduced tillage programs consisting of a single ripper shank with and without a cover crop. The objective of Trial 3 is to evaluate the potential additive effects of several growth enhancement products mixed with peanut inoculants. Products being evaluated are Optimize Lift (inoculant),

TagTeam LCO (inoculant + nutrient enhancement), and Myco Apply EndoPrime (nutrient enhancement) + Optimize Lift (inoculant), and Primo Power CL (inoculant). Products will be evaluated on emergence rate, root growth, vine growth, yield, and grade.

**UGA WEED SCIENCE** research on 20 acres of land at the Sunbelt Expo focuses on developing weed management programs that maximize weed control while minimizing cotton injury from herbicides. Conservation tillage practices utilizing rye and clover are also being studied to further improve weed management programs while maximizing yield. Additionally, research is under way to better understand dicamba and 2,4-D volatility to improve on-target applications.

**VALLEY IRRIGATION** — As a 40-year-plus exhibitor at the Sunbelt Expo, Valley Irrigation remains committed to supplying our Southeast farmers with the products and services they need to ensure that their yields and quality are second to none. As farming in the Southeast is one of the most diverse crop mix areas in the country, Valley also offers a diverse mix of products to aid our farming communities. Our Southeast Valley dealers are some of the most experienced in the market, with service and parts readily available to their customers. We wish to thank all of our farmers who have put their trust in our products and our dealers over the years. We are here to serve you and make you be successful in all that you do. We look forward to

visiting with you at the Field Day and the Expo. Thanks for attending the 2018 Field Day.

**VANTAGE SOUTHEAST** — Since its founding in Cordele, Ga., in 2003, Ag Technologies has provided superior service to all of Georgia and large portions of the southeastern United States in the emerging industry of Precision Ag. When Ag Technologies began, Precision Ag had only been around the farming industry for a handful of years, but now makes headlines because of the cost savings it provides on outrageously high inputs. As the demand for Precision Ag increased, Ag Technologies grew to meet that demand. In 2017, Ag Technologies strengthened its partnership with Trimble by joining the premier network of Vantage distributors and changing their name to Vantage Southeast. While the name has changed, Vantage Southeast will continue the same superior service and industry leading insight that have always driven us, with the added benefit of new technology offerings.

**VIVID LIFE SCIENCES** — A leader in plant nutrition and biostimulants, Vivid Life Sciences is providing growers with new options to feed and grow farmers’ return on investment season-long. Our grower solutions include seed treatments, in-furrow, foliar and soil applications to cover your needs through the season. We continue to bring brighter ideas in plant performance each year, and we are excited to participate in this year’s program to showcase these new innovations.



# Drones at Expo collect valuable crop data; on-farm interest growing



Farmers are increasingly making use of unmanned aerial systems/drones for scouting and collecting data for decision-making. University of Georgia specialists are also using UAS to collect data on crop trials at the Sunbelt Expo Darrell Williams Research Farm. — Photo: Sean Gallup/Getty Images

## BY BRAD HAIRE

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**U**nmanned Aerial Systems technology is getting more affordable and appealing to use on farms, and in agronomic research, to collect useful crop data that can be turned into an actionable plan to improve crop production.

David W. Daughtry, a University of Georgia graduate research assistant who works with Dr. Wesley Porter, UGA Extension irrigation specialist, and Dr. Glen Harris, UGA Extension crop fertility specialist is a licensed drone pilot, and uses the technology to collect research data from UGA trials at the Sunbelt Ag Expo Darrel Williams Research Farm.

In this Q&A, Daughtry talks about the technology and how it is used at Expo and on Georgia farms.

But first, let's get a couple of terms defined: An Unmanned Aerial System is also called a UAS, and consists of an unmanned aerial vehicle (UAV, or more commonly, drone), the control system, the sensors on the UAV, the software used to post-process the data, and the information that can be gained from the system.

### **For what purposes do you use drone technology at Expo?**

We have been using unmanned aerial systems in our cotton fertility research. My research project is focused on correlating various nutrient levels in both cotton and corn to data collected by the UAS. We are currently looking at nitrogen rates and N, P, K, S, and micronutrient deficiency/sufficiency detection methods.

### **What can this tool offer agronomic crop researchers?**

UAS provide a method for collecting large amounts of data rapidly in our research trials. We are continually learning about the information that can be obtained out of UAS data. Additionally, it allows us to have data that has high temporal and spatial

resolution that can be stored indefinitely. These data can include a multitude of information, such as fertility, estimations of crop stands, potential for disease detection, and irrigation scheduling.

### **Is drone technology making its way to farms in the Southeast and in Georgia?**

We have seen a significant increase in the number of growers and county agents who are interested in using UAS technology in Georgia. This is partly due to the rapid growth of UAS production, and advancements in technology.

This year we hosted two separate UAS training sessions for UGA Extension agents: one at Tifton (located in south Georgia), and one in Watkinsville (located in northeast Georgia). Our research team is focused on providing scientific results to support the use and verification of actionable information obtained by UAS, specifically as it relates to practices in Georgia. At this point, we are mainly seeing UAS being used on the farm as a scouting tool using, mainly the RGB (red, green, blue) camera to take photos and videos.

### **What tips or recommendations can you give a farmer or consultant who might be thinking about investing in the technology?**

That depends on what the end user wants to achieve. There are a multitude of UAS available, ranging in price from \$300 to just over \$1,000, which will do a very good job using an RGB camera. These would mainly be used for scouting purposes. There are UAS available that collect multispectral data, which can be used to develop vegetative index maps such as NDVI (normalized difference vegetation index).

The usage of these is up to the individual. Basically, the type of system an end user wants to purchase depends on what they would like to use it for. If it is general scouting, then a cheaper system is sufficient, but if they are wanting to do more advanced work, a more advanced system may be desired.

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