

ORGANIC NEWS

AgriLifeOrganic.org

If you have not had an opportunity to look at this website, I encourage you to spend a minute or two checking out the information I have included for organic agriculture. I am adding material all the time and trying to include things you might find useful. It is also a place to include information on current events and more of that will come over time.

Organic Agriculture in Texas

Not many realize just how big organic agriculture is in the state of Texas, but it is big and growing bigger. Every 5 years, USDA does an analysis of organic agriculture in the US. The last analysis was done in 2019 and at that time Texas was ranked fifth in the US for total production but was higher for acreage and value. On that survey Texas was ranked fifth just behind Oregon but since that time we have seen Texas easily pass into the fourth spot and maybe higher.



Recently we needed to provide information on the overall impact of organic agriculture to the state of Texas for some legislators. In that analysis some great economists took the 2019 data and looked at this from an economic impact standpoint. Amazingly the overall economic impact is **\$938,895,700** as I like to say, “just under a billion! That’s a lot of money and a whole lot of impact.

Corn Plants are Different Now

Of course, corn plants are different now, yields are higher, GMOs are a regular part of conventional corn breeding, there is even some natural resistance to insects or disease we never had. But there are also some unintended consequences that researchers are just now discovering.

A research report published in March of this year is eye-opening, especially for those in organic agriculture. Basically, what these researchers did was to study if corn breeding programs have altered the recruitment of microorganisms to the rhizosphere

of plants over time and with changes to the plant genotypes.

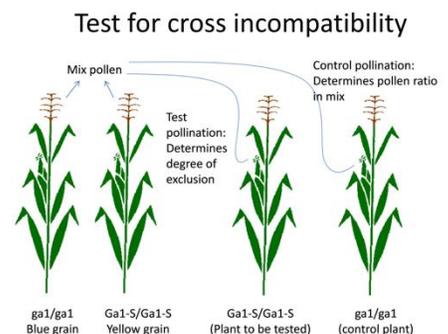
In as simple a language as possible they looked at 20 corn lines spanning the years 1949 to 1986. This time is when great advances were made in corn genetics, and they corresponded with the introduction of synthetic nitrogen into the corn production system. What they were looking to investigate was whether the breeding program, conducted with plenty of nitrogen, bred superior corn yielding varieties, but without the necessary tools to recruit the rhizosphere microbiome that helps the corn plant to transform atmospheric nitrogen into nitrogen necessary for growth.

Past research has proven that plant microbiomes play a major role in altering plant resilience, fitness, nutrition, and productivity. Plant hosts selectively filter microorganisms that colonize their rhizosphere, and this selection ability is inherited (or not) across the crossbreeding process. So, if the breeders were only looking at yield, and they had plenty of nitrogen, then they may lose this beneficial rhizosphere microbiome recruitment process.

Okay, lots of information to take in but the takeaway is – when we use varieties (possibly any crop) that has been

developed for modern agriculture that uses synthetic crop inputs they will probably struggle in an organic

system. I do believe that conventional crop breeders will be looking to fix this issue especially with high nitrogen prices, but it only emphasizes a need to have organic crop breeding programs that understand and use the plant/soil/microbiome interactions.



Organic Survey Results

At the end of August I sent out a survey to organic crop producers asking some questions about their crops, major problems in organic crop production, possible cover crops, etc. For most people it was too long but when you spend two stamps to send out a survey you really want some answers, and you probably won't get another opportunity. Go to:

<https://tinyurl.com/d7ezzusr>

Well, we only got back **32 surveys** (18 mailed and 14 online) out of 260 mailed so it was a loss of money (over **\$400**) but there was some good information. First, of those returned surveys, growers are making more money net per acre on organic acres than conventional. Even at higher conventional prices the increase in organic prices has been good and with yields getting better on organic acres producers are making good money. Second, the number one problem is weeds and we all knew that. Third, the two most listed sources of information are other farmers and own experience which says to me Extension needs to do better. Fourth, everyone said they would like more information/education in organic production which also says Extension needs to do better!

Organic Cotton/Peanut Seminar Set – January 26, 2022

On Wednesday, January 26, 2022, the Texas A&M AgriLife Organic Program will host an Organic Cotton/Peanut Seminar at the Seminole Community Center in Seminole, Texas. Registration will start at 8:30 am and the program will begin at 9:00 am to 3 pm. Lunch is sponsored.

Topics to include Organic Cotton Varieties, Peanut Varieties, Seedling Disease Issues, Soils and

Soil Health, Common Problems in Organic Production, Common Problems in Organic Certification, Organic Budgets, Weed Control Panel, Crop Forecasts for 2022 and more!

Speakers include Emi Kimura, John Cason, Katie Lewis, Justin Tuggle, Cecilia Monclova, Dylan Wann, Pancho Abello, Brandi Chandler and assorted panel speakers.

Sponsors to date include, the Texas Peanut Producers Board, Certis Biologicals, International Peanut Group, Helena, Algrano Peanut Shelling, Valent, Aqua-Yield, Texas Earth, South Plains Compost,

New Deal Grain and Kunafin Insectary.

I am continuing to solicit sponsors to help reduce costs for all sponsors and all are welcome!

Challenges and Opportunities for Organic Rice

Recently USDA National Institute for Food and Agriculture awarded a **\$456,000** grant to facilitate

the growth of organic rice production in the U.S. and foster the growth of the domestic market. The three largest states in rice production, California, Arkansas, and Texas will be the main focus with lots of work happening in the two largest organic rice states, Texas and California.

The outreach plan has five components: 1. Inclusion of organic rice into the agendas of the rice field days organized by the extension services in the leading rice-producing states, including

Arkansas, California, and Texas in 2022, 2023, and 2024. 2. Organization of an organic rice symposium at the 2022 and 2024 Rice Technical Working Group (RTWG) Meeting. 3. Participation in industry and professional conferences and meetings to disseminate information about organic rice generated by this project. 4. Publication of interactive applications developed during the project such as interactive organic rice budgets and representative organic rice farm models in various webpages hosted by Extension and Research as well



as The Organic Center. 5. Collaborating with The Organic Center to make use of their vast network of organic stakeholders and expand our research communication efforts to a national level. I will keep you posted on progress but overall, this and some other future grant projects are helping to promote Organic Texas Rice!

National Organic Standards

Board Comments and Vote

Recently the National Organic Standards Board met by Zoom, first for a comment period and then to vote on recommendations they will make to USDA. The National Organic Standards Board (NOSB) is a Federal Advisory Board made up of 15 volunteers from across the organic community and the NOSB considers and makes recommendations on a wide range of issues involving the production, handling, and processing of organic products.



In the recent meetings there was one issue that drew a lot of interest and opinions – to prohibit Ammonia Extract on the list of approved or prohibited substances.

What is ammonia extract in organic programs? They have been approved for a long time but now they are developing organic processes that are able to strip off ammonia from organic waste products hence the controversy! I am not sure what ended up being the final vote count – more to come.

Grass-Fed Organic Dairy

As most in the Texas organic world know, I have not been an organic specialist for Texas A&M



AgriLife Extension very long, and the learning curve about organic in Texas is an everyday thing!

Last June, Henk Postmus, a local organic dairyman (Stephenville/Dublin) and I had a long conversation about “grassmilk” also known as organic grass-fed milk. He wanted to know all about it because he believed it would work in Central Texas with our good pastures, rainfall, irrigation, and warm climate. To be honest I know about organic dairy production because I have known Henk a long time, but I didn’t know about grassmilk. That organic learning curve has been steep, but fantastic!

First, grassmilk or grass-fed is organic because the first requirement to be a grass-fed dairy is to be organic. The second, very basic requirement, is that you cannot feed grain – any grain, at any time. All the feed must be based on forages, whether grass (monocots) or dicots (clovers, turnips, alfalfa), and you cannot harvest a silage with the grain head (corn, sorghum, wheat). The other requirement is at least 150 days of grazing per year, which is no problem in Texas.

Grassmilk does have several large research studies done in the US that shows it to be high in omega 3 fatty acid and much lower in omega 6 fatty acid, which is supposed to be healthier for you. (Check out this link to see the study <https://tinyurl.com/kcpum54m>)

As I began checking into organic grass-fed dairies, I heard a rumor that Aurora Organic had begun milking again at their facility near Dublin. I had stopped in a couple of times but had missed the manager. Finally, I did connect with Dawn Dial, manager of the Pepper Dairy for Aurora Organic and I asked about grass-fed dairies and found out they have been grass-fed for nearly two years.



Dawn is enthusiastic about the whole process, and I will have to say it is an interesting way to dairy. The milk is really good, and the unique thing is that the flavors change based on the forages the cows eat.

Needless to say, Henk has been visiting with Dawn at the Aurora Pepper Dairy and with the Aurora Organic Dairy company to learn more. Considering the way grain commodities keep going up, especially organic grain, this may be a trend for more organic dairies.

Calibrating a Seed Drill for Cover Crop Mixtures

Recently I was working on a test plot for some forage/cover crop varieties we were trying. They included several clovers, an alfalfa, some cereals including rye and wheat, and a sainfoin (a large rough seed). We want to put in a plot with a mix of all these seeds and plant with a grain drill but



that is not as easy as it sounds! First there a lots of different seed sizes in a mix and so what seed do you use to set the drill? Second, if you do get your drill set how can you test it to know?

In the process of thinking about the settings I ran onto this NRCS publication that is actually pretty handy. Here is the link:

<https://tinyurl.com/tdzz535m> if you want to check it out. Basically, you can either set the drill for the most prominent seed species in the mix or you can weigh a sample of the mix and use their calculations to get a bushel weight. Once you get this you can then check out the drill by calibrating it with a test run, again **all explained in the publication.**

Citrus Production Down +70% in RGV

I recently had a chance to visit several organic citrus and vegetable farms in the Rio Grande Valley and the lingering effects of the February freeze are still hard to look at. In this picture you have a grove that has been all but abandoned. The trees are mostly alive but the massive pruning that needs to be done is just not going to happen anytime soon!



But, I was impressed by the Holbrook's (Dennis and Russon) organic groves. They certainly had to prune a lot of dead wood but overall the trees seem to have done better than many other groves I visited. It would be interesting to quantify the difference in the care between the two systems (organic vs conventional) and see if the visual difference is due to organic production or something else. In the Holbrook's case they will stay organic no matter what!

Organic Work in Texas

Texas A&M AgriLife Researchers and Extension Specialists are applying for and receiving many grants to do organic agriculture work in Texas. When you apply for a grant, it is because you have a great idea but no money to be able to get the work done. Currently you have a job and maybe a little travel money but the ability to make an impact in agriculture is based on

your ability to find outside money to fund projects.

This is a partial list of projects that I am working on, or am a part of, and I know there will be more:

- Two grants to study organic cowpea production for cover and as grain.
- A grant for Improving Grass-Fed Organic Dairy Forage Quality and Management
- Organic Agriculture Program Development for Texas A&M AgriLife Research and Extension Educators Grant
- Sheep Integration for Diverse and Resilient Organic Cotton Systems
- Grant to develop Organic Peanut Varieties
- Rice grant already mentioned

Lastly, I want to wish all of you a great holiday season. May you and your family be blessed in all you do!



Bob Whitney, Extension Organic Program Specialist