



A professional society representing the nation's crop production and research consultants

PRESIDENT'S COLUMN



By
Nathan Goldschmidt
NAICC
2018 President

Is Natural Food Safe Food?

People opposed to or afraid of genetically modified organisms (GMOs) complain that they are unsafe and unnatural. What do those words mean? Is something inherently safe just because it is natural? Does choosing natural food or organic food guarantee safer or healthier food?

The definition of safety is straightforward. Something that is safe does not cause harm. However, safety is also contextual. That is to say, food is safe only in a specific context. For example, rhubarb stalks make a mighty tasty pie, but you will poison yourself if you try to eat the leaves. Soy is a food staple for many people, but individuals allergic to soy avoid it at all costs.

The definition of natural is a bit looser. Many people think of natural as something produced in nature, which is a fair definition. But what does that encompass? Is organic synonymous with natural? A box of organic macaroni and cheese may meet the requirements to be labeled as organic, but I don't think you can call anything processed down to powdered cheese natural.

Are GMOs natural? A knee-jerk reaction may be, "Of course not! They were produced in a lab!" But here are some ideas to consider. GM crops are grown in the field just like conventional

and organic crops using the same types of production and management systems, with the exception that organic production is restricted to mostly naturally derived chemicals. All three growing systems apply fertilizer, and in part because the use of pesticides cost money and time, all three growing systems use pesticides only when necessary. GM crops have the equivalent chemical composition and nutrient levels of their conventional counterparts (as discussed in more detail in last month's article). *Agrobacterium*, currently the primary vector used by the biotech industry to insert genes in genetically modified crops, was chosen for that task because it regularly transfers its own bacterial DNA into plants in nature. In fact, *Agrobacterium* genetically modified the sweet potato by transferring its own bacterial DNA into the crop during early domestication in the Americas several thousand years (<http://www.pnas.org/content/pnas/early/2015/04/14/1419685112.full.pdf>).

Sweet potatoes – naturally transgenic!

Regardless of whether or not you agree with the concept that GMOs are natural, the term natural is not synonymous with safe. Many types of crops, irrespective of whether they were organically or conventionally grown, contain natural toxins and antinutrients, which are naturally occurring compounds that interfere with the absorption of nutrients. Undercooking the kidney beans in your chili can result

in severe intestinal distress if a certain compound is not destroyed through boiling. There are several plant species that look edible but are actually poisonous (such as pokeberry and the cherry-tomato-shaped fruit of horse nettle). Tobacco is natural, and even without all the additives in cigarettes, its use is associated with a high risk of cancer.

Likewise, the term organic is not synonymous with safe. I recently read a blog post where the blogger boasted that she never washes her veggies since she only buys organic. Wow! Lettuce contaminated with *E. coli* is clearly not safe. And organic lettuce can be contaminated with bacteria just as readily as conventionally grown lettuce. Organic also does not mean pesticide-free, about which many people have written at length (For a balanced perspective, check out Tamar Haspel's 5/21/18 article in the Washington Post <https://wapo.st/2ABhmNp>

What is the point of my rambling? The terms organic and natural do not guarantee health or safety benefits. There may be benefits to buying organic foods, but buzzwords used in marketing those foods may lead you astray from the science. Two decades of research has demonstrated that foods produced from GM crops are just as safe and nutritious as from non-GM crops.

Joy Whitsel contributed to this article.

Updated Website

We are very excited about our new website look and its improved member usability. Many thanks to APEX WebStudio LLC for all their hard work and expertise! Thanks also to the NAICC Marketing Committee for your leadership on this project.

Please check it out at www.naicc.org.

See page 4 for details on how to renew your dues for 2019!

Come Join Us In Savannah!



NAICC ANNUAL MEETING AND AG PRO EXPO

January 16-19, 2019

Savannah International Trade and Convention Center
Savannah, Georgia

www.naicc.org

The 2019 NAICC Annual Meeting & AG PRO EXPO is January 16-19, Savannah International Trade and Convention Center, Savannah, GA. Go to <http://naicc.org/2019-annual-meeting/> for a Schedule at a Glance, Program, Workshops, Meeting and AGPRO Expo registration and the hotel links to reserve your room. **NEW!** Go to <https://naicc.org/wp/wp-content/uploads/Emerging-Evolving-Technology-Session.pdf> for the CALL FOR PAPERS for the Emerging & Evolving Technology Session.

GAIAC/NAICC Workshop Tuesday January 15, 2019, Savannah, Georgia

Registration & Continental Breakfast 7:30 AM,
Program: 7:55 am – 12:00 PM

NAICC and GAIAC (Global Alliance of Independent Agricultural Consultants) have organized a workshop titled **“Commercial Production of Hemp and Other Minor Crops”** for Tuesday morning January 15, prior to the NAICC Annual Meeting in Savannah, GA. The workshop will focus on agronomic production; pest management; regulatory, domestic and international commerce issues impacting production of hemp and other minor crops in North America and in other countries around the globe.

Dr. Phil Wilson from the NC Department of Ag will review the background of hemp production and Dr. Emily Febles of NCSU will review the changing regulatory landscape surrounding this crop when grown for fiber as well as cultivars grown for recently legalized recreational and medicinal uses. Dr. Jerry Baron, Executive Director of the IR-4 Project, will review the role of IR-4 in securing use registrations for pest management products used in production of minor crops. Additionally he will discuss IR-4's cooperative efforts with other regulatory agencies globally

to harmonize registrations and tolerances to better facilitate the international commerce of minor crops.

NAICC and GAIAC consultant members will share their experience working with producers growing hemp and other minor crops such as spearmint and opium poppies with medicinal uses. In addition to consultants from North America, members from Europe, Australia, and South America will share their experiences consulting in specialty crops, the problems and solutions and how their respective governmental agencies regulate specialty fiber, food and medicinal minor crops.

The format is organized to educate through concise focused presentations followed by periods of discussion among workshop participants to share field experience and discuss problem solving strategies. Add the insight of your experience to this discussion of crops considered minor in large scale production agriculture however, of high value and a critical component to many of your clients' operations. Visit NAICC's annual meeting page for a detailed summary of the workshop's schedule. <https://naicc.org/2019-annual-meeting/>.



Happenings on the Hill

Glenn Luedke, NAICC Legislative Assistant

FARM BILL

The 2014 Farm Bill expired on September 30 with the Congress and Senate still debating the differences. According to the Senate Ag Committee chair, no titles have been completed. However, the commodity title is close to a compromise. House and Senate Ag Committee leaders stated after a recent meeting that they are still waiting for the Congressional Budget Office to score items in the proposed bill before they can move forward.

House Committee members oppose an item in the Senate version that would eliminate \$2 billion for rural utilities that borrow from the federal government. A member of the Senate Committee wants to use those funds for initiatives that promote renewable energy, research funding for urban and indoor farming and assistance for beginning farmers and ranchers. Work requirements for certain Supplemental Nutrition Assistance Program recipients remain a major hang up.

The House is in recess until after the mid-term elections. The House/Senate Ag Committee leaders will continue to meet. It is uncertain if an extension of six to eight months to the 2014 Farm Bill will be passed if the current legislation is not passed before the end of the year.

FDA

In early October, the U.S. Food & Drug Administration released the results of its 2016 Pesticide Monitoring Program. The results are considered consistent with the USDA's Pesticide Data Program report and continue to show an exceptional level of compliance by conventional and organic farmers under strict government standards. The agency tested for 711 pesticides and industrial chemicals in 7,413 samples. The report stated the majority of samples were below the tolerance level established by the EPA. In the pesticide test for F/Y 2016, over 99% of the 2,670 domestic and 90% of the 4,276 imported human food samples were found to be in compliance with the federal pesticide revenue standards.

ENDANGERED SPECIES REFORM

The House committee on Natural Resources held a hearing on nine bills submitted. The 100+ organizations endorsing the bills stated that an evaluation of the ESA was long overdue. The organizations stated they were not disagreeing with the goal of the Act, but what are the best ways to achieve the goals. Farmers/ranchers and landowners understand that for species protection programs to work better, they must be improved for both species and people.

The bills submitted:

H.R. 6344: Amend the ESA of 1973 to encourage voluntary conservation efforts.

H.R. 6360: Amend the ESA of 1973 to provide for greater certainty and improved planning for incidental take permit holders (PREDICTS Act of 2018).

H.R. 6346: Amend the ESA of 1973 to provide for consideration of the totality of conservation measures in determining the impact of proposed Federal Agency action.

H.R. 6354: Amend the ESA of 1973 to prohibit designation as critical habitat of certain areas in artificial water diversion or delivery facilities.

H.R. 6345: Amend the ESA of 1973 to provide for greater county and state consultation with regard to petitions under the ESA of 1973 and for other purposes (EMPOWERS Act of 2018).

H.R. 3608: Amend the ESA of 1973 to require publication (Internet) of the basis for determinations that species are endangered or threatened species and for other purposes (The Endangered Species Transparency and Reasonableness Act).

H.R. 6364: Amend the ESA of 1973 to increase state and local involvement in management plans (LAMP Act of 2018).

H.R. 6356: Amend the ESA of 1973 to provide for improved precision in the listing, delisting, and downlisting of endangered species and potential endangered species (LIST Act of 2018).

H.R. 6355: Amend the ESA of 1973 to define petition backlogs and provide expedited means for discharging petitions during such a backlog (PETITION Act of 2018)

The Pesticide Policy Coalition (PPC) submitted comments in response to the proposal of the U.S. Fish and Wildlife Service and the National Marine Fisheries Service regarding amending regulations on interagency cooperation under Section 7 of the ESA. PPC requested consideration of items relating to more coordination with the EPA in regard to pesticide registration and pesticide use.

Event Focuses on ROI of AgTECH

Farm Journal's AgTech Expo will meet farmers where they are on the spectrum of adopting ag technology—from beginner to advanced—and deliver take-home knowledge about how to maximize on-farm technology's return on investment. This event also provides excellent education and networking for those who serve farmers—retailers, precision ag consultants, agronomists and farm managers.

The event has more than nine hours in the interactive expo and eight hours of educational programming.

For 2018, the AgTech Expo has premier keynotes and more than 25 breakout sessions focused on precision ag, using data, iron and machinery and sustainable technology. Due to popular request, select breakout sessions will be repeated, so attendees can truly customize their educational experiences.

Farm Journal's AgTech Expo will be held December 3-5, 2018 at the JW Marriott in Indianapolis, IN. <https://www.farmjournalagtechexpo.com/schedule>

Three Industry-Leading Keynotes:

JOSH HENRETIG, senior director , AI for Earth, Microsoft

Henretig will share how artificial intelligence (AI), the Internet of Things, big data and rural connectivity technologies are deployed across the globe to improve agricultural output while reducing costs and the impact on the environment. With his presentation, "The Impact of Artificial Intelligence Is At the Farm Gate," Henretig will discuss how AI can bring new solutions to challenges in agriculture and share case studies.

KEN FERRIE, Farm Journal, Field Agronomist

Ferrie will share his dirty-boot experiences in working with making technology work with his farmer-clients in his presentation, "The Secret to Getting the Most From Technology In the Field."

ROBB FRALEY, World Food Prize Laureate and former Monsanto CTO

Fraley will present "Breakthrough Innovations in Breeding: From Machine Learning to CRISPR and Beyond" to discuss how molecular breeding and gene-editing tools such as CRISPR are enabling scientists to breed better plants with more precision and speed. He'll share what it could mean for productivity, food security and environmental sustainability and discuss how realizing these benefits hinges on effective communication.

\$100,000 Startup Challenge

Attendees of the 2018 Farm Journal AgTech Expo will have a front-row seat to the latest ag tech startups that could change row-crop agriculture. AgLaunch Initiative, a farm-centric agricultural innovation organization, announces the Innova \$100,000 Row



Crop Challenge powered by AgLaunch. The Innova \$100,000 Row Crop Challenge powered by AgLaunch will be held Dec. 4 on the AgTech Expo Demo Stage.

The challenge is open to all early-stage ag tech startups focused on new and novel solutions to problems in row-crop agriculture. Eligible applicants will vie for up to \$100,000 in funding from Innova's Ag Innovation Fund IV, a \$31 million USDA-licensed rural business investment company backed by eight Farm Credit banks as well as access to the AgLaunch Farmer Network and visibility through Farm Journal Media.

The challenge will be judged by a panel of farmers and a representative of Innova. Four finalists will be chosen to participate in the challenge during the expo.

2019 MEMBERSHIP DUES

The deadline for being included in the printed NAICC directory is November 30. If this is still on your to-do list, please follow these easy steps:

1. Log into naicc.org and click "Members Only" in the top right-hand corner. Your email is your username.
2. Create your password by clicking "Forgot Password" and type in a password of your choice. This is necessary only once. After the initial log in, just use your email address and password to log into the Members Only Section.
3. Edit or double check your profile, by clicking "Edit Profile". Please read over your profile to make sure that all your information transferred from the old website correctly. Remember to click SAVE.
4. Renew your 2019 Membership Dues by clicking on "Invoices and Payments".

Contract Research, Good Laboratory Practices & Other Challenges For The Agrochemical Professional

By Carol Lee

The American Chemical Society's (ACS) AGRO division recently hosted a symposium in conjunction with the Society of Quality Assurance (SQA) at their annual convention on August 23rd in Boston, MA. The session was titled: Contract Research, Good Laboratory Practices & Other Challenges for the Agrochemical Professional. We had several excellent speakers concentrating on GLPs, study personnel roles and specific challenges in industry; in addition to the talks, there was an interactive group discussion. Frances Liem, Director of the Good Laboratory Practice Standards, US EPA, Office of Enforcement and Compliance Assurance (OECA), presented an EPA Regulatory Update on Good Laboratory Practices. During the group discussion, Elizabeth Vizard, Supervisory Branch Chief, also with OECA, gave a brief presentation of the Enforcement and Compliance History Online (ECHO) data base, where EPA inspections, including GLP inspections, are now listed in a public data base. This article summarizes both EPA presentations.

During FY 2017, there were a total of 64 inspections conducted: 19 field sites (with 84% compliance), 15 product chemistry laboratories (53% compliance), 5 toxicology laboratories (60% compliance), 11 analytical chemistry laboratories (91% compliance), and 14 "others" (e.g., ecotoxicity, rodenticide and insecticide efficacy, antimicrobials, GMOs; 36% compliance). Inspectors have not seen improvements in product chemistry facilities with respect to the GLPs. Some of the findings for product chemistry laboratories included: lack of raw data, incorrect data corrections or data entry, missing units, routine and non-routine maintenance of instruments not differentiated, and temperatures not monitored for stability studies. Between 2013 and 2017, out of 16 GLP inspections, 44 studies were resubmitted or rejected by EPA's Office of Pesticide Programs. One study was questioned because the EPA inspector was denied access to study raw data.

Ms. Liem also noted that three documents under OECD were recently published: FAQ Volumes 3 and 4 and the OECD advisory document on the Management, Characterization and Use of Test Items (<http://www.oecd.org/chemicalsafety/testing/oecd-seriesonprinciplesofgoodlaboratorypracticeglpandcompliancemonitoring.htm>). Estonia is now an OECD MAD member country.

As we know, field sites can face many challenges in multisite studies, particularly with respect to coordination between the study director and analytical laboratories. Ms. Liem discussed in some depth the potential challenges test sites and the study director face when conducting a multisite study, particularly if located on different continents. Challenges include differences in time zones, language, local laws and political concerns, cultural attitudes, knowledge of the GLPs, protocols not meeting GLP requirements,

lead quality assurance not properly notified of a multisite study, study starting prior to protocol approval, test item and/or CofA not arriving for planned application, not notifying study director of experimental start, and test item not applied as scheduled because of weather or crop conditions.

During our group discussion, Ms. Liem also noted some compliance advisories that we should take note of, such as ensuring that all personnel receive study conduct and GLP training. Also, she reminded us that there is only one study director, one protocol and one final report for multisite studies, where she has seen other studies attached to a study report which is not acceptable (not to be confused with contributing scientist reports).

Finally, Ms. Vizard gave a brief introduction of the ECHO data base (<https://echo.epa.gov/>). The ECHO database is a listing of over 900,000 regulated facilities nationwide, and includes inspection and enforcement actions for EPA programs such as Clean Air, Clean Water, FIFRA, and TSCA among others. Previously, facilities could search for air, water, and hazardous waste inspections. Now, all of the federal EPA inspections, including GLP inspections, were recently added to the database. The data base may be searchable by location or facility name and lists the inspection and enforcement history for the past 5 years. This data base is available to the public and Ms. Vizard is asking us to review the data base and provide her with any suggestions for improvements to their listings of GLP inspections. Comments and feedback can be emailed to vizard.elizabeth@epa.gov.

SQA Webinar: EPA Regulatory Update on November 6

The Society of Quality Assurance (SQA) is sponsoring a members' only webinar entitled EPA Regulatory Update on November 6, 2018 from 11:00 am – 12:15 pm Eastern Standard time. The webinar will feature Frances Liem, Director, GLP Program at EPA who will give an overview of EPA activities geared towards the agrochemist as summarized in the above article. Elizabeth Vizard, Supervisory Branch Chief will give a demonstration of EPA's Enforcement and Compliance History Online (ECHO) public database.

For more information go to <http://bit.ly/EPAWebinarRegistration>.

Spotlight on New Member

NAICC welcomes new member MotorCycle Cruise Control. MMCruise has partnered with two NAICC research members Qualls Agricultural Laboratory and ICMS who use their unique products for research applications. Check out the article below and then click this link <https://www.mccruise.com/> for a detailed look at our new friends from Down Under.

Precise Speed Control is a Game-Changer in Continuous, Slow-Speed Applications using ATVs and Side-By-Sides
Applying the right amount of consumable, at precisely the right speed over extended periods of time and terrain- with repeatable accuracy, is vital for both mainstream agricultural applications and Ag Research.



MotorCycle Cruise Controls has been delivering ergonomic, economic and environmental benefits to key players in Ag Research for over a decade using their precision speed controls on ATVs - called QuadCruise. Though you may not have heard of them, 'McCruise' as they are affectionately called by a host of satisfied customers, has been delivering remarkably accurate speed control combined with repeatable accuracy, season to season and operator to operator, since 1999.

R&D has always been key to MCCruise's success and the product today bears little resemblance to the 1999 product. The imminent release of the all-new Throttle-By-Wire QuadCruise for the Polaris Ranger XP1000 looks set to enhance market penetration in North America in particular. A deer/wildlife conservation farmer in Pennsylvania growing feed for wild deer has fitted QuadCruise for herbicide and fertilizer application. Both installation and performance are being reviewed by ATV Illustrated Magazine. Concurrently, MCCruise's sophisticated Speed Limiter and all-new Bluetooth Phone App were installed and reviewed. The editorial for this should be published soon.

In the Agricultural sector many Ag University Departments and some key Ag Research players took up our product over a decade ago as evidenced by the following from Qualls Agricultural Laboratory in Washington, USA. Chad Nordberg wrote up his results here at <https://www.mccruise.com/pages/quadcruise-in-agricultural-research> as long ago as 2007. More recently he wrote 'I haven't generated any more "data" on the reliability or accuracy of



the cruise control since we installed the first one. To be honest, it works so well, we almost forget about it.

The following videos and others found at the link above are provided courtesy of Chad Nordberg and MCCruise and feature QuadCruise in action in various Agricultural Research projects and mainstream agriculture:

<https://www.youtube.com/watch?v=PiHLfAdUDNk>

<https://www.youtube.com/watch?v=x9EmcImXxMk>

<https://www.youtube.com/watch?v=39JPgzjR5M>

<https://www.youtube.com/watch?v=x9EmcImXxMk>

According to Chad, "The only way to compare this accurately is to spray both treatments at the exact same time so they are both influenced by the exact same wind and wind gusts. Both of these Hondas have the MCCruise QuadCruise equipment installed and made this application relatively effortless."

Chad said, "It's sort of like having GPS Autosteer for a tractor, it allows you to focus on the actual task at hand."

Similarly, Brent Wright at ICMS is very positive about Quadcruise products and has been using them nearly as long as Qualls.

To read the article in its entirety, please go to <https://naicc.org/wp/wp-content/uploads/MASTER-20181023a-Precise-Speed-Control-is-a-Game-Changer.pdf>



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The correct answer from the September
newsletter was Stranger Things.

Congratulations to
Jeff Miller for winning the gift card!
Answer the following question for a chance to
win a \$50 Visa Gift Card:

What children's book character, who has also
had her own TV show, is shown below?



Submit your answer here:

<https://goo.gl/forms/NTS18cYO60WdsY5h1>

One winner will be randomly selected
from the correct answers and announced
in the next newsletter.



Call For Articles

The NAICC Newsletter Committee encourages members to submit articles for upcoming issues. We'd love to hear your harvest season went or what you are planning for the winter months. Tell us a story that will make us laugh or write an article that will make us contemplate the world at large. The sky is the limit. Send your articles to committee chair Torrance Lee at Torrance.Lee@valent.com or to MemberServices@naicc.org.



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