

## Organic Inspection Apprenticeship Field Trainings Offered - Ohio August 2 & 3 and Montana September 7-15, 2017

Building on the success of the first IOIA Field Inspection Training held last fall in Wisconsin with cosponsor MOSA, IOIA is offering four more Field Inspection Training opportunities late this summer - August in Ohio and September in Montana. IOIA Trainers Margaret Scoles and/or Garry Lean will be the lead instructors for these four trainings.

The trainings are designed for prospective inspectors who have successfully completed an IOIA basic training and want to complete a structured apprenticeship with an experienced inspector/trainer. The Field Training inspections are real inspections and final reports will be completed and submitted by the lead trainer. IOIA's Field Training includes two days of practice inspections with an IOIA trainer mentor. Participants will work with an experienced inspector to participate in and complete, two inspection reports.

This training is designed for:

1. prospective inspectors who have successfully completed the IOIA Basic Inspection Training for



the same Field Training Inspection scope they are applying for;

2. current inspectors wishing to add new inspection scopes to their resume, or for inspectors who wish to sharpen their skills in a particular scope;

3. those working as inspectors or as certification reviewers as a refresher.

NOTE: participants without IOIA's Basic Inspection Training will be considered for acceptance into the Field Inspection Training only with an endorsement or recommendation from a certification agency.

IOIA's evaluation of our first training confirmed that the Field Inspection Training can provide a structured apprenticeship that will create better prepared entry level inspectors. Feedback from participants; "After the training I'm comfortable inspecting basic livestock inspections." "For large-scale or complicated inspections I'd like to have a few

more inspections under my belt for practice." "These (IOIA's) training opportunities are a great follow-up to the basic courses and especially helpful because finding willing mentors is challenging."

see **Field Training**, page 4

## Notes from the Chair

by Margaret Weigelt

First of all - thanks for being an organic inspector - and thanks for being an engaged member of the IOIA - in whatever capacity. It all makes a difference, moving us into the next level needed for this organic world. Our services as an organization and activities as collegial inspector professionals support the growth of the organic movement around the globe. One of the best part of being an IOIA member is having access to the sum of the member's knowledge and experience, whether it by participation on inspector forum, via one-on-one contact at an annual meeting, regional get-together or training event, with BOD and committee work, or through an outreach or advocacy activity. The width and breadth of the IOIA is astounding.

See **Notes**, page 4

**Mark Your Calendars!**  
**2018 AGM and**  
**Advanced Trainings**  
**are scheduled**  
**February 28-March 3 in**  
**beautiful Charleston,**  
**South Carolina! Trainings**  
**on GOTS and other topics**  
**are under development.**

**Welcome New Members**

**New Supporting Individual Members**

Robert Alexander, Iowa  
 David Andrews, Iowa  
 Asmatullah Asmat, British Columbia  
 Eric Campbell, Michigan  
 Andrew Everett, Florida  
 Cherry Flowers, Minnesota  
 Russell Greenleaf, Hawaii  
 Charles Herrera, Pennsylvania  
 Robert Horst, Iowa  
 David Houston, Ohio  
 Stephen Reeb, California  
 Alex Restaino, Virginia  
 Cassidy Molly Schlager, North Carolina  
 Dennis Serpa, California

**Scholarship Committee needs chair, new members**

It doesn't matter where you are located, the committee does its work via email. They usually need to meet via conference call once per year, this very active committee has staff support as well.

Please contact [amani@ioia.net](mailto:amani@ioia.net) if you have some time to share with this active committee.

<p><b>IOIA BOARD OF DIRECTORS</b>                  MARGARET WEIGELT                  — CHAIR —                  MUTSUMI SAKUYOSHI                  — VICE CHAIR —                  PAMELA SULLIVAN                  — TREASURER —                  STUART MCMILLAN                  — SECRETARY —                  MATTHEW MILLER                  — EXECUTIVE COMMITTEE AT LARGE —                  HEATHER DONALD                  — DIRECTOR —                  CHARLES 'CHUCK' MITCHELL                  - DIRECTOR -</p>
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*The Inspectors' Report* is the newsletter of the International Organic Inspectors Association. IOIA is a 501 (c)(3) educational organization. Our mission is to address issues and concerns relevant to organic inspectors, to provide quality inspector training and to promote integrity and consistency in the organic certification process.  
 Editor: Diane Cooner [webgal@ioia.net](mailto:webgal@ioia.net)  
 Deadlines: Feb 1, May 1, Aug 1 & Nov 1.

**WEBINAR Training Schedule**

for details & to register go to: [www.ioia.net/schedule\\_list.html](http://www.ioia.net/schedule_list.html)

**100 Level Webinar – June 20 & 23, 2017**  
**COR Crop Standard** 9:00 a.m. – 12:00 p.m. (Pacific Time)  
 Presenter: IOIA Trainer Garry Lean, Ontario.

**100 Level Webinar – September 12 & 19**  
**COR Processing Standard** 9:00 a.m. – 12:00 p.m. (Pacific Time)  
 Presenter: IOIA Trainer Kelly Monaghan, Ontario.  
 Co-sponsored by Canada Organic Trade Association

**100 Level Webinar – October 17 & 20**  
**Open Enrollment NOP Crop Standards** 9:00 a.m. - 12:00 p.m. (Pacific)  
 Presenters: IOIA Trainer Garry Lean and co-trainer Margaret Scoles.

**200 Level Webinar – Oct. 25 & Nov. 1**  
**In/out balances, Traceability Tests and Recipe Verification for Processing Inspection** 9:00 a.m. - 11:00 a.m. (Pacific).  
 Presenter: IOIA Trainer Kelly Monaghan.

**100 Level Webinar October 31 & November 3**  
**Open Enrollment NOP Livestock Standard**  
 9:00 a.m. - 12:00 p.m. (Pacific). Presenter: IOIA Trainer Garry Lean.

**Webinar Discount Note: All IOIA Inspector Members are eligible for a half-price webinar in 2017**

**Webinars are Delivering Results**

Webinars continue to be a popular vehicle for outreach to make IOIA training accessible and affordable. IOIA's fall training webinar schedule is under development. We expect a robust webinar schedule beginning in August and through the rest of the year. Typically IOIA offers a light webinar schedule during the summer in recognition that most inspectors are busiest during the summer months.

On February 13 & 15, Luis Brenes of Costa Rica delivered the **200-level Grower Group Inspection & Certification** webinar in-house for Australian Certified Organic (ACO) in Brisbane, Queensland, Australia to 15 participants.

Twenty participants took the **200 Level In/Out Balance – Crop webinar on February 22 & March 1** with trainer Monique Scholz of Quebec. One participant said afterwards that she was surprised how much she enjoyed this webinar, even though she'd been inspecting for more than 20 years.

Kathe Purvis of Western Australia, assisted via the web by Margaret Scoles, will present a customized one-day workshop on July 6 in-house for ACO in Brisbane, Queensland, Australia. It will focus on **NOP update and In/out Balance**.

**On-Site Training Schedule -  
full details and applications at [www.ioia.net](http://www.ioia.net)**

**IOIA/JOIA Farm Inspection Training, Kobe City, Japan, August 1-4, 2017**

IOIA and JOIA will cosponsor a 4-day Basic Organic Farm Inspection Training using JAS Standards as a reference. The course will be held in Chuo-ku, Kobe City, Hyogo Prefecture, Japan, Aug. 1-4, 2017. The training language will be Japanese. Please contact JOIA for more information about this training. Email: [info@joia-organic.com](mailto:info@joia-organic.com)

**IOIA/OEFFA Livestock Inspection Field Training, Wooster, Ohio, August 2 & 3, 2017**

IOIA and Ohio Ecological Food & Farm Association (OEFFA) will cosponsor Organic Livestock Inspection Field Training in Wooster, Ohio. (for details or to register, see p. 1 or the IOIA website). If you have further questions for more information about this course, please contact IOIA at email: [jcroby@mt.net](mailto:jcroby@mt.net).

**Processing Inspection Training, Anyang-si, Gyeonggi-do, Korea, August 28– September 1, 2017**

IOIA and Isidor Sustainability Research Institute will cosponsor a 4.5 day Basic Organic Processing Inspection Training using the Korea Organic Regulation as a reference. The Processing course will be given in Korean language and held in Anyang-si, Gyeonggi-do, Korea: August 28 – September 1, 2017. For enquiries, please contact Jinseon Jang, phone: +82-31-424-9792 Fax: +82-31-424-9793. Email: [663jinseon@gmail.com](mailto:663jinseon@gmail.com)

**IOIA/MTDA Crop Inspection Field Training, Bozeman, Montana, September 7 & 8, 2017**

IOIA and Montana Department of Agriculture (MTDA) will cosponsor Organic Crop Inspection Field Training in Bozeman, Montana. (for details or to register, see p. 1 or the IOIA website). If you have further questions for more information about this course, please contact IOIA at email: [jcroby@mt.net](mailto:jcroby@mt.net).

**IOIA/MTDA Livestock Inspection Field Training, Bozeman, Montana, September 11 & 12, 2017**

IOIA and Montana Department of Agriculture (MTDA) will cosponsor Organic Livestock Inspection Field Training in Bozeman, Montana. (for details or to register, see p. 1 or the IOIA website). If you have further questions for more information about this course, please contact IOIA at email: [jcroby@mt.net](mailto:jcroby@mt.net).

**IOIA/MTDA Handler Inspection Field Training, Bozeman, Montana, September 14 & 15, 2017**

IOIA and Montana Department of Agriculture (MTDA) will cosponsor Organic Handler/Processing Inspection Field Training in Bozeman, Montana. (for details or to register, see p. 1 or the IOIA website). If you have further questions for more information about this course, please contact IOIA at email: [jcroby@mt.net](mailto:jcroby@mt.net).

**IOIA/CCOF Basic Organic Crop Inspection Training – September 24-28, 2017**

**IOIA/CCOF Basic Organic Crop Inspection Training – October 2-6, 2017**

**IOIA/CCOF Basic Organic Processing Inspection Training – October 2-6, 2017**

IOIA and CCOF will cosponsor Crop and Processing Inspection Training in Fresno, California at the Radisson Hotel & Conference Center. Each course includes 4 days of instruction including a field trip to a certified organic operation, plus ½ day for testing. A minimum of 12 participants is required for each course or it will be canceled. The corresponding IOIA NOP Crop or Processing Standards webinar is prerequisite for each course. Webinars have been scheduled for participants a few weeks before the on-site course begins. Details to apply including an application form and registration link are available on the IOIA website. To contact IOIA for more information about these courses, email [ioiassistant@rangeweb.net](mailto:ioiassistant@rangeweb.net).

**IOIA/Eco-LOGICA Farm Inspection Course, San José, Costa Rica, November 27 – December 1, 2017**

IOIA and Eco-LOGICA will cosponsor a 4.5 day Basic Organic Farm Inspection training using USDA National Organic Standards as a reference. The course will be held at ICAES, Coronado in Costa Rica on November 27 to December 1, 2017. Instruction will be conducted in Spanish. Please contact Sue Wei at ph.: (506) 2297-6676, fax: (506) 2235-1638 or email: [swei@eco-logica.com](mailto:swei@eco-logica.com) for further information.



## Notes, from page 1

The IOIA is recognized for its quality professional inspector training and development. As IOIA members we are tasked with making sure our association and the individual members within are empowered and respected. The BOD is made up of inspector members who, with IOIA staff, dedicate the time necessary to keep our association financially healthy (we are), sustainable (since 1991), resourceful (think peer evaluation program), and generous (with time, energy, knowledge, money).

I want to recognize our outgoing BOD members Ib Hagsten, Ph.D. (Missouri) and Garth Kahl (Oregon) – thank you very much – and welcome our new BOD members - Heather Donald (Pennsylvania) and Charles (Chuck) Mitchell (Ontario), who incidentally, are already ‘fully engaged’! Along with Vice-Chair Mutsumi Sakuyoshi (Japan), Treasurer Pam Sullivan (New Hampshire), Secretary Stuart McMillan (Manitoba), Executive Member-at-Large Matthew Miller (Iowa), and Chair Margaret Anne Weigelt (Minnesota), we the 2017 BOD are committed to supporting and building the capacity of IOIA.

As an organization IOIA is moving into the next developmental stage of maturation. We envision that stage as one with the financial capacity to take advantage of new opportunities and partnerships that in the past we could not, where our IOIA inspector licensing/accreditation/certification scheme comes to life, and positioned to generously provide the support and benefits needed by our members, our staff, and the organic sector.

Please feel free to contact any member of the BOD with comments, questions or concerns. ☞

## Field Training, from page 1

Newly trained inspectors have reported over the past years that they face ongoing challenges finding mentors and certifiers willing to work with them to complete a structured apprenticeship. IOIA developed this new training model to address this issue. Our goal is to provide Field Training so new inspectors can progress from the basic training to actually being ready for entry-level inspections within a few months. Some certifiers may require additional training in their procedures and forms, and some may even require additional apprenticeship. But the graduates of IOIA Field Training will be much better prepared to perform 100 level inspections.

The Field Inspection Training event in **Ohio** with cosponsor Ohio Ecological Food and Farm Association (OEFFA) is scheduled for August 2 & 3, in Wooster. **This training will focus solely on livestock inspection training.** Participants in the course will have the opportunity to choose dairy and/or poultry operations for their inspection training.

The second Field Inspection Training event will be held in Bozeman, Montana in September with cosponsor Montana Department of Agriculture (MTDA). This training will include **all three** organic inspection scopes. The Field Trainings are set for:

- Crop - September 7, 8;
- Livestock - September 11, 12; and
- Handling/Processing - September 14, 15.

Participants in the Montana course will have the opportunity to choose the following types of operations for their inspection training experience:

- Crop operations for this training include; small grain, vegetable, greenhouse and or forage inspections.
- Livestock operations for this training include; dairy goat, sheep, swine, beef and or poultry inspections.
- Handling/Processing operations for this training include: vegetables, flour, slaughter, coffee, tea, and cheese inspections.



Each training scope is limited to 10 participants. For Wooster there are only 10 slots open for the livestock scope.

In Montana there are 10 slots open for each scope, so a total of 30 participants may be accepted into the training.

The trainings cost \$900 (\$850 for IOIA members) and will include box lunches for inspection days and travel to the training inspection sites.

[Visit our website for more details and to register.](#)

## Notes from the ED

by Margaret Scoles

Am I a radical? I didn't think so. I was too young to demonstrate in the 60's. And anyway, my parents wouldn't have allowed it. I was a freshman in high school for the first Earth Day in 1970 (then called Ecology Day). We wore our favorite tie-dyed T-shirts, headbands, peace sign necklaces, and other clothes in style at the time while we cleaned up and spruced up Broadus. We picked up trash, painted, planted flowers, etc. That didn't seem radical.

My good friend Susan Colwell and I stood up side by side 11 years later and heard the dean announce that we had received our B.S. degrees in Plant Science from the University of Arizona. We didn't feel radical then, either. We didn't put peace signs on top of our graduation caps or go naked under the gown like some. We just wanted to "save the world" by feeding it through improved plant breeding, selecting for disease resistance, winter hardiness, higher yields, and drought resistance. Breeding new hybrids. Things like that. I had worked my way through university in the barley breeding program with an irascible but brilliant cytogeneticist with the Agricultural Research Service of USDA. Part of his deal with the ARS and the U of A was space for growing his barley projects and access to student work-study labor (i.e. Susan, me, and others). In exchange, he taught Plant Genetics. Each year, during spring break, he chose a batch of undergraduates for barley crossing. If you survived that first session, he kept you on for year-round workstudy. It is a long time since I emasculated barley plants all day, but I could probably still do it in a pinch! After I graduated, Susan and I chose divergent paths. She stayed on for a Masters. I returned back to the Broadus area to have a family

and keep my grandmother on her homestead. My husband and I were back-to-the-landers. Never thought of myself as a radical selling cucumbers and tomatoes at the farmers' market with my kids. Or when I became an organic inspector in 1988 when virtually no one had heard of that profession. Face it, it wasn't a profession then. It was too new. Radical, maybe?

Thirty-six years after we graduated, I took a vacation day and met Susan in Washington, DC on Earth Day April 22, to participate in the "March for Science", reportedly the largest organized science event in history. More than a million people marched that day around the world. We were concerned by policy makers and bureaucrats who seem to ignore the climate precipice we are headed toward. This is not a partisan issue and we don't have forever to turn it around. It could be too late already. Just a year ago, we heard from Andre Leu in Korea how the effects of carbon in the atmosphere could be stopped by putting 4 parts per thousand carbon annually back into all agricultural soil. Why are we ignoring science? Why should we have to march to protect funding for NOAA, EPA, and NIH? OK, now, I might be getting radical.

I was one of the 100,000+ people who walked down Constitution Avenue from the Washington Monument to the Capitol on Earth Day. A small act, perhaps a radical one. I told my son and daughter-in-law that I was marching in the hopes that my grandsons would have a planet they wanted to live in. And that when they asked someday why my generation had ignored all of the signs of climate change, their parents could at least say, "Grandma marched in Washington for your



**Citizen Margaret at the March for Science, Washington, DC**

future". My daughter asked nervously, "But mom, does it do any good to march?" "Yes", I said, "if people hadn't marched in the 60's, African-Americans would still be sitting at the back of the bus."

Why did we march? This quote from the March for Science website says it more eloquently than I could,

*"...we marched as an unprecedented coalition of organizations and individuals. We marched because science is critical to our health, economies, food security, and safety. We marched to defend the role of science in policy and society".*

It was a grand and positive event. It isn't about what we were marching *against*, it was about what we were marching *for*. Babies in strollers, dogs, people of all ages and colors standing in the cold and the rain for hours for a chance to make a simple collective statement. A community of science – joined by a belief in the need for evidence-based policy.

Yes, my daughter, it does do some good to march. My favorite sign was "I can no longer accept the things I cannot change. I am therefore changing the things I cannot accept." Am I a radical? Only if necessary.

Sometimes you have to be.

**SECTOR NEWS****Organic Livestock and Poultry Practices:  
Second Proposed Rule and Notice of Delay in Effective Date**

The Organic Livestock and Poultry Practices rule has been delayed at least another six months until November 14, 2017:

<https://s3.amazonaws.com/public-inspection.federalregister.gov/2017-09410.pdf>

There is now a proposed rule as well asking for public comment, the deadline is JUNE 9:



There is a 30 day comment period on this proposed rule. And the USDA is asking for the public to weigh in on which course of action the USDA should take on the OLPP rule:

- (1) Let the rule become effective. This means that the rule would become effective on November 14, 2017.
- (2) Suspend the rule indefinitely. During the suspension, USDA could consider whether to implement, modify or withdraw the final rule.
- (3) Delay the effective date of the rule further, beyond the effective date of November 14, 2017.
- (4) Withdraw the rule so that USDA would not pursue implementation of the rule.

OTA provided this timeline/background information for the Organic Livestock and Poultry Practices Rule in a May 10 press release:

This rule is the result of 14 years of public and transparent work and addresses four broad areas of organic livestock and poultry practices, including living conditions, animal healthcare, transport, and slaughter.

1995-2000: The National Organic Standards Board (NOSB) made a series of recommendations, which were incorporated into the final rule establishing the USDA organic regulations in 2000. These included healthcare practices, outdoor access and livestock living conditions.

2002: The USDA organic regulations were implemented.

A 2010 audit conducted by the USDA Office of the Inspector General identified inconsistencies in certification practices regarding outdoor space.

2011: NOSB unanimously adopted a final detailed set of recommendations that were intended to further define, clarify and incorporate production practices including provisions establishing maximum ammonia levels, perch space requirements, outdoor access clarifications, specific indoor and outdoor space requirements, and stocking densities for avians.

2013-2017: USDA's National Organic Program (NOP) released an economic analysis of two options for regulations regarding outdoor access for poultry, and indicated it would pursue rulemaking to clarify outdoor access based on the NOSB recommendations.

2016: NOP released a proposed rule to ensure consistent application of the organic regulations for livestock and poultry operations. During the rulemaking process, NOP completed an additional economic analysis at the request of Congress and stakeholders.

2017: After extensive public input, NOP released the final rule on Organic Livestock and Poultry Practices, which was published in the Federal Register on January 19, 2017 (82 Fed. Reg. 7042). Due to the White House Memorandum to federal agencies released on January 20, 2017, requesting a regulatory freeze on rules recently published or pending, the effective date of the rule was delayed to May 19, 2017. On May 10, 2017, USDA delayed the effective date by an additional six months to November 14, 2017, and reopened the comment period.

**What the final rule does:**

Establishes minimum indoor and outdoor space requirements for poultry.

Clarifies how producers and handlers must treat livestock and chickens to ensure their health and well-being throughout life, including transport and slaughter.

**continued on page 7**



**SECTOR NEWS**

Specifies which physical alterations are allowed and prohibited in organic livestock and poultry production. Provides generous implementation timelines for producers to come into compliance including:

- five years to establish outdoor access requirements for egg operations
- three years for broiler operations to establish indoor space requirements
- one year for all other adjustments.

**Sonny Perdue now Sect'y of Agriculture**

The U.S. Senate confirmed Ervin "Sonny" Perdue III as the U.S. Secretary of Agriculture on April 24. His main task over the coming year will be working with Congress and coordinating USDA's input on the next five-year farm bill, with farm policy set to expire next year.



**USDA Publishes 2017 Sunset Review Notice**

USDA's Agricultural Marketing Service is announcing the renewal of 187 substances on the National List of Allowed and Prohibited Substances (National List) to conclude the 2017 Sunset Review. The new sunset date for these substances is March 15, 2022. These substances are used in organic crop and livestock production and organic handling/processing. The National Organic Standards Board (NOSB) has reviewed these substances and supports their continued inclusion *NOP Organic Insider 3/16/2017*

**NOP Posts Fraudulent Organic Certificates**

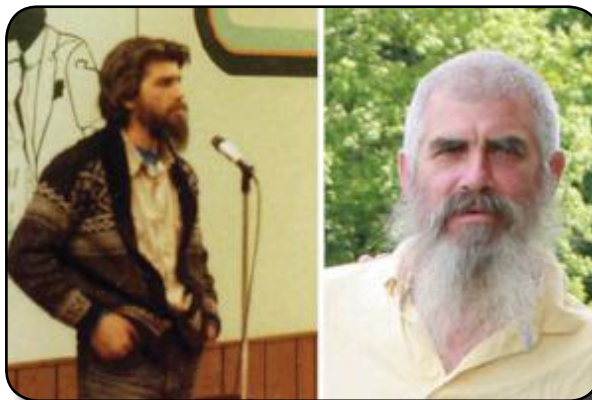
NOP is alerting the organic trade about the presence of fraudulent organic certificates. Fraudulent organic certificates listing 15 businesses are in use and have been reported to the NOP. Review these and other fraudulent certificates online at: [Fraudulent Organic Certificates](#). *NOP Organic insider 5/16/2017*

**Avian flu prompts NOP to recommend temporary confinement**

Due to recent outbreaks of highly pathogenic avian influenza (HPAI) and low pathogenic avian influenza (LPAI) in Tennessee, Alabama, Kentucky and Georgia, USDA's National Organic Program (NOP) has issued information reminding organic poultry producers to consider bringing their flocks inside on a temporary basis if needed. NOP notes that certified organic poultry operations must establish and maintain preventive livestock health care practices, which may include temporary confinement to protect the health, safety, or well-being of animals from avian influenza or other diseases. NOP has issued Policy Memo 11-12: Confinement of Poultry Flocks Due to Avian Influenza or Other Infectious Diseases, and an April 3 Notice to trade: Confinement of Organic Poultry due to risk of Avian Influenza. *OTA Newsflash April 5, 2017*

**In Memorium - Dave Engel**

Dave Engel, a Wisconsin organic farmer and titan in the organic world, passed away March 14. The Engel family and MOSES have established a scholarship fund in Dave's name to send farmers to the annual MOSES Organic Farming Conference, which Dave helped establish. Contributions can be [made here](#)--please note that you are donating to the David J. Engel Memorial Scholarship. *MOSES, News to Help You Grow, April 6 2017*



**It's not all bad news**

Incredibly, there are some very good wins in the 2017 US Farm Bill for organic and sustainable agriculture. [Read the pluses presented by the National Sustainable Agriculture Coalition here.](#)

**Bipartisan bill to invest in organic ag research**

US House Representatives Chellie Pingree (D-ME), Dan Newhouse (R-WA) and Jimmy Panetta (D-CA) have introduced the Organic Agricultural Research Act (OARA), bill number HR 2436, which invests in the Department of Agriculture's Organic Agriculture Research and Extension Initiative (OREI) to meet the needs of the growing organic sector. The Organic Research Act of 2017 would increase annual funding for OREI from its current \$20 million to \$50 million a year from 2018 to 2023. The program funds applied research projects across the country that help organic farmers improve their operations and meet growing consumer demand for organic food.

## IOIA's Peer Field Evaluation Holds Its Own

by Margaret Scoles

As IOIA moved into its third year with the Peer Evaluation Program, it was greeted with yet another rendition of NOP Instruction 2027 Personnel Performance Evaluation (published March 6). IOIA's plans for starting the program early in the year were again thwarted by the need to deal with what has become an annual revision to what 2027 required of certifiers. Many certifiers signed contracts with IOIA early but then asked for the necessary time to update their inspector lists. As the requirement for annual field evaluation was softened to accommodate risk-based approaches, certifiers and IOIA scrambled to get the right inspectors on the right lists. As the dust settled in early May, the list was finalized and all assignments have been made.

In 2015 – IOIA performed 50 field evaluations for 10 certification agencies.

In 2016 – IOIA performed 92 field evaluations for 11 certification agencies.

Where are we in 2018? We've contracted so far for 74 inspectors for 10 certification agencies: ICS, QCS, QAI, OTCO, CCOF, BOC, NOFA-NY, OEFFA, MOSA, and GOA. Certifiers are clearly committed to keeping the IOIA Peer Evaluation Program alive. They see its value and recognize in many cases that it is more costly to do the evaluations themselves.

IOIA offered a web-based Peer Evaluator training on March 6 and added new evaluators. With only 74 inspectors on the list, assignments made earlier, and a longer list of evaluators, the program is set to run smoothly.

Al Johnson, one of the Co-Chairs of IOIA's program, chaired a two-hour meeting just prior to the annual meeting in Ottawa. The IOIA membership displayed a keen interest by packing the meeting room to standing room only. Al said, "Everyone is welcome" and the members responded.

If you are contacted by an IOIA Peer Field Evaluator, please remember the reason for 2027 – to improve inspection quality. IOIA supports the basis for the increased scrutiny and gleans learnings from the evaluations to identify areas that benefit from more training. We agree that witness audits are an essential component of inspector evaluation. The IOIA Program fills a key role in keeping inspectors working and reducing the number of annual evaluations we incur. Consider it an opportunity for improvement and one of those all too rare opportunities to be on an inspection with another experienced inspector.

## WODPA legal action results in hold on OTA/USDA National Certified Transitional Program and Transitional Cost Share – will it be the death blow?

On 2/14/2017, an attorney for the Western Organic Dairy Producers Alliance (WODPA) wrote a letter to the USDA Office of General Counsel. "The purpose of this letter is to make demand of the USDA to terminate the NCTP and related programs in lieu of WODPA commencing litigation against the USDA. For the reasons set forth below, we believe that the USDA has exceeded its authority by creating and implementing the NCTP." Listed reasons include opposition to the expansion of cost-share to transitional producers and failure to allow for public notice and comment. It also challenged the USDA's authority for transitional certification or labeling under OFPA. It called on USDA AMS to immediately take all actions necessary to publicly withdraw approval and terminate the recently announced Accreditation Program for Transitional Agricultural Products; to immediately issue cease and desist notices to CCOF, QAI, and all other NOP Accredited Certifying Agents that may be certifying transitional agricultural products; and immediately take all actions necessary to work with the FSA to withdraw approval and terminate the expansion of the National Organic Certification Cost Share Program (NOCCSP) to reimburse transitional certification fees.

The Office of General Counsel acknowledged receipt and intent to respond on 2/27/2017. And on 3/17/2017, the Office of General Counsel response put the Transitional Cost Share and National Certified Transitional Program on hold during USDA review of NCTP. The response confirmed that the NOCCSP would not award cost-share to NCTP producers. The letter argues that the NCTP does not violate OFPA because it does not include any labeling provision.

For full details, including all letters - <http://www.wodpa.com/initial-wodpa-legal-action-results-in-hold-on-ota-usda-national-certified-transitional-program-and-transitional-cost-share..html>



## Canada Organic News

### Canadian Committee Report from the 2017 AGM

Bill Barkley and Janine Gibson co-presented. Janine chaired the committee from 1995 to when Bill took over in 2009.

Janine spoke on the history of Canadian Committee:

- Wanted to use IOIA materials to promote training in Canada, starting at the Guelph Conference.
- Lobbied CGSB to get inspectors recognized on the standards committee. IOIA holds a voting seat on the committee as a result of that effort.
- Worked with CFIA to get them to recognize role of IOIA in the organic sector.
- Notes new edition of Canadian Organic Field Crop Handbook, published by COG.
- Recommends [Independentsciencenews.org](http://Independentsciencenews.org) to follow up on recent genetic engineering 2.0.

Bill reported that there are 47 Canadian members, 19 Certifiers. Notes that this equates to 2.47 IOIA members/certifier vs 3.26 in the USA.

Believes IOIA's future is:

Education and training events, Education of Inspectors

- Partnership with COTA: Association for processor training
- Guelph Conference Advanced Training
- Webinars featuring Canadian content
- Newsletter with Canadian Content
- Description of COO reorganization
- Proposed "Safe Foods for Canadians" Regulations
- Canadian Inspector Forum



Janine Gibson

## IOIA Submits Comments to CFIA

IOIA submitted comments and concerns regarding how the proposed Safe Food for Canadians Regulations (SFCR), specifically Part 14, will have dramatic effect on the success of the organic sector, to the Canadian Food Inspection Agency on April 21, 2017. Comments excerpted here.

Ultimately, we do not believe the organic sector is effectively regulated by the proposed SFCR in its current form; *the sector's needs would be better served by developing legislation specifically related to organics.* However, if the inclusion of the Organic Product Regulations in the SFCR is unavoidable, we strongly urge the CFIA to give attention to the matters we have noted here, which are of significant importance to our sector. We are concerned with the tight timelines associated with a 90 day comment period, especially when the proposed language will result in sweeping changes. *An extension to the comment period is necessary.* If the SFCR comes into force in its current format, the competitiveness of our sector and the viability of organic operations, particularly small-scale, are in jeopardy.

**SECTION 338** *The definition of "Various Activities" must be revised to exclude conveying. Further, the requirement for the certification of "handling" and "storage" should be limited to those situations where the potential for contamination and/or commingling may occur.*

**SECTION 342(2)** *The proposed section 342(2) requires that an organic certificate indicate the percentage of organic content in multi-ingredient food commodities. This will create a competitive disadvantage with trading partners. The proposed language differs from current practices, which only require*

**continued on page 23**

## AGM and Advanced Training Wrap-up

The 2017 Annual Meeting in Ottawa was a smashing success. More than 40 people participated in the advanced training. The Annual Meeting featured a thought-provoking keynote address by Jim Thomas of ETC Group and a nostalgic and fun look back in time with Joe Smillie, IOIA founding BOD member. Stuart McMillan, as BOD Chair, chaired the meeting. Ib Hagsten, Ph.D. (Missouri) and Garth Kahl (Oregon) were acknowledged as they stepped down from the BOD. They both made significant contributions while serving for the past 5 years (Ib) and 4 years (Garth).



Full House!



Three Speakers for Advanced Livestock; Leanne Cooley, Dr. Jean Richardson, and Francois Labelle



Dr. Jochen Neuendorff, main presenter on the topic of risk assessment.



Left: Nan Young Kim, Korea, foreground, who tied with Mutsumi Sakuyoshi (Japan) and Chuck Mitchell (fresh from a trip to Ethiopia) for traveling farthest to attend.

Below: Outgoing board member Garth Kahl is presented at the AGM with a plaque of appreciation, handmade with dried flowers.

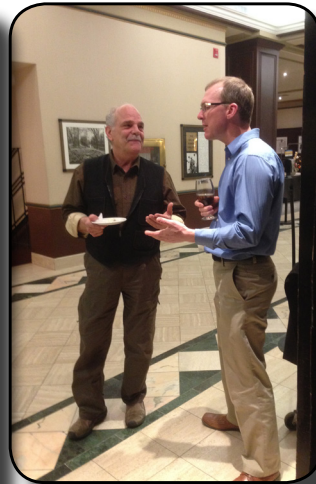


Left: Participants split into subgroups to study scenarios and then made presentations of their findings to the full group.





# AGM Wrap-up



Keynote Joe Smillie, on inspecting: "I'm not looking for anything. That way I can see everything."



IOIA was fortunate to enjoy an impressive slate of 7 candidates and a close election. Thanks, Nominations Committee! And thank you to everyone who stood for election. Re-elected: Margaret Weigelt (Minnesota) – 2 year term  
Also elected: Heather Donald (Pennsylvania) and Chuck Mitchell (Ontario) – 3 year terms. More Board news on page 22, including details of the annual board retreat.



And what a party! We had a great band (Mystara, they were awesome!) great food, and even a little extra excitement. The hotel kitchen set off the fire alarm and fire trucks pulled up with sirens and flashing lights. It will be challenging to try to match this celebration at future events. Diane Cooner came in from Costa Rica, Margaret brought staffer Cil Earley from Montana. Special thanks to the **AGM Organizing Committee and their helpers** (Kelly Monaghan, Monique Scholz, Jennifer Scott, Stuart McMillan, Joel Aitken, Bill Barkley, and Garry Lean). [You can view slide shows of the AGM and Party, advanced training, field trips and board retreat on our site.](#)



## Board Retreat, Strathmere Centre

Left: Stuart McMillan listens as outgoing board member Ib Hagsten, Ph.D., shares some insights on governance with the new board.

Right: Board members discussion of fundraising. L to R, Pam Sullivan, Chuck Mitchell and Heather Donald.



## Fyffes - In house Training

by Hugo Hays, Head of Food Safety, CSR and Sustainability, Fyffes

Fyffes has leadership position as one of the world's biggest traders of organic bananas, which are produced in 5 countries in Central and South America. Since Bananas are the most traded fruit (by volume) globally, we are very aware and extremely proud of the large resulting positive impact of our activities at production and consumer market level.

As part of the supply chain activities, Fyffes needs to be completely confident of the organic integrity of the products we buy, and this requires strong collaboration with growers and robust internal processes for promoting, managing and verifying organic, environmentally and socially responsible production activities for our suppliers. To this end Fyffes has longstanding relationships with its producers, built over the years on the basis of mutual trust and respect. In order to keep things running smoothly one of the main needs is for highly trained, expert staff, and it is with this in mind that in March 2017 Fyffes contracted Primus Auditing Ops's office based in Costa Rica, to co-sponsor for our Tropical team an official IOIA training, carried out by the renowned Organic expert Mr. Luis Brenes.



The training was an excellent opportunity to reinforce knowledge of the NOP standard and refresh awareness of the detailed requirements, which will help us to strengthen our organic supply chain compliance verification.

## Resources

**Organic Integrity in the Supply Chain: Training and Resource List** *From USDA Organic Insider, May 11, 2017*

The NOP has published two new resources for organic handlers, certifiers, and inspectors.

The first is a half hour training module that reviews the organic control system and key requirements related to Organic System Plans, inspections, and recordkeeping. The second is a Resource List that lists several existing AMS resources related to inspections and recordkeeping.

[Access Training Module on AMS YouTube Channel](#)

[Access Resource List](#)

**Useful inspection app** *From inspector Rob Knotts, Lambert, MT*

Do producers ever ask what a certain "weed" is? They do me, nearly every time. This is an app that allows you to photograph a plant with your phone and then helps identify it. In truth it usually only gets as far as the proper genus, but from there you can scroll through photos for a perfect match. <http://identify.plantnet-project.org/>

**Report Timesaver software** *From inspector Stan Edwards, Driggs, ID*

**Phrase Express** software. Free version. Able to create macros for frequently used sentences/phrases. Can be a real time saver with boilerplate material for inspection reports. [www.phraseexpress.com](http://www.phraseexpress.com)

**USDA Market News** provides price, volume, and other related information for commodities and products that are certified Organic. <https://www.ams.usda.gov/market-news/organic>

**AMS Announces 2016 Count of Certified Organic Operations**

USDA's Agriculture Marketing Service announced in April new data indicating the organic industry continues to grow domestically and globally, with 24,650 certified organic operations in the United States, and 37,032 around the world.

The 2016 count of U.S. certified organic farms and businesses reflects a 13 percent increase between the end of 2015 and 2016, continuing the trend of double digit growth in the organic sector. *From USDA Organic Insider, 4/19/2017*

## IOIA and QCS Explore a new Prototype for Collaborative Training

by Margaret Scoles

QCS invited IOIA to join them to create a day of in-house “refresher training” that would be equally suitable for inspectors and reviewers. IOIA jumped at the chance to explore this concept. Unfortunately, no trainers were available to make the trip to Gainesville, Florida on March 16. Fortunately, Nathaniel Powell-Palm, IOIA inspector member from Montana, agreed to represent IOIA in the classroom. The training team also included Inspection Coordinator Brian Rakita and ED Margaret Scoles. The team developed the agenda, split up the tasks, and shared materials via the cloud. Scoles participated via GoToMeeting for the full-day of training.

The day began with a facilitated session using “The Path to Sound and Sensible Organic Inspections”, an interactive training resource recently released by the NOP. Nathaniel Powell-Palm developed and delivered a Residue Sampling session. Everyone practiced hands-on collection and packaging of a fresh produce sample. Brian Rakita presented "Verifying the OSP". Margaret Scoles presented a quick summary of common errors with in/out balance and traceback, followed by the group doing crop audit trail exercises in the classroom with Nathaniel’s assistance. IOIA’s audit trail forms were used; participants prepared them as they would attach to a real report. Scoles gave a quick summary of learnings from the IOIA Peer Evaluation Program of some observed trends where many inspectors scored lower in field evaluations. After a presentation on the topic of Exit Interview, the group used the QCS Exit Interview forms to practice writing issues of concern. A good sample of the results were projected visually and discussed as a group.



Nathaniel Powell-Palm. Photo courtesy of OTA <http://theorganicreport.com/millennial-face-organic>

The day went fast and overall feedback was positive. The event, a prototype, explored how IOIA could adapt existing curriculum materials to provide customized yet affordable refresher/recalibration training in-house for certifiers. IOIA is developing similar refresher training for July with OneCert in Lincoln, Nebraska. In both cases, some contract inspectors are invited to join.



**Brian Rakita of QCS**

Brian Rakita has been inspecting since 2007 and works from his home office in Virginia. Since the training, he has been promoted to Inspection Manager at QCS. He says he looks forward to more opportunities to partner with IOIA. He served as a group leader for the Florida Crop course in February.

Nathaniel Powell-Palm was featured on the recent issue of OTA’s quarterly newsletter, The OTA Report. He is a nearly full-time inspector, while managing his own certified cattle/hay/grain operation and serving as President of the Montana Organic Producers Coop, rancher cooperative that collectively markets its members’ certified organic, grass fed cattle.

## Resources, continued

### Compliance & Enforcement/Appeals Summary Report and Enforcement Actions

NOP has published its Compliance and Enforcement/Appeals Summary report for the second quarter of fiscal year 2017. This report outlines NOP’s compliance, enforcement and appeals activities for January - March 2017. The data highlights the number of incoming and completed complaints; the initial actions taken; and case dispositions, including settlements made and penalties levied.

Access previous Compliance and Enforcement/Appeals quarterly reports and links to enforcement actions, including settlement agreements, appeals decisions, and consent orders, on our Organic Enforcement webpage.

*From NOP Organic Insider, 4/21/2017*

## Report from NOSB – Denver, April 19-21, 2017

by Margaret Scoles

IOIA commented to the National Organic Standards Board, focusing most comments on the Certification, Accreditation & Compliance Subcommittee Proposal, *Personnel Performance Evaluations of Inspectors* – Dec. 13, 2016. We submitted comments in writing. I was privileged as ED, to attend the National Organic Coalition meeting on April 18 and to attend the NOSB meeting to present our shorter comments in person on April 20. Following is an even more condensed version of those comments. It was my first NOSB meeting for several years, as we've been fortunate to have former BOD members Ib Hagsten, PhD and Garth Kahl represent us at meetings. *"Thank you to the board for your good work, especially for tackling some of the difficult issues at the heart of organic, such as seed purity and disincentivizing the conversion of native ecosystems to organic. We have commented in writing; I will not repeat those here. We did ask that you reconsider your differentiation of certifier staff vs. contractor evaluators. The most important criterion for evaluators is not whether they are employees or contractors. More important is that they must be trained and experienced as inspectors. If the surgeon operating on me is being evaluated, I would hope that would be by another experienced surgeon! We have and will continue to support a risk-based approach to evaluating inspectors that could include credentialing through IOIA's Inspector Accreditation Program, as was suggested by the NOSB in 2011. The most recent (third) version of NOP 2027 sufficiently addressed the major concerns voiced by certifiers as well as by this Proposal. We've diverted a lot of energy over the past few years, resisting inspector evaluations and implementing*

*systems to get them done. It is time to re-focus on consistent inspector qualifications and training.*

*1. It has not been said enough how good 2027 has been for all of us. Field evaluations have provided valuable information that has informed both the certifiers' in-house training programs and IOIA's training program. Good for NOP for not backing off on the requirement for field evaluation!*  
*2. Over the past few days here, it has been challenging to stay positive in the face of so many uncertainties. IOIA's request is that we look at what we can do about inspection quality without any rule change or revising the Program Handbook.... We just want your encouragement – the NOSB to encourage the NOP, and the NOP to work with the sector (ACA and IOIA) to move forward on raising the bar for inspectors and inspection quality and achieving greater consistency. I have no desire to see us follow Germany, where the government approves every inspector for every certifier.*

I was not able to finish my last two sentences (3 minutes go fast!). Fortunately Scott Rice and Harriet Behar, both NOSB members and IOIA members, asked questions and added comments that allowed me to finish. Scott Rice clarified that the CACS did not mean to differentiate in their discussion document as to qualifications of staff evaluators vs. contract evaluators. He agreed that their language had been unclear. Harriet Behar commented that she thought the best experience she had for writing good reports was working as a reviewer. I agreed, said that I also found that to be true, and mentioned that we were curious why the same focus was not put on reviewers as on inspectors, especially when there was no widely accepted industry-wide reviewer training

that was analogous to inspector training. I mentioned that the NOP contracted with IOIA (working with ACA) in 2011 to propose for both inspectors and reviewers - qualifications, training content, concept of operations for training both, and a concept of operations for licensing. That project put equal focus on reviewers and inspectors.

Other commenters including Jenny Cruse of ACA, Stanley Edwards of QAI, and Garth Kahl addressed the same proposal.

Following the meeting, I received a request from the CACS meeting to share the outcomes from our 2011 work. I explained that the NOP owned it and IOIA didn't have the authority to release it. Fortunately, since then, the NOSB contacted the NOP and they agreed to share it. That project was a highly successful collaboration between IOIA, ACA, and NOP. It is good to know that it will be a resource to the NOSB as they continue to work on the issue of inspector qualifications.

Many people commented on the deep level of engagement of the NOSB members through their interaction with the commenters and their questions. Although this makes for long meetings, I was very favorably impressed with the able chairing and the level of engagement. The meeting was almost torturous in the number of comments pro and con regarding hydroponics. An interesting sidebar was the ACA meeting one evening. Richard Siegel, attorney and supporting business member of IOIA, spoke about his defense of ETKO, a Turkish certifier. He represented them in their appeal of NOP sanctions. ETKO had lost IOAS accreditation and thus the right for ETKO certified product to move into the EU and Canada. NOP has taken some heat that the NOP accredita-

See NOSB, page 27



## Update on Mexico

NOP & SENASICA had a conversation on April 20, 2017. OTA shared a list of needs/concerns in advance of that phone call. Here is the latest. We hope this helps alleviate some of the uncertainty and support continued flow of commerce between US and Mexico.

- Mexico has stated that they do not intend or expect to interrupt trade with those countries where significant progress has been made in equivalence negotiations (e.g. U.S., Canada and EU).
- SENASICA has conveyed that due to legislative constraints they are unable to issue a formal statement that would convey that they are not implementing Mexico's federal organic regulations, which by statute they are obligated to implement. However, SENASICA has reassured us that it will take several months to fully implement the new regulations and for their new processes to enter into force.
- Further, SENASICA indicated that during the period between the rollout of the Mexican organic regulations and the signing of the U.S.-Mexico equivalence arrangement, the new requirements will not be enforced at the Mexican points of entry for NOP certified organic products.
- SENASICA has indicated that they will be meeting with Mexican retailers and importers during the week of April 24 to explain that they expect organic trade to continue between the U.S. and Mexico while equivalency arrangements with the U.S. are finalized.
- Mexico stated that anyone that has challenges with marketing/selling organic products in Mexico should contact Erandi Valdovinos Romero at [erandi.valdovinos@senasica.gob.mx](mailto:erandi.valdovinos@senasica.gob.mx).

Monique Marez, Director, International Trade, Organic Trade Association, April 21, 2017



## EU Implements Electronic System for Certificates of Inspection

The European Union (EU) is implementing a new system of electronic certificates of inspection for imports of organic products from the United States (and other third countries) in the **Trade Control & Expert System** (TRACES) – the EU's existing electronic system for tracking movements of food products across the EU. This online management tool facilitates the exchange of information between EU trading parties and control authorities, such as USDA's National Organic Program.

Under the current organic equivalency arrangement between the United States and the EU, certified operations must ship organic products with an EU certificate of inspection, completed by a USDA-accredited certifier. The implementation of updates to EU TRACES will digitize the certification documentation for organic products imported to EU member countries.

EU TRACES became effective on April 19, 2017. U.S. certifiers will have an additional six months to adapt to using the system, during which time paper and electronic certificates of inspection will coexist in the marketplace. The system will become fully electronic beginning October 19, 2017, after which time organic imports will be covered only by e-certification.

To help certifiers and other authorities comply with this new requirement, the EU has provided instructions and plans to conduct training.

To learn more: [View an informational video about TRACES](#); and [Access the TRACES Toolkit](#)

NOP Organic Insider 3/29/2017

## Iowa Crop & Livestock Training

Iowa Organic Association (IOA) cosponsored IOIA's basic Crop and Livestock Inspection Training in Coralville, Iowa. Twenty participants took the Crop course April 24-28, and 15 took the Livestock course May 1-5. Participants came from BC, Canada, and all across the US.

Matt Miller, current IOIA BOD member and former IOA President, was a key volunteer organizer. The logistics of organizing and confirming adequate host operations for the field trips are always challenging. Matt, on behalf of both IOA and IOIA, did this hard task. Two Amish farms hosted crop training groups and two other Amish farms hosted livestock training groups. For some participants, seeing an Amish farm in close-up was one of their favorite experiences. All five of the host operations were within 30 minutes of the venue, to maximize the time for learning and minimize travel time. And they represented three different certification agencies: IDALS, ECOCERT ICO, and OEFFA. A note of appreciation to all of the certifier support in assembling documents so that the participants could have a real-life experience.



Small group practices doing a trace-back and in/out balance for an apple orchard.

Garry Lean was lead trainer for both courses. Margaret Scoles assisted for Crop and Jonda Crosby assisted for Livestock. Matt Miller came in as Group Leader for the Crop course.

The Radisson made an extraordinary effort to provide as much organic food as possible. MBA Poultry worked with the venue to arrange air-chilled organic Smart Chicken for many of the lunches. WhiteWave donated a variety of snacks that lasted through both weeks. When the Radisson discovered organic food wasn't available through their usual vendor, they went above and beyond to go to the local food coop and buy organic vegetables and fruits.

A few comments about the trainers and the course from course participants:



Staff (in chairs): Margaret Scoles, Garry Lean, Matt Miller (not in photograph)  
 Trainees (L-R): David Andrews, Scott (Charles) Herrera, Solomon Meyer, Jamie Smith, Cassidy Schlager, Karen Gjelhaug, David Houston, Robert Alexander, Justine Dobson, Edmond Throckmorton, Pilar Chaves, Eric Campbell, Cherry Flowers, Frank Dehne, Russell Greenleaf, Andrew Everett, Francois Barnaud, Asmatullah Asmat, Stephen Reeb, Dennis Serpa

**Garry Lean** - "Garry is a fantastic instructor! So knowledgeable and able to convey his presence in a way that I was able to grasp and understand. Approachable, made himself available to answer any and all of my questions. Challenged us to struggle with concepts and questions but always right there to clarify and step in when needed."

**Matt Miller** - "Really enjoyed working with Matt. It's a pleasure to learn from people who have a lot of relevant experience"



## Iowa Crop & Livestock Training

and can relate it back in a manner that is understandable. "Felt he had good hands on way of explaining the report process." "It was a little tricky to have a new instructor jump in in the middle. But I felt it worked out fine. His life experience was perfect."

**More Comments about the crop course** – "The real value is the people. We could have been sitting on folding metal chairs in the basement of the Methodist church as far as I'm concerned."

"The webinar was good preparation and allowed time to develop inspector mindset."

"Tough sledding at times, but well worth the effort! A great course led by able instructors."

During the livestock course, trainers and participants alike spent significant extra time practicing the calculations necessary to do feed audits correctly. The trainers commended both course groups for the exceptional ways in which the groups worked together for success.



**Asmatullah Asmat, PAg, of British Columbia, at left, discusses soil characteristics with Rogan Stoops, Bluebird Farms, host of one of the Crop field trips.**



**Audit Trail - Livestock course participants try their hands at trace-back and in/out balance.**



**Day 5 at the IOIA Basic Livestock Inspection training in Iowa, and all is well! As noted "This was a great group to work with, everyone was so supportive, really appreciated the trainers (Garry Lean and Jonda Crosby) capacity to keep us on track and also to push us to learn as much as possible all week long.**

We're still trying to figure out what they were thinking....  
the sign was miraculously changed the next day....





## IOIA's On Farm Food Safety Training and Resources Development: Final Chapter?

by Jonda Crosby

Public awareness about on farm food safety has been increasing rapidly in the last few years, due in part to several unfortunate and deadly food borne illness incidences. Even with more public knowledge and understanding of food borne illness outbreaks, agricultural producers, processors, and markets have maintained a wide base of trust among consumers. This trust will continue to the extent that we are able to maintain the best products both in quality and in safety of our food system. Conversations about IOIA providing food safety audit training for our inspector members began in 2012-13 as it became clear there would be a need for more field ready auditors as new food safety laws are implemented.

When IOIA first proposed developing food safety training for organic inspectors we believed that conducting organic inspections and on farm food safety audits were a compatible process and that adding food safety auditing to an inspectors portfolio of skills, would expand inspectors' opportunities for employment. To some extent that is what happened for the few inspectors with an interest or a background in food safety or who were from an area of the country that was dramatically expanding its food safety auditing programs. But for most, becoming an on farm food safety auditor simply was not a professional interest they chose to pursue.

In the initial phase of this project development IOIA staff completed significant training working with collaborator Debra Garrison of PrimusLabs to become a 3rd party Food Safety Auditor for USDA GAP/GHP. Never one to waste resources, when IOIA's GAP/GHP auditor staff, Jonda Crosby, was asked to develop food safety resources and trainings

for farmers in Montana we felt it was a terrific way to leverage the resources we had originally committed for this program.

Since 2016 in collaboration with multiple local partners and primarily Montana Department of Agriculture funding, IOIA has been a major force behind Montana's success in developing resources, hand on trainings and practical tools for farmers to implement a food safety plan for their farms.

In February of 2017 IOIA staff Jonda Crosby along with two curriculum development and trainer contractors, Nancy Matheson and David Wise delivered another set of three on farm food safety trainings in Montana. Participant comments included "As someone who is generally antagonistic toward such regulations [On Farm Food Safety], the presenters were engaging and articulated the necessity for such protocol" and "Super impressed with the organization of this course. I am stoked about the flash drive and binder. This has pushed me to be more professional and organized. Thank you!! My plan is to finish".

In the post-training evaluation: a) 88.2 percent of participants ranked themselves as confident in their capacity to complete their On-Farm Food Safety Plan and/or able to help others complete a plan, b) participants ranked the trainers at 9.74 out of a possible 10 on the trainers'

knowledge of the subject matter and their effectiveness in the delivery of the material.

As IOIA steps away from food safety farmer based training we leave a tested and proven training process, and tools and resources in place for Montana based non-profits and state agency staff to lead this work from here forward. The Montana Department of Agriculture recently hired staff to lead their Food Safety education, training and outreach efforts. Nancy Matheson and David Wise

will continue to work as Food Safety educators to provide opportunities for farmers to learn about and write Good Agricultural Practices (GAP) Food Safety plans for their farms. And Jan Tusick, a core leader for Montana's Food and Ag Development Centers, orchestrated most of the funding for this work and has additional funding in place to both expand and continue this important work.

Though this initiative did not directly benefit our membership to the degree originally anticipated, the Montana food safety project did provide a good return on our financial investment. The training will live on as a model for successfully writing really good safety plans. The model is now used in other states with other collaborators. The training materials developed are a source of enrichment content for advanced training for our members. And it leaves the door open for future collaborations.

**(continued on next page)**



**IOIA's Lead Food Safety Trainer,  
Jonda Crosby**

## Food Safety, continued

**Note from the ED** – Four years ago, the Board decided to explore expanding IOIA’s training offerings to include food safety based on a strong positive response to the 2013 Member Survey.

The BOD asked this question: *IOIA is exploring a collaborative opportunity to provide training in Food Safety for organic inspectors and others. This could provide useful cross-training in Good Agricultural Practices (GAP) and HACCP and additional work opportunities for organic inspectors. The program is a 5-step program including a) training for producers or processors, b) developing and implementing food safety plans, c) internal self-audits, d) audits by a 2nd or 3rd party independent verification auditor and, e) external 3rd party certificated audit. IOIA would work with a small group of trainers, who would then be available to train independent verification auditors. IOIA would benefit from more training opportunities. IOIA’s Board is seeking input from the membership on whether this would be a positive direction for IOIA.*

In response, 34.09% said yes to “I feel that this is a good direction for IOIA and I would be interested in participating as an auditor.” And 35.23% said yes to “I feel it is worthy of further exploration but I need more information.” Some members wrote notes of caution that the food safety initiative should not detract from our core mission.

## This just in

Thanks to Barry Glofcheskie for the heads up!

<http://www.farms.com/news/corn-seed-treatment-insecticides-pose-risks-to-honey-bees-yield-benefits-elusive-123087.aspx>

## Observations on Synbio by Margaret Weigelt

Our keynote for the AGM in Ottawa was Jim Thomas of ETC Group, Montreal Quebec. In his presentation “GMO2.0: Synthetic Biology and the next generation of genetic engineering technologies” he explained the various methods for producing synthetic biology. He presented examples of proposed and currently manufactured food products. The examples were amazing and disturbing.

[Link here to read more](#)

I had an email parked in draft for about a month regarding a synthesized food product. I wasn’t sure it was a topic inspectors would want to engage in on the IOIA forum because it didn’t seem directly related to organic inspecting. The more I looked into the product the more it rubbed me the wrong way and the more I wanted to hear what other inspectors had to say about it. After listening with rapt attention to Jim Thomas’ presentation I decided to release the parking brake and submit to the forum.

This is about a synthetic food product called ‘heme’ which is added to vegetarian burgers to mimic the taste and appearance of a juicy hamburger. Evidently ‘heme’ is the chemical substance/flavor we associate with when eating a real hamburger.

Following is a quote from an article regarding heme - [link to full article](#)

*“So to re-create the taste of beef, Brown had to figure out how to produce heme from plants in vast amounts. To do that, he and the scientists he works with isolated the gene that produces heme in soybeans and put it in yeast, which ferments in a big steel tank.”*

My head is still spinning from Mr. Thomas’ presentation where he revealed that fragrances and spice flavors could be manufactured in a similar manner to the heme above. Because manufacture is by the fermentation process, I would imagine these bio-synthesized products qualify as ‘natural’.

## Azure Farms staves off forced spraying

MORO, Ore. — Azure Farms and Sherman County officials agreed in late May 2017 to try a new weed control plan that would allow the farm to retain its organic certification. The agreement came during a two-hour county court meeting that saw approximately 300 people, more than one-sixth of the county’s population, file into the high school gym.

The county has warned it will ask the Oregon Department of Agriculture to quarantine the 1,922-acre organic farm if it doesn’t control rampant noxious weeds that neighboring wheat farmers say are spreading on to their ground. The local weed control supervisor said the county will spray herbicide and bill the farm for the work if the problem is not dealt with.

The situation, which has been a local issue since at least 2006, came to a head this spring when local farmers renewed complaints that Azure’s

see Azure, page 23

## Board of Directors Minutes Highlights

(full minutes available to inspector members on the IOIA website.)

### Conference Call – Feb 23, 2017

**Members present:** Mutsumi Sakuyoshi, Matt Miller, Ib Hagsten, Garth Kahl, Margaret Anne Weigelt (MA). Also present: Margaret Scoles (MS), ED. Stuart McMillan, Chair, joined at #7. Ib Chaired until Stuart arrived. Absent: Pam Sullivan

#### Financial issues:

**#1 Accreditation:** Pam sent a email request prior to the meeting that the BoD earmark \$75K for accreditation. MA moves we set aside \$75K for accreditation for the next three years. 2nd by Garth. Motion carried unanimously.

**#2 Peer evaluation:** Discount request from certifiers, NOFA NY and OEFFA. MS shared Pam’s dissenting comment on this issue that was submitted prior to the meeting. Matt moves we give MS the latitude to offer \$50.00 per inspector evaluated for NOFA-NY and OEFFA, 2nd by MA. Unanimously approved. A factor considered was that both agencies were supporting certification agency members of IOIA. Ib adds that that we must ensure fairness and have a consistent discount policy.

**Board retreat planning:** Discussion of Matt’s proposal for inspector software. Can IOIA generate or pay someone to develop a tool? Could this help prevent fraud, even when used for different CBs?

**2018 AGM location:** See ED report. General agreement that we hold the 2018 meeting in the southeastern US.

**Asia-Pacific Committee report:** Mutsumi- asks about procedure for developing a manual for CGG certification. Mutsumi would like IOIA to develop a manual that moves beyond the IFOAM materials and is more focused on the standards in the Asia region.

**Report from the chair:** Primary issue since the past meeting was Chair’s work on the Safe Foods for Canadian Act working group. Highlighted potential problematic areas for inspectors. He will continue to be involved with the working group and report back to the BOD.

### IOIA Board of Directors Retreat - Strathmere Retreat Centre, Ottawa, ON -- March 28- 30, 2017

#### Day 1 – March 28, 2017

*March 28 was devoted to election of executive and the topic of fundraising. Additional Details are found in facilitator Bruce Withrow’s report “Board Strategy Session on Fundraising”.*

Current Board: Stuart McMillan; Heather Donald; Matthew Miller; Chuck Mitchell; Mutsumi Sakuyoshi; Pamela Sullivan; Margaret Weigelt

Staff: Margaret Scoles, Executive Director; Diane Cooner, Communications Director

Past Board: Ib Hagsten (left mid-day)

Facilitator: Bruce Withrow, Meeting Facilitators International, Toronto

#### Election of Executive

Margaret Weigelt, Chair

Mutsumi Sakuyoshi, Vice Chair

Pamela Sullivan, Treasurer,

Stuart McMillan, Secretary

Matthew Miller, Executive Committee at Large

Heather Donald, Director (and understudy as Treasurer)

Chuck Mitchell, Director

The annual meeting affirmed that the next AGM will be in Charleston, South Carolina.

#### Committees – BOD Liaisons assigned:

Latin American – Chair – Martha Santizo Castillo, Liaison - Chuck

Accreditation – Chair & Liaison - Pam

Asia Pacific – Chair – Isidor Yu, Liaison - Mutsumi

Bylaws – Chair – Al Johnson, Liaison – Matt





## Highlights - continued

Canadian – Chair – Bill Barkley, Liaison - Stuart  
 Editorial Review – Chair – Joe Montecalvo, Liaison – Heather  
 Ethics – Chair – Joyce Ford, Liaison - Matt  
 Finance - Chair & Liaison - Pam  
 Membership – Chair – Eric Feutz, Liaison - Mutsumi  
 Scholarship - Chair Unknown, Liaison - Stuart  
 Fundraising – Chair – Unknown, Liaison - Heather

**Fundraising:** Bruce introduced 10 funding models for non-profits.

**Action Point:** Mutsumi and Margaret Scoles will convene a membership committee meeting to review the first three ideas generated and prepare a recommendation for the board by mid May.

**Action Point:** Chuck – in store, concept paper, organic week. Needs to talk to Ashley & Tia at COTA. Chuck to prepare concept paper for pilot project by April 15th.

**Day 2 - March 29, 2017** Margaret Anne, Chair  
 Dates for the BOD meetings until the next election were selected.

Discussion surrounding the AGM timing. If the AGM was held Mar 3, it would avoid Expo West (Mar 8-12). BOD prefers a Saturday AGM to Sunday. Possible training topic in the southeast US region is textile processing. Cultural field trips could be scheduled on Sunday.

Worked through the results of the “5 Life Stages of Non Profit Organizations” exercise. One area IOIA has not been as strong as possible in is tracking goals and assuring that we are meeting our goals in a timely fashion. The overall recognition was that for a non-profit in IOIA’s growth stage we are not where we should be for strategic planning.

**Policy:** Discussion as to which policy issues to comment on. We lack process to determine which policy issues are most pressing. It occurs informally via BOD meetings. Official spokesperson is the Chair. Firm support that a) we not comment at all times, especially if there is contention between IOIA members b) that the comments are accurate c) that individual members may comment on policy, but those comments should be from the individual not the IOIA organization d) comment only when there is direct impact on inspectors or the inspection process. Noted that while IOIA does not currently have a Policy committee, the challenge is that the individuals who would be suited to comment will differ depending on the area of the policy. Motion to draft language for the Policy Manual regarding positions taken on commenting on national and international policy decisions and under which circumstances the policy comments will be provided. Pam motion. Heather seconds. Unanimously approved.

**Safe Foods for Canadians** commentary period about to end, BOD agreed it was appropriate to comment. Action Item - submit formal comment on IOIA letterhead prior to April 21.

**See Highlights, page 22**



**New board member Chuck Mitchell and Martha Santizo in 2013. Martha is the Latin America Committee Chair. We are pleased that Martha and Chuck now have another opportunity to work together.**

**From:** cmitchell@pshift.com  
**Sent:** Friday, April 14, 2017 4:39 PM  
**To:** Margaret Scoles  
**Cc:** 'Martha Santizo'  
**Subject:** RE: IOIA Connections for the Latin American Committee

Martha,  
 Here is a photo of you and I near Chimaltenango in 2013 +/-, you may recall. You were hired by FUNDESYRAN from El Salvador to lead a youth tour of kids from El Salvador to various Guatemalan organic operations. I came along on the trip with FUNDESYRAM from El Salvador because I was assisting them on a USAID Farmer to Farmer Project. You probably do not recall, but I lived in San Marcos from 1976-79 as a Peace Corps Volunteer - hence my love for the Latin countries. It's good Margaret has put us in touch. We can go forward on approaches to strengthen IOIA in Latin America.  
 Carlos (Chuck) Mitchell

## Highlights, from page 21

**New Opportunity** – Refresher / Recalibration Training for working Inspectors. IOIA Needs to better capture the information and training content that is delivered at Advanced Training, to better replicate those advanced trainings. At the Certifier-Inspector Dialogue call there was discussion about how to better deliver advanced or upper level trainings for existing inspectors. There is an opportunity for IOIA to improve inspection quality. Ensure that IOIA is collaborating with ACA on training. Discussion regarding tailored training for CBs. Bring in an IOIA trainer for a short period. Allows use of the CB's office, A/V and forms, visit their farms. The concept would be for refresher (not advanced and not basic = intermediate) training. The incentive for CBs is that it meets their requirement for assuring competence of inspectors, brings those in need of remedial training up to a better level – rather than dropping them.

### Day 3 – March 29, 2017 Margaret Anne, Chair

How do we as a BOD address the specific motion at the AGM for the requirement of IOIA membership?

1. What do we do with the motion made at the AGM regarding requirements of inspectors to join IOIA - when trained, when hired, when?

ACTION ITEM – SM to contact Joel Aitken if OCO would support the requirement that inspectors in ON are required to maintain IOIA membership.

Development of Training Programs for Intermediate/Advanced Training of Staff Inspectors Action item – MS to check on legal advice regarding sales of webinars that are recorded.

**Question for the Bylaws committee:** A review of the bylaws occurred with a number of clear issues and some ambiguous issues highlighted. Action Item - Matt and Margaret Scoles will highlight the sections for further review, and convene a meeting of the Bylaws Committee.

**Fundraising:** Our inspector numbers are fairly static. What is the membership growth strategy? Do BOD members pledge to bring in a certain number of inspectors? Action Item – Create a strategy to revise the staff inspector category.

Highlighted areas for membership/funds development

1. Invite Certifiers (boost certification agency body membership)
2. Increase Inspector Members
3. Modify the categories for staff to boost our numbers of staff inspectors
4. Pilot program in Canada – in store out-reach combining, with either a large donation or a portion of sales (% program that various stores and co-ops use)

**Asia Pacific proposal:** Mutsumi presents Proposal to deliver CGG training. Asked APEDA to sponsor it in association with IFOAM General Assembly. Idea is to create a package. Add on two days of NOP specific training. The total cost was viewed as too big. There was also concern regarding the time surrounding the IFOAM event as being too busy. The potential market for the CGG was seen as CBs and internal managers of CGG. Action Steps - Develop Training & Develop this specific training event.

**Question** is IOIA copyright status for the materials which is the benefit of funding the writing. Kathe Purvis proposed an MOU with the Asia Pacific Committee. Board approved the use of existing funds allocated in the Training Institute and Asia Pacific Committee (\$3000) for the creation of training materials.



Board Governance - not a job to take sitting down!

## Canada Organic News, from page 9

that organic content on certification documents be defined within two categories (95% or greater, and 70-95%).

**SECTION 342(3)** The proposed change to a period of validity for the organic certificate, as detailed in Section 342(3), is inconsistent with current practices in Canada and with our largest trading partner. Currently, certifications once issued remain valid until suspended or cancelled. *Certifications should continue to remain valid, once issued, unless suspended or cancelled by the certification body. It is reasonable to require an annual renewal process, but not to institute a yearly expiry.*

**SECTION 347** Section 347 does not provide adequate consumer protection from willful violations of Part 14 of the SFCR and/or fraudulent organic claims. *Section 347 should be strengthened to include a discretionary revocation power to be used by the certification body where it is demonstrated that the certification holder has willfully violated the SFCR in whole or in part. Certification holders, and those responsibly connected with the same, whose certifications have been revoked should be prevented from making an application for certification for a period of no less than five (5) years from the date of revocation.* Additionally, it must be made clear that willful violations of Part 14 will be considered an offence under Section 39 of the SFC Act. *Strict measures are required to ensure the integrity of the organic certification process.*

**SECTIONS 347(2) and 362(2)** *In order to ensure fairness for all participants, a meaningful mechanism for appeal of adverse (suspension, cancellation or revocation) certification and accreditation decisions must be put in place.* The current “opportunity to be heard” as specified in Section 347 (2) and 362(2) offers little protection. We respectfully request a mechanism such as the Review outlined in Section 360 be made available for all adverse certification decisions.



**Canadian Committee chair  
Bill Barkley  
received a plaque of appreciation  
from IOIA at the AGM in Ottawa.**

## Azure, from page 19

property is filled with Rush Skeleton weed, Canada Thistle, Bindweed, White Top and Morning Glory. Conventional farmers, especially those who grow certified seed, said weeds from Azure can contaminate their crops and increase their input costs due to additional spraying.

For Azure Farms, however, spraying conventional herbicides would cause it to lose valuable organic certification for three years after the last application. Azure Farms is part of Azure Standard, a major distributor of organic products. The farm produces almost all the organic wheat, field peas, barley, Einkorn, and beef for Azure Standard.

The company's first response — a video that urged a social media uprising against the county — didn't win them any local friends. County officials counted approximately 57,000 emails from around the world, critical of their proposed action. The county courthouse also shut down its phone system after being deluged with protests.

At the May 17 meeting, however, Azure representatives said they regret the conflict. "We have every intention of living peaceably with all of our neighbors," farm manager Nathan Stelzer said.

His brother, David Stelzer, CEO of Azure Standard, said he authorized the social media campaign but doesn't have a Facebook account himself and didn't understand the implications. But the brothers made it clear they don't want to use weed control methods that will cause them to lose organic certification. They proposed a combination of tillage, mowing and organic products to do the job. County weed district Supervisor Rod Asher said he will work with Azure in concert with farmers, university weed experts and perhaps organic consultants.



## Assessing Soil Quality in the Field: Uses, Interpretation, and Limitations of Soil Tests, Part II

by Tony Fleming

*(ed. note: this installment continues a multifaceted series examining methods by which inspectors can assess soil quality at the operations they inspect. Part I of the role of soil tests in an organic production system appeared in the Spring, 2016 Inspectors Report)*

**Interpreting Soil Tests:** It is possible to test a soil in the laboratory for almost every element under the sun, but it is rarely necessary to go beyond the major parameters found in a standard soil test. These are usually offered as an inexpensive package deal (\$20 or less in many areas) that includes: pH, cation exchange capacity (CEC), organic matter percentage, phosphorus, potassium, calcium, magnesium, and percent base saturation. Common add-ons include: sodium and soluble salts (useful in arid and/or irrigated regions); nitrate-nitrogen, ammonium nitrogen, and/or total nitrogen; sulfur; and common minor elements (iron, manganese, copper, zinc, boron, molybdenum).

Different test methods are typically available to measure the available amount of any given constituent, depending on various factors such as regional climate, soil type and pH, cost, and the analytical methods available at a particular lab. Reputable soil labs typically state the analytical method used, either on the test report or in their literature and websites. It is very important that soil tests taken over time use the same analytical method for a given parameter, otherwise you may be comparing apples to oranges. This may mean utilizing the same laboratory for tests taken from year to year, or at the very least, confirming that different labs are using the same analytical methods.

For example, several methods are used to extract phosphorus from

soil samples, the two most common probably being the Bray (P1) and Olsen methods. Each method is calibrated by empirical observation and experience to allow the total phosphorus available in the soil in a given region to be extrapolated from the test result. The Bray method is typically used in humid areas where precipitation exceeds evapotranspiration, whereas the Olsen method is usually employed in arid regions. But both are used in some regions, such as parts of the high plains, but will yield different results. Therefore, it is best that a given farm stick with one or the other method to accurately depict phosphorus trends over time.

Crucially, for some key nutrients, a soil test measures only the proportion of a given nutrient available at the time the sample was collected; it does not measure the total quantity in the soil. This is what was meant in the phosphorus example above by “calibrating” the lab result to the real world. The results, then, can be used as a proxy, or estimate, of the total reserves contained in the soil. This is an important concept in organic systems, because the majority of many nutrients is immobilized (temporarily, as it cycles through the nutrient pathways) in the pool of soil organic matter. Ergo, care must be taken not to over-interpret the results of a soil test. This is one reason why a growing number of specialized labs are offering detailed analyses of the level and types of both organic matter and biological activity in organically managed soil, either as a compliment to or in lieu of traditional mineral-based soil testing.

For similar reasons, soil tests are best taken at the same time of year if the goal is to establish a trend line.

Fall is a favored time for soil testing because it tends to give a fairly reliable estimate of the baseline status of most nutrients, after the majority of any spring-applied fertility inputs (or cover crop plowdowns) are utilized by that season’s crop.

The foregoing paragraphs do not apply to all of the standard soil test parameters, however. pH, relative base saturation, CEC, and organic matter content are in large part a reflection of a soil’s total geologic and cultural histories and do not change rapidly (barring a dramatic action on the part of the operator). Therefore, they are easily and reliably quantified, and the results are representative of actual conditions in the soil over a longer period of time. As it turns out, these “big-picture” parameters are (in my experience) also the most useful targets for soil testing, because they respond slowly to long-term changes in soil quality and thus act as valuable markers whose gradual changes mirror the progress of the soil building program. All four parameters are best considered together: if any one of them is out of whack, it typically has a negative effect that ripples throughout the whole soil system; on the other hand, when all are in optimal range, as in a mature organic operation, fertility needs as defined by major and minor nutrients tend to take care of themselves. The rest of this article focuses on the first three of these parameters; organic matter and its cycling are a sufficiently large and complex topic to fill a separate article.

**pH:** pH refers to total hydrogen ion activity and expresses how acidic or alkaline a particular substance is. Hydrogen ion activity is manifested and measured in liquids; it is almost

## Soil, continued

impossible to accurately measure pH in (or get an acid burn by handling) a solid substance in the absence of a liquid that functions as the solution for the hydrogen ions that cause acidity. Thus, when we refer to the pH of a soil, what we are really talking about is the hydrogen ion activity expressed in soil moisture, i.e., the water that occurs between the solid particles that make up the soil.

You may also remember from high school chemistry that the strength of acids, such as sulfuric or nitric acid, can be changed by diluting them with water. This is also true of the acidity of soil water. The takeaway here is that to accurately measure soil pH, the soil sample has to be moist, but if the measurement is made immediately following a period of heavy precipitation that saturates the soil, the result may be “diluted” by meteoritic water and thus may not be entirely representative; this is true whether the measurement is made in a lab from a sample physically removed from the site, or made in situ using a pH meter.

pH is closely related to percent base saturation. The latter term refers to the proportion, or ratio, of the major cations (positively charged ions) in the soil, of which hydrogen is one. The greater the level of hydrogen ion activity, the more acidic the soil becomes, which is reflected by a lower pH; a higher pH, on the other hand, reflects decreased levels of hydrogen ion activity and (usually) a higher proportion of other cations.

**Base Saturation:** Percent base saturation reflects the balance (or lack of it) of major cations in the soil. In a soil test, these typically include calcium, magnesium,

potassium, sodium, aluminum, and hydrogen. Thus, while not exactly the mirror image of pH, base saturation is closely related to pH because the high level of hydrogen ions in an acidic soil (often accompanied by elevated levels of aluminum) tend to make up a disproportionately large fraction of the cations available to plants. This typically leads to reduced fertility, as the non-nutrient cations hydrogen and aluminum displace essential calcium, magnesium, and potassium. It should be noted here that sodium also is not a plant nutrient, and has the same effect on cation balance in alkaline (high pH) soils. This is primarily an issue in arid regions (defined by having evaporation potential greater than total average annual precipitation), especially those reliant on regular irrigation, where evaporation can lead to salt buildup in the soil.

The amount of available base elements is typically reported in soil tests as both the absolute amount of each respective base (such as 2100 parts per million of calcium), and as the percent base saturation defined above. The latter tends to be the most useful number for organic agriculture: while most crops require certain minimum amounts of each nutrient cation, the goal of organic systems is to produce balanced, healthy soils, and one of the best indicators of soil health is a balanced percent base saturation. All of these cations compete with one another for exchange sites in the soil (see Cation Exchange Capacity, below), thus an imbalance can cause one nutrient to be dominant at the expense of others.

**The Relationship Between pH and Base Saturation:** The baseline pH and base saturation of a given

soil are largely determined by the soil’s total geologic history, which includes the parent material the soil weathered from, its position in the landscape, and how long the soil has been subjected to weathering. In general, soils derived from relatively acidic parent materials, such as peat, muck, and many shales and sandstones, tend to have a relatively acidic pH (less than ~6) from the start and commonly have a low initial base saturation. Whereas soils derived from more basic parent materials, like limestone, dolomite, basalt, and many kinds of alluvium and glacial deposits, tend to have a circumneutral pH (around 7). It is no coincidence that the most fertile farmland is typically found in the latter geologic settings.

Time is the great equalizer, however, and these differences diminish over long periods of weathering. Weathering of a soil involves many different physical, chemical, and biological processes that work together to cause soluble base elements to be leached out of the soil profile and, over time, increase the acidity of the soil. The most soluble bases, like calcium and magnesium, are lost first, concentrating less soluble or insoluble elements like silica, iron, and aluminum. Hydrogen, meanwhile, is constantly replenished by precipitation, which contains carbonic acid and is thus moderately acidic. Thus, geologically old soils (tens of thousands to millions of years old) tend to be acidic and depleted in bases, while geologically youthful soils (a few thousand to perhaps 25,000 years old) tend to be much less acidic and contain appreciably greater amounts of base elements.

see **Soil**, page 26



## Soil, from page 25

Tropical soils are a great example of this process carried to its extreme. Outside of the alluvial plains along modern rivers, the soils of tropical lowlands like the Amazon Basin are millions of years old and commonly depleted in calcium, magnesium, and potassium, and highly enriched in silica, iron, aluminum, and hydrogen. The fertility in these strongly acidic soils derives almost entirely from the thin, fragile layer of leaves and humus at the soil surface, which is commonly no more than an inch or two thick. When the forest vegetation is removed, these soils quickly lose their fertility because the means of regenerating the duff layer (trees) is gone and the thin remnant duff layer will only support nutrient demanding crops for a season or two before being depleted. Some soils in parts of the southeastern U.S. approach this condition as a consequence of their great age and the hot, rainy climate that promotes weathering and leaching of soil nutrients.

Alluvial and glacially derived soils of the upper Midwest and elsewhere represent the flip side of this equation. The ice sheets that deposited the parent material ground up and incorporated material from hundreds of different kinds of bedrock as they advanced into the region, producing an almost perfectly homogenized and balanced mixture of major and minor nutrients that has been little changed by weathering in the roughly 20,000 years since being deposited. The loamy soils developed on this geologically youthful material have an almost inexhaustible supply of base elements made continuously available to plants by the ongoing action of organisms and humus. The biggest threat to these soils is erosion of the comparatively thin (a

few inches) of topsoil, which hosts the organisms and humus needed to liberate the nutrients in the parent material.

I've said it before, but the point cannot be emphasized enough: soil characteristics are specific to both geologic regions and the individual deposits and landscapes that make up the farm landscape. Therefore, a basic knowledge of soil characteristics and history in the region(s) in which you inspect is very useful for understanding both the natural fertility baseline as well as the kinds of soil amendments you are likely to encounter and the purposes they are intended to serve at the farms you inspect. Such background information is extremely useful for assessing the operator's soil knowledge and fertility program. One very convenient way to develop your regional knowledge is by visiting the NRCS soils website, where you can use tools like Web Soil Survey to view soil maps and learn about the specific soils present at the sites you visit.

Most crops perform best within a specific range of soil pH referred to as "circumneutral" (pH between ~6.3 and 7), whereas certain specialty crops (blueberries, cranberries) need acidic conditions to thrive; others require a minimum threshold of certain cations to fruit (e.g., magnesium and tomatoes), while all crops need balanced base saturation to grow vigorously and resist pests and disorders. Desirable ranges of percent base saturation are: potassium, 3 - 5%; magnesium, 10 - 25%; calcium, 60 - 80%; hydrogen plus aluminum, 10% or less; sodium, as close to zero as possible. Large imbalances among the major nutrient cations themselves may

also lead to significant fertility issues by increasing the uptake of the excess cation at the expense of another, or by hindering uptake of another essential nutrient, such as phosphorus. Well managed organic soils naturally tend towards balanced base saturation and circumneutral pH, thus soil test results showing such tendencies over time are a strong indication that the soil building program is on track.

One other point alluded to earlier in this series and worth expanding on is the longstanding debate over the calcium-magnesium ratio: one school of thought is that the ideal ratio is on the order of 7:1 to 8:1, the idea being that a low calcium-magnesium ratio (e.g., 5:1 or less) leads to tight soil and attendant problems with weeds (notably rhizomatous weeds like quack grass and Canada thistle) and nutrient imbalances in crops and, especially, livestock. Followers of this theory (mainly in the Midwest, which contains large areas of relatively high magnesium soils developed on dolomitic limestone and glacial till) often apply liberal quantities of high-calcium limestone or gypsum, which tends to dramatically accelerate microbial activity and flocculation of soil crumbs. This in turn accelerates the breakdown of organic matter, which may disrupt nutrient cycling if increased amounts of organic matter are not returned to the soil.

A second school of thought finds little evidence that a low calcium-magnesium ratio (even as low as 2:1) has negative effects either on soil quality, crop yields, or animal health. Whether a particular producer is a devotee of one or the other (or neither) of these theories is, at the moment, more a matter

**Soil, from previous page**

of conviction and less of definitive scientific proof.

**Cation Exchange Capacity:**

Stated simply, CEC is the capacity of the soil to hold nutrients. More specifically, CEC is a measure of negative electrical charges available on the surface of soil particles, and thus indicates the ability to capture, hold, and release positively charged molecules which, in the case of soil, generally encompasses the essential nutrients calcium, magnesium, and potassium as well as a host of minor elements needed for plant growth.

Recalling some basic chemistry, opposites attract. That means the CEC is a function of the number of negatively charged sites in the soil. Despite their microscopic size – less than 2 µm (.002 millimeters) – clay minerals have large, negatively charged surface areas due to their sheet-like crystal form, and are thus a primary source of CEC. Ergo, all other things equal, clayey soils generally have relatively high CEC and tend to be fertile, whereas sandy soils have lower CEC and are prone to lose cations to leaching, as water moves more readily through the soil profile, taking with it “unattached” cations.

Soil texture (the proportion of sand, silt, and clay) is a function of parent material and geologic history, and is virtually impossible to meaningfully change. The other major source of negatively charged sites is organic matter, however, whose content and composition can be meaningfully altered by common agricultural practices, albeit over a time frame usually measured in years to decades. Increasing the organic matter content, and especially the quality of the organic matter, in a given soil by regular additions of high-quality manures and compost

and by using green manure crops in the rotation will significantly increase CEC. On the other hand, excessive tillage, heat, and practices that fail to return sufficient organic matter to the soil reduce CEC.

CEC can be thought of as the potential fertility reservoir in the soil and is usually reported in meq/100 grams dry weight (milliequivalents per 100 grams of soil). A CEC value below about 7 is considered low, while a value greater than 15 is considered high. I’ve seen organically managed soils with CEC values above 20. Such soils have a tremendous reservoir of nutrient cations. It should be noted that, in addition to organic matter content, CEC is closely related to both pH and percent base saturation: CEC values tend to increase with pH, up to a point. However, it is possible for a high-CEC soil to have relatively low fertility if most of the exchange sites are filled by non-nutrient cations such as hydrogen, aluminum, or (in alkaline soils) sodium. On the other hand, a soil with a moderate CEC (such as 10 or 12) can be highly fertile if the pH and percent base saturation are in balance. Such conditions are facilitated when organic matter levels and cycling are optimized.

**NOSB, from page 14**

tion held. Typically, attorneys cannot speak about their cases, but the entire case was FOIA’d and is available on the NOP website.

The super-short message from the NOP was that organic was booming (13% growth last year); and things had slowed down as the change-over to the new administration occurred.

Key decisions:

- L-methionine – petitioned for use in infant enteral formulas. 15 Yes, 0 No.
- Short DNA tracers – petitioned as an improved method of traceability for organic foods. 0 Yes, 15 No.
- Tocopherols – annotation change, sent back to subcommittee.
- Marine algae listings – Subcommittee had recommended that they be annotated with Latin binomials where possible. Sent back to subcommittee.
- Ancillary substances permitted in cellulose: Sent back to subcommittee.

Most discussion documents, including Aeroponics/Hydroponics/Aquaponics were sent back to subcommittee for continued work.

The next NOSB meeting is scheduled Oct. 31 to Nov. 2 in Jacksonville, FL.





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### 2017 Calendar

**June 27 - 29** The ISEAL Alliance Global Sustainability Standards Conference in Zurich

**August 1 - 4** Kobe City, Japan, IOIA Farm Course

**August 2 & 3** IOIA/OEFFA Organic Livestock Inspection Field Training, Wooster, Ohio

**September 13 - 16** Natural Products Expo East Trade Show and Education Events, plus OTA Annual Meeting, Baltimore, Maryland

**September 24 - 28** IOIA/CCOF Basic Organic Crop Inspection Training

**October 2 - 6** IOIA/CCOF Basic Organic Crop Inspection Training

**October 2 - 6** IOIA/CCOF Basic Organic Processing Inspection Training

**October 16 - 18** Austin TX. Escabona – Re-Writing Food. Conference. [Escabona.com](http://Escabona.com)

**October 31** Fall NOSB meeting, Jacksonville, FL.

**November 9 - 11** 19<sup>th</sup> Organic World Congress, New Delhi, India. <http://www.owc.ifoam.bio>

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***Please see pages 2 & 3 for the current list of IOIA on-site trainings and webinars***