2016, VOL. 41, NO. 4 ICHIGHN Michigan's Pork Producers source for information.

Pg. 12

Pg. 15 Kelpinski Promoted to MPPA CEO

MARY KELPINSKI For Dedicated Service

Distinguished Service AWA R D

⁵ Maynard Hogberg Honored with Saddle and Sirloin Award Pg. 20 Youth for the Quality Care of Animals

Change is coming. Will you be ready?

Beginning January 1, 2017, a Veterinary Feed Directive order must be presented to purchase feeds containing:

Established drug name	Examples of proprietary drug name(s)
Chlortetracycline (CTC)	Aureomycin, CLTC, CTC, Chloratet, Chlorachel, ChlorMax, Chlortetracycline, Deracin, Inchlor, Pennchlor, Pfichlor
Chlortetracycline/Sulfamethazine	Aureo S, Aureomix S, Pennchlor S
Chlortetracycline/Sulfamethazine/Penicillin	Aureomix 500, Chlorachel/Pficlor SP, Pennchlor SP, ChlorMax SP
Hygromycin B	Hygromix
lincomycin	Lincomix
Oxytetracycline (OTC)	TM, OXTC, Oxytetracycline, Pennox, Terramycin
Oxytetracycline/Neomycin	Neo-Oxy, Neo-Terramycin
Penicillin	Penicillin, Penicillin G Procaine
Sulfadimethoxine/Ormetoprim	Rofenaid, Romet
Tylosin	Tylan, Tylosin, Tylovet
Tylosin/Sulfamethazine	Tylan Sulfa G, Tylan Plus Sulfa G, Tylosin Plus Sulfamethazine
Virginiamycin	Stafac, Virginiamycin, V-Max

Tilmicosin (Pulmotil, Tilmovet), Avilamycin (Kavault), Florfenicol (Aquaflor, Nuflor) currently require a VFD order.

www.michigan.gov/vfd

MICHIGAN

Michigan Pork Producers Association 3515 West Road, Suite B East Lansing, Michigan 48823 (517) 853-3782 www.mipork.org

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On the cover: Sam Hines awards Mary Kelpinski the Michigan Pork Producers Association Distinguished Service Award in 2010. Mary was recently named CEO of MPPA.

Spotlight

2017 Michigan Professional Pork Producers Symposium 4

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Spotlight Page

2017 Michigan Pork Symposium Agenda



Pictured above, attendees at the 2016 Michigan Pork Symposium hear from Dr. Dale Rozeboom.

2017 Michigan Professional Pork Producers Symposium

"Pork Industry Sociology"

Thursday, February 16, 2017

The Lansing Center, 333 E. Michigan Ave, Lansing, MI

8:00	Registration
	INVITED PRESENTATIONS
	Emcee – Dr. Dale Rozeboom
8:30	Welcome and Introductions
8:45	MDARD Update - Dr. Stephen Hussey, Veterinary Program Manager for Swine, Aquaculture, and Invasive Species, MDARD
9:00	MSU Update - Dr. Ronald L. Hendrick, Dean MSU College of Agriculture and Natural Resources
9:15	Seven-Years Later - From Where I Stand Now: Hog Industry Outlook - Dr. Glynn Tonsor, Associate Professor, Livestock & Meat Marketing, Price Analysis, Kansas State University
10:05	Break
10:20	Antimicrobial Resistance - Dr. James Tiedje, Distinguished Professor of Microbiology and Molecular Genetics, Michigan State University
11:05	My Farm, my Experiences, and my Thoughts about Effective Networks and Partners in the Pork Industry - Mr. Don Buhl, Tyler, Minnesota; Producer, Past President NPPC, and Past President MnPPA
	BANQUET LUNCH
12:00	Buffet Lunch
	Bill Evens, Sponsored by National Pork Board Checkoff Awards Program
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MSU RESEARCH POSTERS

Meet the Researchers

MSU RESEARCH PRESENTATIONS

Emcee – Dr. Madonna Benjamin

- 2:00 Getting the Most from Student Internships Dr. Gretchen Hill and Dr. Dale Rozeboom, Department of Animal Science
- 2:20 Bacteria Found in Pig Tonsils Friends and Foes Martha H. Mulks, Dept. Microbiology & Molecular Genetics; Luis Carlos Pena Cortes, Comparative Medicine & Integrative Biology Program
- **2:40** Laboratory Investigation of Nutrient Fate during Winter Manure Application Dr. Steven Safferman and Jason Smith, Biosystems Engineering
- **3:00** Impact of Pig Wean Age on Gut Development and Health Dr. Adam Moeser, Large Animal Clinical Sciences
- **3:20** New MI OFFSET for Siting New Facilities Dr. Jeff Andresen and Dr. Mike Kiefer, Geography Environment Spatial Sciences
- **3:40 Pork Producer Perceptions and Use of Behavior** Dr. Sarah H. Ison, Dr. Janice Siegford, Dr. Juan Steibel, Dr. Catherine Ernst and Dr. Ron Bates, Department of Animal Science; Dr. Madonna Benjamin, Large Animal Clinical Sciences; and Simon Turner and Richard D'Eath, Scotland's Rural College (SRUC), Edinburgh.
- 4:00 Adjournment to Taste of Elegance

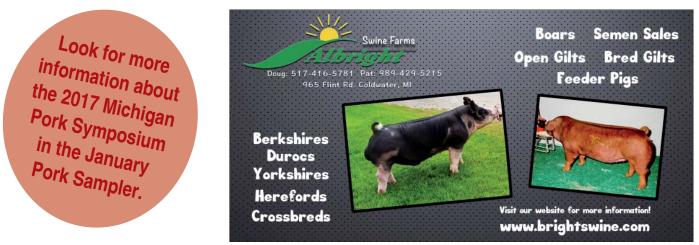
The registration form for the 2017 Pork Symposium can be found on page 10. 🗺

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MICHIGAN STATE



2016, VOL. 41, NO. 4

President's Page



By: Pat Hunter MPPA PRESIDENT

"Ready or not: A new year means change."

t's hard to believe it could possibly be time for a new year already, but with a new year always comes change. This year will be no different. We will see a new president take office in the country, a new president take over on the MPPA Board of Directors in June, Michigan Pork Producers Assolation will have a new CEO, and as always, changes to how we run our farming operations.

It seems like we have been hearing about the Veterinary Feed Directive (VFD) for a while now, through warnings telling us to get prepared for the changes coming. If you haven't heard about the VFD regulations, let me explain a little.

The VFD changes will limit the use of some antimicrobials administered in feed and require veterinary oversight to obtain these products. These changes will affect all food-producing animals. VFD changes take effect on January 1, 2017.

The Federal Drug Administration (FDA), which sets policies for antimicrobial development and usage in humans and animals, is responsible for the VFD changes. FDA's goal is to protect public health by limiting antimicrobial resistance through careful use of antibiotics.

The new VFD regulations focus on medically important antimicrobials. These are products from drug classes that are important for therapeutic use in humans and are used in animals also. Antimicrobials used only in animals are not affected by the VFD changes.

The directive was created to limit the use of antibiotics only for disease treatment, control and prevention, rather than for growth or maintenance purposes.

Medically-important antimicrobials administered in feed can no longer be purchased over-the-counter (OTC). A VFD order from the herd's veterinarian will be required to obtain the antimicrobials from a feed mill or retail distributor.

Antimicrobials administered by water will also require a

These new regulations will certainly bring new challenges to farming such as increased paperwork and record-keeping and possibly even higher veterinary bills for some operations.

Michigan Pork Producers Association

prescription.

In order to have a VFD order written by a veterinarian, a farm must have a valid veterinarianclient-patient-relationship (VCPR) and be able to show proof of this relationship. The veterinarian will provide copies of the VFD order to the distributor and the herd owner. All three parties (veterinarian, feed mill/distributor and herd owner) must keep copies of the VFD for two years.

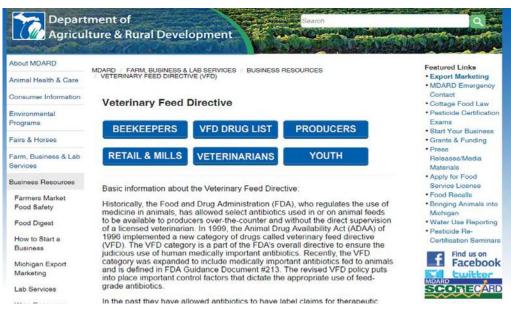
No extra-label drug use is allowed for VFD orders. The product must be used as labeled, including the species, indication, dosage and feeding duration.

As agricultural producers, we want the public to remain healthy and we want to ensure that we are raising safe food products for our consumers. As the agricultural industry as a whole, we are committed to human and animal health.

These new regulations will certainly bring new challenges to farming such as increased paperwork and record-keeping and possibly even higher veterinary bills for some operations.

Some larger operations may already have a veterinarian on staff or that they work with on a regular basis. Operations like this may have heard about the VFD changes a while ago and already taken the steps to prepare themselves.

Other operations, especially those in areas with a shortage of



More information about the new regulations can be found at the website seen above at www.michigan.gov/vfd. Veterinarians in your area can be found at www.globalvetlink.com/products/myvetlink/.

veterinarians, may not have ready access to veterinarians to write VFDs, causing extra challenges for those producers.

But as an agricultural industry, we will always continue to work

to improve our methods to grow healthy food for consumers. We are an ever-changing industry and if you haven't made preparations for these new regulations on your operation, now is the time.



2016, VOL. 41, NO. 4

As | See It



By: Sam Hines MPPA EXECUTIVE VICE PRESIDENT

"Seeing it one last time?"

ypically, when I sit down to write this column, I have at least a general idea about the topic I plan to discuss, but I'm not always sure how I'm going to say it. Generally, it's best to just start writing and see what direction it goes. I guess this time isn't appreciably different, but in some ways it actually is a little different in that this will be my last column as the chief executive of MPPA. As noted elsewhere in this issue, my longtime colleague, Mary Kelpinski, will take over the helm on January 1.

When I began this journey 31 years ago, I had no preconceived notions about how long I would be in this role or, for that matter, how long I would even be in Michigan. However, it soon became evident that this was a pretty good fit for me and lately I have been amazed at how guickly those 31 years flew by. I have spent my entire working life in some aspect of the pork industry and last year I wrote a couple columns recapping my experiences in the different roles I had during my career, including my involvement with the National Pork Producers Council NPPC) beginning in 1972. Prior to that time, I recalled attending meetings of the National Swine Growers Council (NSGC), the organization that preceded NPPC, in the early and mid-60s. One of my earliest pork industry mentors, Marvin Garner, who later became the second chief executive of NPPC, asked me to tag along to some of those NSGC meetings while I was still in college. For me, it was fun looking back and reminiscing a bit and the exercise also made me appreciate how fortunate I have been. If I had to single-out one thing that was responsible for my good fortune, it would be the fact that I have always been fortunate enough to have been surrounded by good people, and

that started at day-one with my parents and family. I can say without reservation that I would never have wanted to grow-up anywhere other than the livestock farm of my youth in Ohio. My parents and immediate family were certainly responsible for the solid upbringing I received during those formative years on the farm. And, additionally, they provided the encouragement

... I have certainly appreciated the feedback I have received regarding my musings in this column over the years.

and opportunity for me to broaden my horizons by attending college. Furthermore, I often realize how lucky I also was to have early mentors

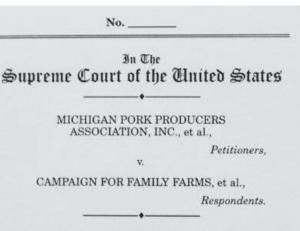
Michigan Pork Producers Association

like Marvin Garner, 'Pig" Paul, Roy Keppy, and numerous other stalwarts of the pork industry who certainly had a huge influence on me and in determining the career path I took. While attending meetings in the main conference room at the National Pork Board in Des Moines, I have often glanced at the pictures of those that have been inducted into the Pork Industry Hall of Fame and feel really honored to have known and, in some cases, worked with many of the individuals whose pictures hang on the wall there. And, I got lucky once again when I came to Michigan as this state has some of the most business-savvy, forward-thinking pork producers to be found anywhere. It has been a true delight to have had the privilege of working with these men and women. Their enthusiasm for this industry and desire to make it better has kept me energized and eager to accomplish what we could organizationally. And, collectively, I believe we can point to some successes over the years. That isn't to say there haven't been, and still are, challenges, but I have never seen anyone with whom I have worked while in this role exhibit a defeatist mentality. In fact, their enthusiasm and can-do spirit has always been contagious and, more often than not, resulted in some type of positive outcome. I can point to several examples, but probably none bigger than preserving the Checkoff. It's fair to say that without the efforts of Michigan's pork producers there probably wouldn't be a Pork Checkoff today. I often take the

document pictured in this article off the shelf in my office to remind me how huge of an undertaking this was. It's also safe to say that at the time there were few except Michigan's producers who were willing to pursue it. Initiating litigation against the federal government isn't something one enters into lightly, but Michigan producers believed they were victims of political maneuvering and weren't going to sit idly by and become victims of such a process. Another example of a huge undertaking was recovering damages for producers in the vitamin and lysine price fixing cases. The board realized there was no guarantee of success when we embarked on either of these journeys, but believed it was the right thing to do and in the end we prevailed. For me, both were gratifying successes and it was



particularly rewarding being able



On Petition For A Writ Of Certiorari To The United States Court Of Appeals For The Sixth Circuit

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to compensate producers for the damages they incurred in the price fixing cases.

Continued on page 11

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Page 10

Michigan Pork Producers Association

"Seeing it one last time?" continued

Continued from page 9

Finally, I have been blessed with some great co-workers over the years and few have been more capable or more committed to this industry than Mary Kelpinski. I have often said I really got lucky 28 years ago when I hired Mary and that is why I have no qualms that this organization will be in good hands under Mary's tutelage.

I should clarify that I'm not totally walking away as I am planning to stick around for awhile to work on several projects and assist where I can on a part-time basis. After so many years with this organization, I told the board I was going to need to ease into retirement rather than jump-in and they have agreed to allow me to make the transition in that manner. In fact, Mary may even let me write a column periodically; if I think I have something pertinent to share. Since I titled this column "As I See It," a typical joke around the office when the magazine deadline approaches is whether or not Sam's seen it yet! From time-to-time, maybe I'll "see" something and Mary can decide if it's newsworthy. In that regard, I have certainly

appreciated the feedback I have received regarding my musings in this column over the years. I'm not sure I ever had all that much profound to impart but, apparently, some of you enjoyed reading it anyway and that's certainly been gratifying.

About all that's left to say is a sincere and heartfelt thank you to everyone who has made this incredible 31 years so enjoyable. I have enjoyed every minute of it even the challenges and, as I alluded earlier, that's a tribute to the "good people" that have helped every step of the way.



Food Bank Council of Michigan and our member food banks thank the Michigan Pork Producers Association for their support!

We are pleased and honored to participate in the Annual Taste of Elegance on Thursday, February 16, 2017.



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Kelpinski Promoted to Role of MPPA CEO

ary Kelpinski has been named by the Michigan Pork Producers Association (MPPA) Board of Directors to the role of Chief Executive Officer of MPPA effective January 1, 2017. According to MPPA

President, Pat Hunter, Kelpinski will replace Sam Hines who has served as chief staff executive of the organization for 31 years. Kelpinski's career with MPPA began in 1989 when she was hired as the Director of Communications. She has served the association as Executive Director since 1994.

"It is truly an honor to be selected as the CEO of Michigan Pork Producers Association," Kelpinski said. "I really enjoy working in the pork industry and serving the producers of this state. With the construction of the

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Coldwater processing facility, this is an exciting time for pork production in Michigan and I am proud to be a part of it."

In addition to her work for the association, Kelpinski has been a loud voice for the industry's Operation Mainstreet Program where she has given presentations to over 100 civic organizations, dietitians and high-level decision makers sharing the advances that have been made in pig farming.

Hunter said Hines is planning to partially retire, but will remain with MPPA on a part-time basis coordinating the association's environmental and swine health initiatives and assisting with the communication functions. He will also assist the CEO and board in continuing to identify and develop strategic goals that will accomplish the organization's mission of *'creating and enhancing opportunities for Michigan's commercial pork producers.'*

"Sam has a long history of involvement with the pork industry and the organization," said Hunter. "In addition to the 31 years he spent as MPPA's chief executive, he has been involved with NPPC in several capacities since 1972 and with the National Pork Board since 1986. At the same time, Mary also brings a wealth of experience to the role as she has been with MPPA for 28 years. Her extensive experience made her a logical choice to succeed Sam. We are pleased they will continue working with the board in the near term, particularly during these challenging economic times, to carry-out the programs that have been designed to help producers succeed."

Michigan producers raise more than two million hogs annually with a market value exceeding \$500 million dollars.

Michigan Pork Producers Association

Please Join Us for the 27th Annual

TASTE Elegance







February 16, 2017

3 p.m. for sampling, hors d'oeuvres and judging Winners announced at 6:30 p.m. The Lansing Center 333 East Michigan Avenue Lansing, Michigan 48933

2016, VOL. 41, NO. 4

MI Pork PAC Helping elect friends of the Michigan pork industry.

The Michigan Pork PAC is the bi-partisan political action arm of the Michigan Pork Producers Association. The MI Pork PAC enables producers to pool their resources together and become directly involved in the election process.

A strong political action committee compliments our advocacy efforts at the state Capitol. By contributing to the MI Pork PAC, you are helping to elect legislators who support your industry. By working with our elected lawmakers, we can be assured that we will have maximum impact in shaping policy issues that impact you. A strong PAC assures us that pork producers and candidates who support us will be at the table when decisions impacting your industry are being made. Please keep in mind that contributions may be accepted from individuals, partnerships, LLC's, and Sole Proprietors. However, NO CORPORATE CONTRIBUTIONS CAN BE ACCEPTED.

Contributions to the PAC are not deductible as charitable contributions for Federal income tax purposes.



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Maynard Hogberg Honored with Saddle and Sirloin Award

r. Maynard Hogberg, Iowa State University emeritus professor and former animal science department chair, was honored for his contributions to the nation's livestock industry when his portrait was added to the Saddle and Sirloin Gallery in Louisville, Kentucky.

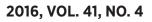
Hogberg's 2016 Saddle and Sirloin Club Portrait Award was unveiled as the newest entry in the Saddle and Sirloin Club Portrait Collection, a 113-year-old tradition honoring leaders who have demonstrated lifetime achievements and provided outstanding service to animal agriculture.

"I am very grateful and humbled to be added to this gallery of outstanding leaders in animal agriculture in the National Saddle and Sirloin Portrait Gallery," Hogberg said. "Many of those in the gallery are people I have looked up to and admired. I am very fortunate to have had an enjoyable career where I could work with outstanding people in academia and in the livestock industry. Together we have tried to make the livestock industry stronger and better."

Hogberg led the animal science departments at Iowa State and Michigan State University for three decades. He served as chair of Michigan State's animal science department from 1984 to 2002 and chair of Iowa State's animal science department from 2003 to 2015, when he retired.

"Dr. Hogberg's legacy is as one of the nation's premier university leaders of animal science programs," said Wendy Wintersteen, endowed dean of the Iowa State University College of Agriculture and Life Sciences. "Due to his leadership, our animal science department is nationally and internationally recognized for its strong







undergraduate and graduate programs, an excellent broad-based research program and an actively engaged extension program."

Founded in 1903, the Saddle and Sirloin Portrait collection honors individuals who have demonstrated lifetime achievements and significant accomplishments in the livestock industry. The gallery is believed to be the world's largest portrait gallery commemorating a single industry and honors stockmen, leaders and pioneers who helped establish and advance modern animal agriculture.



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December 2016

Vol. 21 No.4

In This Issue...

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- Pg. 4 Extra-label use for pain management in pigs
- Pg. 7 Positive Pig Handling
- Pg. 9 Statewide Winter and Spring Programs



This newsletter is edited by: Thomas Guthrie, MSU Extension Educator 517-788-4292 guthri19@msu.edu & Emily Schmitt MPPA, Program Director

BEST ODDS – Success in meeting the requirements of the CSIA starts with the PQA Site Assessments.

By: Madonna Gemus-Benjamin, Department of Large Animal Clinical Sciences MSU College of Veterinary Medicine

Many packers have initiated individual third party audits for their supplying swine farms. To prevent complications to farms of having to comply with multiple auditing programs, the National Pork Board (NPB) worked with packers to create a common swine audit with the goal to provide a common, credible, assurance of on-farm swine welfare and food safety. This single common third party audit platform initiative is called the Common Swine Industry Audit (CSIA).

Information about the audit can be found at pork.org/commonaudit.

The CSIA builds on the existing Pork Quality Assurance[®] Plus (PQA Plus[®]) program and the questions in the PQA Plus[®] Version 3 Site Assessments are aligned with the CSIA, making it an excellent preparation step for the CSIA. The audit is designed to be independent of facility size or design and measures four primary areas: records, animals, facilities and caretakers and provides an opportunity for the PQA Plus[®] advisor to educate the producer on issues associated with animal well-being, pork quality, and safety.

This article is an overview of the comparison and value of CSIA and PQA Plus[®] Site Assessments.

The CSIA does not replace the PQA Plus[®] site assessment, which serves as an educational and benchmarking tool to ensure pig well-being. The CSIA, on the other hand, does not have an educational component, but rather is a method to provide independent verification that the animal well-being system is working.

The value in a third party audit is producer's commitment to developing and ensuring "trust" among pork chain partners and consumers. Professional Animal Auditor Certification Organization (PAACO) has been

MSU Pork Quarterly

Audit vs. Assessments

PQA Plus® Version 3 Site Assessment

- Producer initiates and schedules site assessment based on PQA Plus[®]
- Site is designated by Premises Identification
 Numeer
- Completed by first or second party assessors trained by PQA Plus[®] advisor
- Preplanning includes biosecurity protocols, facility design and number of animals
- Educational and benchmarking
- Measurement and feedback

Common Swine Industry Audit

- Farm is contacted by packer or third-party audit company to schedule an audit
- Site is deisignated by Premises Identification
 Number
- Completed by packer or third-party auditors trained by PAACO
- Preplanning includes biosecurity protocols, facility design and number of animals
- No educational component
- Measurement and comments

Measures and questions are the same. Site assessment prepares producers for CSIA.

contracted to train and certify packer and third party auditors to conduct CSIA. "With PAACO auditor training, producers have added confidence that auditors visiting their farms are trained in a standardized way" states Collette Kaster, Executive Director of PAACO. The first in a series of training courses was held in October. Subsequent PAACO-CSIA training sessions have been scheduled within the next 12 months, providing the swine industry with a core mass of auditors available to conduct the CSIA.

If you haven't yet had a CSIA audit or a PQA Plus[®] Version 3 Site Assessments by an assessor, this is what you can expect: The auditor or assessor will conduct a thorough examination of the farm to include four areas: records, animals, facilities and caretakers. While on-site, the auditor will observe animal conditions and caretaker interactions and conduct an exit meeting to discuss the findings and allow for any necessary clarification, but cannot provide guidance relative to the findings

The audit, designed to be independent of facility size or design, assesses all phases of production, including load-out. The audit process may take up to 4 hours, depending on the production phase(s) evaluated. Audit questions have assigned point values. The site receives the full point value if it meets the approved standard. Although, there is no established minimum passing score, willful acts of abuse or failure to euthanize animals in a timely manner will result in the site failing the audit automatically. Both the audit and assessment can expect the producer to complete corrective actions for critical issues. Packers and customers will be responsible for reviewing the scores and corrective actions to determine if problems have been resolved or if a follow-up audit is necessary.

Your farm will still need a PQA Plus[®] site assessment even if you are audited. Conversely, your buyer may request a third party audit even if you have met all requirements for PQA Plus[®].

Audit and Assessment:

Animal benchmarking makes up 50% of the audit. During the audit, a representative sample of pigs will be observed at the farm for the following criteria:

- Space allowance
- Body condition scores
- Severe lameness
- Scratches longer than 12 inches
- Abscesses
- Deep wounds
- Tail biting lesions
- Prolapses
- Hernias (non-breeding only)
- Shoulder sores (breeding only)
- Vulva injuries (breeding only)

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Standard Operation Procedures, Records and Documents Needed

Standard Operating Procedures

- 1. Written euthanasia plan
- 2. Animal handling
- 3. Piglet processing
- 4. Feeding and watering protocols
- 5. Daily observation
- 6. Caretaker training
- 7. Treatment management
- 8. Needle usage
- 9. Rodent control
- 10. Biosecurity

Records

- 1. Emergency backup equipment testing (minimum of twice a year testing)
- 2. Daily observation records (12 months needed)
- 3. Mortality records (12 months needed)
- 4. Medication and treatment records, including vaccinations (12 months needed)
- 5. VFD records according to FDA guidelines

Documentation

- 1. Willful acts of abuse zero tolerance policy
- 2. Abuse reporting mechanism
- 3. Euthanasia plan posted
- 4. Annual caretaker training
- 5. PQA Plus[®] certification all current employees. New employees must be certified within 90 days of employment.
- 6. TQA certification current for most recent transporter delivering or loading pigs at site
- 7. Valid PQA Plus[®] site status from a PQA Plus[®] Site Assessment (done within 6 months of operation or before animals are marketed or sold; completed every 3 years)
- 8. Internal site assessments facility, animals, caretakers and procedures must be conducted by production management team (supervisors, site managers, or other internal animal welfare auditors). Must be conducted at least quarterly on sow farms and semi-annually on nursery and finishing farms.
- 9. Emergency action plan posted
- 10. Valid VCPR (Veterinary Client Patient Relationship) verification must be dated within the past 12 months
- 11. Visitor log
- 12. Biosecurity signage or other means to restrict access

To cover areas of caretakers, facilities, records, transport, and food safety producers will need to show 1) Standard Operating Procedures (SOPs), 2) Records, and 3) Documentation (See chart above)

Other notes:

1. Needles that are 16 gauge or larger size (lower number) must be highly detectable.

2. Sharps container for proper disposal of sharps - must be clearly labeled as sharps according to each state's regulations.

Pass or fail?

There is no Pass/Fail with the PQA Plus[®] site assessment. However the CSIA has 5 pass/fail questions related to willful acts of abuse and timely euthanasia of animals. Receiving a fail in any one of these areas is an automatic failure for the audit but the remainder of the audit will be conducted.

The rest of the audit questions are assigned a set number of points. A score for each section as well as an overall score for the entire audit is given. There is no minimum score to pass and it will be up to the buyers to determine which scores are acceptable.

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Extra-label use for pain management in pigs

By: Sarah Ison, Department of Animal Science MSU College of Agriculture and Natural Resources; Dr. Madonna Gemus Benjamin, MSU Extension Swine Veterinarian Beth Ferry, MSU Extension Pork Educator

Pigs have similar anatomy and physiology to humans, as such, it is generally agreed that pigs experience pain. When pain is managed in human patients, it results in improved recovery and a greater ability to function. Certain aspects of livestock production can result in pain, including several diseases, management procedures, injuries, and farrowing. Food-producing animals are restricted in the types of pharmaceutical products they can receive. However, there are ways in which FDA-approved pain relief products can be used on-farm under veterinary supervision. The use of these drugs can result in improved recovery, and a greater ability to function in pigs, which can also be reflected in production figures. There are many ways to reduce pain, including the reducing of risk factors associated with lameness, injury, or disease, and altering the way pigs are housed and managed. This article, however, will focus on pharmaceutical pain management, including the pain management options available, and evidence for clinical improvements to pigs.

On-farm pain management options

There are several classes of pain relief medication, with categories based on how the drugs work, including: opioids, non-steroidal anti-inflammatory drugs (NSAIDs), local anesthetics, a2 adrenoceptor agonists and those classed as 'others'¹. The drug class that can be used on farm by producers (under veterinary supervision) are the NSAIDs, which are used to treat mild to moderate pain, representing most conditions affecting pigs. In cases of severe pain, for example if a bone fracture is suspected, or in severe cases of lameness, disease, or injury, euthanasia is the best option. The NSAIDs act to reduce sensitivity at the site of inflammation, by inhibiting the production of inflammatory mediators released in response to tissue damage, they also have an antipyretic effect, meaning they reduce fever². Another class of drugs used to treat inflammation, are known as corticosteroid anti-inflammatories (e.g. dexamethasone). These products treat swelling, but do not reduce pain associated with inflammatory conditions or skeletal pain.

The FDA-approval process for veterinary products is complex, time-consuming, and expensive, with little return on investment for pharmaceutical companies, compared to human medical products or drugs used for companion animals, so fewer drugs are available for food animal use. There is one FDA-approved NSAID product available in the United States for on-label use in swine, which is labelled to treat respiratory disease. This drug is called Banamine-S, containing the active ingredient flunixin meglumine (or flunixin), which is the ingredient that produces the anti-pyretic, and anti-inflammatory pain-relieving effect. However, this product, along with another NSAID, can be used to treat pigs for many other conditions involving inflammation and pain through a veterinarian, using the Animal Medicinal Drug Use Clarification Act of 1994 (AMDUCA). The use of Banamine-S for any other condition, and the use of another NSAID product, meloxicam (Metacam[®]), is possible using the process termed extra-label drug use.

Extra-label drug use (ELDU) under AMDUCA must be done through a veterinary-client-patient-relationship (or VCPR). The veterinarian can administer, dispense, or prescribe the drug, for specific conditions in pigs, and will specify a withdrawal time, which is found using the Food Animal Residue Avoidance Databank (FARAD). Producers can then use the drug to treat the condition in pigs, keeping accurate records of the individuals treated, in order to keep track of the individuals so withdrawal times are met. Talking to the veterinarian about the recognition and treatment of pain is recommended³.

The benefits of pain management

Pain can reduce food and water intake, so for livestock species like pigs, there is a possible economic cost to pain⁴. For example, growth performance was significantly improved in pigs given meloxicam in addition to anti-microbial drugs to treat porcine respiratory disease complex⁵. The use of pain relief products is not

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always directly related to production measures, but can benefit the individuals. When the NSAID ketoprofen was administered through drinking water for three days, to pigs showing signs of respiratory disease, no improvement in feed intake or growth was found, but fewer pigs had difficulty breathing, there was less coughing, lower body temperatures, and pigs generally appeared healthier⁶. When experimentally infected with respiratory disease, the NSAID ketoprofen, reduced fever, and increased feed intake in the infected pigs⁷. In another type of experimental infection (using E.coli endotoxin), both meloxicam⁸ and ketoprofen⁹ improved clinical scores (including: behavior, breathing, movement and stance) in infected pigs.

Recent interest has focused on the potential for NSAIDs administered to the sow around farrowing, to improve sow recovery and aid in the treatment of post-farrowing conditions. On a farm with high incidence of milking problems, and where a post-farrowing antibiotic is routinely used, piglet mortality was reduced and the number of piglets weaned increased for sows given the NSAID ketoprofen¹⁰. A study involving 15 commercial farms, tested the use of post-farrowing ketoprofen provision for all sows regardless of milking problems, and also demonstrated a reduction in piglet mortality and a greater number of piglets weaned¹¹. Another study found no piglet performance benefits to administering ketoprofen, but did identify other sow benefits, which included a reduced loss in back-fat and body condition during lactation through delayed feed refusal, a lower incidence of constipation, and less severe shoulder sores¹², that may overall benefit sow health and longevity. The NSAIDs meloxicam and flunixin in addition to antibiotic treatment improved clinical signs in sows with post-farrowing illness^{13,14}. When the NSAID meloxicam was given after farrowing, regardless of signs of infection, an increased average daily weight gain of low birth weight piglets was found in one study¹⁵ and another showed a slight increase in piglet weight gain of litters containing 11 to 13 piglets¹⁶. An oral dose of meloxicam administered during farrowing, resulted in increased piglet weaning weights, average daily gain of piglets, and improved transfer of immunity to piglets¹⁷. However, care should be taken when giving NSAIDs at farrowing, as they have the potential to inhibit uterine contractions. Additionally, oral meloxicam administered to the sow

post-farrowing, has been shown to transfer a therapeutic dose to piglets through milk¹⁸.

Another surge in recent interest has been directed towards pain relief in relation to lameness, which is an important cause of pain in pigs. Lameness can reduce sow longevity and impact on performance indicators¹⁹. For non-infectious lameness, meloxicam reduced clinical lameness scores, improved feed intake and behavior scores, when administered at the point of lameness detection and repeated on day 2 if necessary²⁰. An oral doses of ketoprofen reduced lameness scores in another study, when given over 5 days²¹. A research group in the US, created a method to experimentally induce lameness in sows, in order to investigate lameness, including pain management²². Subsequent research by this group has demonstrated that both meloxicam and flunixin reduced sensitivity in lame sows²³, reduced behavioral sign of pain²⁴, and showed improvements with gait analysis²⁵. However, their behavioral results suggest that meloxicam was superior to flunixin in treating lameness pain^{24,26}.

Research shows that non-steroidal anti-inflammatory drugs (NSAIDs) can be beneficial to reduce pain in pigs and reduce the economic costs associated with painful conditions. NSAID products available to producers in the US include flunixin meglamine (Banamine-S[®]) and meloxicam (Metacam[®]), which can be used for several conditions causing pain and inflammation in pigs under veterinary supervision. Evidence suggests that the NSAID ketoprofen can also be effective in pigs, and is approved for pigs in other countries. Increasing evidence may mean this product becomes available in the near future.

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The NEW Veterinary Feed Directive (VFD) for medically important feed-grade antibiotics and prescription rule for water-based antibiotics TAKE EFFECT ON JANUARY 1, 2017.

Don't Wait...Be Ready!

Beginning January 1, 2017, a Veterinary Feed Directive order must be presented to purchase feeds containing specific medications. For more information on this, visit: **www.michigan. gov/vfd.** A veterinary-client-patient-relationship is required to obtain a Veterinary Feed Directive. For a list of veterinarians in your area, visit: https://www.globalvetlink.com/products/ myvetlink

Positive Pig Handling

Tom Guthrie, MSU Extension Pork Educator Dr. Madonna Gemus Benjamin, MSU Extension Swine Veterinarian Beth Ferry, MSU Extension Pork Educator

There are several considerations that should be taken into account when handling pigs. These considerations can be broken down into three basic categories that include the following: 1) The Pigs, 2) Role of the Handler and 3) Tools and Techniques. A good understanding of each of these categories will aid in the efficiency of moving pigs and ultimately making it a positive experience not only for the pigs but the handler as well.

The Pigs

Use What You Know About Pigs. Pigs are herd animals and will use hearing and sight to keep track of handlers. When considering sight, pigs have poor depth perception and are sensitive to contrasts. This means that pigs may stop at a 90 degree turn and it may take pigs a few seconds to figure out a new flooring surface. Below is a list of what a few pig behaviors that are important for the handler to understand.

What Common Pig Behaviors Mean:

Squealing = Sounding the alarm

Bunching = Seeking the safety of the herd

Jumping = Trying to escape

Circling back = Returning to safety

Pointing ear = Focusing attention

Changing body position = Tracking, telegraphing next move

The Handler

The role of the handler, can and in many cases may, dictate the behavior reactions exhibited from the pigs they are handling. It is extremely important for the handler to have a positive attitude. Along with a positive attitude, a well thought out plan of action and route to move pigs as well as exceptional communication with all team members that are assisting with handling pigs will be paramount for success.

Tools and Techniques

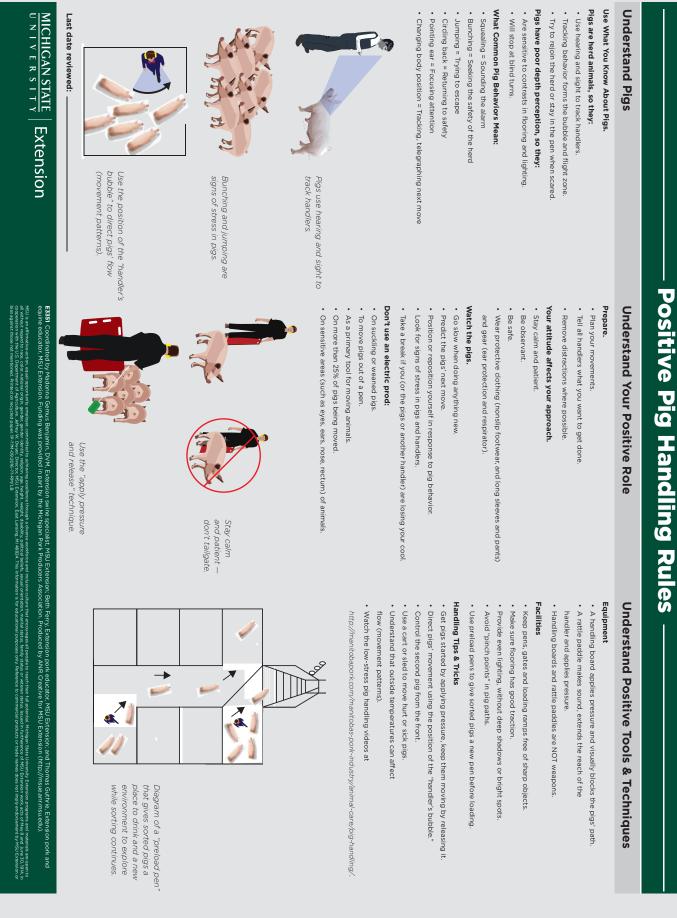
A sorting board is more than likely the most effective tool when handling pigs. The sorting board is not only an efficient tool when sorting and moving pigs but may also serve as Personal Protective Equipment providing a barrier between the handler and the pigs. A rattle paddle is a very good tool for providing and releasing pressure especially for small pigs that tend to keep in a group and have a wide flight or bubble zone. Shake the paddle to initiate pressure and once there is flow eliminate the shaking and keep the paddle near your side until pressure is needed.

One simple technique that may be considered is using a preload pen. This pen is a designated pen close to the door of the loading ramp used for market hogs. The preload pen serves three purposes. First, for the pig, as it allows them the ability to take a quick rest after being sorted and walking down the alleyway, get a drink if needed and explore a new environment before being loaded onto the truck. The second purpose is aimed at the handler(s). Handlers will have the opportunity to evaluate the overall condition of the pig, therefore, providing the handler a chance to make a decision whether or not the pig should be loaded onto the truck. Third, the preload pen is close to the truck, allowing the handler to position and initiate flow onto the truck by using and releasing pressure.

Michigan State University Extension Pork Team members have developed a poster (as illustrated on the following page) that can be used for Positive Pig Handling training documentation as well as serving as a quick reminder of the key aspects of handling pigs. Interested producers can receive full size, color printed posters by contacting Dr. Madonna Gemus Benjamin, gemus@msu.edu.

Happy Handling!

MSU Pork Quarterly



Announcing MSUE Pork Team Statewide Winter and Spring Programs!

Come join the MSUE Pork Team to learn further how to improve your performance, your business and ultimately your bottom line. For further details and information relating to the pork industry, check out our website at: msue.anr.msu.edu/topic/info/pork

2017 MSUE Pork Team Spring Road Show (March)

Co-sponsor: Michigan Pork Producers Association

Locations:

Mount Pleasant, MI; Date - TBD Coldwater, MI; Date - TBD Cassopolis, MI; Date - TBD

Program:

Michigan EnviroImpact Tool

Shelby Burlew, MSU Extension Livestock Environmental Educator

Influenza – You and the people who take care of your hogs

Dr. Madonna Gemus-Benjamin, MSU Extension Swine Veterinarian

Respirator Protection - Do I need it? Does it fit?

While OSHAs Hazard Communication (HazCom) Standard and EPAs Worker Protection Standard (WPS) are not 'new' to the agriculture industry, recent changes to HazCom and the WPS have resulted in conflicting directives leading to uncertainty as to how to best maintain compliance.

Dr. Melissa May, Associate Professor of Medicine, College of Human Medicine

SOPs - Want some?

The goal of this presentation is to work with Michigan producers to show how the PQA Version 3 site assessment can help to prepare producers for the CSIA. We will conduct mock audits and share templates of necessary protocols in order to assist swine producers to prepare and complete the CSIA successfully.

Beth Ferry, MSU Extension Pork Educator

Cleaning the Ventilation System

Dr. Dale Rozeboom, Professor and MSU Extension Specialists

Industry Quality Assurance Programs

PQA V3 Site Assessment – A valuable tool in training for your Common Swine Industry Audit.

Dr. Madonna Gemus-Benjamin, MSU Extension Swine Veterinarian

In October 2014, the National Pork Board officially announced a new Common Swine Industry Audit (CSIA) platform for pork producers, packers and processors and certified by the Professional Animal Auditor Certification Organization (PAACO). Within a few months trained third party PAACO-CSIA auditors will be conducting audits on Michigan swine farms. The goal of this presentation is to work with Michigan producers to show how the PQA Version 3 site assessment can help to prepare producers for the CSIA. We will conduct mock audits and share templates of necessary protocols in order to assist swine producers to prepare and complete the CSIA successfully.

Transport Quality Assurance ... Cost: \$20/pp Pork Quality Assurance Plus ... Cost: \$20/pp (Common Swine Industry Audit)

Locations;

Mount Pleasant, MI; Date - TBD Coldwater, MI; Date - TBD Cassopolis, MI; Date - TBD

2017 Green and White Education Fair and Show

January 27-29, 2017

Location: Pavilion for Livestock and Agriculture Education, MSU, East Lansing, MI.

This three-day event for Youth will feature; • Pig Farming Scenario Contest • Swine Skillathon • Promotional or Educational PowerPoint Contest • Pork Judging Contest at the MSU Meats Lab • Scholarship Contest • Showmanship Clinic and • Market Hog Show

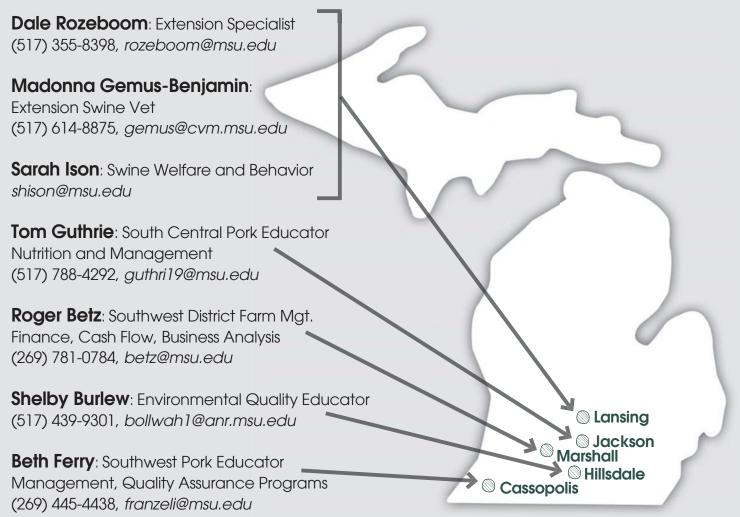
For more information, please visit: msue.anr.msu.edu/

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All comments and suggestions should be directed to the:





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MICHIGAN STATE UNIVERSITY

Extension

2016, Vol. 21 No.4

Capital Update

All activities reported under this heading are financed by non-checkoff funds.

NPPC TO WORK WITH NEXT ADMINISTRATION, NEW CONGRESS TO KILL GIPSA RULE

NPPC will work with the Trump administration and the new Congress to repeal an "unnecessary, destructive and illegitimate midnight rule," issued recently by the Obama administration, that could restrict the buying and selling of livestock, lead to consolidation of the livestock industry and increase consumer prices for meat. Written by the U.S. Department of Agriculture's Grain Inspection, Packers and Stockyards Administration (GIPSA), the "interim final" rule broadens the scope of the Packers and Stockyards Act (PSA) of 1921 related to the use of "unfair, unjustly discriminatory or deceptive practices" and "undue or unreasonable preferences or advantages." Specifically, the regulation would deem such actions per se violations of federal law even if they didn't harm competition or cause competitive injury, prerequisites for winning PSA cases. (Such actions currently are state court matters.) USDA in 2010 proposed a number of PSA provisions – collectively known as the GIPSA Rule - which Congress mandated in the 2008 Farm Bill. But the agency was blocked by lawmakers through amendments to annual agricultural spending legislation from implementing a regulation that would eliminate the need to prove a competitive injury to win a PSA lawsuit. In fact, Congress considered and rejected such a "no competitive injury" provision during debate on the 2008 Farm Bill. Additionally, eight federal appeals courts have held that harm to competition must be proved for an action to be a violation of the PSA. When a rider wasn't included in the fiscal 2016 agricultural funding bill, Agriculture Secretary Tom Vilsack vowed his agency would move forward with the blocked regulation. A recent update of a study conducted by Informa Economics of the proposed 2010 GIPSA Rule found that

today it would cost the pork industry more than \$420 million annually, with the majority of the costs related to PSA lawsuits brought under a "no competitive injury" provision. The PSA regulation – and two related proposed rules – will be subject to a 60-day public comment period, which extends the rulemaking process into the Trump administration. NPPC, as it did following issuance of the proposed 2010 GIPSA Rule, will urge America's 68,000 pork producers to submit comments in opposition to the new regulation. Thousands of producers weighed in against the 2010 rule.

CHINA-BACKED TRADE PACT GAINS TRACTION

Talks recently on the 16-nation Regional Comprehensive Economic Partnership (RCEP) accelerated following President-elect Donald Trump's pledge to withdraw from the Trans-Pacific Partnership (TPP). China, which was not involved in the TPP, is pushing ahead with the Asia-focused RCEP without the United States. Negotiators meeting in Jakarta, Indonesia, neared an agreement on protections, small enterprise assistance and competition policy, with intellectual property rights and trade in goods and services yet to be resolved. The next round of talks are expected to be held in Japan in February. RCEP has the potential to create the world's largest free-trade bloc, covering half the world's population and 30 percent of the global economy. For some countries, the TPP is not dead. Japan approved the deal recently, and Australia is still pushing ahead with ratification. Vietnam also has shown interest in proceeding. However, China sees RCEP as an opportunity to integrate into the global economy and engage the Asian region in trade liberalization. "This is an opportunity for RCEP members to drive the process," said Carlos Kuriyama, a senior trade analyst with the Asia-Pacific Economic Cooperation secretariat, giving his

personnel view. "If TPP doesn't go through, they can try and cover that hole."

U.S. PORK INDUSTRY CRITICIZES RESEARCH FINDING ON ANTIBIOTIC-RESISTANT BACTERIA

A recent research paper from the Ohio State University detailing the discovery of an antibiotic-resistant gene from a bacteria found in one farrowing barn has been criticized by NPPC and the National Pork Board, which said it would analyze the initial findings. In a statement issued recently, the National Pork Board said the most important "takeaway" from the study is that the U.S. pork supply is safe. The resistant gene was not found in a market hog, and the researchers acknowledged that it is not known how the bacteria was introduced to the barn. Although the biosecurity protocols, if any, used on the farms aren't known, the fact that the resistant bacteria was found only in one area of the barn indicates that current internal biosecurity measures are effective, the National Pork Board pointed out. "To draw the conclusions this study draws without further validation, replication and research is an overreach from the data and, in the worst case, is sensational in nature," said NPPC in its statement. Hogs farms across the country are voluntarily offering access to Ohio State University's Public Health Preparedness for Infectious Diseases Program to conduct research so that pork producers can better understand emerging disease issues.

INFLUENCERS DISCUSS WHAT THE NEXT FARM BILL WILL LOOK LIKE

Top agricultural influencers met recently at the National Press Club in Washington, D.C., to discuss the direction of the 2018 Farm Bill at a forum hosted by the Farm Foundation, a non-profit group that works for sound agricultural public policy. The panelists included Chuck Conner, president and CEO of the National Council of Farmer Cooperatives; Scott Faber, vice president of government affairs for the Environmental Working Group; and Daren Bakst, an agricultural research policy fellow at the Heritage Foundation. Opinions varied on the next Farm Bill - from farm subsidies to government regulation. Faber voiced concern about farm conservation and stewardship practices and said that voluntary incentives alone are not working. He would like to see requirements for farmers to show basic conservation in return for subsidies and believes the key to safer food and water is through incentives and clearer regulation. Bakst sees a need for federal intervention to be passed on to state and local levels to ease regulatory burdens, specifically in the case of water conservation. On subsidies, he believes farmers currently are insulated from market forces, shallow crop loss coverage has distorted farmers' planting decisions, which might harm stewardship judgement, and subsidies should only cover deep crop losses for the market to hold more power. Bakst believes the nutrition title of the Farm Bill and the other titles (as a whole) can be addressed and passed individually to achieve more reforms. Conner reminded the panel that is it guite early to begin talks on the 2018 Farm Bill, considering that some of the 2014 Farm Bill provisions have yet to be implemented. He noted that it is unusual for a bill to be drafted in a period of low and declining farm income. He believes the "success of the Farm Bill depends on our ability to tap into that grassroots populism" that elected the Trump administration. Conner stressed the importance of getting the bill passed on time to minimize the amount of uncertainty for lenders and farmers. He was optimistic about the bill being farmer-friendly with key players in the House and Senate.



Reports on checkoff-funded promotion, research and consumer information programs.

PORK CHECKOFF ADDRESSES GROWING PORK SUPPLY

America's pig farmers will produce a record-breaking number of market hogs this year, resulting in ample supplies of pork hitting grocery stores and restaurants. It is anticipated that this high level of production will continue well into 2017.

"The U.S. economy is growing, and that is good for meat demand," said Len Steiner, a pork industry economist. "Some key indicators of growth include the stock market recently hitting all-time record highs, increasing consumer confidence and an unemployment rate now at 4.9 percent, demonstrating the U.S. economy is at or near full employment."

Steiner added that total meat production continues to increase, moving from 90.9 billion pounds in 2014 with expectations for meat output to exceed 101 billion pounds this year. Not since the mid-1990s has meat production increased so quickly.

"We estimate that 2016 U.S. pork production will set an all-time record just shy of 25 billion pounds, with even more pork expected to be produced in 2017," Steiner said. "The good news is that retailers and foodservice operators feel more secure about the growing meat supply, which can translate into falling meat prices and more promotional activity."

National Pork Board President Jan Archer, who is a pig farmer from North Carolina, noted that the Pork Checkoff is taking a number of significant steps right now to help move the large supply of pork through the U.S. market place. Consumers can expect more pork at potentially lower prices at U.S. meat counters and in restaurants.

"The fourth quarter is consistently the strongest quarter for pork sales," said Patrick Fleming, director of market intelligence for the National Pork Board. "In 2015, fourth-quarter pork sales totaled \$3.6 billion, with the 1.125 billion pounds representing 28 percent of the sales for the entire year. The industry is prepared for a similar situation in 2016."

Fleming added that in foodservice, pork is on trend as the fastest-growing protein.

"Pork is featured in the top three items on restaurant menus today," Fleming said. "And it is not just main entrees like ham and pork loin, but now includes such items as candied bacon, pork belly and porchetta. Flavor, versatility and value set pork apart."

While the high value of the U.S. dollar and competition from other countries in key export markets have curbed U.S. pork export demand, there are positive signs on the horizon.

"About 25 percent of U.S. pork production goes overseas, and we need to keep moving product to keep producers profitable," said Becca Nepple, vice president of international trade for the National Pork Board. "Mexico, China, Japan, Korea and Canada are our big five buyers, and the Pork Checkoff, through the U.S. Meat Export Federation, continues to invest in pork promotions overseas."

"As a pork producer, I'm very excited about the work going on behind the scenes to help producers market this much product," Archer said. "Our goal always is to provide high-quality, delicious pork to consumers in the U.S. and around the globe."

FIND-A-VET TOOL HELPS U.S. PIG FARMERS LOCATE VETERINARIAN

Find-A-Vet is a timely tool created by GlobalVetLINK that assists U.S. pig farmers who are searching for a veterinarian for their animals. The Pork Checkoff, collaborating with the Ames, Iowa-based company, is making this online tool more accessible to all producers

Michigan Pork Producers Association

by linking it directly to the Pork Checkoff's homepage at pork.org.

The online tool allows animal owners to quickly find a veterinarian in their area who offers services, such as the establishment of a veterinary-client-patient relationship (VCPR) and/or a Veterinary Feed Directive (VFD). Both a VCPR and a VFD will be necessary to use many in-feed antibiotics starting on Jan. 1, 2017. To use Find-A-Vet, producers will need to enter their ZIP code to search for the veterinarians closest to their location.

"This is just another example of how the Pork Checkoff is trying to help make the adjustment in antibiotic regulations easier for all producers," said National Pork Board President Jan Archer, a pig farmer from Goldsboro, North Carolina. "While many of us already have a well-established working relationship with a veterinarian, we know some producers and youth exhibitors who live in places with few pigs may not have easy access to veterinary help. We hope this tool will help with that potential scenario."

Dr. Dave Pyburn, senior vice-president of science and technology at the Pork Checkoff, says that having a valid VCPR is critical as we enter 2017 because that's the only way you can legally obtain a VFD for in-feed antibiotics or a prescription for medications used via water, as required by FDA regulations.

"Exploring the information on the Antibiotics Resource Center on the pork.org website is a good way to learn more about specific issues and scenarios related to the new regulations," Pyburn said. "With less than a month to go, the Checkoff is continuing to expand its materials and information to assist producers in this momentous change in how antibiotics are used and obtained. If everyone takes these steps now, we'll be ready to go Jan. 1."

NEW RESEARCH LOOKS AT HOW TO INCREASE WHOLE-HAM SALES YEAR-ROUND

For many people, preparing a whole ham is one of their go-to choices for family gatherings on Thanksgiving, Christmas and Easter, but beyond holidays, whole-ham usually doesn't make the shopping list. The Pork Checkoff recently funded a study to find and eliminate barriers that are stopping consumers from enjoying whole-ham yearlong.

"Holidays and ham go hand-in-hand for most consumers," said National Pork Board President Jan Archer, Goldsboro, North Carolina. "And with new ham innovations, there are real opportunities to increase sales throughout the year."

Six focus groups were held across the country in Boston, Chicago, and Orange County, California, to gather input from both "foodies" and non-foodies. Additionally, 1,100 consumers also completed an online survey.

The findings clearly showed that taste issues are not what is holding back non-holiday whole-ham purchases, with the protein viewed as a savored meat. Many focus group participants became animated and engaged in conversations about preparing and consuming ham. And many described their enjoyment of leftover ham, as an important part of the whole-ham experience.

While enthusiastic about whole-hams, consumers in the focus groups and the online surveys said that it was for the holidays. This matches whole-ham consumer consumption data from previous years, according to Patrick Fleming, director of market intelligence and innovation for the Pork Checkoff.

When asked, most respondents could not recall seeing whole-hams in supermarkets outside of the typical ham holidays. They also did not recall seeing any summer ham promotions in their grocery store.

"To me, ham is a cold-weather comfort food, but I have also never thought about grilling it," said another respondent. "Ham seems to be only available around Easter and Christmas."

"The bottom line is that the issue is not with hams, but instead is with how whole-hams are marketed – or not marketed – outside of holiday seasons," Fleming said. "When consumers don't see it in stores, there's an out of sight, out of mind mentality."

The good news is that this presents new opportunities to grow the total pork category in sales and volume at the meatcase, Fleming said.

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Introducing: Youth for the Quality Care of Animals

he National Pork Board is excited to announce the transition of the Youth Pork Quality Assurance Plus (YPQA) to the new Youth for the Quality Care of Animals (YQCA).

Within the past few years, educators and livestock industry professionals have noticed NPB's success with the YPQA program and determined the need for a multi-specie (beef, dairy, goat, poultry, rabbit, sheep and swine), science-based educational program, offering access to every youth exhibitor ages 8 to 21, nationally. Annually, youth food animal producers raise thousands of food animals that contribute to the U.S. food supply. This contribution measures in the millions of pounds of consumable food animal products. Understanding how to produce a safe wholesome food animal product can only come from a comprehensive educational program focused on proper care and welfare of food animals. So a group of educators and livestock industry professionals have been working on developing this program to meet the needs for a multi-species program.

YQCA will provide a common framework for youth food animal quality assurance programs that will enhance the educational experience of youth, improve the care of food animals and provide a higher level of food safety to consumers. This program will embrace the founding principles of food safety that all quality assurance programs cover, with added information addressing animal welfare, such as daily health observations, proper use of medications, and establishing a valid Veterinary Client Patient Relationship (VCPR), to mention a few. Those principal topic areas are similar across the species covered in the YQCA curriculum.

The YQCA program is set up for any youth in the U.S. to have access to the online program and gain their certification. States can choose to implement YQCA on a statewide basis where additional requirements can be added and where an in-person training option can be offered. The national YQCA program will launch March 2017. Statewide implementations may also launch in March or at the time of the state's choosing. The first show to require YQCA certification will be World Pork Expo this coming June 2017. Livestock shows held on or after June 2017 can make completion of the YQCA program mandatory for their exhibitors.

The Goals of YQCA:

1. Ensure safety and well-being of animals produced by youth for showing and for 4-H and FFA projects.

2. Ensure safe food supply to consumers.

3. Enhance the future of livestock industry by educating youth on these very important issues so they can become more informed producers, consumers and/or employees in the agriculture and food industry.

4. Maximize the limited development time and budgets of state and national youth program leaders to provide an effective quality assurance program.

5. Offer livestock shows a valid, national quality assurance certification for youth livestock exhibitors.

Please note, YPQA will no longer be administering by the end of 2017. The National Pork Board will fully be utilizing the YQCA program as the youth quality assurance program. Those who are not expired are still certified and will not need to earn YQCA certification until their expiration.

For those interested in becoming certified to train youth in face to face certifications for YQCA, there will be an online Advisor certification similar to how the Youth PQA Plus Advisor certification program runs. To becoming a YQCA Advisors, individuals will have to meet the following requirements, which are the current Youth PQA Plus Advisor requirements: must be a veterinarian, extension personnel, or a secondary/post-secondary agriculture instructor.

All of the Youth PQA good production practices are within the YQCA content, just identified in a different way.

If you have more questions, you can visit the YQCA website at http://yqca.org or email Emily Schmitt at MPPA at schmitt@ mipork.org.

Have A Wonderful Holiday Season!

-Sam, Mary and Emily

STUFFED PORK MEATBALLS WITH ROMESCO



Ingredients:

 1 1/2 LBS LEAN GROUND PORK VEGETABLE OIL, FOR BAKING SHEET
 3/4 CUP BREAD CRUMBS
 1 LARGE EGG, BEATEN
 2 TBSP DRY SHERRY, OPTIONAL
 2 TBSP PARSLEY
 1 TSP SWEET PAPRIKA
 3/4 TSP SALT
 1/4 TSP BLACK PEPPER
 40 RED-PEPPER-STUFFED GREEN OLIVES (NOT LARGE) Romesco Sauce:

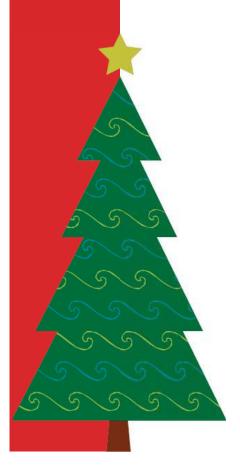
1 CLOVE GARLIC, CRUSHED 2 JARRED ROASTED RED PEPPERS, DRAINED 1/4 CUP SLICED ALMONDS 2 TSP SHERRY OR RED WINE VINEGAR 1 TSP SWEET PAPRIKA 1/2 TSP DRIED OREGANO 1/4 TSP SALT 1/3 CUP EXTRA VIRGIN OLIVE OIL

To make the romesco: In a food processor drop garlic through feed tube to mince garlic. Stop machine and add red peppers, almonds, vinegar, paprika, oregano and salt. Pulse about 10 times until minced. With processor running, slowly pour oil through feed tube. Transfer to serving bowl. Makes about 1 1/4 cup of sauce. (Romesco can be covered and refrigerated for up to 5 days. Bring to room temperature before serving.)

To make the meatballs: Preheat oven to 400 degrees F. Lightly oil large rimmed baking sheet. In large bowl, mix bread crumbs, egg, sherry, parsley, paprika, garlic and pepper. Add ground pork and mix thoroughly but gently with your hands. Using about 1 tablespoon of the meat mixture for each, shape into 40 meatballs. Stuff an olive in the center of each meatball then completely enclose olive. Arrange meatballs on baking sheet.

Bake meatballs for 15 minutes. Turn meatballs over, and continue baking until cooked through and browned, about 10 minutes. Transfer meatballs to serving platter. Spear with toothpicks and serve hot with romesco sauce for dipping.

10 servings (40 meatballs)



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Agricultural Leaders of Michigan continue discussion on sustainability in agriculture

any issues play into the discussion of sustainability in agriculture. Increasingly, consumer interest and retail demands to show how a product was "sustainably raised" are affecting farmers and agribusinesses. To keep up to speed in a rapidly-changing conversation on sustainable food production, the Agriculture Leaders of Michigan (ALM) and Michigan Pork Producers Association hosted the fourth-annual ALM Sustainability Conference on December 15, 2016 in East Lansing.

The forum focused on the social, environmental and economic aspects of sustainable production. This included updates on the many efforts underway in Michigan agriculture to demonstrate on-farm sustainability, as well as updates from expert presenters on climate issues, energy savings and beyond.

In addition to presentations from Michigan-based

commodity organizations and an economic update from GreenStone Farm Credit Services, attendees also heard from leaders in the retail and consumer research space about the sustainability considerations in food retail. Alison Sutter, corporate responsibility



manager for SpartanNash, joined the meeting to provide an overview of the company's newly-released corporate responsibility report, and explained the value inherent to showing consumers that products have been sustainably-sourced. And Madlyn Daley, senior vice president of knowledge and insights for Dairy Management Inc. discussed consumer trends in food, with a focus on how consumers are demanding more information about the food they eat. She noted that the rapid expansion of information sharing online has had a big effect on food perceptions - in fact, more than 23 billion food-related videos were viewed online in 2015.

MSU College of Agriculture and Natural Resources Dean Ronald Hendrick discussed the opportunity to create new partnerships between the university and Michigan's agriculture community, noting that working closely together will present the strongest opportunity to solve pressing challenges, including sustainability, in the food system.

<text>

Customized Nutrition

Michigan Pork Producers Association

To close the forum, attendees received an update from State Climatologist Dr. Jeff Andresen on weather and climate considerations for Michigan agriculture, as well as an update from the Co-op Elevator Company on the energy savings benefits the cooperative has identified working together with DTE

Energy.

The 2016 Sustainability Forum was one of a wide range of informational discussions and educational activities the Agricultural Leaders of Michigan undertake throughout the year. The coalition of seven commodity groups and agribusinesses actively promotes Michigan agriculture, participates in the ongoing dialogue about many issues affecting our state, and seeks to harness agriculture's power and potential to further grow Michigan's economy.

You can learn more about ALM by visiting www.agleadersmi.com.

New Antibiotic Rules Will Apply to Youth Swine Exhibitors

or youth swine exhibitors, parents and project advisors, Jan. 1, 2017, will usher in major changes in accessing medicated feeds for show pigs. That's when the U.S. Food and Drug Administration (FDA) will implement new rules, known as Guidance 209, for antibiotic use in all animals raised for food.

Antibiotics identified as medically important (to human health) will no longer be available for growth promotion purposes, including for show pigs.

Use of medically important antibiotics will be limited to the prevention, treatment or control of a specific health challenge under a veterinarian's guidance.

Over-the-counter sales of medically important antibiotics administered in feed and water will end. Access to feed-grade antibiotics will require a veterinary feed directive (VFD) for a specific group of pigs for a specific timeline as established by the herd veterinarian. Water medications will require a prescription.

Note that leftover medicated feed will not be able to be fed beyond the timeline or to other animals.

Plan Now for Changes in Feed Purchases

We advise exhibitors to contact a veterinarian if they don't already have one and get a comprehensive health plan in place. This will include which antibiotics are needed to maintain good health along with other animal husbandry tools, such as biosecurity and vaccinations.

New Record-Keeping Rules Will Be Introduced

FDA's new rules will usher in new record-keeping requirements for producers, including youth with show pigs. Veterinarians who issue VFDs will need to keep the original form for two years. Youth exhibitors/parents/ advisors also will need to keep a printed or electronic copy for two years.

Feed mills or distributors also will be required to keep a copy on file for two years. Water prescriptions will need to be kept for one year. All of these records must be made available to FDA on request.

Find the Youth Swine Exhibitors' Guide to New Antibiotic Rules on the Pork Store at porkstore.pork.org. Additionally, if you would like more information about antibiotics, visit the Pork Checkoff's Antibiotics resource center at pork.org/antibiotics.



Record Hogs Test Plant Capacity

By Steve Meyer, Vice President of Pork Analysis for Express Markets, Inc. Analytics, Originally published in Pork Checkoff Report, Vol. 35, Nov. 4

ash hog prices have fallen from the record highs of 2014, and the long-feared packing capacity crunch is now upon us, pushing hog prices to their lowest level since 2009.

The lowest production costs since 2010, continued strong domestic pork demand and rebounding U.S. pork exports are mitigating factors, but losses for producers this fall and into 2017 will be substantial.

Producers are benefiting from three years of good U.S. crops, including record harvests in both 2014 and 2016. Costs averaged \$67/ cwt carcass in 2015 and are forecast to average just over \$64/cwt in 2016.

As of early November, corn and soybean meal futures prices indicate that costs will be only slightly higher in 2017. The estimates, based on lowa State University's Estimated Costs and Returns series, represent, in my opinion, the best U.S. farrow-to-finish operations.

Demand News Still Good

Domestic pork demand was lower than a year ago through September, but it is quite high from a historical perspective. Real per capita expenditures (RPCE) for pork – the National Pork Board's chosen metric – rose 3 percent in 2015 following gains of 5.5 percent in 2013 and 7.6 percent in 2014. That is the best three-year period on record.

This year's RPCE figures are not

much lower. Through September, it was 2.1 percent lower year-to-date than in 2015. Much of the year-to-date decline occurred in the first quarter when year-on-year comparisons were made smaller by unusually high 2015 RPCE figures. This was due to over-stated domestic consumption from delayed exports caused by the West Coast port slowdown.

Large Numbers Catch Up to Packing Capacity

The challenge this fall centers on high weekly market hog supplies relative to the capacity of U.S. packing plants. U.S. pork packing capacity has grown by only 1.5 percent since 2008.

The industry has dodged the capacity bullet twice in recent years. The drought of 2012 drove feed costs higher, reducing pig supplies in 2013; and PEDV reduced pig crops by an estimated 6 million pigs in 2013 and 2014, once again reducing market hog supplies and preventing a capacity crunch in 2014.

However, the crunch finally arrived in the fall of 2015 when hog numbers neared capacity in several weeks and exceeded it in one, pushing cash hog prices to the low \$50s per cwt, carcass basis.

Record Hogs Marketed Curtail Profit Outlook

This fall's situation is more serious. Hogs harvested the week ended Nov. 4 set a new record of 2.532 million head, breaking the two-week-old record of 2.514 million head. The record, according to EMI Analytics forecasts, may fall several more times before the year's end.

Pork producers have done a very good job of keeping marketings current since Sept. 1, but higher hog numbers will impact hog prices in two ways.

• First, more hogs means more pork. This has pushed prices of pork cuts lower, reducing the value of the pork carcass and thus the amount that packers will pay for pigs. We expect price pressure to continue into the first quarter of 2017.

• Second, processing this many hogs through a fixed-capacity harvest system puts the leverage in packers' hands, allowing the spread between carcass value and hog prices to widen.

In fact, pork packers' gross margins (the value of the pork carcass plus non-carcass by-products less the amount paid for the pig itself) have neared the record levels set during the 2014 PEDV scare and in recent weeks, have exceeded 1998 levels when hog prices fell to all-time lows.

Recent negotiated hog prices in the mid-\$40s per cwt and the average price across all pricing methods in the low \$50s per cwt have put producer returns well below break-evens.

Lower costs and continued

	Fall 2016		Fall 2017		Fall 2018	
	Daily Head	Annual Head	Daily Head	Annual Head	Daily Head	Annual Head
Pleasant Hope, Missouri	2,500	625,000	2,500	625,000	2,500	625,000
Windom, Minnesota			4,000	1,000,000	4,000	1,000,000
Sioux City, Iowa			12,000	3,000,000	12,000*	3,000,000
Coldwater, Michigan			10,000	2,500,000	10,000	2,500,000
Wright County, Iowa	3				10,000	2,500,000
Total	2,500	625,000	28,500	7,125,000	38,500	9,625,000
Head per week		12,019		137,019		185,096
Percent of '15 avg = 2.19	5 million	0.5%		6.2%		8.4%
Percent of '15 max = 2.50	07 million	0.5%		5.5%		7.4%

*This plant could process 20,000 head per day if they operate double-shifts by the end of 2018

Updated: 11/2/16

strong domestic demand are positives for the outlook, but ample supplies and high-capacity utilization have taken estimated 2016 profits to zero and estimated 2017 profits to -\$4.13 per head as of Nov. 11. The 2017 profit estimate is \$5.00 per head lower than in June. Hogs sold in November and December could lose \$35 to \$40 per head, with some producers losing even more.

New Plants to Open

A solution to the packing plant capacity shortage is on the way but will not arrive in time to alleviate the impacts this fall. Large increases in capacity will come in the summer of 2017 when plants in Sioux City, Iowa, and Coldwater, Michigan, begin operations. Another large plant is now scheduled to open in Wright County, Iowa, in the fall of 2018. (See chart above)

New harvest capacity will increase the competition for available hog supplies and provide room for industry growth. Current EMI Analytics forecasts indicate that the new capacity will be largely filled by the fall of 2017, although the situation is not expected to be as negative as it is now.

Exports and Disease Are Wild cards

There are two major wild cards going forward. The first is exports, which lagged year-ago levels significantly for much of 2015 due to a much stronger dollar, the West Coast port problems, trade restrictions by Russia and China/Hong Kong and intense competition from the EU.

A late-year surge drove 2015 exports up 1.8 percent from 2014. Exports for 2016 through September were 1.2 percent larger than one year earlier based on carcass-weight equivalent data from USDA. The value of those exports is up 2.2 percent from last year.

Exports during the last three months of 2017 are expected to exceed year-ago levels due to lower U.S. pork prices. Analysts expect 2017 exports to grow by 1 to 4 percent.

The second wild card is disease. The incidence and impact of PEDV decreased the last two winters, but its impact this winter is as yet unknown. Three winters of experience and the steady improvements made in sow herd infections bode well, however, for piglet survival.

The incidence of porcine respiratory and reproductive syndrome (PRRS) increased in 2016 after a new, serious strain emerged in 2015. But higher death losses have not increased enough to significantly impact hog supplies.

So what can you do? Keep hogs moving. Delay non-essential purchases. Be more particular about items that impact efficiency. Lock in profits when you can, and, perhaps, small losses when larger losses are likely. This downturn will end, but getting through this no doubt will be a challenge.





January 25-26, 2017

Soaring Eagle Casino and Resort Mt. Pleasant, MI

THE FUTURE of FARMING

Marketing and Business Management:

- Options and Futures to Advanced Marketing Tools Bryan Doherty, Stewart-Peterson, West Bend, Wisconsin
- Blending Crop Insurance with Marketing Plans
 Mike Mock, Mock Consulting LLC
- Corn Farmers and the Next Farm Bill, Making Your Voice Heard Sam Willett, National Corn Growers Association

Agronomy – Corn and Soybeans:

- Nitrogen and Sulfur on Corn Dr. Kurt Steinke, Michigan State University
- Manure as Fertilizer for High Yields
 Dr. Kurt Steinke, Michigan State University,
 Farmer panel: George Zmitko, Bill Hunt, Pat Feldpausch
- Tackling the Limiting Factors for Corn Yield: Rotations, residues, nutrients and microbes Stephanie Smith, Eastern U.S. Regional Mgr 360 Yield Center
- Diversity is Key to Stopping Soybean Cyst Nematodes Dr. Palle Pedersen, Syngenta, Greensboro, North Carolina
- Critical Factors for Soybean Yields
 AJ Woodyard, BASF

Agronomy – Wheat:

- Stripe Wheat Rust of 2016, Moving Forward Dr. Martin Chilvers and Martin Nagelkirk, Michigan State University Extension
- Principles and Practices of Intensive Wheat Management
 John Whittaker, NorthernSTAR Integrated Services, Grayling
- *Nitrogen Management on Wheat* Dr. Kurt Steinke, Michigan State University

Technology:

- Next Generation Biotech Traits Dr. Kevin Folta, University of Florida
- Beyond Color Maps: What else can you do with yield data? Dennis Pennington, Michigan State University Extension
- Yield Monitors: Improving data quality John Fulton, Ohio State University
- Variable Seeding Rates of Corn and Soybeans Lessons learned from a farmer panel
- What Can Drones do on Your Farm in 2017? Chad Colby, Colby AgTECH, Peoria, Illinois
- Remote Sensing, What's the Big Deal? Chad Colby, Colby AgTECH, Peoria, Illinois
- Ag-Tech Incubator: How to take a great on-farm idea to commercialization Becky Huttenga, Great Lakes Ag-Tech Business Incubator

Emerging Issues, Educating Consumers, Social Media:

- Behind the Scenes of the Peterson Farm Bros. Social Media Greg Peterson, Peterson Farm Brothers, Assaria, Kansas
- Finding Your Media Niche to Ensure Agriculture Has an Intentional Presence

Kim Bremmer, Ag Inspirations, Wisconsin

• Consumer Trends on Farms and Foods: A panel of millennial consumers Moderated by Elaine Bristol, Michigan Ag Council

Wildlife Management:

- Deer & Wildlife Management
- James DeDecker, Michigan State University; Ashley Autenrieth & Monique Ferris, MI DNR; Tim Wilson, USDA Wildlife Services

10 RUP credits, 10 CCA credits, and 1 MAEAP credit available for attendance.

Register online at: www.GreatLakesCropSummit.com

Michigan Pork Producers Association

TOPICS

Now accepting MPPA scholarship applications

he Michigan Pork Producers Association awards more than \$3,000 annually in scholarships to high school seniors, college freshmen, sophomores or junior students. There are two schoalrships available, the IAT Swine Management Scholarship for those pursuing or currently in Michigan State's Swine Tech program and the Michigan Pork Industry Scholarship for those pursuing or currently in a Bachelors program at any college. The interviews for both scholarships will be held January 28, 2017 at the Green and White Show, held at the MSU Pavilion in East Lansing.

The deadline to apply for the 2016 Michigan IAT Scholarship and the 2016 Michigan Pork Industry Scholarship is January 20, 2017.

The applications are available at www.mipork.org/michigan-pork-industry-scholarship/

Please contact Emily Schmitt with questions at schmitt@mipork. org or 517-853-3782.



Calendar of Events

Jan.:	25-26 Great Lakes Crop Summit Mt. Pleasant, Mich.		
	27-29 Green and White Show MSU Pavilion		
	East Lansing, Mich.		
Feb.:	16 Michigan Pork Symposium Lansing Center Lansing, Mich.		
	16 Taste of Elegance Lansing Center Lansing, Mich.		
	17 MPPA Board Meeting GCSI Offices Lansing, Mich.		
March:	1-3 Pork Forum Atlanta, GA		
June:	8-10 World Pork Expo Des Moines, IA		

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We're Listening

Dear MPPA,

I thought you might enjoy reading a few thank you's we receive from the kids who attended the farm tour. You left quite an impression on the kids. Thanks again for doing your presentation!

Sincerely, Carolyn Laurenz

Laurenz Farm, Wheeler, Mich.

Dear MPPA,

On behalf of the College of Agriculture and Life Sciences and myself, I would like to thank you for your generous donation for Dr. Maynard Hogberg's portrail for the 2016 Saddle and Sirloin Club Award. Dr. Hogberg truly earned his place in this prestigious hall of fame for four decades of leadership and service to higher education and to animal agriculture. I look forward to seeing his portrait hanging in the gallery at the Kentucky Exposition Center.

I appreciation the generosity of donors such as yourself and am grateful for the support for Dr. Hogberg's recognition.

Sincerely, Wendy Wintersteen,

Endowed Dean, Iowa State University

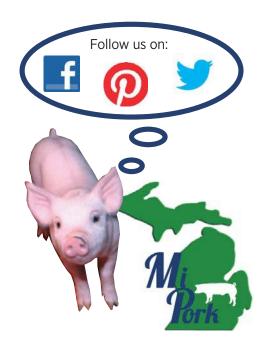
Dear MPPA,

Thank you very much for donating to the baby animal tent. The kids loved the donations a lot. As you may know, the Clinton County Fair strives to make the fair enjoyable, and thanks to you, we exceed in this goal.

Sincerely, Samuel Selleck,

Clinton County 4-H Fair Board





Michigan Pork Producers Association

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