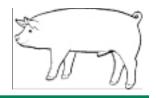


# MSU Pork Quarterly



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"Information for an Industry on the Move"

2009

## **Agricultural Labor Issues in Michigan**

Dr. Vera Bitsch, Associate Professor and Extension Specialist, Department of Agricultural, Food, and Resource Economics, Michigan State University

### Michigan's Agricultural Production and Farm Labor Expenses

The first section provides an overview of Michigan's role in agricultural production of the U.S. The next section discusses payroll and contract labor expenses and compares Michigan and the other Lake States to the states with the highest payroll and number of hired workers in the nation.

### **Market Value of Agricultural Products**

Michigan's agriculture is very diverse. In terms of market value of agricultural products sold Michigan ranks 22nd in the nation, with \$5.8 billion. Grains, oilseed, dry beans, and peas are most important in terms of sales, followed by dairy products from cows, and then nursery, greenhouse, floriculture, and sod. Due to the great diversity in commodity groups, Michigan ranks in the top ten states for several commodities (table 1). The production of many crops where Michigan ranks in the nation's top ten is labor-intensive.

Table 1. Value of Sales by Commodity Group – Michigan (Data Source: 2007 Census of Agriculture)

Commodity Group	Market Value (\$1,000)	U.S. Rank
Grains, oilseed, dry beans, and dry peas	1,710,733	13
Vegetable, melons, potatoes, and sweet potatoes	347,305	9
Fruits, tree nuts, and berries	392,472	5
Nursery, greenhouse, floriculture, and sod	623,097	6
Cut Christmas trees, short rotation woody crops	29,155	3
Other crops and hay	227,165	14
Poultry and eggs	258,994	25
Cattle and calves	449,371	28
Milk and other dairy products from cows	1,285,571	7
Hogs and pigs	357,495	12
Sheep, goats, and their products	8,867	20
Horses, ponies, mules, burros, and donkeys	23,550	16
Aquaculture	5,721	28
Other animals and other animals products	33,721	10

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In 2007, the total U.S. production of labor-intensive crops was \$18.6 billion of fruits, tree nuts, and berries, \$16.6 billion of nursery, greenhouse, floriculture, and sod, and \$14.7 billion of vegetables, melons, potatoes, and sweet potatoes. Fruit, tree nut, and berry production was most spatially concentrated, with 87% of the total production located within the top five states (California, Florida, Washington, Oregon, and Michigan). Vegetable and ornamental production are more dispersed. Sixty-three percent of the vegetable, melon, potato, and sweet potato production were located in the top five states (California, Florida, Arizona, Washington, and Idaho). Fifty-one percent of the nursery, greenhouse, floriculture, and sod production were located in the top 5 states (California, Florida, Oregon, Pennsylvania, and Texas).

### **Labor Expenses**

In 2007, U.S. hired farm labor comprised \$21.9 billion or 9.1% of total production expenses. That was an increase in monetary expenses of \$3.3 billion, compared to \$18.6 billion in 2002, but a decrease in percentage of expenses (2007 Census of Agriculture). The top five states in terms of payroll expenses were California, Florida, Texas, Washington, and Oregon (table 2). Because of differences in seasons and commodities, the number of hired workers showed a different ranking. Michigan ranked 8th in terms of payroll and 6th in terms of the number of hired workers.

Hired farm labor in the three Lake States (Michigan, Minnesota, and Wisconsin), comprised about the same number of workers as the State of Washington, but a considerably higher payroll (table 2). Michigan's payroll was \$607 million in 2007; that was an increase by almost \$137 million since 2002, which had been up \$101 million from 1997 (figure 1). Hired labor amounted to 12.7% of total production expenses in Michigan; that was down from 14.1% in 2002. Despite the recent increases in fertilizer and fuel expenses, hired farm labor remained the third largest production expense for U.S. farms in 2007, after feed purchased and poultry and livestock purchased. In Michigan, hired labor was the second largest expense, after feed purchased. In 2002, hired farm labor had comprised the largest share of all production expenses in Michigan.

Table 2: Hired Farm Labor b	Payroll and Number of Workers	(Data Source: 2007 Census of Agricultre)

State	\$1,000 Payroll	Number of Hired Workers
Michigan	606,717	86,072
Wisconsin	785,018	76,452
Minnesota	521,852	76,808
Lake States (Total)	1,913,587	239,332
California	5,015,513	448,183
Florida	1,208,631	115,306
Texas	1,169,767	154,793
Washington	1,151,383	238,428
Oregon	817,277	106,320
U.S. (total)	21,877,661	2,636,509

In the U.S., contract labor amounted to \$4.5 billion in expenses or 1.9% of total production expenses in 2007, up \$1.1 billion from 2002. Custom work and custom hauling, which includes machinery costs, was up by \$0.8 billion at \$4.1 billion; 1.7% of total production expenses. In Michigan, contract labor amounted to \$43 million in expenses or 0.9% of total production expenses in 2007, up \$7.6 million from 2002. Custom work and custom hauling added another \$95 million in expenses, up from \$64 million in 2002; 2.0% of total production expenses. Custom work expenses consist to a large part of the cost of machinery and only a small share is labor expenses; therefore, custom work expenses will not be included in the further discussion.

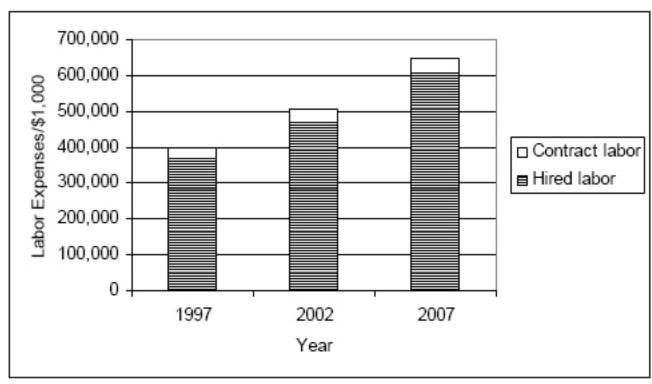


Figure 1. Expenses for Hired Labor and Contract Labor in Michigan (Data Source: Census of Agriculture)

In 2007, contract labor comprised 17.1% of the combined farm labor expenses (hired farm labor plus contract labor) in the U.S; a slight increase from 15.7% in 2002 and 16.6% in 1997. The share of contract farm labor was particularly high in California and Florida, each with 31.1% (2007 Census of Agriculture). By comparison, Michigan's share of contract labor of the combined farm labor expenses was only 6.6% in 2007 and had decreased from 6.9% in 2002 and 7.3% in 1997. Since the 1997 census, expenses for hired farm labor, as well as contract labor, have been growing by 64.4% and 46.6%, respectively, also indicating that the share of contract labor has declined in Michigan.

### **Additional Information**

Future newsletters will look at the development of contract labor expenses, labor intensity, and labor productivity in the different industry groups, labor composition, and wages during the past decade based on census data and other statistics.

More information on the Census of Agriculture is available from the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS) at http://www.agcensus.usda.gov/.

Contact Dr. Bitsch at bitsch@msu.edu or visit her website at http://www.msu.edu/user/bitsch.

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### **Pork Demand Determinants**

Dr. Glynn Tonsor, Dept. of Agricultural, Food, and Resource Economics, Michigan State University

It is useful to periodically examine the fundamentals underlying consumer demand for pork products. This is important for resource allocation and decision making throughout the industry and especially vital given the current situation most producers face in the form of persistently negative profitability projections. Accordingly, the Beef Board recently funded a project conducted by Drs. James Mintert and Ted Schroeder at Kansas State University and Dr. Glynn Tonsor at Michigan State University. The purpose of this project was to identify the determinants of U.S. consumers' demand for meat. This short article highlights the findings of this study with a focus on the pork demand findings.

Meat demand is complex and evolving as new demand drivers develop over time. A wealth of factors combine to shape consumer meat demand including relative prices and consumer income as well as non-traditional determinants such as emerging health, nutrition, diet, and food safety information; changing product characteristics, new product developments, or offerings; and shifts in consumer demographics and lifestyles. Over time, new dimensions of demand may arise and the relative importance of determinants ultimately may change as new information enters the market. These traditional and new demand determinants were analyzed in the Beef Board project which analyzed U.S. consumer demand for beef, pork, and poultry between 1982 and 2007.

The analysis estimated beef, pork, and poultry own-price elasticities of -0.42, -0.74, and -0.09, respectively. This implies that a 1% increase in pork price reduces pork consumption by about 0.74%. This also suggests pork is the most elastic meat product, or most sensitive to price changes. Estimated expenditure elasticities were 0.91, 0.02, and -0.58 for beef, pork, and poultry, respectively. This implies that each 1% increase in total consumer expenditures increases pork consumption by about 0.02%. Moreover, this suggests pork demand is the least sensitive meat to changes in consumer expenditure, while beef (poultry) stand to notably lose (gain) as consumer expenditures contract.

The analysis also sought to capture the significant changes during the study period in food-away-from-home consumption (FAFH) and in female workforce participation (Female) reflecting, to some extent, the increasing desire of consumers for convenience and valuations of their time. The analysis estimated pork FAFH and Female elasticities of 1.78 and -0.78, respectively.

Over the sample period FAFH and Female increased approximately 17% and 16% respectively. This suggests changes in food-away-from-home consumption have increased pork demand by 30.3% and increasing female workforce participation has reduced pork demand by 12.5% over the 1982-2007 period. Combined, this may suggests the pork industry has been relatively more successful at meeting increasing consumer demand for product convenience in away from home, restaurant settings rather than at home, self-prepared meal settings.

Given the prominent role of food safety in the meat industry, the analysis also examined the impact of FSIS (USDA Food Safety Inspection Service) meat recalls on demand. As found in previous research, the estimated food safety effects are small, particularly relative to price, expenditure, and household dynamic effects. Pork demand was found statistically unaffected by FSIS recalls of pork products. However, beef and pork recalls appear to exert negative spillover effects on each other as increasing pork recalls adversely affects demand for beef (and vice versa). For instance, a 10% increase in pork recalls reduces beef demand by 0.25%.

The final set of demand determinants considered was the impacts of three health information variables designed to capture the information consumers have received regarding links between fat, cholesterol, and diet; between zinc, iron, protein, and diet; and the Atkins diet. None of these three health information variables substantially impacted pork demand. Instead they were found as particularly important drivers of beef demand. While this study provides an updated assessment of U.S. consumer meat demand drivers, it raises a number of unanswered questions and highlights the need for additional research.

Producers interested in additional information on this study or related issues are encouraged to contact Dr. Tonsor (gtonsor@msu. edu). In addition, interested parties ay also obtain the complete project report from Dr. Tonsor.

### **PRRS Regional Eradication: An Update**

Dr. Barbara Straw, Extension Swine Veterinarian, Michigan State University

Testing is ongoing under the PRRS Regional Eradication Program, to determine the Porcine Reproductive and Respiratory Syndrome (PRRS) status of swine farms in the Allegan-Ottawa area. The program covers the cost of testing, so if you have not already made plans, contact your veterinarian to have your pigs tested.

You and your veterinarian can decide whether you want to use saliva samples or blood samples depending on the age of pigs on the farm and the progression of the farm's disease control strategy.



Saliva will be tested for the presence and strain of virus that is affecting the pigs. Usually saliva samples are collected from six pens of pigs in nurseries or finishing barns. Being curious, most pigs in the pen chew on the rope and if one or a few pigs are shedding virus, it will show up in the rope testing.

The number of saliva samples that are positive indicates the extent of infectious challenge in the barn. Blood samples are more often used in sow herds where they are tested for antibodies to PRRS. If testing shows that only a small percent of the sows in the herd have antibodies, it indicates that the herd is stable and may be able to produce negative offspring, while widespread antibody through all parities of sows indicates that infection is still on-going.

In addition to testing for the presence of PRRS virus, the Regional PRRS Eradication Program has collaborated with the University of Minnesota to have the samples tested for swine influenza. To date, the new H1N1 virus has not been found in pigs in the U.S. Verifying the absence of the new H1N1 virus in Michigan pigs will bolster consumer confidence and provide a baseline if this strain does become established in pigs.

Feral pigs that inhabit Michigan present a concern over their ability and likelihood to carry and spread disease to commercial herds. As part of the Regional PRRS Eradication Program samples from feral pigs will be assayed for PRRS.

Both the USDA and DNR have cooperated in providing samples from feral pigs that were collected under their control programs.

Blood samples taken from 19 feral pigs found in three Michigan counties were tested for antibodies to PRRS. If the feral pigs had previously been infected with PRRS virus they would have antibodies in their bloodstream that would indicate that the virus was present in the wild pig population.



All of the 19 samples tested were negative for antibodies to PRRS.

Because the ELISA test result is reported as a ratio between the value of the sample and a known positive, the titer (result number) doesn't correspond exactly with the amount of disease that they may have experienced. However, the ELISA values of samples from the feral pigs were extremely low, suggesting that these pigs had never experienced PRRS. These preliminary findings are encouraging because they suggest that feral pigs are not likely to be a concern in PRRS eradication efforts.

### **Forum Discusses Swine Handling and Transport**

Tom Guthrie, Extension Educator, Pork AoE, Jackson Ronald O. Bates, State Swine Specialist, Michigan State University

The Swine Handling and Transport Forum was held on June 2, 2009 in Des Moines, Iowa prior to the opening day of 2009 World Pork Expo. Nearly 250 participants attended the forum which included producers, packers, truckers, veterinarians, food safety and inspection service personnel, university and allied industry representatives.

Mr. Dale Norton, National Pork Board Animal Welfare Committee Chair and Michigan pork producer from Bronson opened the forum and discussed the need for improved animal handling across the industry. The following provides highlights from each presentation given during the forum. The title and speaker for each topic are listed followed by a short summary of the presentation.

"The Cost of Transport Losses" by Dr. Matt Ritter, Elanco Animal Health: Dr. Ritter presented data stating that the pork industry lost \$46 million in transport losses in 2006. This equates to approximately \$0.44 per pig marketed. In addition, Dr. Ritter explained that swine transport losses are a multi-factorial problem. Some factors that attribute to transport losses include; people who handle hogs, transporter (trailer) floor space, plant time from yard entry to unloading, seasonal environmental changes such as heat, humidity, cold, etc, facility design for pre-sorting, loading and un-loading hogs and finally the genetic background of the pig.

Bottom line from Dr. Ritter's presentation: Pork producers, loading crews, truck drivers, and handlers at the plant can impact transport losses.

The next series of presentations addressed tips to reduce transport losses --

"Walking the Pens" by Dr. Bill Hollis, Carthage Veterinary Clinic (100% Swine Veterinary Clinic), Carthage, Ill.: Dr. Hollis discussed the importance of walking finisher pens as a means to reduce transport loss. Hollis stressed the importance of walking pens for several reasons: daily walkthroughs build trust between human and pigs, early identification of pig with health problems, stirs pigs up for observation and helps to organize weight groups at loading time.

Bottom line from Dr. Hollis' presentation: You are in the barn anyway, make your time in the barn count.

"Grow/Finish Pen Design" by Dr. Anna Johnson Iowa State University: Dr. Johnson discussed findings from an experiment conducted to determine the effects of finishing pen group size and pre-sorting on stress responses during loading and unloading, and transport losses which occur in route to the packing plant in market weight pigs. Two treatments were compared: 1. Traditional pens of 32, sorted during loading, and 2. New pens, which housed pigs in groups of 192, with pigs to be sold, pre-sorted on the day before loading. The New pen was created by removing the rear pen dividers from consecutive traditional 32 pens to create a large pen containing 192 pigs per pen. Floor space per pig of 7.21 sq. ft./pig was constant across treatments. Internal swing gates in the New pen were then used to manually pre-sort market weight pigs the day before loading. The study concluded that pigs from New pens had reduced physical signs of stress during loading, unloading and reduced total losses at the plant by 66% compared to pigs from the traditional 32 pigs per pen.

Bottom line from Dr. Johnson's presentation: Additional research is needed to determine if the reduction in transport losses is due to pen size (192 vs. 32) and/or pre-sorting pigs the day before loading.

"Loading Ramp Design" by Dr. Nick Berry, Cargill, Inc.: Dr. Berry presented information on what was termed a Prototype Loading Gantry. This prototype utilized a unique dock-bumper type system. The loading ramp could be raised up or down by hydraulics to match the truck entrance. At one end of the loading ramp a cover material surrounding the ramp opening was capable of expansion of up to 500%. This allowed for a bubble effect to be created by trapping air exhausted from foam cushions. The chute was then compressed against the facility doorway eliminating light and incoming air.

In general, this design is somewhat similar to the walkways that are used to board airplanes. The flooring of the chute was epoxy with a stair step design. Industrial rope lighting was used for lighting and the sidewalls consisted of a uniform

concrete grey epoxy. Rhino lining was patterned above pig level and on the ceiling to deflect light.

The prototype loading gantry was compared to a "traditional" chute. In conclusion the prototype loading gantry significantly lowered electric prod use, slips, falls, vocalizations and piling.

Bottom line from Dr. Berry's presentation: Loading system design plays an integral role in the welfare parameters of finisher pigs at the time of marketing. In addition, design loading systems with the pig AND the caretaker in mind.

"Trailer Design" by Chad Pilcher, University of Illinois: Chad Pilcher presented preliminary results from their ongoing work that is monitoring environmental conditions in groups of pigs during transport. A double deck, straight floor trailer with punch sides and 11 compartments was outfitted to monitor temperature, relative humidity, carbon dioxide, and air speed in each compartment. The data that Chad described included information from 20 trailer loads of pigs across four seasons.

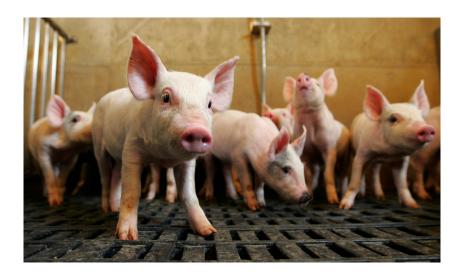
Conclusions of this study indicated that there was extreme variation in environmental conditions on transport trailers both between seasons and between individual compartments of the same trailer load of pigs. The greatest extremes occurred when the trailer was stationary and temperatures were generally higher in the front compartments of the trailer. Bottom line from Chad Pilcher's presentation: Minimize the time the trailer is stationary when loaded and considers using external fans when the trailer is stationary at the farm and packing plant.

The next series of presentations discussed, "Choosing the Animals to Transport".

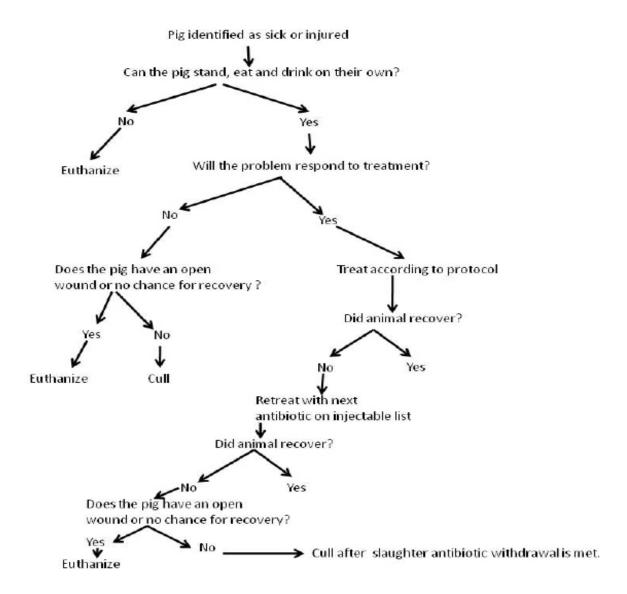
"Implementing Euthanasia Protocols in the Nursery and Finisher" by. Jim Moody, The Hanor Company, Spring Green, WI and "Euthanasia Protocols for Cull Sows & Replacement Gilts" by Dr. Michelle Jens, Audubon-Manning Veterinary Clinic Audobon, IA: (AMVC management services oversees 80,000 sows and markets 500,000 finishing pigs per year). These speakers presented information in regard to euthanasia protocols from the nursery, finishing, breeding/gestation and replacement gilt phases of production. Both presenters referred to the definition of euthanasia. Euthanasia is defined as the humane process whereby the pig is rendered insensible, with minimal pain and distress, until death.

In addition both presenters recommended removing the "Typhoid Mary" animals to decrease the risk of disease transfer to other animals as well as removing unproductive animals from the herd in a timely manner. Following is a Euthanasia Decision Tree that was proposed for consideration. This Euthanasia Decision Tree is referenced to Dr. Scanlon Daniels, Circle H Animal Health.

Bottom line from Dr. Jens and Jim Moody's presentations: The most important goal when considering euthanasia protocols is to end animal pain and suffering in a humane way that minimizes pain and distress to the pig where there is a rapid loss of consciousness and death is achieved rapidly and consistently.



### **Euthanasia Decision Tree**



"The European Transport Experience: a Glimpse into the Future?" by Sherie Niekamp, National Pork Board: Ms Niekamp gave a glimpse into the European Swine Transport experience. This presentation discussed European regulations for transporting pigs. For long hauls European trailers are equipped with ventilation controls for individual compartments and include fans, water misters, and drinkers. A trailer manufactured in Spain by Advanced Livestock Transport was on display at the World Pork Expo. For more information and pictures visit: www.advancedlivestocktransport.com. Bottom line from Sherie Niekamp's presentation: Animal welfare regulations for the transport of livestock are more detailed in Europe compared to the U.S. These same rules have the potential to make their way to the US and could possibly modify the way pigs are transported.

"The Politics of Fatigued Hogs" by Dr. Jen Greiner, National Pork Producers: Dr. Greiner raised the question, What should FSIS inspection personnel verify regarding the handling of market swine (during truck unloading or movement of pigs from trucks to pens) that are unable to keep up with, or are slower than, other market swine in the lot or group?

She followed with these comments. FSIS inspection personnel are to verify that:

- 1. Most importantly, all swine are handled in a humane manner.
- 2. Normal hogs that are slow or fatigued (hogs that are ambulatory and otherwise bright and alert) may be moved at

a walking speed with their herd mates to a holding pen for ante mortem inspection if they can be moved in a humane manner.

3. Establishments using voluntary segregation methods at ante mortem inspection are to follow their established procedures and sort abnormal from normal animals. Source: http://askfsis.custhelp.com.

Bottom line from Dr. Greiner's presentation: Pork producers today are facing many challenges, therefore it is imperative to enhance management practices to the highest level to avoid experiencing any sort of business loss.

"Plant Delays" by Glee Goodner, Hormel Foods: Mr. Goodner reported that there are 600,000 hogs in transit in the U.S. daily. Goodner also stated that plant delays, short or long, are going to happen sometime and plants only have capacity to hold an hour or two worth of deliveries during a delay.

Reasons for plant delays may include: breakdown, withdrawal of USDA inspection services, fire, power outage, strike or employee issues and environmental concerns such as floods, tornado and snowstorms. Goodner suggested that when plant delays are expected to be short pigs on trailers should remain loaded and kept moving. Producers and transporters (truck drivers) should be in constant contact with the plant to verify when the hogs are to be delivered. In the case of a long delay, identify internal (buying stations or sister plants) and external (sale barns, terminal markets, empty finishing barns) avenues to possibly unload hogs.

Bottom line from Glee Goodner's presentation: Communication, communication, communication between all parties involved in the transportation process.

"Disease Outbreak" by. Dr. Patrick Webb, National Pork Board: Dr. Webb discussed response tactics if a Foreign Animal Disease outbreak would occur. Dr. Webb gave an example of the implications of suspect Foreign Animal Disease and how that would impact movement of the suspect animals.

When dealing with pigs in transport it comes down to two logical goals: 1. Prevent disease spread, and 2. Avoid a welfare disaster. Some keys to success include; making risk based decisions, having a common sense approach, getting the pigs moving to their final destination or moved to locations where pigs can be provided care if there is a stoppage of transport or if necessary, humanely euthanized.

Bottom line from Dr. Webb's presentation: Ensure that all bio-security protocols are followed appropriately to avoid any sort of potential disease spread.

"Transport and Animal Handling Audits at the Plant" by Dr. Ashley Peterson, American Meat Institute: The American Meat Institute Transportation Audit was started in the spring of 2008 covering the species of swine, cattle and sheep. This audit was designed with the animal in mind and focuses on the unloading of animals at the plant. The AMI Animal Transportation and Animal Handling Audit for a packing plant includes seven core criteria:

Core Criteria 1. Transportation policy and preparedness for receiving animals

Core Criteria 2. Set-up and loading of trailer

Core Criteria 3. Timeliness of arrival and animal unloading

Core Criteria 4. Condition of trailer

Core Criteria 5. Slips and falls

Core Criteria 6. Electric prod use

Core Criteria 7. Condition of animal (Willful Acts of Abuse = Automatic Failure)

Bottom line from Dr. Peterson's presentation: American Meat Institute's philosophy is that optimal animal welfare is good for livestock and good for business. Ensuring animal welfare is ethically appropriate, but also offers distinct benefits such as improved meat quality, better employee safety and morale.

The final portion of the Forum ended with a panel discussion. The panel included the following members: Producer, Dr. Howard Hill - Iowa Select Farms; Transporter, Dennis Beethe – Bartling Brothers; Packer, Kellye Pfalzgraf – Tyson; FSIS Inspector, Dawn Sprouls – USDA, FSIS. This panel created a lively discussion with questions from the audience that covered everything from producer and transporter training programs, who should unload pigs at packing plants (transporters or packing plant crews), electric prod use, laws regulating packing plants while pigs are unloaded, time to unload, and who has more rights -- the transporter or the pigs.

At the end, it appeared that this may have been the start of future discussions in regard to the many aspects surrounding animal handling and transportation management of swine.

Bottom line from the Panel discussion: Producers, Producer Organizations, Packers & Processors, Transporters and FSIS officials must work together to improve the animal transportation management chain with the realization that mistakes are likely to occur because the system(s) rely on people not machines.

### Swine Jobs School – Providing Skilled Technicians for Michigan's Pork Industry

Jerry May, Pork Extension Educator, Pork AoE, Ithaca
Dale Rozeboom, State Swine Specialist, Michigan State University

Recognizing the need for skilled employees to meet the labor needs of the Michigan pork industry, the MSU Pork Team will be offering a unique jobs training program for perspective employees. The Swine Jobs School will be a blend of class room instruction followed by on-farm "hands on" experience.

Swine Jobs School will have three components: The first two weeks of training will be held in Ithaca, MI and all participants will be expected to attend classes there. During this component of the program the students will receive technical training and supervised work experience in breeding, farrowing, nursery and finishing phases of production and feed processing.

Thereafter, the school will offer participants the opportunity to continue their involvement in this program with on-farm training while living in their local community. The school is intended to provide an educational opportunity in close proximity of home and potential employment opportunities.

The second component is intended to reinforce the classroom instruction with "hands-on" experience. During this phase of the program students are expected to work a minimum of 20 hours per week for 12 weeks on a swine farm in their local community. Students will be expected to care for pigs of all ages (rotating through all phases of production). Each student will devote a minimum of three weeks in farrowing, breeding, nursery/finishing, and field service departments with an option of spending time in feed processing if interested. The on-farm portion of the program is intended to be flexible, and may be altered to meet the host farm's and student's needs.

The third phase of the program is supplemental classroom instruction, providing further explanation and discussion of on-farm pork production experiences. These classroom sessions will be held once a week during the twelve week "hands-on" training. Topics for these twelve sessions will include feeding and nutrition, keeping and using production records, farm communication, swine disease and treating disease, ventilation and farm maintenance.

The Swine Jobs School will be taught by MSU Pork Team members. The program is supported by MSU Extension, the National Pork Board, Circle K Family Farms, LLC, Lafayette Pork Production, LLC, the Gratiot Isabella RESD and Alma High School Vo-Ag program, who all serve on the program planning committee. This pilot program has also received funding through the North Central Risk Management Education Center. Because of the support this program has received, participants will only be required to pay a small participation fee.

For more information and program applications contact either Dale Rozeboom at rozeboom@msu.edu or 517.355.8398 or Jerry May at mayg@msu.edu or 989.875.5233.





### Don't Run Off Before Learning about Runoff at Ag Expo



EAST LANSING, Mich. – Before putting your cattle out to pasture, come to Ag Expo at Michigan State University (MSU) and learn how to make simple improvements that can enhance your environmental profile and add to your bottom line.

Mat Haan, project coordinator at the MSU Kellogg Biological Station Pasture Dairy Research and Education Center, will discuss ways to reduce runoff from pastures and show farmers how a constructed stream crossing can save both time and money.

"Spending a little extra up front can save a lot of money in the long run," Haan says. "When cattle have to pass through a stream, they need a solid walkway to prevent excess silt and sediment from entering the water supply."

Silt and sediment in the water supply not only affect the surrounding areas but can affect drinking water, other animals and the environment. Haan says something as simple as managing grass height can not only reduce runoff from pastures but also provide benefits to the soil and improve forage production.

The event, "Profitable Environmental Options for Livestock Producers," will feature demonstrations at 10 a.m., 11:30 a.m. and 1 p.m. July 21—the first day of the annual Ag Expo at MSU. It's all happening at the Beef Cattle Research and Teaching Center, at 3200 Bennett Road, Lansing, less than a mile from the main Ag Expo site. Transportation to the center will be available from Ag Expo, and there is also parking at the center.

"Our goal is to have special programming for livestock producers but not to monopolize their time," explains Natalie Rector, MSU Extension nutrient management educator. "We want to make sure that visitors have plenty of time to talk to our experts and tour the Ag Expo grounds."

But Rector warns that the event will take place only on the first day of Ag Expo—July 21.

"If you come on July 22 or 23, you're going to miss it," she cautions.

Ag Expo features commercial farm equipment from throughout the Midwest and several Canadian provinces on the 35-acre main exhibition site and the 40-acre field demonstration area, as well as educational exhibits from several MSU colleges and departments. It runs from 9 a.m. to 5 p.m. July 21 and 22, and 9 a.m. to 3 p.m. July 23. Admission to the grounds and parking at Farm Lane and Mt. Hope Road are free. For more information about Ag Expo, call 800-366-7055.

Ag Expo is sponsored by the MSU College of Agriculture and Natural Resources.

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# **Pork Quarterly**

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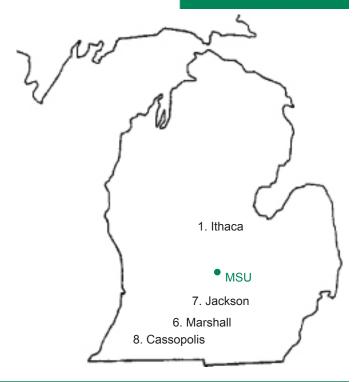
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ANIMAL AGRICULTURE INITIATIVE

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