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Michigan Producer Perceptions of Gestation Stall Pressures

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There continues to be expanding consumer interest and demand for information regarding the practices involved in modern food production. The current issue arguably receiving the most attention in the swine industry is the use of gestation crates. Accordingly, Drs. Glynn Tonsor and Christopher Wolf at Michigan State University have been conducting research examining an array of issues underlying this interest in gestation crate use and associated implications of potential bans. This short article highlights the findings of a December 2007 mail survey completed by 113 Michigan swine producers (survey sent to 600 producers anonymously identified by Michigan's National Agricultural Statistic Service). Of the respondents, 57% (n=65) had sows (e.g., farrow-to-finish, farrow-to-weanling, or farrow-to-feeder) while the remaining 43% consisted of weanling-to-feeder, feeder-to-finish, or other non-farrowing operation types. The survey was designed to solicit information from producers regarding a) current operation practices, b) adjustments that may be necessary if gestation crates were banned, and c) perceptions of future consumer pressure.

The surveyed sample of producers with sows (n=65) revealed that 33.8% are currently using individual crates as the primary method of housing sows/gilts during gestation. However, when 57 producers were asked the same question using TurningPoint voting technology at the State-Wide Pork Industry Information Meetings held March 31st – April 3rd, 73% of producers with sows (n=30) indicated current use of gestation crates. This significant difference may imply that producers polled in-person, attending the State-wide meetings are inherently more likely to use gestation crates due to different operational characteristics. This difference raises uncertainty on the extent to which gestation crates are currently used by Michigan producers. As anticipated, the mail survey indicated that producers from larger operations were more likely to use gestation crates. More specifically, for every additional 1,000 sows an operation had, the operation was 25% more likely to use gestation crates.

The mail survey also asked producers "how likely do you think it is that legislation will pass in Michigan within the next 3 years that bans the use of gestation crates?" This question was also repeated for a national ban to examine how producer perceptions vary between the likelihood of a Michigan and national ban. Regarding the likelihood of a ban in Michigan, 49% responded "unlikely," 24% responded with equally unlikely and likely,

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and 27% responded with "likely" (table 1). Conversely, regarding the likelihood of a national ban, 58% responded "unlikely," 15% responded with equally unlikely and likely, and 26% responded with "likely." Producers not using gestation crates consider both a Michigan and national ban to be more likely than producers who are using gestation crates. Producer responses at the State-wide meetings were also consistent with these mail survey results. Collectively these responses suggest that Michigan swine producers are notably more pessimistic about the probability of a Michigan gestation crate ban than they are a national ban. Facility age was identified as an operation characteristic associated with these perceptions. In particular, for each additional 5 years of age in an operation's facilities, producers responding in the mail survey were found to be 6.2% more likely to indicate a ban in Michigan is more probable than a national ban.

Table 1. Mail Respondent Perceptions of Gestation Crate Ban Likelihood (n=110).

	Michigan Ban	National Ban
1 Very Unlikely	8%	21%
2	17%	16%
3	24%	21%
4	24%	15%
5	16%	13%
6	8%	11%
7 Very Likely	3%	3%

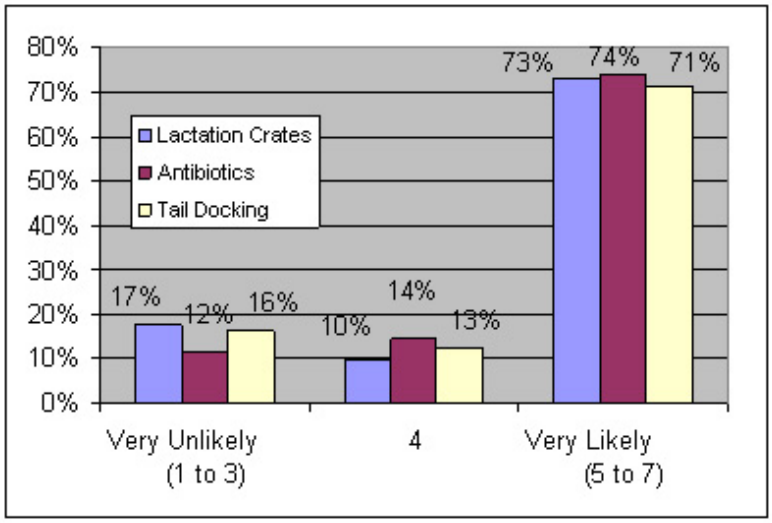
The mail based survey also required producers to complete a series of questions regarding the production cost implications of a gestation crate ban. When asked "how much do you think it would cost your operation in one-time adjustment costs to update your production practices to be in line with the (gestation crate) ban," nearly half (47%) of responding producers with sows indicated that no adjustment costs would occur (table 2). Conversely, 32% responded with valuations of up to $200,000 and 21% indicated adjustment costs in excess of $200,000. This wide diversity in responses was likely reflective of underlying differences in existing operations and current extent gestation crates were being utilized. As anticipated, operation size was found to be positively related to adjustment costs. For each additional 1,000 sows/gilts an operation had, it was 39% less likely to indicate $0 adjustment costs and 16% more likely to indicate adjustment costs in excess of $200,000. The weighted average response of $60,588 is an estimate of what a representative producer stated may be the one-time adjustment cost of banning gestation crates. When asked a similar question regarding "ongoing, annual production cost increases," consistent with one-time adjustment costs producers with sows varied widely in their responses (table 2). One-half (50%) of producers indicated 0% increases in annual costs, 30% indicated 1-10% increases, 17% suggested increases of 11-20%, and 3% implied increases in excess of 20%. Responses revealed a weighted average response of 5% for the representative producer suggested.

Table 2. Mail Respondent Perceptions of Gestation Crate Ban Adjustment Costs (n=65).

One-Time Adjustment Costs		Ongoing Annual Costs Increase	
$0	47%	0%	50%
$1-$19,999	15%	1-5%	15%
$20,000-$59,999	9%	6-10%	15%
$60,000-$79,999	0%	11-15%	8%
$80,000-$199,999	9%	16-20%	9%
$200,000 or more	21%	Over 20%	3%

The final portion of the mail-based survey asked three questions to identify current perceptions of "slippery slope" issues. More specifically, producers were asked how likely they felt consumers who support legislative gestation crate bans are to also support legislation banning lactation crates, antibiotics, and tail docking. Overwhelmingly, producers responded to these three issues rather equally implying strong perceptions that gestation crate ban supporting consumers would also support all three of these bans (figure 1). In particular, 71-74% of producers considered each of the three potential bans to be "likely supported" by consumers supporting gestation crate bans.

Figure 1. Mail Respondent Perceptions of a "slippery slope" (n=110).



Producers interested in additional information on these survey findings or related issues being examined by Drs. Tonsor and Wolf are encouraged to contact Dr. Tonsor (gtonsor@msu.edu). Interested producers may also find a copy of associated PowerPoint slides used in the State-Wide meetings (and other related material) at http://www.msu.edu/user/gtonsor/.

[a]The author thanks the Animal Industries Initiative Grants Program and the Michigan Agricultural Experiment Station for their support of this research.

ANIMAL AGRICULTURE INITIATIVE

Michigan Consumer Gestation Stall Perceptions and Preferences

Dr. Glynn Tonsor[a], Dept. of Agricultural, Food, and Resource Economics

As noted in the previous article, Drs. Glynn Tonsor and Christopher Wolf at Michigan State University have been conducting research examining an array of issues underlying this interest in gestation crate use and associated implications of potential bans. This short article highlights the findings of a December 2007 mail survey completed by 255 Michigan consumers (survey sent to 1,000 consumers). The responding sample of consumers was representative of Michigan's general population using standard demographic assessment variables.

Given the animal welfare focus of the survey, we asked consumers "when you choose not to purchase pork, what is the primary reason for that decision?" Somewhat surprisingly, only 3% indicated animal welfare was the primary reason for not purchasing pork. More frequent responses were "price of pork" (25%) and "preparation time/ease" (11%) reasons are notably more important.

To better understand how Michigan consumers assess animal welfare information, several questions were included to examine how accurate consumers consider animal welfare information provided by consumer groups, governmental agencies, university scientists/researchers, and by animal industry sources. Consumer responses indicate a notably higher perceived accuracy in information from university scientists than from the other three sources (table 1). Consumers ranked (using mean responses) the four sources (from most accurate to least accurate) as university scientists, consumer groups, animal industry, and governmental agencies. Furthermore, when asked which source consumers most frequently use, only 7% indicated animal industry sources. Combined, these perceptions of information accuracy and limited use of animal industry information imply a couple things for the animal industry. First, additional efforts may be necessary to enhance perceptions of accuracy provided by the industry on animal welfare issues. Regardless of the industry of discussion, consumers often place more value and belief in information from those outside of an industry (i.e., prefer private 3rd party verification to self-verification procedures) than from the industry itself. Secondly, these differences may imply that the animal industry should work more with other entities (including university researchers) in futures responses to animal welfare concerns.

Table 1. Perceived accuracy of animal welfare information (n=219)

	Consumer Groups	Governmental Agencies	University/Researchers	Animal Industry
1 Very Accurate	9%	12%	5%	14%
2	16%	18%	5%	15%
3	20%	17%	6%	16%
4	25%	28%	17%	26%
5	19%	16%	24%	13%
6	8%	8%	28%	11%
7 Very Accurate	4%	2%	15%	4%

Additional key questions incorporated in the survey focused on how consumers would vote on different animal welfare issues. In particular, consumers were asked if they would vote for a referendum, similar to those approved in other states, that if passed would prohibit Michigan swine producers from using gestation crates. As shown in table 2, 54% of respondents indicated they would vote FOR such a referendum. Given the close,

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50/50 split of responses, we further investigated underlying consumer factors that may help explain who is/is not in favor of a gestation crate ban. This analysis reveals females and those perceiving agriculture to make a lower contribution to Michigan's economy to be more likely to vote FOR a gestation crate ban. Conversely, those currently consuming pork more frequently are notably less likely to support a ban. While these findings help better understand who may be supportive of a gestation crate ban, it should be noted that while only 21% of the sample recognized agriculture as the 2nd largest contributing industry in Michigan's economy, a total of 58% recognized the ranking was between 1st and 3rd, and only 15% fail to recognize agriculture as a top 5 contributor. This may suggest that attempting to impact potential voting behavior of Michigan consumers by further enhancing knowledge of agriculture's contribution to the state's economy may be a difficult and not necessarily most effective strategy.

Table 2. Animal welfare voting responses

	MI Gestation Crate Ban (n=210)	MI Lactation Crate Ban (n=114)	MI Gestation Crate Ban, Given More Labelling (n=114)
Against	46%	32%	16%
For	54%	68%	84%

Consumers revealing support for a gestation crate ban were subsequently asked two additional questions: "would you also support a referendum banning the use of lactation crates (crates housing an animal during the birthing and nursing stages of production) by Michigan pork producers?" and "would you change your vote to AGAINST if all pork products in the US include more complete labeling information that accurately depicts if gestation crates were used?" Nearly 70% of those revealing support for a gestation crate ban in Michigan subsequently revealed support for a lactation crate ban. Similarly, 84% of the gestation crate supporting respondents revealed that availability of additional labeling indicating use of gestation crates would not cause a change in voting behavior. Combined, this suggests that banning gestation crates (or voluntarily providing associated pork labeling) may not be sufficient to appease current animal welfare concerns of Michigan consumers currently supportive of gestation crate bans.

Individuals interested in additional information on these survey findings or related issues currently being examined in ongoing national consumer surveys by Drs. Tonsor and Wolf are encouraged to contact Dr. Tonsor (gtonsor@msu.edu).

[a]The author thanks the Animal Industries Initiative Grants Program and the Michigan Agricultural Experiment Station for their support of this research.

Important update on Pseudorabies in Michigan

Dr. Barbara Straw, Extension Swine Veterinarian,
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Pseudorabies (PRV) is a disease affecting swine. On rare occasions after massive exposure it has also affected cattle, horses, dogs, cats, sheep, and goats. The disease is caused by a herpes virus that has its greatest effects on pregnant sows and young pigs. Unborn pigs may be aborted or born dead. Baby pigs suffer convulsions and death. In older pigs the virus causes pneumonia which in severe cases may cause death. Many of the youngest pigs die after infection. Older pigs that survive infection become carriers of the pseudorabies virus for life. ***The virus does not cause illness in humans***.

PRV is primarily spread through direct animal-to-animal (or nose-to-nose) contact between an infected, shedding pig and a non-infected pig. ***If present on inanimate objects, such as boots, clothing, feed, trucks or equipment, the virus can also spread from herd to herd and farm to farm***. As occasionally happened 20-30 years ago, if a large swine facility is infected and many newly infected pigs are shedding, virus can be aerosolized and carried up to 2 miles by wind to neighboring facilities.

Because of its economic and welfare impact on pigs, nearly 15 years ago the commercial industry acted to eradicate the disease. The industry followed a strict farm entry restriction, age segregation, vaccination and culling program to eliminate the virus from their herds. ***Currently, all 50 States are free of PRV in their commercial swine herds.*** Commercial herds continue to employ measures such as perimeter fencing and solid concrete walls to prevent contact with free-roaming swine of unknown health status.

Recently, pseudorabies has been found in pigs on Michigan game farms. Pigs raised on game farms tend to resemble their wild ancestors (Russian wild boars, Arkansas Razerbacks, Eurasian pigs) although they may be crosses between these and domestic pigs. Game farm pigs that escape, having been raised with minimal human care, quickly adapt to living in the wild.

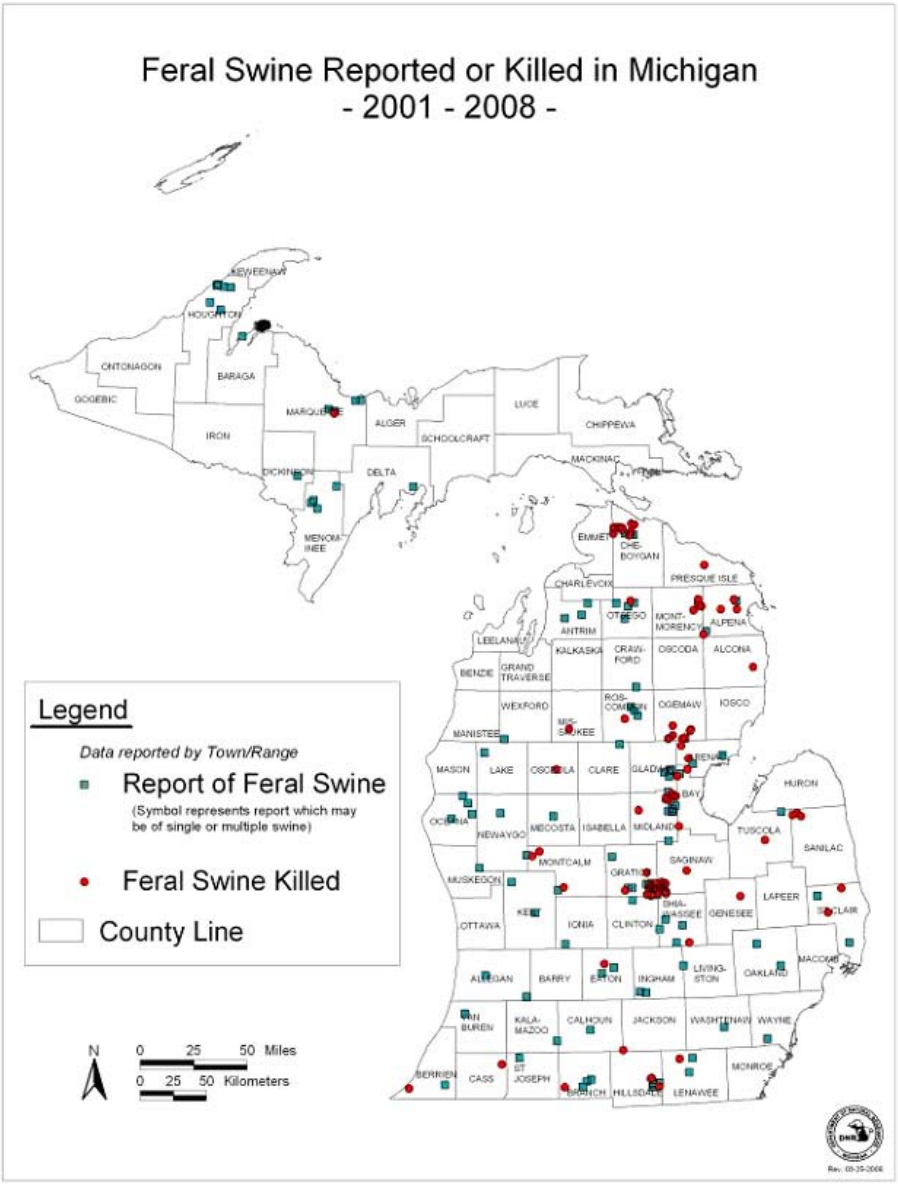
Feral (wild) populations of pigs are responsible for tremendous environmental damage. Their broad dietary habits, extremely destructive behaviors, and aggression make them one of the most destructive introduced species across the globe. Wild pigs destroy native vegetation as they dig for food, travel in herds, and create wallows. They will eat native animals, such as ground nesting birds and their eggs. Wild pigs may also act as crop pests. (Nowak, 1991)

No commercial production herds have been found to be infected with PRV in the U.S. since early 2003. Sporadic infections have been found in game farms, free-ranging pigs and outdoor pigs that have come in contact with feral swine. Any infected feral pigs or outdoor herds have been promptly depopulated when found, and intense epidemiological investigations have been conducted to ascertain that no viral spread to commercial production swine has occurred.

The Michigan Department of Agriculture (MDA) has identified three “game farm” herds in Central Michigan and a fourth in Northern Michigan as positive for pseudorabies. ***Currently, to the best of anyone’s knowledge, Michigan’s commercial and club pig herds remain free of the pseudorabies virus but we can not rest assured that the virus is contained on the four identified herds until MDA completes their planned testing.***

Because of the recent finding of pseudorabies there is reason for additional bio-security:

- MDA will be conducting surveillance PRV testing of all swine herds within 5 miles of a known PRV positive herd. If contacted by MDA, assist them with their testing process.
- Pay attention to fencing and protection of domestic stock. Do not allow feral pigs to have fence line contact with domestic pigs. In areas with high feral pig populations consider perimeter fencing around commercial production.
- Do not leave any waste feed, human food waste or trash out where it might attract free-roaming pigs.
- Report (and shoot if you have a hunting license) any free-roaming pigs that enter your property. Contact MDA (517) 241-4694 if you shoot a free roaming pig or suspect there are feral pigs on your property. Part of the control process is to monitor feral pig movement and test all harvested feral pigs.
- Do not move domestic swine back and forth between farms. If the virus were to get into a domestic herd unlimited movement would increase the spread of the disease.
- Limit unnecessary visitors. Clothing, boots and equipment can spread the virus.
- Change clothes and boots after visiting a hog market or other pig farms.
- Keep a separate pair of boots and clothes that you wear when working with your pigs. Do not wear those clothes and boots when you leave your farm.



Cash Flow Demands with Seven Dollar Corn

Roger Betz, District Extension Farm Management

As everybody knows, seven dollar corn and fifty dollar live hogs does not work. Pork producers buying cash corn at today's prices are experiencing severe cash drains in their cash position. Losses are huge. Presently, Lean Hogs Futures Contracts for May and June 2009 look brighter with $95 meat prices. However, estimates show that $100 meat prices are needed to breakeven with $7 dollar corn.

We need to rebalance pork supply and demand with some experts suggesting that a 10% reduction in supply is needed to match demand with $100 live prices. This 10% reduction is and will be painful for the pork production industry as there are few smaller "in and out" producers to go out.

As producers we need to monitor our financial positions closely. Obviously we can weather the storm much easier if we are producing a majority of the corn for feed. By feeding our produced corn to hogs, we effectively market our corn at a lower price. The farm as a whole with combined enterprises will likely be profitable although not as profitable as if the corn were sold for cash versus sold through the pigs. The effective use of manure provides a comparative advantage of pork/crop producers compared to just crop producers. Manure has become more valuable as a partial offset to higher feed cost. However we must also carefully look at the opportunity cost of selling the corn for cash compared to marketing through pork production. "Selling corn" through hogs at a loss reduces our ability to compete with straight cash crop operations. Many variables, short and long term, must be taken into consideration.

Producers may want to evaluate partial liquidation of their pork enterprise. Perhaps some buildings or production phase is less efficient than others. Some producers are using this as an opportunity to depopulate and repopulate in an attempt to address disease issues. Other producers are deciding this is a good time to exit the business while others are considering expansion.

The cash flow demand on farm operations has increased significantly. Crop input prices have doubled and tripled in the last year. Fuel prices have increased dramatically along with other energy costs. The direct cost for corn production with today's input prices is now $400 to $500 per acre compared to $200 to $250 a year ago. Livestock producers buying corn at today's prices are obviously having increased cash flow demands.

Recommendations:

1. Develop a projected monthly cash flow and profitability statement for the next 12 to 24 months.
2. Identify levels of cash flow deficiencies and when they will occur.
3. Develop strategies to reduce losses and improve cash flow.
4. Communicate with business partners and your lender. How bad is it? Do we need increased operating loan amounts? How much equity (if any) will be lost? How long can the business take this level of losses and remain viable? How much risk do the owners want to assume?
5. Monitor projections compared to reality. What adjustments need to be made?

Producers can receive assistance in thinking through their options and developing cash flow and profitability projections through their Pork AoE team members. Also an EXCEL cash flow spreadsheet has been developed for Michigan pork producers. It can be obtained from the Pork AoE web site (http://web1.msue.msu.edu/msue/aoe/swine/swineindex.html).

Thinking about Genetic Costs?

Ronald O. Bates, State Swine Specialist, Michigan State University

Introduction

With the corn Futures Market exceeding $8.00 per bushel in early June, 2008 the cost of production has everybody's keen attention. Unfortunately the dark reality of what could hardly be imagined, only months ago, is oozing into our being. In an effort to reduce the red ink on many pork producer's ledgers every expense item is undergoing heavy scrutiny.

One of these is certainly genetic costs. Genetic costs are those costs associated with the procurement of specialized animals and/or semen to operate a crossbreeding system. Genetic costs take the form of the increased cost over market to procure specific cross females, boars or semen for great-grandparent, grandparent or parent stock programs. As pork producers scrutinize each budget item, difficult decisions have to be made regarding what expenditures have to be reduced in order to sustain the farm during these difficult times. Certainly the regular cash expense regarding genetic expenditures is undergoing close examination.

System Comparisons

As farms consider, "Can I reduce this cost?" regarding genetic expenses certainly questions arise regarding what changes can be made in cash expenditures while still maintaining a supply of replacement females within in the farm so to keep operations intact. When trying to reduce genetics associated disbursements, the question often becomes, "Can I change my breeding system, maintain similar productivity and reduce genetic costs?" In this report three commercial breeding systems will be compared in an effort to demonstrate what can happen to production costs when breeding programs change. The three programs that are compared are the Grandparent, Parent Stock and Rota-terminal systems. Grandparent and Parent Stock or Parent systems are commonly used within today's pork industry. Rota-terminal systems are in place across the pork industry but are not as prevalent as other crossbreeding systems.

Grandparent systems typically are those in which a small portion of the total sow herd is comprised of purchased females (Figure 1). Females produced from grandparents are the commercial replacement gilts for the farm system and are identified and managed accordingly. Parent Stock programs are those programs in which all

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Figure 1. Grandparent Breeding Systems

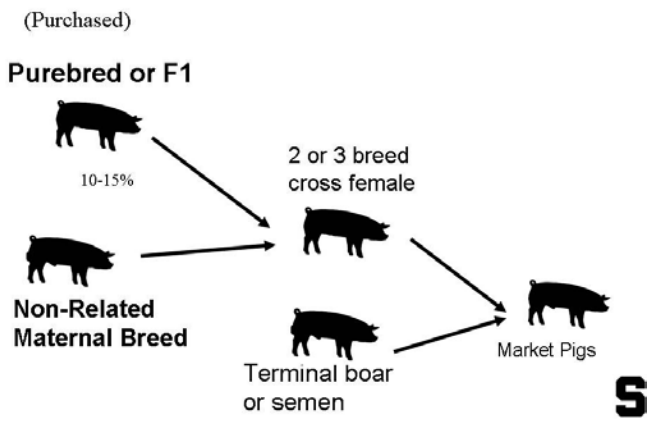
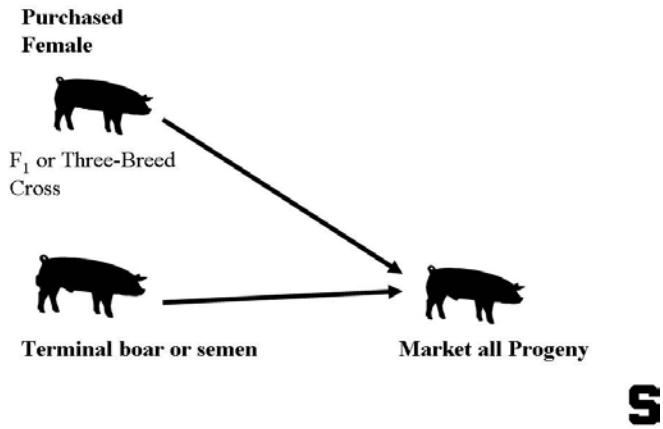
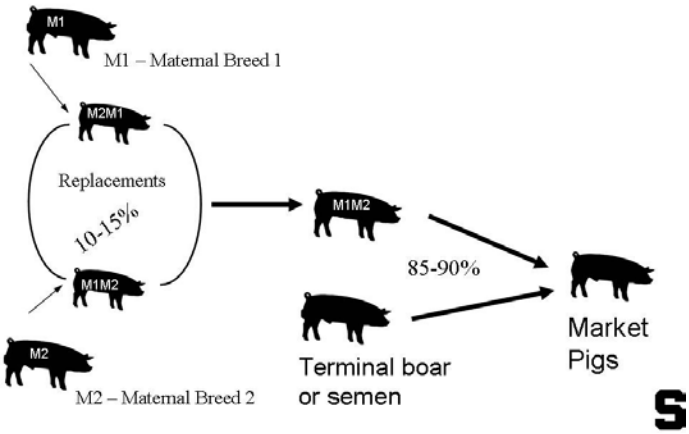


Figure 2. Parent Stock Breeding System



replacement females are purchased and market hogs are the only type of offspring produced (Figure 2). Rota-terminal programs (Figure 3) also produce replacement females for the farm system using a maternal backcross mating scheme. Prospective replacement females from the maternal matings within a Rota-terminal system must also be identified and managed accordingly. For further descriptions of these commercial breeding systems, see the Pork Quarterly article, "Closed Breeding Systems" (Vol. 9. Issue 4). This and other previous issues of the Pork Quarterly can be found on the MSU Pork Team Website by following the Pork Quarterly link (http://web1.msue.msu.edu/msue/aoe/swine/swineindex.html).

Figure 3. Rota-terminal Breeding System



These three systems were compared in a simulation using the Michigan Swine Budgets (Betz and Bates, 2001) as the basis for the calculations. Feed input costs used were $7.84/bu for corn and $400/ton for soybean meal. All other feed ingredients were as quoted in mid-June 2008. Market hogs were priced by using a base price of $72/carcass cwt. Lean premiums averaged $4/cwt. Genetic inputs for breeding stock and semen are listed in Table 1. All grandparent animals were pureline or purebred animals. All parent females were either two-breed F1 females or two-breed backcross females. All boar needs were met with purchased semen. Maternal semen was priced at $7.50 per dose over terminal semen. Pure females were simulated to have 1.9 litters per sow per year while F1 and backcross females were simulated to have 2.2 litters per sow per year. The F1 females were simulated to wean 0.8 more pigs than the purebred females while the backcross females were simulated to wean 0.25 more pigs than the purebred females. Purebred females had a 10% higher replacement rate than crossbred females. Crossbred maternal litters were simulated to have a lower growth rate and poorer feed efficiency that terminal cross pigs. Terminal cross pigs had greater lean yield than did maternal cross pigs.

Table 1. Genetic Inputs

Input	Price
Grandparent Females	$300
Maternal Semen	$7.50 per dose over terminal semen

Results

In Table 2 are calculated estimates of gross profit per sow per year by system along with calculated genetic input costs per sow per year. In addition the percentage of maternal matings for the Grandparent and Rotat-terminal systems were varied from 15% to 10%. Furthermore the replacement rate within the Parent Stock system was also varied from 50% to 55%. This allowed for genetic costs to vary depending on level of culling and percentage of maternal matings needed to maintain the production system.

Upon initial inspection of Table 2, it is evident what impact the present cost structure is having on Michigan pork producers. Across all comparisons, profit per sow was **-$451.60**. This indicates that the Michigan pork industry could accrue losses of over $45 million in the next year, which may be considered conservative compared to some prognosticators.

Table 2. Yearly Profit Per Sow By System

	Grandparent		Parent Stock		Rota-terminal	
	Maternal Matings		Replacement Rate		Maternal Matings	
	15%	10%	50%	55%	15%	10%
Gross Profits per Sow	-$442.22	-$429.19	-$403.15	-$403.15	-$451.47	-439.92
Genetic Cost per Sow	30.56	20.57	37.50	41.25	6.19	4.13
Net Profits per Sow	-$473.08	-$449.76	-$440.65	-$444.40	-$457.66	-$444.05

In comparing Gross Profit per Sow, the Parent Stock system had the least losses with the Grandparent system intermediate while the Rota-terminal system had the greatest losses. In reviewing genetic inputs per system the ranking was reversed. The Rota-terminal system had the lowest genetic input costs, followed by the Grandparent system with the Parent Stock system having the highest genetic input costs. When evaluating Net Profit Per Sow (Gross Profit per Sow minus Genetic Input Costs per Sow), the Parent Stock system again had the lowest losses, with the Rota-terminal system being intermediate and the Grandparent system having the highest losses per sow per year. However the differences between systems became much smaller.

There are some things to be learned through this exercise. Within the Grandparent system, if the percentage of Grandparent females can remain low (e.g. 10%), the reduction in maternal matings and consequential increased terminal matings yield similar economic returns compared to the Parent Stock and Rota-terminal Systems. Parent Stock systems are consistently the most profitable with all things being equal, such as health status, availability of replacements, etc. Within Rota-terminal systems, if maternal matings can remain low (e.g. 10%) economic return per sow can be as competitive as that observed within the other two systems. If expenses associated with genetic inputs must be reduced within a farm system, changing to a Rota-terminal system would accommodate a reduction in genetic costs while maintaining a supply of replacement females and efficiencies of production that are close to that of other crossbreeding systems.

Conclusions and Final Thoughts

Simulation results are based on the assumptions that are used to construct them. Using breeds or lines with differing performance levels than what was used here could change the outcome. Furthermore, multiple genetic pricing structures are prevalent within the industry. This simulation only considered one of several that are in use. Others in place across the industry can impact cash flow differently than what was simulated here.

Before considering a breeding program change producers should work with someone that can complete this type of analysis to assist in their decision-making. Furthermore if changes within the breeding system are to be made, ensure that replacement females needs are considered in the process. Maintaining an ongoing supply of replacement females will be necessary to reduce losses over the planning horizon under consideration. The author and members of the Pork Team are available to assist pork producers in their evaluation of measures to reduce input costs.

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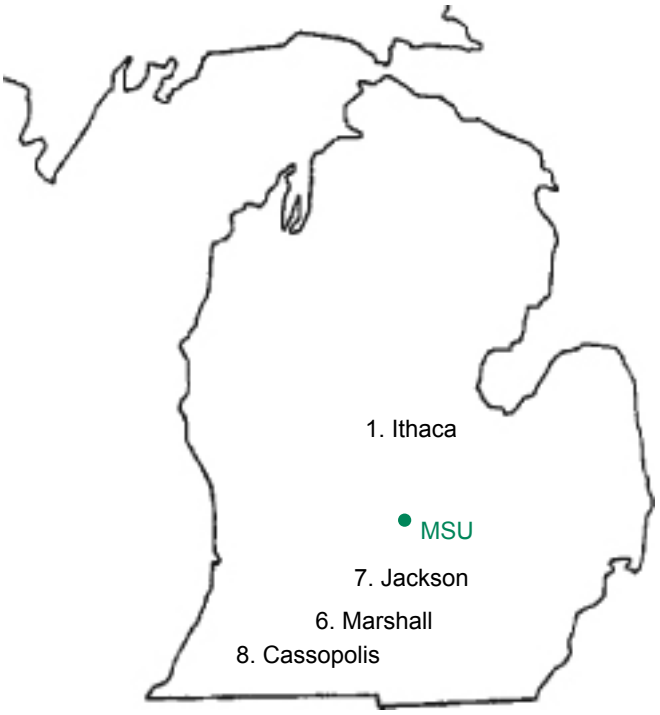

Hog Enterprise Price Analysis Excel Tool

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

The current state of affairs in the swine industry, namely immense uncertainty on input and output price relationships, is increasing the demand for user-friendly tools that may aid producers in making increasingly tough business management decisions. Accordingly, Dr. Glynn Tonsor has built an "user-friendly" Excel calculator designed to identify the output price (feeder pig or lean hog) necessary to cover an operation's variable costs, to cover their total costs, and to provide a target profit/head.

The tool makes associated calculations for farrow-to-finish, farrow-to-feeder, and feeder-to-finish operations using inputs provided by economists at Iowa State University. Producers may adjust many of the underlying assumptions (feed prices, other variable expenses, death loss rates, etc.) to better match their own operation. Subsequently, the tool provides producers with three different sets of model output. These show the output price necessary to meet each of the three evaluated thresholds/goals for the producer providing the data input. Furthermore, producers may alter the input and conduct straight-forward "sensitivity analysis" exercises. The identified prices (e.g., price of lean hogs in the farrow-to-finish evaluation) are the prices a farm needs to receive to meet these three thresholds or goals of covering variable costs, covering total costs, or obtaining a target profit/head. If the identified price is lower than that actually available from the market, this information can be used to gauge the current gap between market prices (and your operation's situation summarized by the tool) and the ability to meet each threshold/goal.

Producers interested in additional information (or questions of clarity on this tool's abilities) are encouraged to contact Dr. Tonsor (gtonsor@msu.edu). The Excel tool and associated user instructions may be downloaded at https://www.msu.edu/user/gtonsor/DecisionTools.html.

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