

**Transferring The Family Swine Farm Business to the Next Generation**  
**Roger Betz, SW MI Farm Management Agent**

*Michigan State University Extension*

All businesses and their owners go through a normal life cycle. Like people, a business has to have a start, go through a growth phase, a maturation and maintenance phase and an exiting phase. A swine farm business can often be complicated because these phases are occurring at the same time for the different generations and owners involved. The younger generation is trying to get a start, and the senior generation probably has significantly different and contrasting personal and business goals. Other siblings involved, or not involved, add additional complications and considerations. Obviously, this can easily lead to stressful business and family situations.

Income and estate tax consequences of various business property transfer strategies add to the complexity in achieving a successful business transfer. An advantage for the buyer may be a disadvantage to the seller and visa versa. A successful inter-generational business transfer has to meet each family member and generations' goals while at the same time minimizing the total income and estate taxes paid for the family as a whole. As a result of the new tax law signed June 7<sup>th</sup>, 2001 by President Bush, gift tax and estate tax planning became more complex and changes to many plans should be considered.

Swine farm family members should have a basic understanding of these issues to improve the ability to communicate within the family and to outside professionals who may be providing assistance at various stages.

**Talk to One Another**

A first critical step for the family members, including spouses, is to have open, honest, and continual communications. Many times family members simply do not talk to one another about what their goals are and how they might be accomplished.

The following is a quote from Luke Gentz, FFA Member from St. Joseph County, Michigan, speaking at the 2001 Farm Family Enrichment Conference, sponsored by Successful Farming magazine and Bayer: *"I want to share one thing I've learned from talking to other FFA members,"* he said. *"When I ask if they plan to farm, many say they don't know if their parents want them to join the business. 'My parents never talk about it,' they say. I ask if they talk to their parents about it, and they say 'No'. So, the kids don't think their parents are interested, and the parents don't think their kids are interested. Go home and get busy talking to each other,"* he urged.

With effective communication, family members gain an understanding and appreciation for each other's goals and possible strategies and methods. Family members may discover that the personalities and goals are different and (or) finances are such that the likelihood of continuing the business beyond the current generation is not desirable or

*(Continued on page 2)*

What's Inside ...

Transferring the Family Swine Farm Business to the Next Generation.....	p. 1
Farm Medication Plan.....	p. 4
Quality Assurance.....	p. 5
Farm Medication Plan.....	p. 6
Vaccination and Management Schedule.....	p. 7
Livestock Welfare Regulations? The Time is Now!.....	p. 8
The Frequency of the Porcine Stress Gene in Texas Show Pigs.....	p. 9

This newsletter is edited by:  
**Ronald Bates**  
MSU Extension Swine Specialist  
(517-432-1387) [batesr@msu.edu](mailto:batesr@msu.edu)  
and **Debbie Miller**  
MSU Office Assistant III

feasible. The decision may be to maintain existing business size with Junior having off-farm employment until “dad retires”. What are other family member’s thoughts and aspirations? Do the children who have left the farm want to come back? What are their expectations on inheritance issues? What would mom and dad like to have happen? Is the next generation really interested in a farming lifestyle? It certainly is useful for all involved to have some level of understanding on these and other individual family members’ goals.

### **Financial Involvement of Younger Generation**

The junior generation should become financially involved early. There is a heightened awareness, interest, and experiential learning when your personal financial “well-being” is directly affected by management decisions, capital investments, weather, hog prices, and other factors occurring on the farm. Junior will have more enthusiasm and ambition critical to a swine farm at a younger age, but may lose this drive, as he/she gets older and more comfortable “drawing a salary or working for wages”. Junior should be involved and make decisions, while the senior generation is “still around” to minimize highly risky and wrong decisions that could destroy the business and (or) family.

With profitable farms and larger estates, spreading the profit over more taxpayers and reducing the comparable size of the senior generations’ estate can substantially reduce income taxes and estate taxes. Commitments, opportunities, and expectations are more clearly defined when documents are drawn and signed indicating financial obligations and responsibilities.

### **Ownership of Assets**

The junior generation probably does not have the financial strength to own (buy) a high percentage of all assets, but as discussed above, it is important to be significantly involved financially. The senior generation often does not want to give up control of the assets that they have spent a lifetime accumulating, particularly real estate. The future success of the business depends directly on the “working assets” including sows, gilts, crop production, feed inventories, and machinery. Therefore, these “working assets” are often the first assets to transfer to the junior generation. It is better for Junior to own (buying or lease-to-own) 100% of these “working assets”, versus 20% of all the assets including land and buildings (if using a

partnership or Limited Liability Company transfer tool, have the partnership or LLC buy these “working assets” from Senior and then have Junior own 50% of the partnership or LLC). This leaves the buildings, land and other real estate in full ownership and control of the senior generation. Cash or share rents can be established for the use of these assets and provide income to the senior generation. This provides flexibility, income tax savings, and future income for the senior generation.

Over time, the real estate should be transferred to Junior depending on goals, financial situations and income and estate tax considerations. Provisions need to be made in Wills and Trust agreements to give the junior generation an appropriate opportunity to obtain ownership/control of these assets, particularly for those assets that are an integral part of the operation.

### **Profit**

Obviously, the swine farm business must make sufficient profit to provide a reasonable family living for both the senior and junior generations and still allow for business growth. Without sufficient profit, goals are not met, people become unhappy, family structure is lost and business succession is not achieved. Monitoring only cash flow (taxable income) most likely will be misleading. Real profit and “earned net worth change” may be much higher or lower than taxable income. Meaningful accrued income statements showing the actual profit of the businesses and balance sheets for both Junior and Senior should be maintained each year and shared with family members involved in the business. Annual adjustments to rents, leases, wages and other flexible payments can be made as feasible and appropriate. The MSUE Telfarm record and business analysis system, utilizing income tax records, accrual income statements, cash flow statements, and net worth statements, is designed to help producers make and monitor financial and management decisions on the farm.

### **Strategies to Save Taxes**

Strategies to transfer business assets should first achieve family goals and second minimize the tax implications for the family as a whole. All too often, families and advisors focus strategies only on the income tax issues and perhaps estate taxes. Inventories of feed, growing crops, supplies, machinery, livestock, buildings, and land need to be

*(continued on page 3)*

considered, but probably separately. A balance sheet with both market and cost-basis values and with detailed listings of assets becomes an effective communication device for family members and professionals assisting with the transfer. It is essential in helping to understand what is being transferred and to develop the best strategies to minimize taxes. Both income taxes and estate taxes need to be considered. The MSUE Telfarm system provides this information.

Inventories and other current business assets can be sold with a bill of sale. The sale proceeds will be Schedule F income to the seller and a Schedule F expense to the buyer. This unpaid bill can be paid over time depending on cash flow and tax considerations. Depending on goals, financial situations and tax implications, often these assets are transferred using gifting strategies.

A sale (by Senior) of raised swine breeding livestock is treated as long-term capital gains (Schedule D, which has preferential tax rates of 8% or 20% (for assets purchased prior to 2001), and are not subject to Social Security and Medicare taxes 15.30%). The purchase (by Junior) becomes a depreciable asset with the expense taken on Schedule F. Schedule F expenses reduce ordinary taxable income (10%, 15%, 27%, 30%, 35% and 38.5% tax rates) and also reduce taxable Social Security earnings. The combinations of the 2 to 18.5-point preferential capital gains rate advantage plus the 15.3% Social Security tax savings can lead to a 17.3 to 33.8 percent financial gain for the family on every dollar worth of raised breeding livestock transferred in this manner. Since the breeding livestock sale is long-term capital gain, an installment sale method can be used to spread Senior's gain over time. Interest income is unearned ordinary income (not subject to Social Security) but the interest expense for Junior is deducted on Schedule F, again saving significant taxes for the family as a whole.

Machinery sales are subject to depreciation recapture (ordinary income tax rates) in the year of sale, even if the money is not received. Therefore, when there is substantial recapture, a "lease to own" transfer method is often used. The rent expense is a deduction on Schedule F and the income to the parents (if the parents are not a partner or member in the LLC that rents the machinery) can be unearned ordinary income, taxed similarly as interest income, saving the Social Security tax.

Land sales are taxed as long-term capital gains (for the gain above the basis and held 5 years) and the installment sale method can be used. But, the buyer cannot deduct the purchase price, only the interest on the debt. Even though interest may be the major portion of payments during the early years, this transaction will probably lead to increased taxable income for the family but the strategy may help achieve family goals.

Until the year 2010, assets that are obtained through an inheritance receive a "stepped-up" basis to the value passed through the estate (usually fair market value). Depreciable assets can then be depreciated (again) from this value creating a substantial tax savings. Depreciable assets include machinery, breeding livestock, buildings, and most improvements.

Under the new law, this "stepped-up" basis would be limited once estate taxes are completely repealed in 2010. A decedent's estate would be permitted to increase the basis of assets transferred by up to a total of \$1.3 million. The basis of property transferred to a surviving spouse can be increased by an additional \$3 million. Thus, the basis of property transferred to a surviving spouse could be increased by a total of \$4.3 million. However the new estate tax law, just passed, reverts back to prior 2001 rules in the year 2011 without an act of congress.

Inventories of feed, calves, livestock, and crop supplies also receive an inherited "stepped-up" basis (from spouse too) and can be deducted on Schedule F. This is often missed on income tax returns.

## Conclusions

There are many considerations when transferring the family business to the next generation. Successful transfers take several years to develop and successfully execute the plan. The size of the estate affects the strategies that should be used. Families need to start early in this planning process. Usually this is only done once in a lifetime, so carefully developed strategies are important. The results of an effective transfer can be very rewarding financially and emotionally for both generations. Assistance from professionals who work in this area and understand agricultural issues are recommended to help family members have the best possible chance of reaching their goals.

## Farm Medication Plan Dr. Barbara Straw, DVM

Michigan State University Swine Extension Veterinarian

The National Pork Producers Council (NPPC) introduced the Pork Quality Assurance Program<sup>SM</sup> in 1989 as a management education program to assist producers in adopting good management practices in the handling and use of animal health products. Its goals are to provide consumers with a safe and wholesome product, eliminate violative drug residues, and avoid carcass blemishes. Producers must be PQA certified in order to sell pigs to Farmland, Hatfield, Hormel, and Swift packers. Other packers are strongly encouraging PQA certification.

Consumers have become increasingly concerned about how the use of animal health products by producers affects the safety of their food. Producers can do their part to retain the high level of public trust by developing a PQA plan for their farms that assures appropriate and responsible use of animal health products. In addition, following PQA guidelines will allow pork produced in the United States to be competitive in the world market.

The Pork Quality Assurance Program uses hazard analysis and critical control (HACCP) strategies to: 1) Identify hazards in the use of animal health products, 2) Find critical control points, 3) Establish critical limits, 4) Monitor, 5) Take corrective action if monitoring reveals results outside the critical limits, 6) Keep records, and 7) Verify that the HACCP plan is working correctly.

### **Initial Certification:**

PQA verifiers include veterinarians, agriculture extension personnel, and agricultural educators. If this is your first certification, make an appointment to meet with one of these people and complete the PQA booklet, "Pork Quality Assurance, a Program of America's Pork Producers, Level III." (next page). While not required, it is often helpful to have the initial certification done on the farm. A farm visit allows the verifier to observe facilities, animals, and health procedures in order to better assess the appropriateness of the vaccination and medication schedule being used. Obviously the veterinarian who is already familiar with your herd is a good resource to provide PQA training and evaluation of your current farm drug use program. PQA booklets and contact information for other PQA verifiers are available from the Michigan

Pork Producers Association (517-699-2145) and Michigan State University Extension. (517-353-9831). A post card is included in the PQA booklet for you to complete and mail to NPPC to record you as a PQA Level III producer. You will then receive a certificate and billfold PQA card. Once registered, every two years, NPPC will automatically send you a new PQA booklet when it is time to recertify.

### **Recertification**

Producers who have previously been certified should annually complete the Quality Assurance Checklist (see p.5) and update their farm drug use protocols. Then recertify with a verifier every two years.

**Annual Review** The following three forms are handy to use in an annual review of farm procedures and for evaluating the use of animal health products. It's a good idea to set aside some time to get together with all farm personnel to review the topics in the Quality Assurance Checklist. Make sure that everyone is familiar with the HACCP programs that are in place, revise existing procedures to improve efficiency and compliance, and answer any questions that arise.

**Recertification** Recertification is required every two years. If your veterinarian routinely visits the farm, you may want to recertify during a regular farm visit. Another way to recertify is to complete the following three forms and have them reviewed by your verifier. Your verifier will confirm that the scheduling of routine procedures and withdrawal practices are adequate to avoid residues. For example, it may be convenient to vaccinate sows just prior to weaning, but since certain vaccines have a 30-day withdrawal, they may have to be given when sows are placed into the farrowing crates in order to make sure that sows that are culled after farrowing comply with the withholding time. Also your verifier may suggest less expensive or more effective treatments than you are currently using. For example, ivermectin is an excellent dewormer as well as mange control product, but if mange is not present other dewormers are considerably less expensive.

*(continued on page 5)*

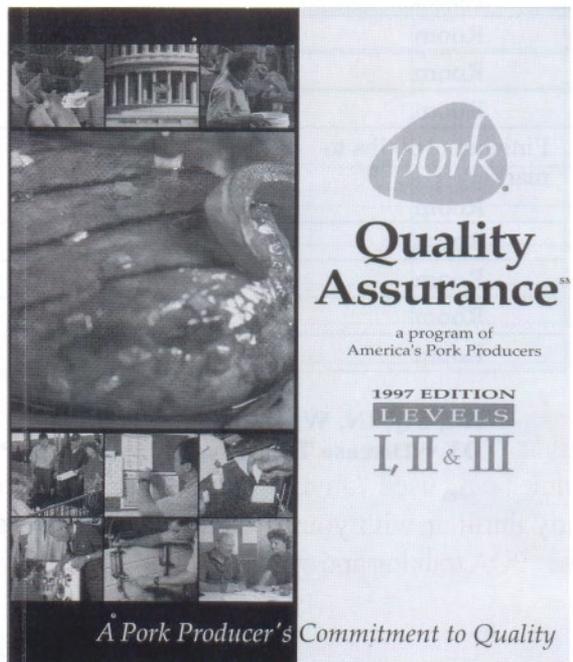
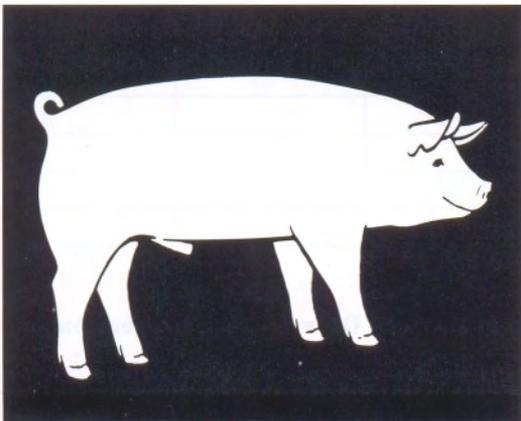


## Quality Assurance Checklist

On our farm, a program is in place to:

- Identify and track all treated animals
- Maintain medication and treatment records
- Properly store, label and account for all drug products and medicated feeds
- Obtain and use only veterinary prescription drugs based on a valid veterinarian/client/patient relationship  
VCPR maintained with: \_\_\_\_\_
- Educate all employees and family members on proper administration techniques and withdrawal times
- Use drug residue tests when appropriate
- Establish an efficient and effective herd health management program
- Provide proper swine care
- Follow appropriate on-farm feed processing and commercial feed processor procedures
- Complete this Quality Assurance Checklist annually and recertify every two years

Signed \_\_\_\_\_ Date \_\_\_\_\_



## Farm Medication Plan

Date completed \_\_\_\_\_

Production Stage	Product Name & Concentration	Route <sup>1</sup>	Dosage (cc, g/ton, etc)	Preslaughter Withdrawal (days)	Drug Purpose <sup>2</sup>
New Stock Isolation					
Breeding					
Gestation					
Prefarrow					
Lactation					
Creep					
Nursery Room					
Grower (<100 lbs) Room					
Finisher (100 lbs to market) Room					

<sup>1</sup>IM, SQ, IN, Water, Feed

<sup>2</sup>DT = Disease Therapy, GP = Growth Promotion, SP = Stress Periods, DP = Disease Prevention

## Vaccination and Management Schedule

Date completed \_\_\_\_\_

Production Stage	Product Name & Procedure	Dosage	Route <sup>1</sup>	When Given / Age Done	Person Responsible	Preslaughter Withdrawal (days)
Gilts Prebreeding						
Sows Prebreeding						
Boars						
Gilts Prefarrow						
Sows Prefarrow						
Baby Pigs						
Pigs at Weaning						
Grower (40-100#)						
Finisher (100# - Market)						

<sup>1</sup>IM, SQ, IN, Water, Feed

## Livestock Welfare Regulations? The Time is Now!

Ronald O. Bates, State Swine Specialist

Michigan State University Extension

Europe has been undergoing a livestock management revolution with the implementation of livestock welfare regulations that, among other things, disallows sows to be kept in stalls. These regulations also dictate stocking rates, amount of exposure to natural light, time on pasture for cattle and sheep and other livestock management practices that society believes will improve animal welfare.

Within the United States, laws governing livestock welfare have, for the most part, only addressed animal cruelty and animal handling during slaughter. Typically U.S. laws have not addressed routine, on-farm, livestock management practices. However, that is changing and changing in ways that was not entirely predictable. At this time, regulations are primarily occurring in the form of production specifications within the retail sector, which is then precipitating changes in livestock management.

Much has been made of McDonald's Corporation specifications to egg producers that supply eggs and egg products to McDonald's restaurants. Specifically, McDonald's will not purchase products from producers that practice beak trimming or artificially manipulate molting in laying hens. In addition, egg producers must allow laying hens an average of 72 sq. in. of cage space and 4 inches of feeder space. Furthermore, McDonald's Corp. is implementing inspection of packing plants to ensure humane handling of animals through the harvest process. This is one of few cases where the retail sector has dictated change in production practices to the livestock sector.

On the heels of this decision two other national companies have moved forward with their own specifications for the production of livestock and livestock products. In a recent announcement, Burger King Corp. will, through the American Meat Institute Audit program, verify humane handling of cattle and pigs through the harvest process. A similar process will be instituted for chicken harvest companies using the National Chicken Council's guidelines.

Burger King has also established specifications for layer hen housing and management. Hens should not be debeaked and if they are, producers must submit a debeaking protocol and have it approved and on file with Burger King. Also no molting manipulation can be practiced. In addition, hens must have an average of 75 sq. in. (higher than McDonald's) of floor space, two water drinkers per cage, a conveyor feeding system, and be able to stand upright in all areas of the cage. Burger King's specifications also address air quality within laying hen facilities and states that ammonia concentration can not exceed 25 parts per million.

Burger King's also has guidelines for cattle and pig management. Burger King discourages branding, wattling and ear notching of cattle. If cattle are branded, they recommend that it be done only once, early in life and never on the face. In addition, it requires that all castration and dehorning be completed before arrival at feedlots or stocker operations.

Burger King also supports the development of alternative sow housing and will try and support pork suppliers who do not house sows in stalls during gestation. Both Burger King and McDonald's are supporting research for alternative dry sow housing.

Another restaurant chain that has launched a meat product in which animal management practices are specified is T.G. I. Friday's. T.G. I. Friday's is a multi-national restaurant chain that has 706 restaurants in 53 countries. They now offer an All-Natural Angus Beef Burger. The meat for this product will be purchased from Meyer Foods, which markets Meyer Natural Angus. Cattle for this product are raised on the Meyers' Montana ranch. Cattle management practices have been certified under the Free Farmed program instituted by the American Humane Association.

These three companies are not relying on state or federal regulations to change animal management practices that are perceived to improve animal welfare, but are wielding their purchasing power as the carrot to

*(continued on page 9)*

cause change of management practices within the livestock production sector. This may cause other wholesale and retail entities to follow suit.

Government regulations for changes in animal management practices that are perceived to improve animal welfare are also a possibility. In the state of Florida, a petition drive is underway to place a referendum on the ballot that would amend the state's constitution and ban the use of gestation crates and tethers for sows. It appears that the petition will be successful and the initiative will go before the citizens of Florida on next year's ballot.

Pork producers will face either governmental regulations or customer specifications that will cause change in animal management practices that address public concerns of animal welfare. Pork producers should determine which pork chains may specify changes in production practices and how this could change their production and marketing system. Furthermore, pork producers should determine how they want to address potential governmental regulations on animal welfare issues and make sure that potential changes do improve animal welfare and do not overburden the production sector.

### **The Frequency of the Porcine Stress Gene in Texas Show Pigs** **Dr. Jodi Sterle, State Extension Swine Specialist**

*Texas A&M University*

The effects of the porcine stress gene have been documented for thirty years. Like any other gene, a copy of this gene can be inherited from either parent, the dam and the sire. Animals inheriting a copy of the stress gene from both parents (referred to as "nn"), exhibit extreme nervousness and excitability (including "tail twitching" when exposed to a stressful situation such as being snared for clipping or loaded on trailers for transport) as well as inferior meat quality. The muscles from stress positive animals are often PSE, or pale, soft and exudative. The meat is light pink to grayish white in color, does not hold its shape well and appears watery in the package. This condition causes the carcasses to be classified as unacceptable quality. Carcasses drip in the cooler and lose moisture, causing the meat to be very dry when cooked. An Iowa State University study revealed that *over 95% of nn animals had PSE*. Additionally, over 15% of stress positive animals *died* while being moved from one location to another. However, the use of this gene became popular because stress positive pigs were 2.7 – 4.0% higher in lean composition than their normal littermates. This increase is due to both an increase in muscling as well as a decrease in fat. Researchers report that a sow with two copies of this gene (referred to as "nn") will have decreased litter size and will raise up to one less pig per litter less than normal sows (referred to as "NN"). Additionally, litter weaning weights from nn sows average about 10% less than litters from normal sows. Stress positive animals tend to be smaller at birth

and do not grow any faster than NN animals. Pigs inheriting a single copy (one inherited from either the sire or the dam, but not both; referred to as "Nn") exhibit characteristics that are intermediate between normal and stress positive animals. A blood test is available for identification of the pig's genotype (either NN, Nn or nn).

A number of symptoms get "blamed" on the stress gene in the show pig industry, including death loss during transport and show, the excitable nature of some of these animals and poor pork quality. However, with the exception of the National Barrow Show progeny test, little information is available about the frequency of this gene in the show pig population. In an effort to estimate the frequency of this gene in the show pig population, blood samples were obtained from the barrow carcass contest entries from the 2000 and 2001 San Antonio Livestock Exposition (SALE) and the 2000 and 2001 Houston Livestock Show and Rodeo (HLSR). This included class winners, breed champions and reserve breed champions from SALE and the first and second placing hogs from each class (including breed champions and reserves) from HLSR. A total of 193 barrows were tested for the stress gene. These animals were truly the "best of the best" – the top 193 of 20,603 hogs entered in these shows (less than 1%). The question that we attempted to answer was: *Do you need the stress gene to win?*

*(continued on page 10)*

At each of these shows, hogs are classified by a breed committee and broken into classes by weight within each breed. No registration papers from breed associations are necessary to show, however representatives from the eight major breeds are involved in the classification process. All carcass contest animals were transported to the Texas A&M University meat lab for evaluation. Carcass data, including quality measurements, were recorded 24 hours post-harvest. The frequency of each genotype is reported in Table 1.

The genotypic frequencies did not significantly change from 2000 to 2001 as seen in Table 2. Although it may appear that the frequencies remain relatively stable, with data from only two years, this conclusion is premature. Funding has been obtained for the continuance of this study through the 2002 show season in order to expand the data set.

**Table 1.** Frequency of the normal (NN), heterozygous (Nn) and stress positive (nn) genotypes of the class winners from the 2000 and 2001 San Antonio Livestock Exposition and the 2000 and 2001 Houston Livestock Show and Rodeo\*.

Total combined data:

NN = 107 barrows	55.44%
Nn = 78 barrows	40.41%
nn = 8 barrows	4.15%

Frequencies by breed:

Breed	number	NN	Nn	nn
Chester White/Landrace/White OPB	18	11	7	0
Yorkshire	24	20	4	0
Hampshire	34	21	13	0
Poland China/Spot	23	3	15	5
Berkshire	12	6	3	3
Duroc	33	17	16	0
Crossbred	49	29	20	0

\* NN = normal, Nn = heterozygous, nn = homozygous positive for the stress gene.

**Table 2.** Frequency (by year) of the normal (NN), heterozygous (Nn) and stress positive (nn) genotypes of the class winners from the 2000 and 2001 San Antonio Livestock Exposition and the 2000 and 2001 Houston Livestock Show and Rodeo\*.

2000:

NN = 51 barrows	52.58%
Nn = 41 barrows	42.27%
nn = 5 barrows	5.15%

2001:

NN = 57 barrows	59.37%
Nn = 36 barrows	37.50%
nn = 3 barrows	3.13%

\* NN = normal, Nn = heterozygous, nn = homozygous positive for the stress gene.

In the carcass contests, SALE places the top six carcasses, and HLSR places the top ten. Therefore, 32 hogs have placed in these four shows in the past two years. Of these, 16 were normal (NN) and 16 were heterozygous (Nn). None of the placing carcasses were nn. Carcasses are disqualified from the contest for failing two of the four minimum quality standards for loin muscle color, muscle firmness, marbling or fat firmness. Of the 33 carcasses that were disqualified, 14 were NN (42.4%), 18 were heterozygous (54.5%) and one was positive (3.0%). In other words, *almost 60%* of the hogs disqualified from the carcass contest (based on the same criteria that is used in packing plants and consumer studies) inherited at least one copy of the stress gene.

Even more startling was an increase in the number of animals disqualified due to carcass quality in 2001 as compared to 2000. In 2000, 10 carcasses were disqualified on carcass quality from both shows. In 2001, 23 carcasses were disqualified. This is an alarming trend that cannot be attributed to the stress gene (PSE is caused by numerous factors; genotypic frequencies were similar between years; Table 2) and has a potential impact on consumer satisfaction. Consumers have repeatedly shown a preference for darker ("redder") meat in taste panels. Therefore, not only were a large number of these show pigs considered unacceptable for the consumer, but most of these inherited at least one copy of the stress gene. The quality issue needs to be addressed by the show pig industry.

The swine industry has decided (although not unanimously) to take steps to eliminate this gene. Most feel that the risks of losing customers (especially in the export market) due to poor pork quality (even when producing only heterozygous animals) are not worth the benefits of increased muscling and leanness. The National Swine Registry (NSR) has implemented the following policies on the porcine stress gene: No known stress positive or stress carrier animals will be allowed to be exhibited or sold at any NSR sponsored event. NSR also requires the DNA stress gene status of A.I. sires to be declared on all A.I. certificates issued for the registration of litters. Additionally, all four of the major breeds have adopted policies that will require any pig farrowed after a certain date (1/1/00 for Yorkshire and

Landrace; 1/1/01 for Duroc and 1/1/02 for Hampshires) found to be a stress carrier to have its pedigree cancelled. The Chester White Association has a similar policy. Conversely, in order to increase genetic diversity within the breed, the Spot Association opened its breed registry to include Pietrains, a Belgium breed with an exceptionally high frequency of the stress gene.

Back to the question, is the stress gene necessary to win? At two of the largest barrow shows in the country, the answer is NO. Over 55% of the top one percent were free of the stress gene. While there may have been a time that the swine industry propagated the use of this gene, pigs free of the stress gene and of desirable genetic merit are available today to produce the heavily muscled, lean carcass that consumers desire. If the show pig industry wants to improve its image and the quality of the product it is producing for the dinner plate, total elimination of the stress gene is necessary.

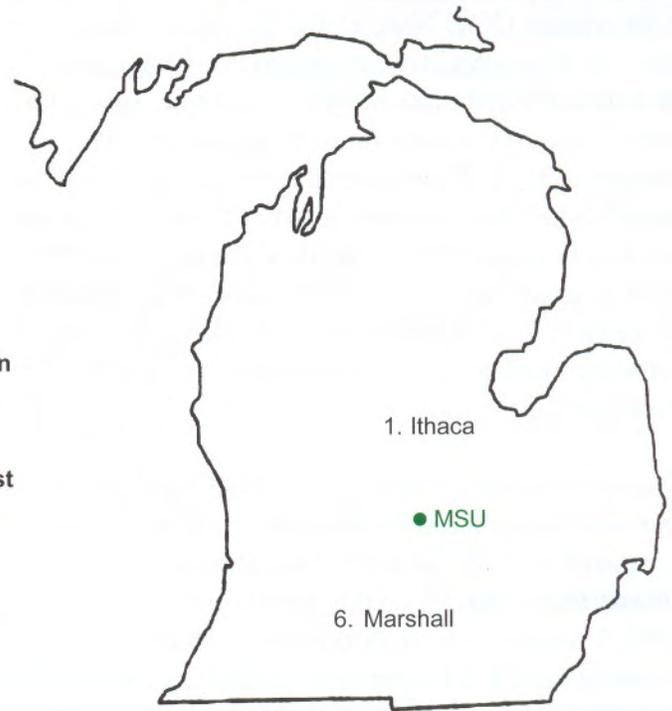
Funding was provided by the Houston Livestock Show and Rodeo, the San Antonio Livestock Exposition and the Texas Cooperative Extension Service. For more information, please contact Dr. Sterle at 979-845-2714 or email at [j-sterle@tamu.edu](mailto:j-sterle@tamu.edu).



All comments and suggestions should be directed to:

MICHIGAN STATE UNIVERSITY  
EXTENSION

1. **Jerry May, North Central Swine Agent**  
Farm Records, Productions Systems  
(517) 875-5233
2. **Ron Bates, State Swine Specialist**  
Michigan State University  
(517) 432-1387
3. **Dale Rozeboom, Swine Extension Specialist**  
Michigan State University  
(517) 355-8398
4. **Barbara Straw, Extension Swine Veterinarian**  
Michigan State University  
(517) 353-9831
5. **Laura Cheney, Extension Livestock Economist**  
Michigan State University  
(517) 432-0089
6. **Roger Betz, Southwest District Farm Mgt.**  
Finance, Cash Flow, Business Analysis  
(616) 781-0784



## 2001 GRAND CHAMPION TRUCKLOAD American Swine Breeders Classic (National Barrow Show) *Bred, raised, & shown by MSU Students*



**Standing:** Maynard Hogberg, Dennis Peterson, Sarah Rust, Susan VanderKolk, Brandon Ogle, Bryan Metzger, Jeff Mafi. **Kneeling:** Luke Rahe, Al Snedegar, Dave Edwards, Jeannine Grobbel, Tracy Copenhafer, Mark Hoge