IOWA Pork Producer Headlines

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A LOOK AT CERTIFICATION PROGRAMS FOR PORK PRODUCERS

It's no secret that food producers must continually adapt to new and emerging consumer expectations. Pork producers are challenged with new standards related to traceability, food safety, animal welfare and environmental protection. As consumer expectations increase, so does the need for systematic and reliable means of proving that management systems are in place to meet their expectations.

This issue of *Headlines* will present four different certification programs available to pork producers. These programs are increasingly important as restaurants, retailers and other foodservice entities make further attempts to appeal to consumer who want to know where their food came from.

HERE'S WHAT'S INSIDE

THE SWINE WELFARE ASSURANCE PROGRAM

A proactive checkoff program for all pork producers

Recently in the U.S., there has been intense interest from the market place in animal welfare and on-farm production guidelines. Multiple communications with the marketing sector indicate that responsibility for animal welfare assurances may be transferred back to the producer.

The Pork Checkoff's Swine Welfare Assurance Program℠ (SWAP℠), is now available for use throughout the pork chain as a valid confirmation of addressing animal welfare on the farm.

The Swine Welfare Assurance Program is a voluntary educational and assessment program. It is producer implementable and can be done on any operation, regardless of size or type. SWAP was field tested in 2002 by veterinary, swine extension and animal science experts to ensure that it was an objective and science based tool.

SWAP provides the packers and retailers a tool to answer welfare requests from their customers and is a valid, defensible and cost effective alternative to third party audits. Another program that includes on-farm third-party audits is now available for swine farms and was created by the restaurants and food retailers. On the other hand, SWAP is not an audit. SWAP provides swine caretakers the ability to benchmark indicators of welfare through an assessment. It is distinguishable from an audit, which only provides a snapshot of animal welfare without providing feedback to the producer.

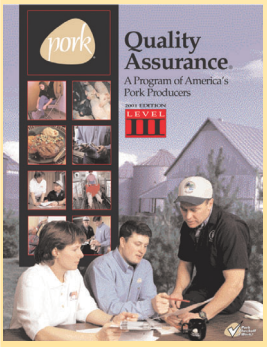
The purpose of SWAP is two-fold: it provides means for education and continuous improvement by animal caretakers and it provides a tool for producers to objectively measure and track indicators of welfare through an assessment.

BENEFITS OF PARTICIPATING IN SWAP

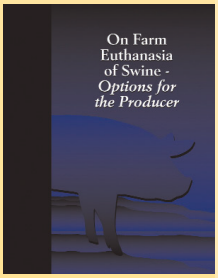
- Provides a voluntary, uniform, producer-developed tool to help maintain market availability or possibly open up new marketing avenues
- Assist producers in evaluating and tracking animal performance and welfare over time
- Identifies weaknesses in management, nutrition or health programs before they become welfare and production problems and it
- Provides an alternative to costly third party animal welfare audits from those unfamiliar with pork production
- Demonstrates U.S. pork producers' commitment to the welfare of their animals

Key components of SWAP development

SWAP was developed by the Pork Checkoff Animal Welfare Committee, which worked with an advisory group of national and international experts from several countries. These experts represented a variety of disciplines: animal behavior, physiology, veterinary medicine, production, housing, handling and stockmanship.



SWAP addresses the welfare of pigs by dividing production into gilts, sows, boars and neonatal piglet population and the nursery and finisher pig population. The SWAP program references other Pork Checkoff related material: PQA™ Level III (2001), On Farm Euthanasia of Swine - Options for the Producer (2001) and the Swine Care Handbook (2003).



SWAP covers three areas of production: Record keeping, animal observation and facilities. Nine Care and Well-Being Principles provide a structure for the educational assessment on the farm. SWAP's educational component was modeled after the Pork Quality Assurance™ program, to provide a user-friendly format for SWAP assessments.

TABLE 1 Swine Welfare Assurance Program Care and Well-being Principles		
Area of Farm	Care and Well-Being	
Record Keeping	CWP 1	Herd Heath and Nutrition
	CWP 2	Caretaker Training
	CWP 3	Animal Observation
Animal Observations	CWP 4	Body Condition Score
	CWP 5	Euthanasia
	CWP 6	Handling and Movement
	CWP 7	Facilities
Facilities	CWP 8	Emergency Support
	CWP 9	Continuing Assessment and Education

Certified SWAP Educators, known as CSEs, administer the educational assessments. These educators must meet requirements set by the National Pork Board, including pork production experience. CSEs include veterinarians and educators with swine production experience. Certification comes after an eight-hour workshop on this program. CSEs can be found at www.porkboard.org by clicking on the SWAP logo and using the CSE locator, or calling 800-456-PORK.

In November 2003, the National Pork Board passed a resolution endorsing the SWAP program:

"The Swine Welfare Assurance Program is the science-based, implementable and sustainable industry standard for assuring the welfare of pigs of all ages on the farm.

The National Pork Board calls on all producers to continue to address the welfare needs of their animals by participating in the Swine Welfare Assurance Program. The National Pork Board is committed to the continued refinement of SWAP as a tool for providing customers with a credible, science-based assurance that U.S. pork producers are addressing the welfare needs of their animals."

ISO 9000 & QUALITY MANAGEMENT SYSTEMS

International Organization for Standardization (ISO) certification can provide the platform necessary to differentiate agricultural producers and agri-businesses based on their quality management systems. ISO certification will not be practical for all operations; however, any operation that can benefit through improved quality management needs to give this internationally recognized system consideration regardless of their size or end product. The rewards of obtaining and maintaining ISO certification will vary with each operation. Access to new or existing markets, improved management of resources, or improved customer satisfaction are all reasons for adopting ISO 9000.

ISO 9000 certification: What is it?

ISO 9000 is a quality management system subject to third party verification. It is most simply defined as an operational guide outlining business goals and objects, then thoroughly documenting the procedures implemented to meet those goals and objectives.

Through implementation of an ISO program, an organization develops its own system of guidance in order to better manage the business. Implementation of this system results in:

- Access to markets by responding to market opportunities.
- Improved utilization of resources and assets
- Strengthened customer loyalty
- Continual improvement of the business

Quality Management Principles (QMS)

Intertwined throughout all successful ISO quality management systems eight guiding principles will be found.

1. Customer Focus
Understanding current and future needs of customers because the success of the organization is entirely dependent on customer satisfaction.

2. Leadership
Clear direction and purpose should drive every activity and decision within the organization.

3. Involvement of People
Structuring the organization to empower people to best ensure success.

4. Process Approach
Goals and objectives are more easily met when resources are managed as a system.

5. System approach to management
Identifying and managing interrelated processes to achieve organizational effectiveness.

6. Continual Improvement
A permanent goal should be to continually improve the overall performance of the organization.

7. Factual Approach to decision making
Implementing factual analysis of data provides a basis for effective decision-making.

8. Mutually beneficial supplier relationships
Because every organization is dependent on both its customers and its quality suppliers, mutually beneficial supply networks must be created.

Pre-Certification Process

Prior to starting the audit process, the business entity will need to develop and coordinate the appropriate documentation and procedures. There are four major documentation components:

- **Quality Manual** provides a description of the enterprise and an overview of the QMS structure.
- **Procedure Documents** Instructions for activities that effect quality. Defining who is responsible, when it is performed, where it occurs in the process.
- **Working Documents** Specific instruction for each quality related task, and may include blueprints, checklists, flowcharts etc.
- **Documentation Controls** Specific regulations on handling records, forms, labels, orders etc.

Initial Certification

The amount of time and resources needed to reach the point of certification will vary with each individual business operation. Preparatory costs and time commitments are drastically reduced if the operation already utilizes some or all of the major documentation material. Costs can be reduced if portions of the QMS can cooperatively be developed within a farmer's group, guild or similar enterprises. Adequate time for training and implementation with all employees must also be factored into the time and cost equations. Depending on the level of involvement from outside consulting services a conservative time estimate from the time of commitment until certification can be achieved is 12 to 16 months. Because of the number of variables related to scope detailed cost estimates of achieving certification are difficult to estimate but can easily exceed several thousand dollars.

Post Certification

The actual cost of the third party audits will vary depending on the registrar firm used. A farm operation with less than five employees would require two days of audit time, plus travel expenses once initial certification is achieved. Again, these costs could be reduced slightly if working with a group or guild of producers.

The commitment to achieve and maintain ISO certification requires a significant allocation of resources. As the industry recognizes that nothing in the marketplace will pay more dividends than customer satisfaction "Quality Management" will increasingly become a very important value-added tool.

Can ISO 9000 successfully be applied to agriculture?
Although standardization and quality management systems have been around since the early 1900's and are widely accepted as the "norm" in business and industry, they have never been widely adopted for production agriculture or for any significant portion of the food industry.

The rate at which production agriculture moves away from bulk commodities to differentiated products will dictate the rate at which quality management systems, such as ISO, gain acceptance. During the past decade biotechnology developments, increased organic acreage, and food traceability issues have all demonstrated the need for specialized marketing systems that help maintain product purity and quality control.

Evolving markets such as these repeatedly give us two important lessons.

1. **The customer defines acceptable quality.**
2. **Early adapters to change have the most to gain.**

Information provided by the Ag Marketing Resource Center.

USDA PROCESS VERIFIED

Traceability, in which the product is tracked from its origin through processing, is becoming a competitive advantage to today's meat suppliers. Product quality attributes and or the actual manufacturing process is verified or certified by a third party.

Such programs may become increasingly important as the food industry makes further attempts to appeal to the consumers who want to know where their food came from. According to USDA, the top three U.S. restaurant franchises place restrictions on how animals used in the companies' foods are produced, account for approximately 35% of franchised restaurant sales.

The USDA Process Verified program allows livestock producers an opportunity to assure customers of their ability to provide consistent quality products by having written production processes confirmed through independent, third-party audits. Being USDA Process Verified allows a producer, processor, distributor, retailer, or restaurant to market a product claiming to be a specific breed, or to have fed, raised or processed a product in a certain manner that was verified by USDA. This program used many of the same features as the ISO (International Organization for Standardization) 9000 series standards for documented quality management systems.

Process verified programs are handled by the AMS's Audit, Review and Compliance (ARC) Branch, part of the service's Livestock and Seed Program. Information on process verification requirements is well documented within the USDA web site at: http://www.ams.usda.gov/lsg/arc/audit.htm.

Criteria for each requirement section are covered briefly here.

Management Responsibility
Ensure all program requirements are maintained.

Quality System
The program must establish, document and maintain a quality system that assures products conform to required specifications.

Contract Review
Procedures must be in place, and documented, to review contracts.

Document and Data Control
The program must maintain records demonstrating compliance with the program requirements and must include a statement of the process verified program's objectives.

Purchasing
A procedure must be in place to ensure that purchased products conform to specified requirements.

Control of Customer-Supplied Product
The program must include procedures for evaluating customer-supplied product before it is used.

Product Identification and Traceability
The supplier must develop and maintain written procedures for identifying product by either individual animal numbers or product lot identification unique to the associated process verified program.

Process Control
Detailed procedures for all activities associated with the program must be available for review, and also must be available for reference at all points of use at all program sites.

Inspection and Testing
Procedures must be maintained for all inspection and testing activities conducted to support the objectives of the certified program.

Control of Inspection, Measuring and Test Equipment
The program must include procedures to control, calibrate and maintain equipment used to verify compliance with specified program requirements.

Inspection and Test Status
Documented procedures must clearly define how products are identified for acceptability through each phase of production, handling, packaging, storage and shipping.

Control of Nonconforming Product
Procedures must be established to ensure that nonconforming products are not unintentionally used or distributed.

Corrective and Preventive Action
Documented procedures must be established and maintained for implementing corrective and preventive action, and controls must be in place to ensure that effective corrective action is taken.

Handling, Storage, Packaging and Marking
The program must have documentation defining procedures for handling and storing product to prevent damage or deterioration.

Control of Quality Records
Programs must maintain a document control master list showing the most current issue of all forms, procedures and other instructions.

Internal Quality Audits
The program must develop and maintain procedures for conducting internal audits of all operations and documentation to ensure requirements are met.

Training
Programs must provide for properly training and certification of all people with program responsibilities.

Statistical Procedures
When statistical methods are used to control product quality or integrity, the basis for those procedures must be clearly defined.

Control of Promotional Materials
Program procedures for monitoring promotional and advertising material must be developed and submitted as part of the overall quality program.

Customer Satisfaction
Programs must have written procedures for collecting, analyzing and acting on customer feedback, including information collected in customer satisfaction surveys.

TRICHINAE CERTIFICATION PROGRAM

Even with this evidence that *Trichinella* is very rarely found in U.S. swine, U.S. pork still is stigmatized by public perception due to lack of consumer education. In 1994, the meat safety question asked most frequently by consumers contacting the USDA's Meat and Poultry Hotline concerned *Trichinella* in pork. This fear of *Trichinella* causes consumers to either overcook or simply avoid eating pork. *Trichinella* is also a barrier to reaching full market potential internationally. Many countries require that U.S. fresh pork be further processed or tested before it can be exported into the country.

The Trichinae Certification Program is a developing USDA program based on scientific knowledge of the epidemiology of *Trichinella spiralis* and numerous studies demonstrating how specific Good Production Practices (GPPs) can prevent exposure of pigs to this zoonotic parasite. This program is a model program for on-farm assurance of product safety. The International Commission on Trichinellosis in their publication, Recommendations on Methods for the Control of Trichinella in Domestic and Wild Animals Intended for Human Consumption, states that, "Modern swine production systems reduce or eliminate risks of swine infection with *Trichinella* and testing of individual animals raised under these conditions could be eliminated." This publication continues with details of the requirements of such production systems. The Trichinae Certification Program meets these standards in all respects.

The Trichinae Certification Program is regulated by the USDA. Collaborative efforts between the Animal and Plant Health Inspection Service (APHIS), the Food Safety Inspection Service (FSIS), and the Agricultural Marketing Service (AMS) verify that certified pork production sites manage and produce pigs according to the requirements of the program's Good Production Practices and verify the identity of pork from the certified production site through slaughter and processing. The Good Production Practices that are employed and audited in the ongoing Trichinae Certification Program pilot study are as follows:

1. All non-breeding swine entering the site have originated either from certified pork production sites or, in the case of swine less than 5 weeks old, have originated from either a certified or non-certified pork production site. The source herd Trichinae Identification Number (TIN) must be documented in an animal movement record.

2. Sources of feed or feed ingredients meet Good Manufacturing Practices, as defined in this program or quality assurance standards recognized by the feed industry and documentation to this effect is maintained at the site.

3. Swine feed supplies at the site must be prepared, maintained and handled in a manner such that the feed is protected from possible exposure to or contamination by

All about *Trichinae*

Trichinella spiralis is a parasitic nematode affecting animals and people. The disease, trichinellosis, is acquired by consuming encysted larvae of *T. spiralis* in muscle tissue from an infected animal. Consumption of undercooked pork has traditionally been a common source of trichinellosis in humans worldwide.

In the U.S., the prevalence of this organism in pork has dropped sharply due to changes in swine management practices within the U.S. pork industry. In 1900, greater than 2.5% of the pigs tested were found to be infected with *Trichinella*. The infection prevalence declined to 0.95% in the 1930's, 0.63% in 1952, 0.16% in 1965, and 0.12% in 1970. The USDA National Animal Health Monitoring System's National Swine Survey in 1995 showed an infection rate of 0.013%. The same survey in 2000 demonstrated that the infection rate in U.S. swine had fallen to 0.007%.

rodents or wildlife. Rodent control procedures must be in place and maintained in the interior and around the exterior of the swine feed preparation and storage facilities. An up-to-date rodent control logbook documenting these practices is maintained at the site.

4. Exclusion and control of rodents and wildlife at the site are to a level such that fresh signs of activity of these animals are not observed in the swine production or feed preparation and storage areas. Rodent control procedures must be in place and maintained in the interior and around the exterior of the swine housing and feeding facilities. The producer maintains at the site an up-to-date rodent control logbook with a site diagram, or maintains comparable records from a Pest Control Operator. All records are updated on at least a monthly basis. In addition, domesticated animals, including pets such as dogs and cats, must be excluded from the swine housing and feeding areas and feed preparation and storage areas at the site.

5. Wildlife carcasses are not intentionally fed to swine. Swine shall not have access to wildlife harborage or dead or live wildlife at the site. This harborage limitation includes wood lots and other natural wildlife access areas.

6. If meat-containing waste is fed to swine, the pork production site must hold a State license to feed such waste. Cooking times and temperatures must be consistent with State and Federal regulations and up-to-date records of waste feeding and cooking practices must be maintained at the site. Cooked waste products that are stored prior to feeding must not be contaminated with uncooked material. Uncooked household waste must not be fed to swine.

7. Procedures are in place and are carried out that call for the prompt removal and proper disposal of swine carcasses found in pens in order to eliminate the opportunity for cannibalism, as well as to prevent attraction of rodents or wildlife. These procedures must be documented in an animal disposal plan.

8. General hygiene and sanitation of the production site is maintained at all times such that rodents and wildlife are not attracted.

   • Solid waste (facility refuse) must be contained in covered receptacles and regularly removed from the site to prevent rodent and wildlife access and attraction.

   • Spilled feed must be regularly removed and properly disposed of.

9. Animal arrivals and departures from the site must be documented in an animal movement record and take place in a manner that ensures that swine can be traced to/from that particular certified production site.

10. All records required under the Trichinae Certification Program must be up to date and must be readily available for inspection at the enrolled or certified pork production facility.

Sites will be audited continually, by a qualified accredited veterinarian, on a regular schedule to document that the program standards have been implemented and maintained to ensure that the swine on the site have been raised under the Good Production Practices of the Program. In the Trichinae Certification Program, certified sites are subject to random audits conducted by the USDA. Random audits are intended to verify that the program's Good Production Practices are maintained between audits and to assure that the audit process is conducted in a consistent manner across the program.

The Trichinae Certification Program will document the safety of pork produced under scientifically-proven methods for raising pigs free from risk of exposure to *Trichinella spiralis*. The safety of pork originating from pigs not raised under the standards of this program will continue to be assured through existing methods of carcass testing, cooking, and/or freezing.

The Trichinae Certification Program is an approach to food safety that holds the promise of being superior to individual testing of pigs at slaughter which is the *Trichinella* inspection process currently being used by countries the U.S. competes with in the international marketplace. Certification will allow the U.S. to better compete in the fresh pork international market and it will help change the perceptions of pork held by domestic consumers. In addition, the implementation of the Trichinae Certification Program will provide an infrastructure for tackling more complex on-farm quality assurance and food safety issues. This program is seen as the model for future animal agriculture certification programs.

Where to go for more information:

SWAP Program
National Pork Board
800-456-7675
www.porkboard.org

ISO 9000
Ag Marketing Resource Center
Ray Hanson
hansenr@iastate.edu
866-277-5567
www.agmrc.org

USDA Process Verified
Jim Riva, Branch Chief
Audit, Review, and Compliance Branch
202-720-1124
ARCBranch@usda.gov
www.ams.usda.gov/lsg/arc/audit.htm

USDA Trichinae Certification Program
Dr. Dave Pyburn, Coordinator
515-284-4122
david.g.pyburn@usda.gov
www.aphis.usda.gov/vs/trichinae/