

Can Agriculture Keep on Trucking?

Hauling livestock is more complicated than you think.

- Additional risk factors that require special planning and consideration
- Truck drivers receive extra training
- Why trucking is more important to the livestock industry now than ever before

Pork Farmers are Held to a Professional Standard:

- Producer Commitment
- Ethical Principles
- **Industry Standards**
- Animal Care Regulations
- Design and Construction Regulations
- Operational Regulations

Industry Standards: Pork Quality Assurance

- Modeled after Hazard Analysis Critical Control Point (HACCP) Programs used by food manufacturers
- Identifies practices with potential for food safety risks and minimizes the risk with education on proper practices
- Certified advisors administer the training
- Objective assessment of condition of animals at the site
- Program is constantly being updated to reflect new technologies and better production practices
- PQA Plus certification is **REQUIRED** by packers.
- Audit component



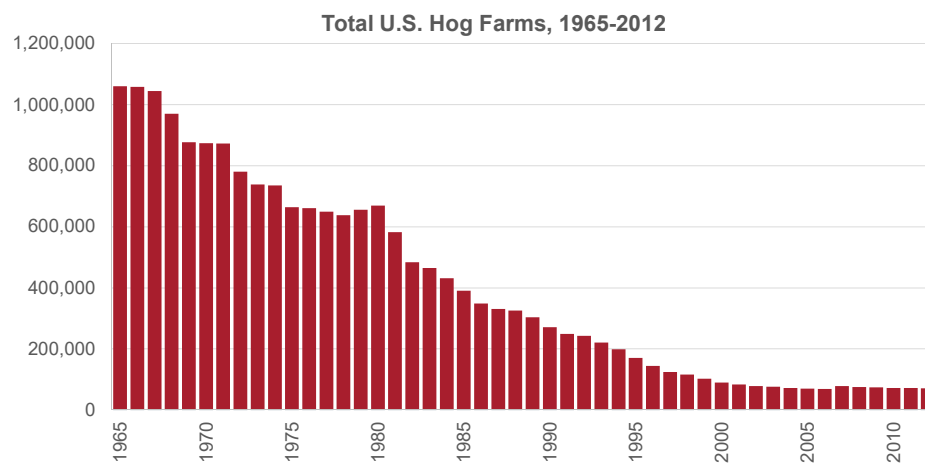
Certified Employees



Trends in Animal Agriculture

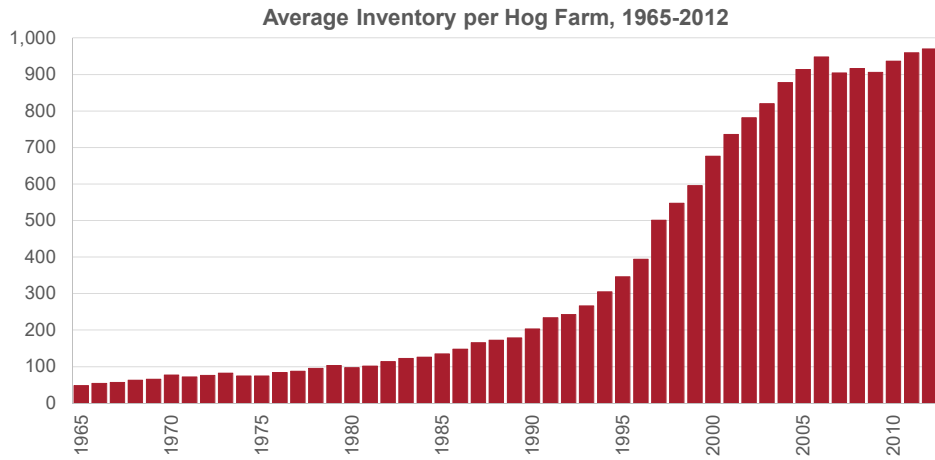
1. Expanding production
2. Fewer, bigger operations
3. Specialized farms
4. Contracting

In 1965, U.S. Hog Farms Totaled 1,057,570; 60,000 Remain Today

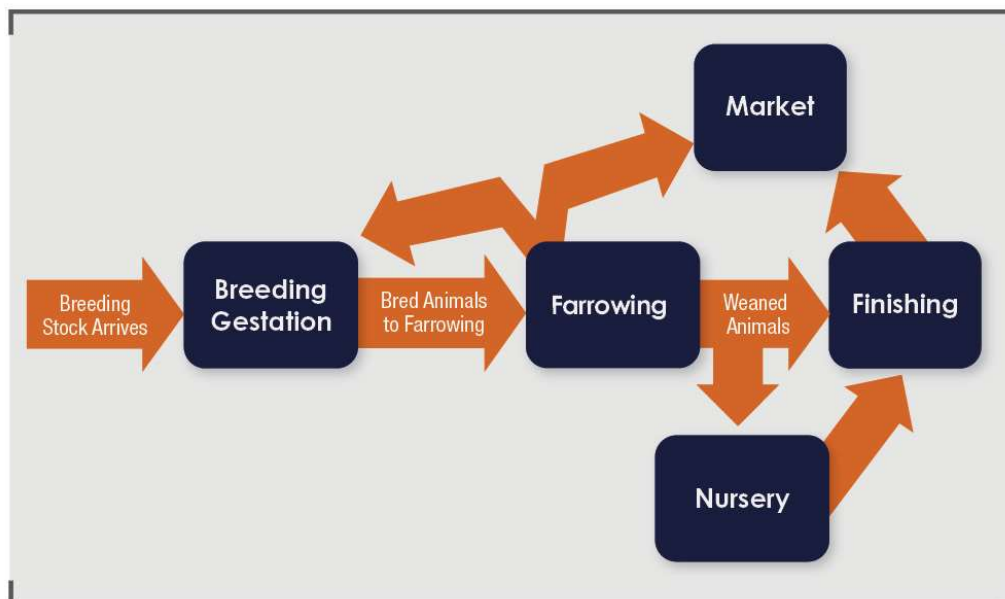


Data Source: USDA NASS

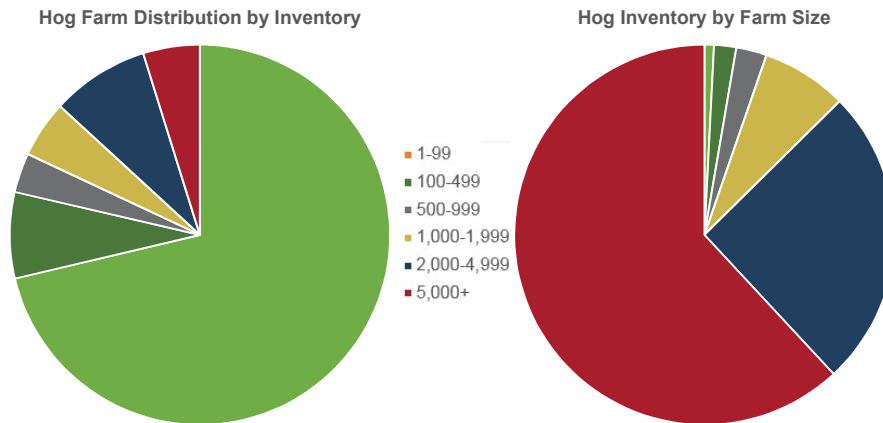
Hogs per Farm Have Steadily Increased Over Time, Leading to Larger, Specialized Farms



Data Source: USDA NASS



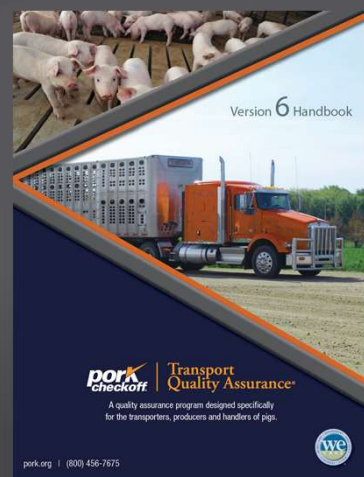
Small Farms Constitute Majority of Operations, Large Farms Dominate Total Hog Inventory



Data Source: USDA NASS

Introduction About TQA™

- TQA™ is a program for
 - Transporters
 - Producers
 - Handlers
- TQA™ Mission
 - To continuously build a culture of protecting and promoting animal well-being through training and certification of animal handlers and transport personnel, using current industry proven techniques which will lead to quality pork products and provide consumer confidence in the US pork industry.



Introduction Why TQA™? Animal Well Being

- Good practices benefit the pig, the handler and the industry

- For the pig:
 - Reduction or elimination of stressful experiences
- For the handler:
 - Easier pig movement
 - Reduce transport losses
 - Reduce time to load and unload pigs
- For the industry:
 - Reduced weight loss
 - Better meat quality



✘ **Incidents of poor animal handling or abuse are ethically wrong and unacceptable. Your actions can impact you, your company, and the entire industry.**

Loading, Unloading & Transportation Scheduling

- Communication
 - Schedule all loads
 - Minimize the amount of time pigs are on a trailer
 - Communicate all transportation delays
- Minimize transport stress
 - Maintain steady pace
 - Minimize number of stops
 - Avoid sudden starts, stops, turns
 - Follow delivery schedule



Transport Space

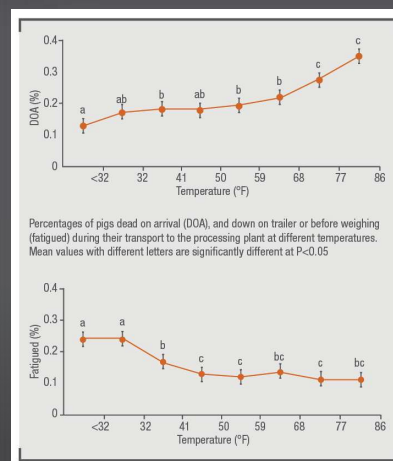
- Recommendations
 - Pigs should be able to lie down and stand up
 - Trailer should have compartments with gates/dividers with working latches
 - Changes in loading density need to be made to accommodate the weight of the pig or weather conditions
 - Research has shown that increasing loading density also increases transport losses

Transport Space Recommendations*	
Average Weight (lbs.)	Square Feet Per Head
12	0.65 ²⁰
50	1.53
100	2.32
150	2.95
250	4.26
275	4.57
300	4.79
350	5.48
400	6.39
450	7.00
500	7.69
550	8.39

*when weather conditions become extreme, consult Cold- and Hot-Weather sections for adjustment.

Weather Conditions

- Improper preparation for weather extremes – especially heat and cold – cost the pork industry millions annually
- Check conditions and forecasts
 - Weather.gov or weather.com
- Temperature can be a factor for pigs becoming DOA or non-ambulatory
- It is the transporter's responsibility to protect pigs during all weather conditions



Cold Weather



- Freezing temperatures and wind chills are dangerous
 - Overcrowding is not acceptable
 - Frostbite can result from wind and from being pressed against metal trailer sides
 - Piglets and nursery pigs are especially at risk



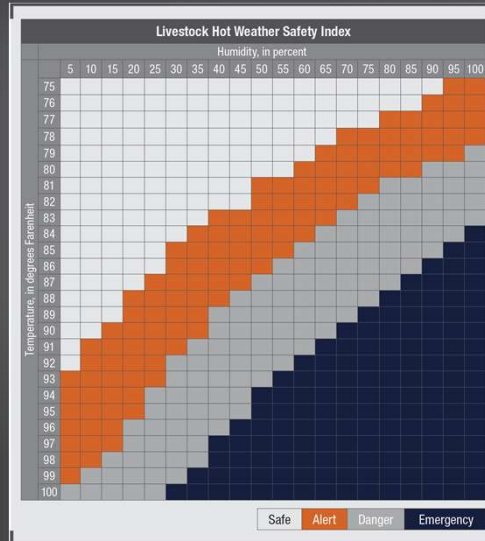
Cold Weather Preparations

Estimated Air Temperature	Bedding* (minimum recommended bags/trailer)	Side-Slats
≤ 10°F	Heavy (6 bags)	90-95% closed
11-20°F	Heavy (4-6 bags)	75-90% closed
21-30°F	Heavy (4-6 bags)	50-75% closed
31-40°F	Medium (3-4 bags)	50-75% closed
41-50°F	Medium (3-4 bags)	25-50% closed
51-60°F	Medium (3-4 bags)	0-25% closed
61-90°F	Medium (3-4 bags)	0% closed
> 90°F	Light (1-2 bags)	0% closed

*Bedding refers to a 50-pound bale of wood shavings.

Loading,
Unloading &
Transportation

Hot Weather Preparations



Loading,
Unloading &
Transportation

Stopping

- Minimize stops
- Remain in motion to generate airflow
- Utilize water sprinklers and fan banks at the packing plant to circulate air through waiting trailers
- Avoid parking near other animal transporters
- If stopped in hot weather, remove covers for airflow and use water sprinklers



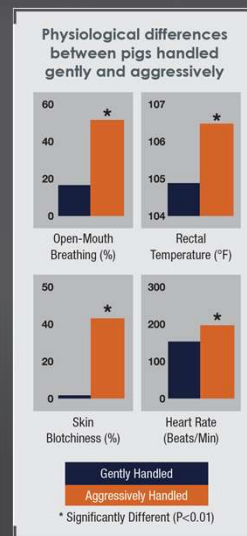
Fitness of the Pig **Fatigued Pigs**

- Definition
 - Temporarily lose the ability or the desire to walk
 - Are reasonably expected to recover with rest
- Have acid-base imbalance known as metabolic acidosis
 - Can cause pork quality defects



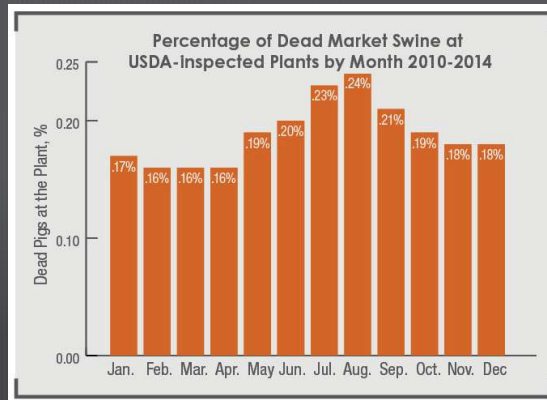
Fitness of the Pig **Stress Signs**

- Identify and treat pigs showing signs of stress
 - Open-mouth breathing (panting)
 - Vocalization (squealing)
 - Blotchy skin
 - Stiffness
 - Muscle tremors
 - Reluctance to move
 - Increased heart rate
 - Elevated temperature



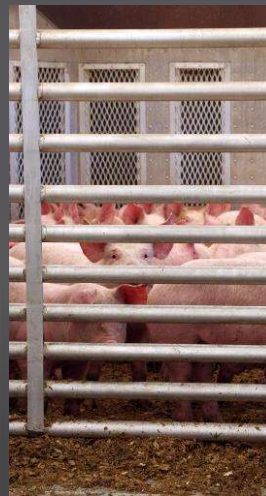
Outcomes of Stress

- Total Transport Losses
 - Those pigs that die or become non-ambulatory during transport



Emergency Plans for Delays

- Delays can occur due to:
 - Weather
 - Traffic
 - Construction
 - Mechanical problems
 - Plant shutdowns
 - Accidents
- Goal: Minimize pigs' time on trailer



Mechanical Breakdown

- Identify problem
- Estimate repair time
- If needed, arrange for another transport to be sent
- Consider:
 - Weather
 - Age and fitness of the animals
 - Availability of resources for livestock health (e.g., food, water, shade)
 - Location
 - Time of day
 - Safety of animals

Regulatory Agencies

- Transportation
 - Department of Transportation (DOT)
 - U.S. Department of Agriculture (USDA)
- Animal welfare and handling
 - Food Safety and Inspection Service (FSIS)
- Transport vehicles on plant property
 - Food Safety and Inspection Service (FSIS)



- Animals may not be confined more than 28 hours without unloading for feed, water and rest
- Minimum rest time of 5 hours
- Does not apply if animals have food, water, and space to rest in the vehicle
- Penalties for violations

