Transport Quality Assurance
V6 Revision Update

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Outline

- TQA Task Force
- Key Learning Objectives
- Materials
- Revision Timeline
- Content Changes
- Online Modules
- Additional TQA Materials
TQA Task Force
TQA Objectives
1. Introduction
   - Six ethical principles of U.S. pork producers.
   - Impact animal handling and transport has on animal well-being, pork quality and public perception of the industry.
   - Roles and responsibilities of all parties

2. Pig Behavior
   - Basic animal handling concepts
   - Handler’s effects on animal behavior.
TQA Key Learning Objectives

3. Handling

- Acceptable and appropriate handling tools/aides
- Human interactions and pig behavior
- Explain specific techniques to use when handling and transporting pigs of various sizes/types of pigs.
- Describe the influence handling techniques and animal handlers have on the incidence of dead and injured, ill, or fatigued animals.
- Discuss worker safety protocols related to animal handling and transportation.
  - Evaluate potential safety risks and identify any required personal protective equipment (PPE) to be used.
TQA Key Learning Objectives

4. Facilities and Equipment
   – Facility and equipment design and setup
   – Roles and responsibilities
   – Trip preparation checklist

5. Loading, Unloading and Transportation
   – Importance of scheduled trips
   – Recommended techniques while loading and unloading animals for each production phase.
   – Evaluate factors that could contribute to difficulties in loading
   – Assessing transport vehicles meet standards for animal transport
   – Space requirements and preparations based on hot and cold weather conditions.
   – Techniques that prevent dead on arrival (DOA) and fatigued pigs.
6. Fitness of the Pig
   – Evaluate the fitness of a pig and its readiness for transportation
   – Explain how dead or fatigued, ill, or injured pigs should be handled in the transport vehicle and in a pig production, aggregation or harvest facility.

7. Biosecurity
   – Importance of biosecurity to the pork production industry.
   – Identify potential sources of and illustrate ways to prevent disease transmission.
   – Review the cleaning and disinfection processes for facilities, equipment, trucks, trailers and animal handling tools.
   – Identify potential economic impacts related to biosecurity/disease issues
   – Understand clean/dirty line.
   – Develop SOP
TQA Key Learning Objectives

8. Emergency Response Plan
   - Comprehensive emergency response plan
   - Common accident-prevention principles and accident response
   - Actions for when animals must be on a transport vehicle longer than scheduled
   - Best practices for handling media interactions
   - Review various acceptable methods of euthanasia
     • Importance of timeliness and potential impacts on animal well-being
     • Roles and responsibilities in situations requiring euthanasia
TQA Key Learning Objectives

9. Laws and Regulations

– Laws and regulations related to animal welfare
  • 28-hour law
  • Animal abuse and cruelty

– Plant requirements and Food Safety and Inspection Service (FSIS) laws

– Department of Transportation (DOT) rules and regulations
  • Hours of service
  • State weight limits

– NAMI Recommendations & Guidelines
TQA Materials
TQA Materials

• Transport Quality Assurance® Handbook
  • Printed version
  • Electronic version

• Instructor-Led Training
  • PowerPoint presentation provided to Advisors

• Online training modules
  • Available through pork.org LMS
  • Access granted by advisors
  • Free-navigation version for Advisors

• Exam
  • Printed version
  • Electronic version with Online modules
Revision Timeline

• October – November 2016
  • Final review of Online Modules

• December 2016
  • Complete the English and Spanish versions of Handbook
  • Complete ILT

• January 2017
  • All program materials assembled

• 1 March 2017
  • Version 6 launches
  • Begin advisor trainings
Content Changes
Content Changes

• Re-organized “Handler Safety in the Trailer”
• Recommended Truck Setup Procedures Based on Air Temperatures (Market Pigs)
• Boarding photos
• Weaned Pig transport
• Total Transport losses
Handler Safety in the Trailer

Here are some safety items to consider when working in a transport trailer.

**PPE**

Using Personal Protective equipment while loading or unloading a trailer can help protect you from injury. Common PPE for loading and unloading includes, a hard hat, sturdy footwear with a steel toe cap and good traction, shin and knee pads, ear plugs and dust masks. Keep your PPE clean and in good working order.

- **Hard Hat.**
  Head cuts, bumps and bruises are some of the most common injuries inside a transport trailer. Some packers require that you wear a hard hat in your trailer once you are on their premises.

- **Footwear.**
  Wear appropriate footwear, designated boots or plastic pullovers over boots. The trailer is a slippery environment and good traction on boots will help. Steel toe-cap boots will help prevent foot injuries if an animal steps on your foot.

- **Shin and knee pads.**
  Consider use of shin guards and knee pads. Injuries to knees and shins are common. Using a sort board correctly will serve a as a safety barrier but further protection can be achieved by wearing shin and knee pads.

- **Wear ear plugs and facemasks as needed.**
  While it always best to move animals calmly and quietly, the animals may sometimes squeal or make a lot of noise. Prolonged exposure to loud noise can cause damage to hearing. Wearing hearing protection, either earplugs or ear muffs can help prevent irreversible hearing loss.
  Dust from the trailer bedding and animals may cause respiratory problems. Using a properly fitted respirator (dust mask) will help to reduce inhalation of dust particles.
**Handler Safety in the Trailer**

**Fall safety**

Falls from livestock trailers can and have caused severe debilitating injuries. Being aware and taking the following precautions can minimize your risk of a fall:

- Do not lean on doorways when in the trailer. Doors may not be latched properly and may open unexpectedly.
- Do not pull or swing dead pigs out of the second deck. First see if the dead pig can be moved to the first deck. If not, pull the pig to the second deck door and then push out. **Do not try to swing pigs out with a snare from the second deck instead of pushing them out.**

**Other safety tips during loading/unloading trailers**

- Make sure the snare is secure behind the rear hock of the pig prior to leveraging your weight to move a dead pig. Even if it is secure, avoid throwing your weight in a way that you might lose your balance if the snare or shackle slips. Short steady pulls are safer than fast lunges. **Severe injury to handlers can and has occurred when snares and shackles slip.**
- Do not crawl over the first group of pigs that need to leave the trailer. Instead, use the pigs’ flight zone and handler bubble to encourage forward movement as we discussed in Chapter 1.
- Do not jump over or walk on top of gate dividers in the dock area.
Recommended Truck Set-up Procedures

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

*Bedding refers to a 50-pound bale of wood shavings.
Figure 1. TQA typical boarding percentage arrangements assessed for cold weather conditions. (a) 90% boarding with bottom covered, (b) 75% boarding coverage evenly distributed, (c) 50% boarding coverage evenly distributed, and (d) 25% boarding coverage evenly distributed.
Weaned pig transport

As with finished or adult pigs, any weaned pig transport must be well-planned and take into account such aspects as preparation and age of the pigs, choosing the best route and vehicle type, assuring adequate vehicle design and maintenance, and the changing weather conditions during transport.

Every effort should be made to avoid transport at extreme hot or cold temperatures and drivers must provide sufficient protection in winter. The suggested minimum guidelines for market pigs may also serve as a basis for boarding and bedding requirements for weaned pigs, with the understanding that this will vary greatly depending on the age and size of the pigs, the trailer design, the length of the transport and stocking density of the trailer.
Total Transport Losses

Transport losses at U.S. packing plants include:

- Dead on arrival (DOA) – a pig that died during transportation
- Dead in yard (DIY) or dead in pen (DIP) – a pig that died after unloading at the plant
- Non-ambulatory pig – a pig unable to move or keep up with the rest of the group at the plant

It has been estimated that 0.7% of those transported to market either die (0.25%) or become non-ambulatory (0.44%)\(^30\). However, it is important to note that these values vary by year and season. For example, the national average for the percentage of dead pigs at U.S. packing plants over the last five years was 0.19%, but these values increased during the summer months\(^31,32,33,34,35,36,37,38\).
Total Transport Losses

Percentage of Dead Market Swine at USDA-Inspected Plants by Month 2010-2014

Dead Pigs at the Plant, %

Jan.  .17%
Feb.  .16%
Mar.  .16%
Apr.  .16%
May  .19%
Jun.  .20%
Jul.  .23%
Aug.  .24%
Sep.  .21%
Oct.  .19%
Nov.  .18%
Dec.  .18%
People. Pigs. Planet.™

Changes to Online Modules
Online Modules

• Modules separated by Chapters
  • Knowledge checks at the end of module

• Make-up
  • 60% Voiceover PowerPoint from ILT
  • 40% Interaction

• Free-navigation version
  • May be used by Advisors in place of the ILT

• Opportunities for re-training
  • Interactions match key “pain points” identified by Task Force
Module 1 - Introduction

• Video scenario to focus learner’s attention and introduce the need for Transport Quality Assurance certification.
Modules 2 & 3 - Handling

- The learner will practice identifying specific characteristics (group size, safety concerns, handling techniques) associated with moving various sizes of pigs
  - Piglets
  - Market pigs
  - Breeding stock

- The learner will become more comfortable choosing handling equipment and using it appropriately when moving pigs.
Watch both videos, and then select which video (A or B) shows the most effective use of the sorting board in this situation.

Click on each video, one at a time, to play.
Module 4 – Loading, Unloading, & Transport

- The learner will become comfortable with and understand important decisions regarding loading and unloading conditions
  - Overcrowding
  - Unbalanced loads
  - Hot conditions
  - Cold conditions

- The learner will practice choosing appropriate group sizes and become aware of potential consequences if too many pigs are moved at once.

- The learner will go through a realistic scenario regarding truck setup for loading and transporting pigs
Module 4 – Loading, Unloading, & Transport

Click each button below to view an animated loading or unloading scenario. You must view all five scenarios to continue.
Click the Nursery pig to add a pig to the alleyway. Click the “Let’s Move” button when the counter and alleyway show the correct number of pigs for moving.
Module 4 – Loading, Unloading & Transport

Scenario

You are moving Market pigs, and you will be traveling 600 miles. The current temperature is 30°F.

Before loading, is there anything you’d like to check?

Bedding
Side Slats
Module 5 – Fitness of the Pig

- The learner will walk through various scenarios and determine whether or not pigs are fit to be transported.

- The learner will learn how to have an effective conversation with the handler when there are pigs unfit to transport.
Module 5 – Fitness of the Pig

17. Based on this pig’s fitness, what will you do?

Roll your cursor over the image to see the pig’s fitness. After evaluating the fitness criteria, choose whether this pig is ready to “Load Up” or if it will be necessary for you to “Talk to the Handler.”

Criteria
- Newborn
- 5 lbs
- Unhealed navel

Load up! Talk to the handler...
Additional TQA Resources
Additional Resources

- Worker Safety in Confined Spaces PPT
- Electronic Logbook Resources
- Transportation Research Summaries
- Weaned Pig Transport Survey/Supplement
“I really like this slide!”

“This is a great interaction!”

“This is going to be the best TQA ever!”

“This is a great tool and very well done!”

“This did a great job of explaining the program and expectations transporters are held to”
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