

Study Confirms Handling Link In 'Downer' Pigs

INDIANAPOLIS, Ind. — Pork producers who raise heavily muscled market hogs should take notice of a new study unveiled at the American Society of Animal Science annual meeting held in Indianapolis. It shows clear benefits of using gentle methods to move pigs from farm to market — methods that may eliminate downer animals altogether.

Dr. Harold Gonyou, a swine researcher and animal behaviorist at the Prairie Swine Center in Saskatchewan, Canada, was a primary investigator in the study. He says, "This benchmark study was devoted to developing a model to understand why pigs go down and finding ways to prevent the problem. Because of this work, we can now do other reliable studies to look at the metabolic and physiological effects aggressive handling has on pigs."

For this unique study, researchers collected data on two groups of pigs. Under the supervision of a humane treatment committee, one group was moved aggressively and the other gently. Aggressively was defined by the multiple use of an electric prod and yelling; and gently defined by the use of a hollow, plastic tube, and quiet talking. In each group, researchers moved pigs up and down an aisle

repeatedly while measuring physical responses to each handling method.

"We created this model to simulate what could be experienced by pigs in a commercial setting," says Gonyou. "We knew using electric prods, bunching pigs up, and using a steep loading ramp would create stress in the aggressively handled group. What we didn't know is what percentage of pigs would become downers."

As the test began, pigs in the aggressive group began to show signs of stress very quickly; blotchy skin, panting, vocalization, and shaking. "Within five minutes the pigs became very hot and showed clear signs of distress," says Gonyou. "These pigs experienced the familiar 'fight or flight' syndrome talked about in humans."

Gender and halothane/stress-gene status did not have an impact on the study's outcome, but handling certainly did. In the strictly handled group, 20.4 percent of the pigs were classified as downers versus 0 percent for the gently handled group.

Aggressive handling practices can result in significant stress to the pig. Not only does this represent significant animal welfare concerns it also results in direct losses through declining meat quality and

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How to Handle, Transport Today's Pigs

In conjunction with the National Institute for Animal Agriculture, animal handling experts have created a tip sheet to help producers and anyone who must handle and move pigs. Pocket-sized versions of this checklist are available in English and Spanish from the institute or Elanco Animal Health.

Preparing pigs for moving and transport:



- Handlers should walk slowly within each pen for 1 minute each day or for 5 minutes once per week during the finishing period to

- Accustom the pigs to human contact.
- Teach them to move quietly around the handler.

- Withhold feed for 4 to 6 hours before loading OR feed should be withheld 12 to 18 hours before slaughter

Handling and moving pigs:



- Rely on the natural tendency of pigs to follow "leaders" into strange areas rather than forcing the entire group to move along together

- Ensure that lighting over and ahead of

moving pigs is bright and evenly distributed, so that there are no distracting shadows

- Move as quietly as possible
- Use panels, paddles or large flags to move pigs. Avoid caning, clubbing, kicking and slapping, which causes injury. Minimal electroshock is used only as a last resort

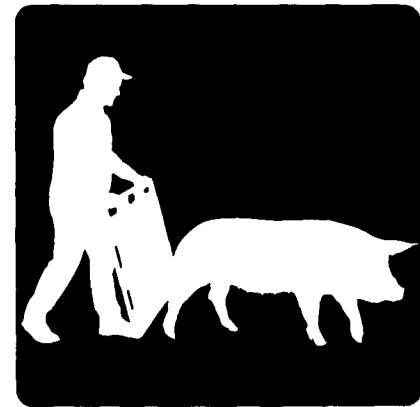
Loading pigs:



- To equalize temperature and lighting, open curtains 15 minutes before loading.

- Load pigs at night or very early in the morning if heat and humidity are high

- Move very small groups of 5 to 6 pigs in a 3-foot wide alley and only 3 pigs at a time in a 2-foot alley.
- Move each small group of pigs immediately from the finishing pen onto the truck.
- Avoid sharp turns in alleys, loading chutes should have less than 20-degree angles
- To minimize fighting among pigs, do not store (hold) large groups of finishing pigs in an alley or holding pen
- The number of pigs per running foot of truck floor (on a 92-inch-wide truck) should be 2.2 (200-lb pig), 1.8 (250-lb pig) and 1.6 (300-lb pig).



Transporting pigs:



- Transport pigs at night or very early in the morning if heat and humidity are high, and observe the heat index transportation chart.

- Use partitions to divide the load
- Don't leave pigs unnecessarily in a fully loaded truck, drive off immediately after loading, to minimize the temperature rise in loaded, stationary trucks
- Truck drivers should start, brake and stop smoothly to avoid injuring pigs
- Schedule truck arrivals at the packing plant so that pigs can be unloaded promptly.