



Claw Trimming Gains Momentum

Study shows trimming claws improves swine locomotion, making culling rate-cuts possible

A University of Georgia (UGA) associate professor, Dr. Robert Dove, foresees a day when claw trimming for swine becomes as routine as hoof trimming is for bovine, ovine or equine farm and ranch animals.

“If you look at cattle, sheep and horses - their feet are trimmed on a routine basis as a standard management practice,” says Dove. “I believe we’re going to move in that direction with pigs as well.”

Dove cites a recent UGA study that demonstrates sound evidence for the need to trim sow claws. The study, “The Effect of Corrective Claw Trimming on Gait Analysis of Sows,” was presented at the 2015 Midwest American Society of Animal Science meeting in Des Moines, Iowa.

“In our study, we were looking at sows that had long claws, and what effect trimming those claws had on their locomotion,” notes Dove, a co-author. “We were able to show some significant changes in how she increased locomotion down the track after we trimmed her, versus before we trimmed her.”

To accurately analyze a sow’s gait and locomotion, the researchers set up two high-speed cameras, synchronized from each side, and one from the rear, to video record sows walking around a semi-circular track. “We were

filming at 60 to 70 frames per second,” says Dove.

“When we broke that down to look at it frame-by-frame, we could really look at exactly (within one hundredth of a centimeter) what she was doing within each step.”



Dr. Robert Dove
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Compared to traditional locomotion scoring methods that identify lameness by watching animals move with the naked eye, the high-speed cameras allowed researchers to record extremely minute differences in movement. “We’re measuring very precise numbers,” says Dove. “Consequently, we can detect differences as little as five centimeters in her step length as being a significant change.”

The researchers recorded and assessed sows immediately before claw trimming, an hour after trimming and 48 hours after trimming. “We could see positive changes within that hour, in how she walked,” says Dove. “By 48 hours later, there were significant [positive] changes in the way she moved.”

The improvements in sow locomotion included a decreased stride duration (Figure 1), a shortening in time spent standing on each foot, and a decreased swing time (Figure 2) in foot movement. In addition, the study showed promise in both increasing the animal’s walking speed and decreasing the time handlers spent trying to move animals after trimming claws.

“On average, she’s probably moving another meter and a half per minute faster,” says Dove. “So we’re moving her down the hall that much quicker, but more importantly ... she appeared much more comfortable, much happier moving, and was much easier to move, much easier to handle - after we got her feet trimmed.”

Longevity Lift

From a management perspective, sows that demonstrate greater locomotion and ease in movement are sows that will last longer in the herd and boost profitability. “We know that lameness and feet and leg problems are some of the

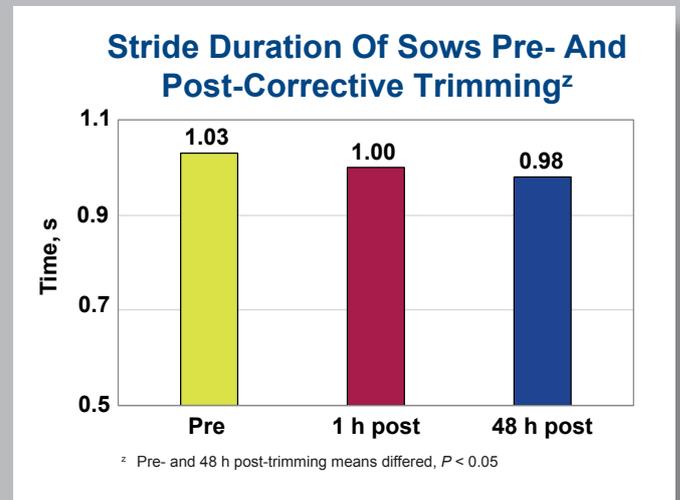


Figure 1. Stride duration of sows pre- and post-corrective trimming

leading causes of culling in most of our commercial herds,” states Dove. “If we can improve that, if we can fix it, so those sows stay in the herd longer, or hit those more productive parities and keep producing - then we don’t have to buy replacement gilts; we don’t have to be turning the herd over as quickly.”

Sow lameness issues often originate from animals walking incorrectly on their claws due to uneven or excessive claw growth, which trimming can correct, notes Dove. “Whether the claws have gotten overgrown, whether she bruised one and it’s misshapen - by trimming those up and bringing them back to the proper shape, we allow her to walk properly,” he says.

If left untrimmed, long claws are likely to cause sows to become more vulnerable to illness and injury, particularly in group housing. “Anytime a sow is lame, her locomotion is decreased,” says Dove. “Anytime she’s uncomfortable on her feet, she doesn’t want to move. Anytime she’s not moving,

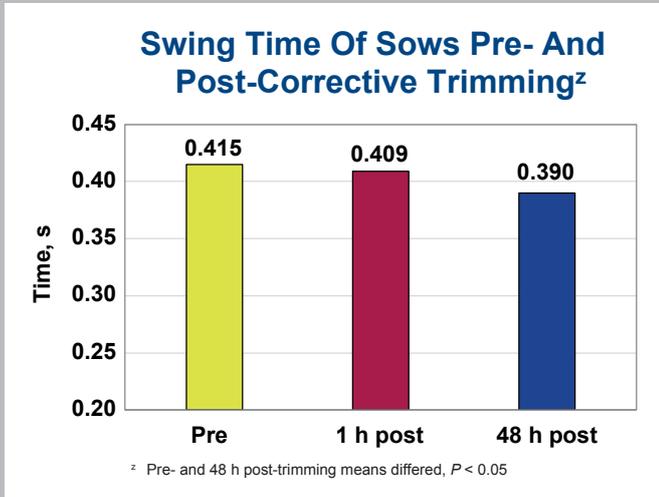


Figure 2. Swing time of sows pre- and post-corrective trimming

she's not going to the feeder; she's not eating; she's not drinking; she's a bigger target for that dominant sow - and it becomes an issue for her longevity and her welfare."

In addition to its potential to increase productivity, corrective claw trimming is also the right thing to do for the animal's well-being.

Dove

Although corrective claw trimming adds to short-term labor costs, routine claw trimming has the potential to develop into a profitable, long-term management tool. "I think it's going to be a practice that would pay for itself, given the number of gilts or sows that we're going to save back and avoid having to replace," says Dove. "It means we don't have to manage as many gilts. It means we're getting more productivity out of the sows that we have and we decrease our culling rate."

In addition to its potential to increase productivity, corrective claw trimming is also the right thing to do for the animal's well-being, adds Dove. When done correctly, claw trimming helps to reduce stress on feet, legs, hips and shoulders, and possibly aids in reducing joint disease.

"I think from an animal welfare standpoint, it's going to become one of those things we're going to have to start being responsible in doing," he says. "Taking care of their feet is one of the ways that we treat animals humanely."

Swine Chute Success

To ensure adequate safety and convenience when trimming claws, the researchers relied on an innovative sow lift chute from Zinpro Corporation, called the Feet First® Chute. See *Feet First Update*, Issue 11, "*Feet First® Chute Makes Claw Trimming Safer, Easier.*"

Unlike traditional methods used to restrain sows for claw trimming, such as snout snaring, the Feet First Chute helps keep animals calm and their feet elevated for claw trimmers to work with ease. "You have to get those feet up where you can get to them, and the Feet First Chute works very well for doing that," says Dove. "Most of the sows will walk right in; it's just like walking into any other chute - like a feeding crate - when she's walking into it."

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Dove

Still, trimming a swine claw differs significantly from trimming a cattle hoof. “On cows, you are concerned about getting things shortened down,” says Dove. “When trimming sows, it’s much more important that we get the claws balanced to each other and maintain the shape of that claw.”

Just how often sows will need their claws trimmed will likely vary by facility, states Dove. “When you start getting claws out to 6½ to 7 centimeters, you need to really start thinking about trimming,” he says. “If you start seeing claws curling over the top of each other, or you start noticing that she’s walking on only the medial (inner) claw, and the lateral (outside) claw’s not receiving any weight, all of those are indicators that there’s going to be an issue down the road.”

To help avoid problems later on, claw trimming management should begin by examining the gilts. “We have to start looking at gilts when they come into the herd and monitor them pretty closely from there on,” says Dove. “I don’t think we can wait until she’s a second- or third-parity sow to decide that we need to do something.”

Today’s swine production facilities may be moving the industry towards a greater awareness for lameness prevention. “I don’t think it’s a matter that we’ve changed the amount of lameness we have in the industry,” says Dove. “I think it’s a matter that we’re observing locomotion more, because those sows are out of stalls, in areas where we can see them move on a daily basis.”

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