

Letters to the Editor

Thoughts on farm animal welfare

It was good to see Dr. McGlone's commentary¹ titled "Comparison of sow welfare in the Swedish deep-bedded system and the US crated-sow system" in the November 1 issue of *JAVMA*. Hopefully, recognition of the serious problems of both systems will soon lead to urgently needed improvements.

Since we are veterinarians in the United States, we need to be most concerned about the conditions here. It is very upsetting to realize that veterinarians have stood by for decades, allowing the living conditions of farm animals to become so inhumane.

We need to promote and insist on a complete overhaul in the way farm animals are kept that brings them back to being animals not meat- or milk-producing machines or objects. Yes, the necessary changes may increase the cost, but this country can well afford to pay higher prices for pork and substitute with food stamps for those who cannot afford it. In most countries I have been, meat prices in relationship to people's earnings are higher than here.

An increase in meat prices will not be well received of course, but if it will bring the benefit of less agony in the lives of the animals we eat, it will be well worth it.

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1. McGlone JJ. Comparison of sow welfare in the Swedish deep-bedded system and the US crated-sow system. *J Am Vet Med Assoc* 2006;229:1377-1380.

Dr. McGlone writes¹ in the November 1, 2006, issue of *JAVMA* that the Animal Welfare Institute (AWI) recommends the Swedish deep-bedded loose housing system with individual feeding stalls as the optimal indoor housing method for pregnant sows. While that is an accurate statement, we wish to clarify that this humane system should

not be confused with the sow pool systems that Dr. McGlone goes on to describe in his commentary.

The AWI does not endorse sow pool systems for multiple welfare reasons. By this method, pregnant sows are not maintained in stable groups throughout their productive life. Regrouping the animals results in fighting to reestablish dominance relationships. In addition, pregnant sows are sent from the central farm, to whose management methods they have become accustomed, to outlying farms to farrow and nurse their young. At these farms, they must adjust to unfamiliar personnel and a variety of management conditions. Also, they remain at the new locations for six to seven weeks at most before being returned to the central unit. Anytime pigs are moved to unfamiliar conditions, stress (and sometimes distress) results. In our opinion, the sow pool system is an example of an "economic" value influencing choice of system rather than animal need influencing choice of system.

The Swedish deep-bedded gestation housing systems with individual feeding stalls originated from an awareness and desire among highly skilled Swedish farmers to accommodate the natural living and feeding behaviors of pigs, which characteristically prefer eating as a social group. Sow welfare is high and stress and injury rates are low in these systems when compared with systems that not only encour-

age competition among sows for the feeding source, but also do not provide sufficient space and environmental enrichment and as a consequence, lead to conflicts that can result in unacceptable injuries and wounds.

Finally, while Dr. McGlone's observations may have been accurate for the single farm he visited in Sweden, we know that this farm does not constitute a statistically valid sampling of all pig farms in Sweden. On the many breed-to-finish farms we have visited in Sweden (where sows are kept for the entire breeding-farrowing-weaning-rebreeding cycle, which we also recommend), results are exemplary and exceed their US counterparts, in our opinion.

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1. McGlone JJ. Comparison of sow welfare in the Swedish deep-bedded system and the US crated-sow system. *J Am Vet Med Assoc* 2006;229:1377-1380.

Gestating sow welfare remains a complex and contentious issue in the United States, and stakeholders keep calling for objective, scientific welfare assessments. The *JAVMA* recently published a commentary¹ on a comparison of sow welfare in the Swedish deep-bedded system and the US gestation crate that may promote misconceptions. Importantly, the commentary was based

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Letters containing defamatory, libelous, or malicious statements will not be published, nor will letters representing attacks on or attempts to demean veterinary societies, their committees or agencies. Viewpoints expressed in published letters are those of the letter writers and do not necessarily represent the opinions or policies of the AVMA.

on the nonscientific assessment of 100 sows made on a short visit to one sow pool farm. Sow pools comprise about 30% of Swedish pig production and have challenging issues regarding transportation, mixing, and nutrition. Sow pools may incorporate deep-bedding, but they remain a minority system and should not be labeled as the Swedish deep-bedded system.

Farm comparisons are always dangerous because of confounding factors impacting the results, but in terms of productivity, the Swedish deep-bedded system performs well, compared with current US systems, weaning 22.7 piglets/sow/y, compared to 21.8 in the United States, and having better farrowing rates, sow culling rates, and sow death rates.²⁻⁴ Nearly 100% of Swedish sows are deep-bedded during mating and most during gestation. Swedish pig production is also maintained without regular administration of antimicrobials.

In the United States, sow longevity is a major issue, especially in confinement systems. The mean removal age of sows in US production is 3.4 parities.⁵ The mean removal age of sows in Sweden is 4.4 parities,[†] indicating longevity advantages.

We agree that the wound rates observed by Dr. McGlone are unacceptable, but they were based on observations of only 7% of the sows on the farm visited. Such rates are not typical for the traditional deep-bedded system where, unlike sow pools, mixing of sows is minimal.

Sows in deep-bedded systems are not under thermal stress during cold winters. The ambient temperature outside is related to temperature inside, but at pig level, deep straw, a composting bed (up to 46.6°C [116°F] at six-inch depth for feeder pigs⁶), and the ability to huddle results in a microclimate that is wholly acceptable and, importantly, gives the sow thermal choice. Deep-bedded systems work in winter in Minnesota and Iowa.

Behavioral indicators of poor welfare such as belly-nosing and navel sucking are performed more by early-weaned pigs in barren environments than by later-weaned pigs kept on straw. Also, stereotypic sow behaviors are more prevalent in barren environments than enriched

environments, and it is these behaviors, rather than generic oral-nasal-facial behaviors, that are important when assessing welfare. Sows in deep-bedded systems have high levels of oral-nasal-facial behaviors but low levels of stereotypies relative to sows in gestation crates—a very important distinction.

In conclusion, we believe the commentary¹ contained misinformation as to the relative welfare of sows in the typical Swedish deep-bedded system and US gestation crates. It is important for US swine producers and veterinarians to be properly informed of housing and welfare developments elsewhere as the market for their product becomes increasingly global. We encourage objective, informed debate and continued impartial, multidisciplinary research on gestating sow welfare as we work to address concerns of all stakeholders from producers to consumers.

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Dr. McGlone responds:

I thank the authors of the letters for their largely thoughtful comments on my commentary. I generally agree with many of the writers' comments.

I agree with Ms. Liss that the sow pool system is not an acceptable system for the humane care of sows. I only point out the hypocrisy (not hers) of a political body writing animal welfare laws against

certain practices, such as a gestation crate, while allowing the sow pool system to exist.

I agree with Dr. Heerens that each system I described is in need of improvement. I would say most animals in US farms are in humane living conditions, but some conditions are certainly in need of improvement.

The 17-author letter criticized me for comparing one farm against a US farm as nonscientific. I never said my empirical observation was a scientific study. The lack of farm-to-farm replication, however, does not negate my observations—they are what they are.

The hypocrisy of the 17-author position is that after criticizing me for using nonscientific field observations, they then used field averages to support their view. European and US field numbers for pigs per sow per year cannot be directly compared because of different methods of data collection.

The broad issue here is what I call the European versus the American “scientific” view. The prevailing European view derived from their actions is, let’s ban the crate without a thorough, objective review of the science because this is what we think is right. The consequences, such as use of systems more harmful to sows than crates, were not considered important.

The 17 distinguished authors provide proof of the European view in their letter. Their letter suggests that my commentary was “...based on the nonscientific assessment of 100 sows...” I indeed reported wounding of 100 sows. How many sows would be needed to reflect a sample of 1,500 sows for scientific assessment? Those authors concluded that 100 was not enough because (I believe) they thought it did not sound like enough animals. The sample required depends on the mean error rate (in this case, the mean number of sows with a wound). On the basis of statistical calculations, a sample size of 45 sows in a herd of 1,500 would be needed to estimate a mean of 10%. An even smaller sample size is needed to collect an accurate estimate of the wounding rate in this popula-

tion because the mean wound rate was much higher than 10%.

What I observed in the Swedish system was a type of oral-nasal-facial behavior that was a stereotypic¹ by any published definition. I have not seen evidence that stereotypies are much lower in the Swedish system than for sows in crates, all other factors being controlled, despite it appearing so from the armchair of the 17 authors.

In my opinion, objective presentation of observations and data cannot cause misconceptions, except in the mind of a biased reader.

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1. To help interested parties view more details, supporting information is available at: www.depts.ttu.edu/porkindustryinstitute/swedish_sows.htm. Accessed Dec 21, 2006. Presented are pictures I took on the farm visit to the Swedish deep-bedded, sow pool system, including scratches and stereotypies, and a spreadsheet that provides the sample size needed to estimate a population of 1,000 units, depending on the mean value that one wishes to estimate.

The Horse Slaughter Act revisited

I fully agree with the AVMA and Dr. Koch’s position¹ on the horse slaughter bill. The proponents of the “horse slaughter bill” believe horses’ lives are better if their slaughter is prohibited. This I question, having been a veterinary practitioner for 14 years and having been employed at the USDA in a horse slaughter plant. I feel it is less inhumane to perform euthanasia on horses in a well-supervised and controlled method and market the meat. When horse meat is compared with beef, most individuals cannot detect much if any difference. Also, horse meat contains less fat than beef. There is a good market for horse meat in Europe where most of the horse meat is sold from slaughter plants.

Euthanasia in horse slaughter plants is well supervised, and it is painless and immediate. Too many horses are put out to pasture and neglected. As a result, they are exposed to parasites, insects, rain, and snow. Also, pastured horses too

often are deprived of sufficient food and water needed for good health.

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1. Koch VW. Comments on the Horse Slaughter Act (lett). *J Am Vet Med Assoc* 2006;229:1719.

I would like to share my thoughts on some assumptions I see in the December 1, 2006,¹⁻⁶ letters regarding unwanted horses and horse slaughter:

- Unwanted horses should be euthanized by veterinarians. There are companion animal veterinarians who refuse to euthanize animals unless there is evidence of terminal illness or uncontrollable pain and suffering. Physicians have refused to participate in the euthanasia of convicted murderers. Our training does not compel us, nor does the Veterinarian’s Oath, to enjoy, desire to be a part of, or even willingly participate in the euthanasia of horses because they become unwanted.
- There is an adequate supply of veterinarians to meet equine euthanasia needs. There are not enough equine veterinarians to serve every horse. In some areas, the density of horses is too low to support the livelihood of a strictly equine veterinarian. Current trends toward narrower areas of expertise, or desires to confine one’s practice to a narrow focus, often lead livestock or small animal veterinarians to decline service to horses.
- Nonveterinarians should not and cannot be trained in the administration of humane euthanasia.

Temple Grandin’s development of appropriate training in captive bolt use^{7,8} has increased assurance that animals are appropriately euthanized by captive bolt devices in cattle slaughterhouses. Drs. Shearer and Nicoletti of the University of Florida have developed materials on livestock euthanasia,⁹ which have helped appropriately trained farmworkers to

confidently provide a humane end for animals. I have trained some of my horse-owning clients in the appropriate administration of gunshot for euthanasia.

- Techniques used for euthanasia are not humane if they are not used routinely in front of owners.

Humane treatment and aesthetic choices are different. Equine veterinarians use captive bolt and gunshot for euthanasia. Fatal injection is more accepted for a variety of reasons, not necessarily related to animal welfare.

- Carcass disposition is a reflection of the treatment of the animal prior to death.

The fact that a carcass is used for meat is not necessarily a determinant of the treatment of the live animal. Improving animal cruelty laws and enforcement efforts should address the inhumane treatment of all horses, including those in transit, and the unwanted horses that do not enter the slaughter chain.

- Equine veterinarians should volunteer to euthanize unwanted horses at a reduced cost.

Euthanasia costs include, beyond the obvious, maintenance of a controlled substance license, maintenance of controlled substance records, mileage to the farm, malpractice insurance, business overhead, and a veterinary technician to restrain the horse. Veterinarians

are also potentially liable if a carcass containing barbiturate is consumed by companion animals or wildlife. Companion animal euthanasia prices exceed equine euthanasia prices in many areas of this country.

- All horses destined for slaughter are unwanted.

Horses can be raised specifically for meat production. I knew a farmer who shifted his operation to draft horses when he calculated the feed efficiency and economic return to be greater than for his cattle. He raised meat foals in an environment similar to that of today's natural and organic beef.

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Comments on Arizona ban on gestation and veal calf stalls

In your *JAVMA* News article¹ on the recent decision of Arizona voters to outlaw veal crates and gestation crates, you did not mention that over 100 Arizona veterinarians endorsed this campaign. That endorsement read, "We, the undersigned members of Arizona's veterinary community, endorse the Humane Treatment of Farm Animals Act and urge you to vote 'yes' on this important measure. Room for veal calves and pregnant sows to turn around, lie down, and extend their limbs is a modest and reasonable proposal. Farm animals deserve at least this minimum standard of care."

The article also noted that factory farming proponents feel they need to inform the public better about what they do. What the landslide vote in Arizona actually indicated is that operators of factory farms need to stop defending what the public considers indefensible and start phasing out inhumane practices.

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1. Nolen RS. Veterinarians see gains in '06 elections. *J Am Vet Med Assoc* 2006; 229:1863-1864.