



ELSEVIER



FOR IMMEDIATE RELEASE

Contact: Brittany Morstatter

ARPAS@assochq.org

Predicting future productivity of sows through assessment of vulva size

The connection between a visual evaluation of prepubertal vulva size and sow reproductive productivity and longevity is discussed in an article in *Applied Animal Science*

Champaign, IL, October 12, 2020—One way to increase profitability in a commercial swine production system is to identify and breed sows that will perform well reproductively throughout their lives. Reproductive success, however, is influenced by environmental and genetic factors and is difficult to predict. A team of Iowa scientists found that vulva size can be used to predict reproductive longevity and performance. In a recent [article](#) in *Applied Animal Science*, the researchers explored the relationship between visually assigned prepubertal vulva score and sow productivity (age at farrowing and pigs born) over two parities.

The scoring system involving visually scored vulva size and development is described in the article. At 15 weeks of age, gilts were categorized into three groups: those that had below-average, average, or above-average vulva size. The scores were assigned by trained evaluators such that about 15% of the gilt population studied fell in the below-average group, 15% were above average, and the remainder were in the average group.

“Gilts that were below average for reproductive-tract development at approximately 15 wk of age, as assessed by vulva size, achieved their first two parities later in life and produced fewer piglets compared with their contemporaries,” said lead author Jason W. Ross, PhD, Department of Animal Science and Iowa Pork Industry Center, Iowa State University, Ames, IA, USA. This is significant because it has been established that gilts that achieve their first parity earlier in life have increased potential for lifetime productivity.

“Vulva scoring may be a potential management tool to select breeding herd replacements or to identify gilts to exclude from the breeding herd,” said David K. Beede, PhD, editor in chief of *Applied Animal Science*. Ross commented that “the effectiveness of this approach requires reliable evaluation and scoring of gilts, which can be accomplished by having single individuals assign scores or by developing consistent scoring among evaluators if more than one person is responsible for assessing vulva size.” With more research, assessment of vulva size could become a valuable tool for commercial swine producers.

The article appears in the October issue of *Applied Animal Science*.

#

Notes for Editors

“Evaluating the efficacy of visual assessment of gilt vulva size prior to puberty on subsequent reproductive performance” by M. R. Romoser, T. Gall, L. H. Baumgard, A. F. Keating, K. J. Stalder, and J. W. Ross (DOI: <https://doi.org/10.15232/aas.2020-02034>), *Applied Animal Science*, Volume 36, Issue 5 (October 2020), published by FASS Inc. and Elsevier Inc.

Full text of the article is available to credentialed journalists upon request; contact Brittany Morstatter at +1-217-356-3182 ext. 143 or arpas@assochq.org to obtain copies. To schedule an interview with the authors, please contact Dr. Jason W. Ross at jwross@iastate.edu.

About *Applied Animal Science*

Applied Animal Science (AAS) is a peer-reviewed scientific journal and the official publication of the American Registry of Professional Animal Scientists (ARPAS). In continuous publication since 1985, AAS is a leading outlet for animal science research. The journal welcomes novel manuscripts on applied technology, reviews on the use or application of research-based information on animal agriculture, commentaries on contemporary issues, short communications, and technical notes. Topics that will be considered for publication include (but are not limited to) feed science, farm animal management and production, dairy science, meat science, animal nutrition, reproduction, animal physiology and behavior, disease control and prevention, microbiology, agricultural economics, and environmental issues related to agriculture. Themed special issues also will be considered for publication. www.appliedanimalscience.org

About the American Registry of Professional Animal Scientists (ARPAS)

The American Registry of Professional Animal Scientists (ARPAS) is the organization that provides certification of animal scientists through examination, continuing education, and commitment to a code of ethics. Continual improvement of individual members is catalyzed through publications (including the AAS journal) and by providing information on educational opportunities. ARPAS is affiliated with five professional societies: American Dairy Science Association, American Meat Science Association, American Society of Animal Science, Equine Science Society, and Poultry Science Association. www.arpas.org

About Elsevier

[Elsevier](http://www.elsevier.com) is a global information analytics business that helps scientists and clinicians to find new answers, reshape human knowledge, and tackle the most urgent human crises. For 140 years, we have partnered with the research world to curate and verify scientific knowledge. Today, we're committed to bringing that rigor to a new generation of platforms. Elsevier provides digital solutions and tools in the areas of strategic research management, R&D performance, clinical decision support, and professional education; including [ScienceDirect](http://www.sciencedirect.com), [Scopus](http://www.scopus.com), [SciVal](http://www.sciencedirect.com/sciencedirect), [ClinicalKey](http://www.clinicalkey.com), and [Sherpath](http://www.sherpath.com). Elsevier publishes over 2,500 digitized journals, including [The Lancet](http://www.thelancet.com) and [Cell](http://www.cell.com), 39,000 e-book titles and many iconic reference works, including [Gray's Anatomy](http://www.graysonline.com). Elsevier is part of [RELX](http://www.relx.com), a global provider of information-based analytics and decision tools for professional and business customers. www.elsevier.com

About FASS Inc.

Since 1998, FASS has provided shared management services to not-for-profit scientific organizations. With combined membership rosters of more than 10,000 professionals in animal agriculture and other sciences, FASS offers clients services in accounting, membership management, convention and meeting planning, information technology, and scientific publication support. The FASS publications department

provides journal management, peer-review support, copyediting, and composition for this journal; the staff includes five BELS-certified (www.bels.org) technical editors and experienced composition staff.

www.fass.org