THE RESEARCH REPORT

Winter 2026

OUR COMMITMENT:

- Provide answers to real-world production challenges and questions that originate at the slat-level
- Collaborate extensively with the best and brightest experts from the industry and universities
- Share our results to help pig producers solidify their success

TAKE A LOOK "INSIDE THE HELIX"

Listen to our team of production research experts as they share their latest research findings on our podcast - Inside the Helix.

New episodes are released monthly. Visit our website or scan the QR Code to view our complete library of research-backed episodes.

DNASwineGenetics.com

DIALING IN ON THE DETAILS ...

This year, we will continue to focus on feeding and managing the DNA 241 sow. In 2025, we examined feeding higher protein and vitamin C levels in gestation and will evaluate the impact of those treatments on subsequent reproductive performance. In addition, a lysine titration of lactation diets was completed. The results of both trials will be presented at the Midwest Animal Science Meeting in March. We've also lined up projects at our dedicated sow research farm that build on these results. The first will examine the feeding of fiber in gestation and its impact on sow productivity and pig performance. The second study will look at body condition, non-energy nutrients, and their interaction across multiple parities to refine management recommendations for the DNA 241.

Not to leave out the pig, we recently completed a trial comparing drying methods at birth and their effects on pig body temperature, pre-weaning growth, and mortality. As the year goes on, we will see trials ranging from evaluating lysine requirements to optimize nursery pig performance to taking a deeper dive into gut physiology in the post-weaning pig - all focused on dialing in management recommendations for the DNA market pig.

Stay tuned in the months ahead as we compile results and share the findings from an exciting year of production research.

Dr. Tom Rathje
Chief Technical Officer

EFFECTS OF FLOOR SPACE ALLOWANCE ON THE NURSERY PIG

Nursery space allowance can alter overall pig performance by creating more space per pig in the pen, or increasing feeder and water space per pig, or both. This trial examined both. At weaning, 2,176 pigs (DNA 600 x 241) were randomly allotted to nursery pens and individually weighed. The pens were then randomly assigned to one of three space allowance treatments: 0.29 m^2, 0.23 m^2, and 0.19 m^2 (3.1, 2.5, 2 ft^2). Feed intake was monitored using the Gestal Evo, and pigs were allowed ad libitum access to feed and water.

The results revealed that pigs housed in the 0.29 m^2 pens tended to have a greater body weight at the end of the nursery (when adjusted to a common start weight). Similarly, there was a tendency for pigs housed in 0.29m^2 pens to have a higher average daily feed intake. There was no difference between treatments for average daily gain or feed conversion ratio. Mortality was significantly affected by space allowance, with the 0.29 m^2 pens having the lowest mortality rate at 0.64% and the pens with 0.19 m2 having 2.15%.

Based on these results, increasing the floor space allowance for nursery pigs increased ending nursery weights, increased average daily feed intake, and decreased the number of treatments and mortality. However, further trials are needed to determine whether the gain response is simply due to an increase in square footage, rather than a combination of increased feeder and water space.

THE RESEARCH REPORT

Winter 2026

EFFECT OF STOCKING DENSITY ON F1 GILT PERFORMANCE

A recent research trial evaluated the impact of different stocking densities on the reproductive performance of DNA L241 replacement gilts. The replacement gilts were randomly assigned to pens within the three stocking densities: 0.71, 0.93, and 1.25 square meters (7.6, 10, 13.5 ft².) per gilt.

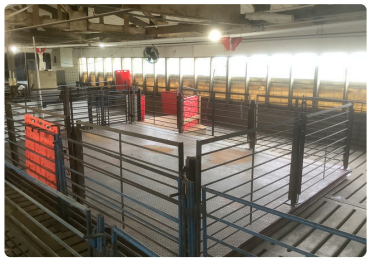
The research revealed four key findings:

- No difference between the three treatments for average age at first mating.
- Weight at first mating was lower for gilts stocked a 0.71 m² (12 and 19 pounds lighter compared to the other treatments).
- Based on progesterone assay and visual heat detection, a higher percent of gilts cycled in the 1.25 m² group.
- There was an increased accuracy of visual heat detection in the 1.25 m² group (using progesterone assay as the standard).

As a result of these findings, producers should consider the stocking density of females during gilt development to improve the percentage of females detected in estrus and increase the number of females mated within a desired time period.

FEATURED RESEARCH FARM: FAIRBURY

Fairbury nursery supports robust swine research with the capacity to house 2,200 pigs across 16 rooms, each containing 6 pens for a total of 96 pens on trial. The facility is equipped with two feed lines, allowing 48 pens per treatment group when running a nutrition trial. In addition, the facility can evaluate stocking density and a variety of non-nutritional trials. In the summer of 2024, a pen scale was installed that enables consistent weight tracking. A second nursery at this site, and associated finishing, houses pigs for our Full-Program test, providing data on lifetime performance, mortality, and treatment *records.*



Pictured: Pen scale to track routine pen-level weights.

UPCOMING RESEARCH PRESENTATIONS:

AASV 2026

- Dr. Jamie Madigan
  - Use of Farm Health Guardian technology to promote system biosecurity
- Dr. Christine Mainquist-Whigham
  - Experiences with geofencing
  - Elimination protocol changes to meet a changing PRRS virus
  - Starting and managing the fall-behind pig
- Dr. Tom Rathje
  - Improving sow retention through genetics
- Dr. John Sonderman
  - Overview and impact of farrowing duration in a commercial swine herd
  - Maximizing farrowing room throughput while balancing performance, analyzing sow loading strategies in relation to functional teat counts - a retrospective analysis
- Heath Keiser
  - The effect of sample handling errors on PCR detection of PRRSV in oral fluids and processing
- Johanna Vandenack
  - The evaluation of non-invasive technologies for swine body temperature measurement

ASAS Midwest 2026

- Brady McNeil
  - Effect of nursery pig movement and mixing strategies on performance and health
- Ethan Stephenson
  - Lactation and reproductive performance of sows fed heightened SID lysine or vitamin C during late gestation
- Elizabeth Due
  - Determining the dietary standardized ileal digestible lysine level for lactating sows

Are you interested in learning more about our research initiatives? Contact your National Account Leader today.