

# GRADUATE AG RESEARCH SPOTLIGHT



## Nathan Horn

*"Things fall into place – with hard work. My appreciation for the research I'm doing now is much greater given my work experience." - Nathan Horn*

**THE GRADUATE STUDENT:** Nathan Horn came to Purdue as an undergraduate from a small farm near Brownsburg, Indiana. After two years in the pre-vet program, an internship with the USDA on campus "exposed me to opportunities in agriculture beyond being a veterinarian," he says. He was especially drawn to how biological processes work and their impact on production agriculture. Horn received a B.S. in Animal Sciences in 2005 and at the suggestion of Professor of Animal Sciences Olayiwola Adeola, stayed on to complete a master's degree in 2008. He went to work at JBS United, a global leader in animal health and nutrition based in Sheridan, Indiana.

**WHY PURDUE:** At JBS United, Horn spent four years managing swine nutritional studies and nursery pig studies. "I definitely was using what I learned in graduate school," he says, "but I still had a passion to take things to next level." Supported by JBS, he returned to Adeola's animal nutrition lab in 2012 while continuing to work part-time. He plans to return to the swine industry and continue research and technical service when he completes his Ph.D. "While my focus is academic, the end goal is to have information to help the industry," he says. "JBS is a partner in my research."

**THE RESEARCH:** Weaning is a stressful event, and what happens at weaning affects an animal's health throughout its life cycle, Horn explains. His basic premise is to understand the biological and biochemical ways that weaning stress affects pigs and how to mitigate that stress for improved animal health and farmer profitability. He is specifically studying the impact of plant-derived components on mitigating weaning stress in nursery pigs.

**GUT INSTINCT:** "Even in 2013, there's a lot we don't understand about components of plant-derived feed additives and the digestive tract of pigs," Horn says. "We don't exactly have a blueprint on how to proceed." Horn works in the field and the lab in his efforts to "put some good sound science behind the action of biological components on the gut."

**A GOOD FIT:** "I've always felt at home at Purdue, surrounded by people with same passion for science and production agriculture," Horn says. "And Purdue is supportive of me as a nontraditional student with a job and family." Outside of work and school, Horn enjoys spending time with his 3-year-old daughter as well as gardening and raising purebred Boer goats on the family's small farm.