Discovering the genetic mechanisms responsible for boar taint in uncastrated male pigs contributed to:

• breeding against boar taint accelerated with genetic markers
• assigning boars for production of pork with reduced boar taint
• identifying finishing pigs for specific markets, and
• improving feed efficiency of entire versus castrated male pigs saves resources.

Clinical Presentation, Case Definition and Diagnostic Guidelines for Porcine Periweaning Failure to Thrive Syndrome

The Pig Site | Jan 23, 2012

Although the aetiology and pathogenesis remain elusive, veterinary researchers in Canada and the US have shed some light on porcine periweaning failure to thrive syndrome (PFTS) in a new review paper.

PFTS is a clinical condition characterised by anorexia, lethargy and progressive debilitation of pigs occurring within two to three weeks after weaning, according to Yanyun Huang of the Western College of Veterinary Medicine in Saskatoon, Canada and co-authors there and at Abilene Animal Hospital in Kansas, University of Guelph and Iowa State University, Ames, Iowa.

PFTS was previously reported as post-weaning catabolic syndrome, post-weaning wasting-catabolic syndrome and failure to thrive syndrome and is possibly the same disease as post-weaning fading pig-anorexia syndrome, the group reports.

In a paper in Journal of Swine Health and Production, they highlight that in affected populations, there is a striking contrast between the clinically affected pigs, which progress from being normally active to lethargic within days of weaning, and the unaffected members of their cohort, which grow and behave normally. The aetiology, pathophysiology and pathogenesis of PFTS have not been determined, although several infectious agents have been identified in affected pigs.

Histopathologic lesions of chronic active rhinitis, superficial gastritis, atrophic enteritis, superficial colitis and thymic atrophy are observed in most PFTS-affected pigs.

The basis for a presumptive diagnosis of PFTS includes the age of onset, the presence of typical clinical signs, the presence of the collective histopathologic lesions, and, importantly, the ruling out of other known swine diseases (for example, porcine circovirus associated disease, swine influenza, porcine reproductive and respiratory syndrome and bacterial infections).
In their paper, Huang and co-authors propose a clinical case definition, describe the characteristic clinical progression, signs and observed lesions of PFTS, and to make recommendations for investigation of PFTS-suspected farms.

The authors offer 10 recommendations for veterinarians investigating farms demonstrating signs typical of PFTS, and highlight a number of implications of their work:

Porcine PFTS is characterised by anorexia and lethargy of nursery pigs beginning soon after weaning and is not associated with porcine circovirus type 2, PRRSV or SIV infection.

The aetiology and pathogenesis are unknown.

The age of disease onset, presence of characteristic clinical signs, and elimination by thorough diagnostic investigation of other known porcine diseases as primary entities should be used to identify farms affected by PFTS.

A thorough history, clinical examination and gross and microscopic evaluation of affected pigs are necessary to work up suspected cases of PFTS, with pathologic examination targeting affected pigs and age-matched healthy cohorts between weaning and three weeks post-weaning.

Continued collaboration among clinicians, producers and diagnosticians is needed to identify cause(s), risk factors and prevention strategies for this syndrome.

Reference


No Adverse Effects of Genetically Modified Maize

The Pig Site | Jan 25, 2012

A three year feeding study has shown no adverse health effects in pigs fed genetically modified (GM) maize. The maize, which is a Bt-maize bred for its insect resistant properties, was sourced from Spain.

The results were one of the key findings of trials conducted as part of the GMSAFOOD consortium undertaking post market monitoring: long term, generational and food chain studies to test food safety.

The research team conducted short-term (31 days), medium-term (110 days) and generational pig feeding studies where the health of piglets of sows fed Bt-maize is measured. No adverse effects were observed, suggesting that feeding Bt-maize to pigs of different ages is safe. “These findings can offer some assurance to consumers as to the safety of consuming Bt-maize,” Peadar Lawlor, senior