

Symposium conclusions

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There is little doubt that 'gut health' is a complex and multi-faceted area of pig science and production with a vast array of information and literature concerning the topic. The main purpose of this symposium was to inform and educate the audience in an area of pig science that is always in the press and attracts a considerable amount of attention. We hope that this symposium will set a platform for future discussion of 'gut health' in the context of the Australasian pig industry, and also assist in steering any future research in this general arena.

Important and rapid progress has been made in our understanding of this field particularly at the gastrointestinal tract level, with reference to the mechanisms underpinning the physiology, microbiota and localised immune system. Important concepts have emerged, such as the notion of stimulating/nullifying specific groups of bacteria to modify the gut environment. In the post-weaning period, where most attention has been focused, the compromised state of the young pig makes it an ideal candidate for the range of dietary products that might influence 'gut health', although significant work is still required in this area especially from the whole animal perspective. The paper by John Pluske and colleagues overviewed this general area of 'gut health' in the pig.

The paper by Colm Moran highlighted the documented modes of action of antibiotic feed additives as a rational starting point for the development of a replacement product. It is evident that comprehensive understanding must underpin any venture into this area of science; this is a fact made more obvious when one considers the many possible modes of action of the antibiotic feed additives and the possible combination of factors that can elicit a growth response and (or) protective influence against pathogenic microbiota, for example. It is clear that 'gut health' is a complex issue.

Ultimately though, the decision in practice to use a replacement dietary product (or products) in lieu of an antibiotic feed additive, where this is possible, will be distilled to similar factors that dictate the inclusion of other feed additives in a diet. These include price relative to effectiveness and efficacy of the product(s) over a broad range of conditions and circumstances in terms of growth performance, enteric disease control, or both.

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