in order to survive.

This edited collection of papers is taken from a series of seminars that brought together some of the world's leading authorities in the field of pig and poultry nutrition and production. The fundamental theme is to address the interaction between nutrition and the gut ecosystem as a means to enhance health, performance and ultimately profitability. The importance of gut development and the intestinal ecosystem as a whole, and their impact on health and disease are covered in-depth. The roles of specific feed ingredients are also discussed.

'Gut efficiency: the key ingredient in pig and poultry production' is aimed at nutritionists and animal producers as well as students and researchers studying animal and applied biological sciences.

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# Globally, the face of pig and poultry production is changing. The global emphasis on ethanol production has diverted significant proportions of grain away from animal production, thus increasing the cost of feed. This has forced the pig and poultry industries to scrutinise their production methods investigating alternative feed ingredients together with methods of improving productivity and efficiency



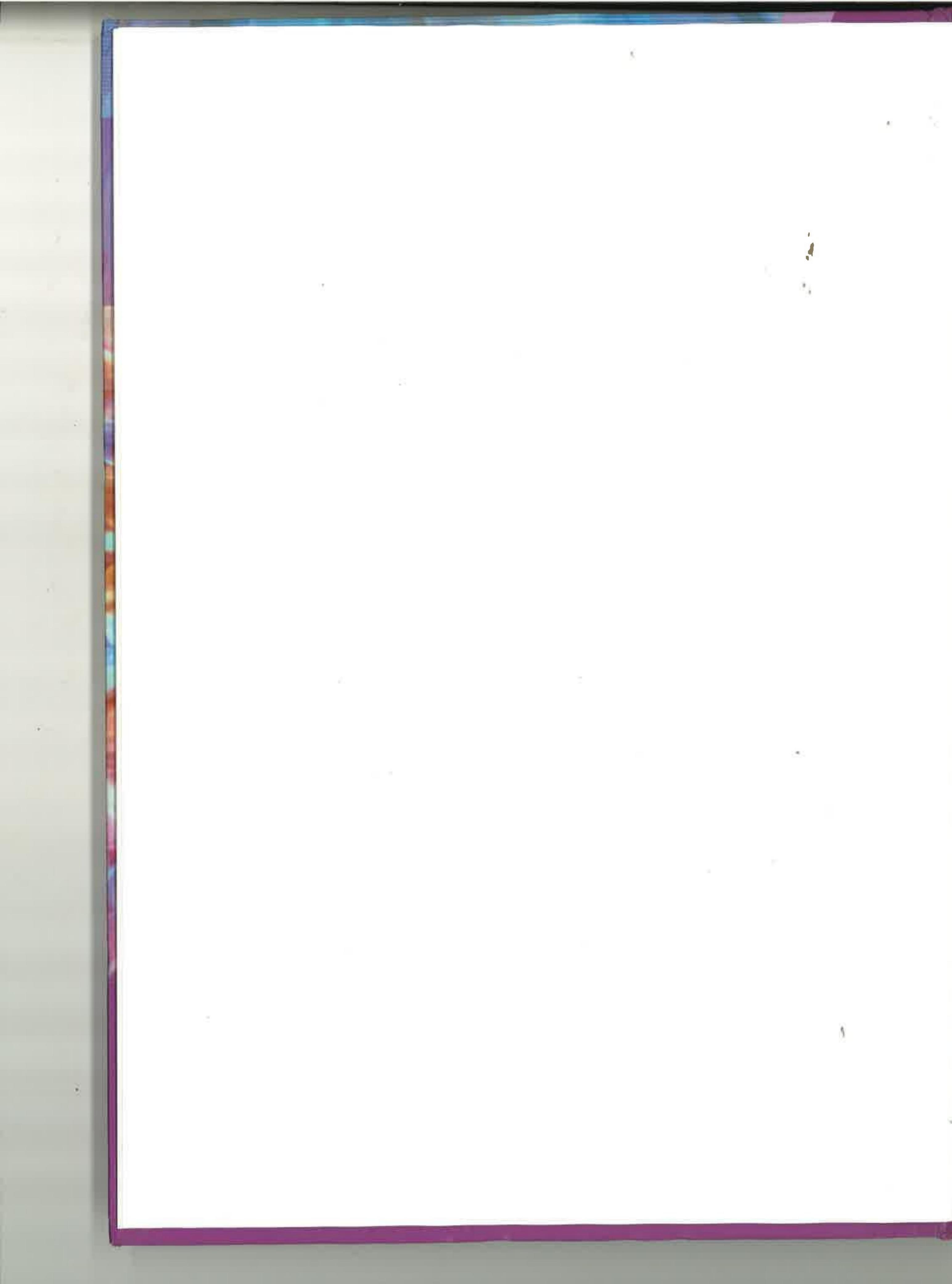
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# Gut efficiency; the key ingredient in pig and poultry production

Elevating animal performance and health

edited by: J.A. Taylor-Pickard P. Spring



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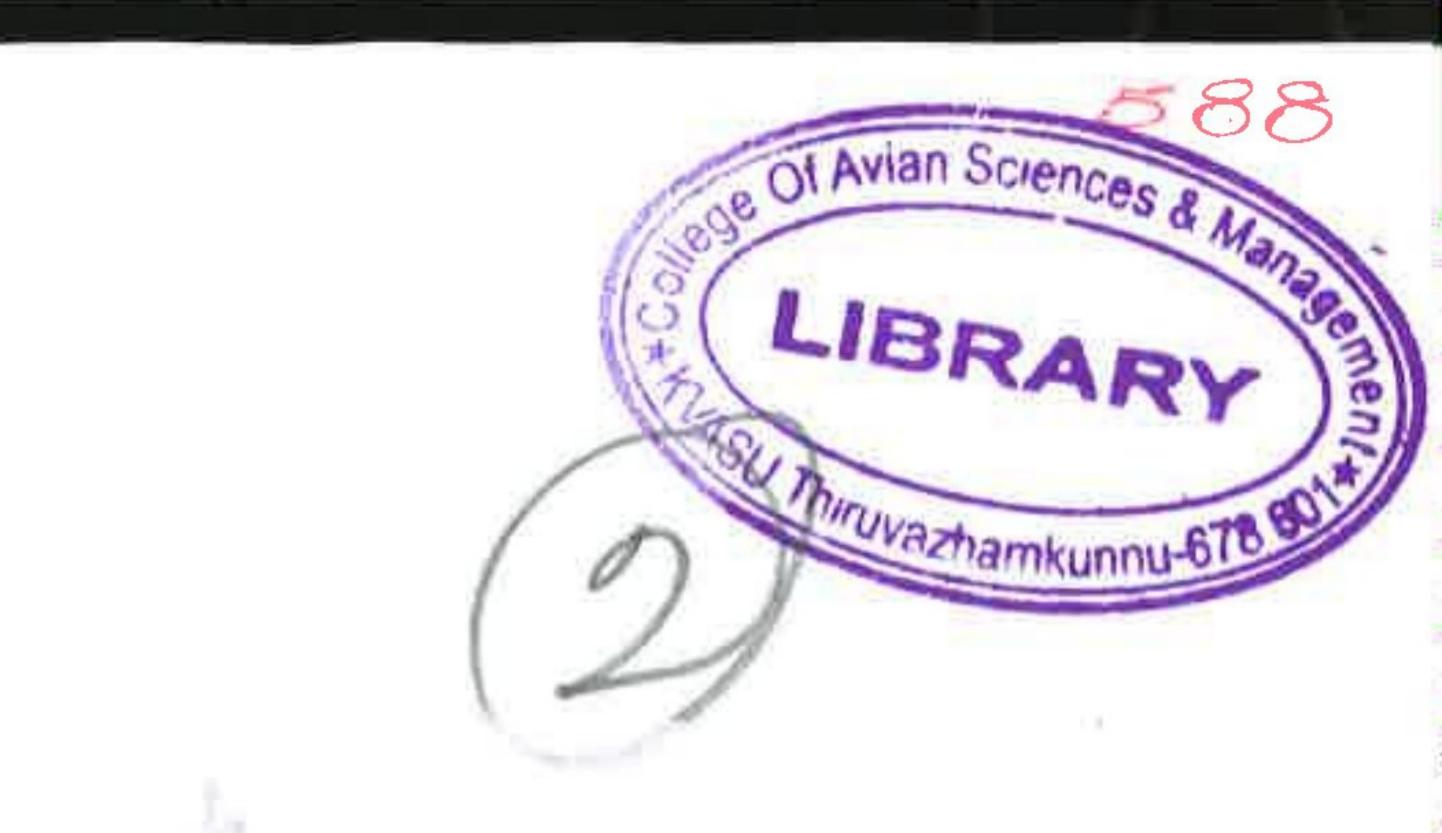


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Gut efficiency; the key ingredient in pig and poultry production

# How past experience can dictate future developments in the

# pork industry: a global perspective

Roger Campbell Pork CRC, P.O. Box 466, Willaston SA 5118, Australia

### 1. Introduction

The drivers of profit in pork production have always been and remain the price received for the product and the cost of feed. Consequently, factors that affect the demand for pork and the price of grain will generally have the biggest impact on the business of producing pork. In this respect we owe a lot to the plant breeders who have delivered consistent improvements in yields and to agronomists who have generally enabled the potential offered by new grain varieties to be exploited. Price is a different matter and is affected by changes in both domestic and global demand for pork and competing meats, especially beef and chicken. In the time I have been involved in the pork industry price has always been difficult to predict, and until recently was generally determined by the market place although many producers now attempt to remove some of the risk on the price side through supply contracts with packers and to a lesser extent through the future markets. There has been no doubt that the 'quality' of pork has improved over time with the changes being driven by the processing industry in response to retailer and consumer demands. Indeed, in terms of pork quality there really isn't much that isn't known, and more importantly, most of the 'recommendations' for improving quality have been implemented at the production and processor levels. The next step is to enhance the desirability of pork and this will require a different approach than has been used to improve the quality of pork, and apart from reemphasising the importance of price in determining profitability, I will not address the matter any further in this paper. I have concentrated on what we have learned and achieved in terms of research and development and the relative impacts of the outcomes on the efficiency of pork production. Indeed, because of the likelihood that the global pork industry will be faced with higher feed costs and potentially the use of higher fibre ingredients in the foreseeable future I have tended to concentrate on factors likely to impact feed efficiency since improvement in this trait will likely deliver the greatest economic returns.

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