



# APSA 2023 19<sup>TH</sup> BIENNIAL CONFERENCE

Australasian Pig Science  
Association (Inc)

Sofitel, Brisbane, Australia

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## Professor Hans Stein



### ***New developments in mineral and vitamin D nutrition for sows and growing pigs***

*Dr Hans H. Stein is a Professor of Nutrition in the Division of Nutritional Sciences and the Department of Animal Sciences at the University of Illinois, where he has responsibilities in research, extension and teaching. His team consists of graduate students, post-doctoral research fellows, research technicians, and visiting scholars. His research focuses on feed ingredient evaluation, digestibility and utilisation of energy and nutrients by pigs and humans, and development of systems for accurate diet formulation. Professor Stein has mentored more than 100 graduate students, post-doctoral research fellows, interns, and visiting scientists. He has authored or co-authored approximately 335 peer-reviewed publications and he has given invited presentations on nutrition in 41 countries.*

Mineral nutrition in swine has received more attention during recent years due to the availability of microbial phytase which has highlighted the importance of formulating diets based on digestible concentrations of calcium and phosphorus. Also, the emergence of new sources of micro minerals, including chelated micro minerals, has resulted in a renewed interest in defining absorption and functions of micro minerals in diets for pigs. Professor Stein's review will highlight the benefits of formulating diets based on standardised total tract digestibility of calcium and phosphorus, avoiding over-formulation with calcium, and using sufficient microbial phytase to degrade all dietary phytate. Benefits of using vitamin D metabolites in diets for sows and chelated or other non-sulfate forms of micro minerals will also be discussed.