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ADVANCED ANIMAL NUTRITION LABORATORY

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Topics :

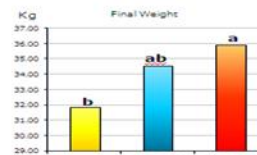
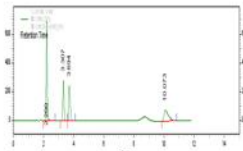
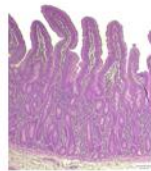
- Feed additive and feed supplementation in animals diet
- Metabolism of amino acids
- Biochemistry and physiology of cells function in animals



Research Programs



Swine



Increasing swine production performance will be important for future. We study of amino acids supplementation in diets and drinking water. From this research suggesting that adding liquid DL-methionine hydroxy analog free acid (LMA) improved growth performance due to high nutrient utilization caused by an improvement of small intestinal morphology.

Swine Research Team

Mr. Theerawit Poeikhumpha
Mr. Nuttawut Krutthai
Mr. Chanwit Kaewtapee
Mr. Choawit Rakangtong

Broiler Research Team

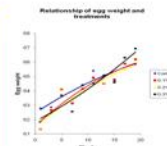
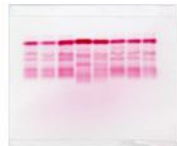
Broiler



Ms. Rachawadee Yodseranee
Mr. Choawit Rakangtong
Ms. Rattana Nukreaw
Ms. Kanokkam Poosuwan
Ms. Pichaya Sae-Ung

Our study investigated the effect of amino acid and feed additive supplementation in diets and drinking water. From these research suggestion that adding DL-methionine (DLM) or liquid DL-methionine hydroxyl analog free acid (LMA) in diets to meet total sulfur amino acid requirement improved productive performance, carcass yield and health status. In additional, adding amino acid in low protein diet slightly reduced fat accumulation in broiler.

Layer



Liquid Methionine Hydroxy Analog Free Acid (LMA) is considered to acidifier property aside amino acid source. Drinking water of the laying hens were added by various levels of LMA to diminish pH and pathogenic bacteria in gastrointestinal tract that achieving to improve production performance. The results revealed that *E.coli* tended to decrease while beneficial bacteria (*Lactobacillus spp.*) was enhancing. Consequently, production performance were also improved.

Layer Research Team

Ms. Kanokkam Poosuwan
Mr. Nuttawut Krutthai
Ms. Patcharee Chanachai
Ms. Pichaya Sae-Ung
Mr. Thawatchai Chawsalai

Publication

1. Bunchasak, C. 2009. Role of dietary methionine in poultry production. *The Journal of Poultry Science*. (Accepted).
2. Kaewtapee, C., N. Krutthai, S. Koonawootrittriron, K. Poosuwan, T. Poeikhampha and C. Bunchasak. 2009. Effects of adding liquid DL-methionine hydroxy analog free acid (LMA) to drinking water on growth performance and small intestinal morphology of nursery pigs. *Journal of Animal Physiology and Animal Nutrition*. (Accepted).
3. Poosuwan, K., C. Bunchasak and C. Kaewtapee. 2009. Long-term Feeding Effects of Dietary Protein Levels on Egg Production, Immunocompetence and Plasma Amino Acids of Laying hens. *Journal of Animal Physiology and Animal Nutrition*. (Accepted).