

## Recent Global Research on Non-ruminant Nutrition: Analysis & Perspective

Assoc. Prof. Dr. Chaiyapoom Bunchasak

Department of Animal Science

Faculty of Agriculture, Kasetsart University

### Abstract

The data were collected from 20 international journals involve with non-ruminant animal nutrition (ISI with average impact factor = 1). The 1,009 papers during 2011-2013 were categorized and analyzed as follows; 1) type of animal such as broiler chickens, laying hens, ducks and pig, and 2) composition of diets such as feedstuff, protein-energy, vitamin-mineral, amino acids and feed additives. Broiler chickens were mostly used as experimental animal; accept the studies of lysine and feedstuff that more pigs were used than the chickens. The 398 papers were feed additives (39.4% of total), and enzyme phytase was reported frequently. Therefore, enzyme phytase is commercially used. Vitamin E & C and mineral Se & Zn were intensively focus among the studies of vitamin-mineral. It seems that supplementation of mixed plant extracts (phytogenics) results in better growth performance than that of single plant extract. By-product (DDGs), corn and soybean have been investigated to increase their nutritive value, mainly focus on location of plantation, gene modifications, fermentation or processing. The reports of digestibility of alternative feedstuff were increased (Performance test : Digestibility test = 2.4). It is concluded that feed additives have been being intensively investigated, particularly enzyme phytase, and mixed phytogenics seem to give benefit to the production performance.

**Keywords:** Poultry, Pigs, Protein-Energy, Vitamin-Mineral, Amino Acids, Feed Additive