

Day 1 Monday October 7, 2019

8:00 - 9:00	Registration	
9:00 - 9:10	Grand Opening	
9:10 - 9:20	Acknowledgement and souvenir for sponsors	Hans H Stein G.G.Mateos

Session 1: Chemical composition of feed ingredients and procedures for evaluating nutritional value

Instructors: G. G. Mateos, R. C. Sulabo, C. M. Nyachoti and H. H. Stein

9:40	Nutrient composition and nutritive value. - Proximate analyses - Amino acid profile and mineral content	Gonzalo G. Mateos
10:40	Coffee break I	
10:55	Energy systems for pigs and poultry and methods of evaluation.	C. Martin Nyachoti
11:55	Lunch	
13:00	Nutrient digestibility and procedures for evaluation.	Rommel C. Sulabo
14:00	Fiber fractions in feed ingredients, definition and analysis.	Hans H Stein
15:00	Coffee break II	

Day 1 Monday October 7, 2019

Session 2: Pulse crops.

Overview over global production: Types, nutritional composition, energy content, anti-nutritional factors, inclusion rates, and quality control

Instructors: C. M Nyachoti, H. H. Stein, G. G. Mateos

15:15	Global production of pulse crops.	Hans H Stein
15:20	Field peas, split peas, and pea protein concentrate.	C. Martin Nyachoti
16:10	Faba beans.	Gonzalo G. Mateos
16:30	Lupins, lentils, and other legumes.	C. Martin Nyachoti
17:00	Adjourn	

Day 2 Tuesday October 8, 2019

Session 3: Oilseeds and Oilseed meal

Overview over global production, processing technology, nutrient content, antinutritional factors, inclusion rates, and quality control

Instructors: C. M. Nyachoti, G. G. Mateos, R. C. Sulabo, and H. H. Stein

8:00	Registration	
9:00	Global production of oilseeds and oilseed meal.	Hans H Stein
9:10	Soybeans and soybean derived products: full fat soybeans, soybean meal, soybean expellers.	Gonzalo G. Mateos
10:15	Added value soybean products: fermented and enzymatically processed soybean meal, soy protein concentrates, and soy protein isolate.	Hans H Stein
10:45	Quality control of soy products.	Gonzalo G. Mateos
11:15	Coffee break I	
11:30	00-Rapeseeds/canola seeds, 00-rapeseed/canola meal, 00-rapeseed/canola expellers. Conventional and high protein 00-rapeseed/canola.	C. Martin Nyachoti
12:30	Lunch	
13:30	Cotton seeds and cotton seed meal; peanut meal, sesame meal.	Rommel C. Sulabo
13:50	Sunflower seeds, sunflower meal, sunflower expellers, and sunflower protein concentrate	C. Martin Nyachoti
14:20	Copra meal, copra expellers, palm kernel meal, palm kernel expellers.	Rommel C. Sulabo
14:40	Coffee break II	

Day 2 Tuesday October 8, 2019

Session 4: Fats and Oils

Instructors: G. G. Mateos and C. M. Nytachoti

15:15	Animal fats (tallow, lard, poultry grease, fish oil), plant oils (maize oil, soybean oil, palm oil, copra oil), and technical fats.	Gonzalo G. Mateos
15:30	Quality control of fats.	Gonzalo G. Mateos
16:00	Energy assessment of fats and oils.	C. Martin Nyachoti
16:30	Inclusion rates and influence of lipid sources on feed and food quality.	Gonzalo G. Mateos
17:00	Adjourn	

Day 3 Wednesday October 9, 2019

Session 5: Cereals and cereal co-products: Definition of products. Nutrient evaluation.

Instructors: R. C. Sulabo, M. Rodehutscord, G. A. Casas., Y. Ruangpanit, and H. H. Stein

8:00	Registration	
9:00	Global production of cereal grains and cereal grain co-products.	Hans H Stein
9:10	Nutritional composition of maize, wheat, barley, triticale, rye, and oats.	Markus Rodehutscord
9:50	Sorghum and sorghum co-products, incl. sorghum DDGS.	Rommel C. Sulabo
10:10	Digestibility of energy and nutrients in wheat, triticale, barley, and rye fed to growing pigs.	Markus Rodehutscord
10:45	Coffee break I	
11:00	Digestibility of nutrients and concentration of ME in corn, wheat, triticale, and rye fed to poultry.	Markus Rodehutscord
11:30	Characterization of rice and rice co-products: brown rice, broken rice, rice bran, and others.	Gloria A. Casas
12:00	Lunch	
13:00	Bakery meal, cookie meal, confectionary products.	Hans H Stein
13:30	Inclusion of rice co-products in diets for pigs.	Gloria A Casas
14:00	Inclusion of rice co-products in diets for poultry.	Yuvaras Ruangpanit
14:30	Corn co-products, characterization and utilization.	Hans H Stein
15:00	Coffee break II	
15:20	Wheat co-products, composition and utilization.	Gloria A Casas
15:50	Cassava meal and cassava co-products in diets for pigs.	Rommel C. Sulabo
16:20	Casava meal and cassava co-products in diets for poultry.	Yuvaras Ruangpanit
17:00	Adjourn	

Day 4 Thursday October 10, 2019

Session 6: Mineral sources and ingredients in pigs and poultry diets. Digestibility and phytase application

Instructors: H. H. Stein, M. Rodehutscord, C. M. Nyachoti, and Y. Ruangpanit

8:00	Registration	
9:00	Calcium sources and utilization: Plant and mineral origin (limestone, calcium carbonate, dicalcium and monocalcium phosphate).	Hans H Stein
9.30	Phosphorus sources and utilization: mineral, animal and vegetable sources. The role of phytic acid.	Markus Rodehutscord
10:00	Phytase effects on P availability in pigs and poultry.	C. M. Nyachoti
10:30	Coffee break I	
10:45	Calcium and phosphorus digestibility by pigs.	Hans H Stein
11:35	Calcium and phosphorus digestibility by poultry.	Yuwares Ruangpanit
12:25	Lunch	

Day 4 Thursday October 10, 2019

Session 7: Animal proteins

Instructors: R. C. Sulabo and Tanawong Maison

14:00	Meat and bone meal, poultry meal, fish meal.	Rommel C. Sulabo
14:45	Co-products from the dairy industry: skim milk powder, whey powder, whey permeate.	Tanawong Maison
15:15	Blood meals, blood plasma, and blood cells.	Rommel C. Sulabo
15:45	Coffee Break II	
16:00	Intestinal co-products.	Rommel C. Sulabo
16:30	New proteins: Insect protein, algae protein, single cell protein, lemna meal.	Tanawong Maison
17:00	Going to the restaurant by shuttle bus.	iFIC Staff
18:30	Farewell Dinner Party	

Day 5 Friday October 11, 2018

Session 8: Implementation of concepts and quality control in feed milling. Good manufacturing practices

Instructors: Tanawong Maison, E. Vinyeta, H. H. Stein, and Gonzalo G. Mateos

8:30	Registration	
9:00	Use of feed ingredient nutritional values in feed formulation.	Tanawong Maison
10:00	Use of feed technology to improve the nutritional value of feed for poultry.	Ester Vinyeta
10:45	Coffee break	
11.15	Use of feed technology to improve the nutritional value of feed for pigs.	Hans H Stein
12:00	Course evaluation and certificates.	Gonzalo G. Mateos and Hans H Stein
12.30	Lunch	
13:30	Adjourn	