



> MODULE 7, 8 AND 9 | APPLIED POULTRY NUTRITION

WEDNESDAY 15 JUNE, THURSDAY 16 JUNE AND FRIDAY 17 JUNE

Feedstuff composition, presentation and dietary nutrient content have a great impact on performance of poultry. The effects can differ depending on species, age and production goal. In order to achieve optimal animal performance at the farm, it is of great importance to know the relations between nutrition, animal health and technical performances. Poultry nutritionists need to combine the theoretical knowledge about digestive physiology and biochemistry of feedstuffs to formulate diets. Therefore the goal of nutrition is to provide essential nutrients to the animal for an efficient production, but also to assure animal welfare and health, and a low excretion of non-digested nutrients to the environment.

Learning objectives

- To obtain knowhow to apply theoretical and practical nutritional knowledge to improve poultry performance.
- To obtain knowhow to meet nutritional requirements of poultry, as well as how to face dilemmas like efficiency and intestinal health.

Welcome and introduction

Physiology and intestinal health

A brief introduction to the physiology of the gastrointestinal tract and its development with age to understand nutrient digestion, absorption, and intestinal health. The carefully balanced ecosystem of the intestinal tract can be subject to nutritional and microbial challenges. Therefore, the intestinal immune system, the most common intestinal pathogens in poultry, and nutritional factors affecting intestinal health will be discussed.

Precision feeding

Poultry nutrition aims to meet nutrient requirements of birds as accurately as possible. These requirements are affected by given conditions and specific production goals. As a nutritionist you are challenged to deal with the variation in requirements caused by many different factors within and between flocks. Precision feeding is the practice that helps you to make this variation insightful and helps you to deal with it.

Minerals

Focus on the optimum levels of sodium, potassium and chlorine in broiler diets will be given. The effect of different sources of sodium as well as the effect of dietary electrolytic balance in broiler diets will be addressed.

Egg formation and egg quality

An important issue in layer production is the reducing egg quality with aging of birds. This is not only related to nutrition, but with nutrition you are able to support the egg shell quality. Egg formation, deviations in egg formation, and nutrients that can affect egg (shell) quality will be discussed.

Meat quality

Deviations in the breast fillet is one of the main reasons for the rejection of broiler chickens in the slaughterhouse. On which aspects are the broilers assessed and how can we respond to them with feed and management?

Broiler breeder nutrition

A broiler breeder bears the genetics of a broiler (high growth rate), while it needs to produce high quality hatching eggs that will give vital broiler chicks. Nutrition will affect the breeder but also the broiler chick. All these factors make broiler breeder nutrition very complicated. In this presentation these challenges will be discussed.

Effect of feed processing on digestion and nutritional value of poultry feeds

Producing feed is more than just making a good recipe or formula. Processing technology can have an effect on intestinal health and can improve the nutritional value, but also worsen the feed utilisation.

Protein sources in poultry nutrition

Soybean meal is the most important protein source in poultry. However, sustainable production and use of non-GMO diets makes that this protein source is topic of discussion. There are several options to reduce the level of soybean meal in poultry diets. This can be done with currently available protein sources, but there is also a lot of research and discussion on “new” protein sources.

Early feeding

There is a considerable interest in feeding of young broilers from the perspective of minimizing early mortality and getting a flock off to a uniform start. There are several hatching systems that support the provision of feed immediately after hatching. Nutritional approaches that support the physiological condition of the hatchling will be discussed, as well as the effects on early growth and mortality.