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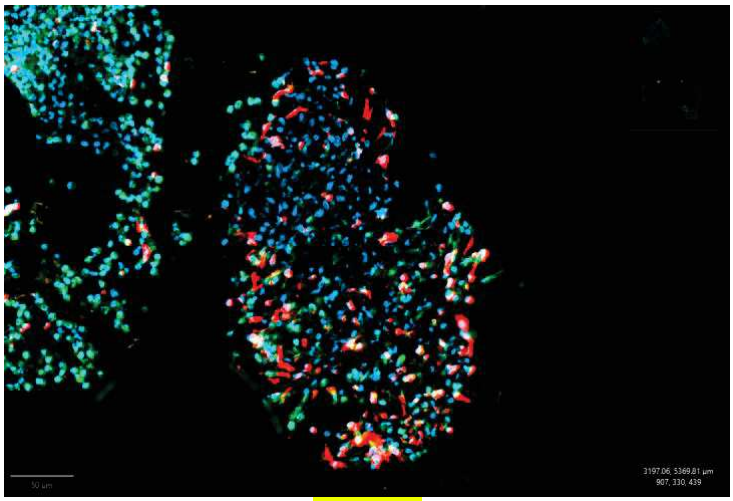
One Health

L'Animal et l'Homme, une même santé



Version 2

Posters

19. Rapeseed by-products as feed resource for ruminants: Evaluation of chemical composition

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In Northern Morocco, goat is the most dominant herd among ruminants. Their diet is based mainly on forest rangelands known for their seasonal and annual variabilities. Thus, there is a necessity to diversify goat diet to satisfy animals needs and improve productivity. Rapeseed (*Brassica napus*) crop generates by-products that could be used as feed resources for ruminants. This study aims to evaluate the chemical composition of their by-products to be incorporated in ruminants' diet. Samples of leaves and pods of rapeseed were collected from local farms to evaluate dry matter (DM), ash, total nitrogenous (TN), and fibers (Neutral Detergent Fiber (NDF), Acid Detergent Fiber (ADF), and Acid Detergent Lignin (ADL)). According to the results, rapeseed by-products have a high DM (88% for leaves and 85% for pods). For ash, they have content between 5 to 6% DM for leaves and pods, respectively. Total nitrogen content was found to be high (>14%). Regarding fiber, rapeseed by-products have a low content of fibers. The NDF levels were 25 and 20% DM, ADF levels were 15 and 12% DM, and ADL levels were 4 and 3% DM, respectively, for leaves and pods. The rapeseed by-products are characterized by a good chemical composition with high protein content and low fiber levels. Further analyses of digestibility and nutritional values should be made to valorize and incorporate these by-products in ruminants' feeding.

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20. Case report: selenium toxicosis in a pig farm

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An error in feed dosage caused selenium toxicosis in a farrow-to-finish Piétrain pig herd with nine sows. Of the farm's 40 pigs, 11 were poisoned. Clinical signs were anorexia/low feed ingestion, lesions of the coronal edge of one or more hooves (n=11/11), lameness (4/11), posterior paresis (3/11) and/or alopecia on the tail (2/11). After ruling out notifiable swine vesicular diseases, infectious pododermatitis (foot rot) and ergot intoxication, serological analysis measured selenium concentrations of 7-8 mg/L of serum in 4 pigs 8 days after the first clinical signs appeared. Normal values are between 0.1-0.2 mg/L. One boar was euthanized due to its deteriorating condition. Analysis of the feed confirmed a concentration of 30 ppm of selenium in the meal, whereas the formula indicated 0.4 ppm, and a concentration ≥ 5 ppm is considered toxic. The feed company confirmed that human error caused the overdose. Serological monitoring of 3 of the 4 pigs initially sampled, 15 and 67 days after withdrawal of the feed, measured serum selenium concentrations of 4.20 ± 0.26 and 0.13 ± 0.06 mg/L, respectively, and confirmed a return to normal 2 months later. Selenium toxicosis can cause severe ulcerative lesions on the coronary edge of the hooves that are similar to those caused by notifiable swine viral vesicular diseases (i.e., swine vesicular disease, foot and mouth disease, Seneca Valley virus disease and vesicular stomatitis). It should thus be included in their differential diagnosis. Due to the slow decrease in serum selenium concentrations, a 60-days waiting period should be observed before slaughter following an episode of poisoning.