

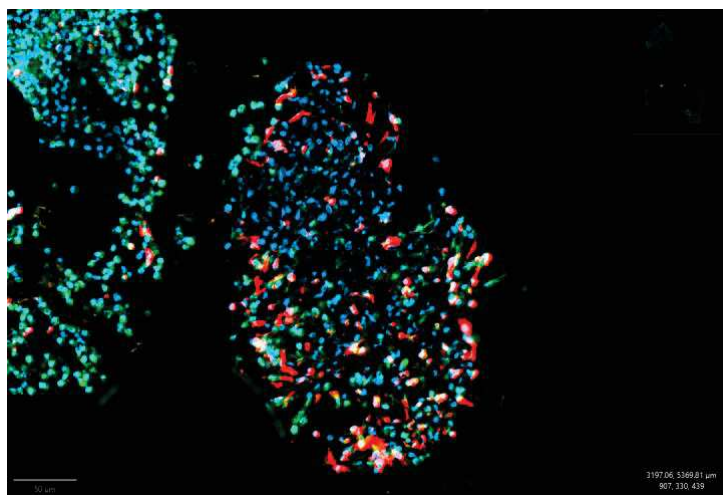
Proceedings of the 11th FARAH-Day

**Faculty of Veterinary Medicine
(University of Liège - Belgium)**

December 19, 2024

One Health

L'Animal et l'Homme, une même santé



Version 2

17. Canine Specific Network for Investigations of Flavour/Scents-searching Faculties (CANI-SNIFF): development of a standardized olfactory testing protocol

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Olfactory performance is crucial for the optimal efficiency of working dogs. Several factors can influence olfaction, including the dog's breed, changes in environmental humidity and temperature, intense exercise, the lipid composition of their diet and some medical treatments. This project aims to study the influence of different environmental factors on the olfaction of working dogs by the development of a standardized olfactory test protocol. This protocol will allow the establishment of individual reference values. Two populations of working dogs (drugs and explosives detection dogs from the Belgian Federal Police; Search and Rescue dogs from the Belgian Civilian Security) will undergo a standardized olfactory test (combination of line detection and scent wheel searching) under controlled temperature and humidity conditions. Clinical examinations and blood analyses (used to assess markers of stress and metabolism), free-cortisol concentration in salivary samples and qualitative characteristics of the nasal mucus will be obtained before and after the completion of a standardized exercise on a treadmill. Once the basal olfactory reference values determined for each dog, the effect of different environmental conditions (temperature and humidity) on olfaction, salivary cortisol concentrations and nasal mucus characteristics will be assessed. This protocol is currently under development and the results to be obtained will enable us to determine the influence of environmental parameters on olfaction of these dogs. This same protocol could later be used to study the effects of additional environmental factors, medical treatments and nasal protection devices on the olfaction.

18. Chemical Composition and Digestibility of Sugar Crops in Northern Morocco

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The production of sugar crops (sugar cane and beet) in Northern Morocco generates substantial amounts of by-products, including cane pulp and beet residues, which have a high potential as animal feed for ruminants. This study aims to evaluate the chemical composition and digestibility of these by-products, providing then the nutritional value to be incorporated in ruminants' diet. Chemical analysis revealed that cane pulp is rich in fiber, while sugar beet residues contain high levels of soluble sugars, making them highly fermentable in the rumen. The digestibility assessment showed that the fiber and carbohydrate fractions of these by-products vary considerably, influenced by their chemical composition. These findings highlight the importance of understanding the nutritional profile of cane and beet by-products to optimize their use in animal diets. By improving feed efficiency and reducing waste, these by-products can contribute to sustainable livestock production systems in Northern Morocco. Overall, this research underscores the potential of using local agricultural by-products to enhance animal nutrition and promote resource efficiency in the region.