LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

DISPOSAL OF ANTIMICROBIALS BY POULTRY AND FISH FARMERS IN ZARIA METROPOLIS, KADUNA STATE, NIGERIA

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Summary

Poultry and aquaculture are the fastest-growing animal food-producing sector where the practices include the use of antimicrobial for disease treatment, prevention, and growth promotion. The indiscriminate use of antimicrobials by farmers has resulted in the proliferation of higher concentrations of antimicrobials in the environment ('Antimicrobial pollution') through contamination of Animals' waste streams. This is mainly because these administered antimicrobials are not fully metabolized, therefore released unchanged into the environment. Due to the lack of information on antimicrobial disposals in the Zaria metropolis, this study surveyed the ways antimicrobials are disposed of by 200 fish and poultry farmers and their awareness level of the environmental effects. The major methods of antimicrobial disposal were the refuse dump – disposal 40 (20%), irrigation water 40 (20%), and wastewater 120 (60%). There was a very poor (70%) level of "antimicrobial pollution" awareness among the farmers, hence the need to sensitize them and develop a proper disposal approach with the Ministries of Agriculture and Environment.

Keywords: disposal, antimicrobials, poultry, aquaculture, pollution.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

SURGICAL MANAGEMENT AND POST-OPERATION EVOLUTION OF CUTANATE NEOPLASIES IN 12 DOGS

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Summary

Between January 2019 and March 2021, 12 dogs presented for consultation within the Surgical Discipline of the Faculty of Veterinary Medicine, Cluj-Napoca, being diagnosed with various types of skin neoplasms. The tumor parameters observed at the time of their physical examination were: size, anatomical location, consistency, color, presence or absence of infiltration of neighboring tissues, adhesion to the underlying planes, skin-associated lesions and lymph node reactions. A presumptive diagnosis was elaborated through clinical, cytological, radiological evaluations, and the definite diagnosis was made postoperatively by histopathological examination within the discipline of Pathological Anatomy, FMV Cluj - Napoca. All patients received surgical treatment. The surgical technique was represented by the procedure of resection of tumor masses with safety margins specific to each tumor type and a fascial plane, with or without skin plastics. The dominant skin neoplasms were mast cell tumors (MCT) of varying degrees. The follow-up time of the evolution of postoperative clinical signs ranged from 3 to 12 months. The disease-free interval was established in 7 dogs, which was 7.4 months, the limits being between 5 and 12 months. Our results showed that the use of surgical technique for resecting tumor masses with safety margins specific to each tumor type and an underlying fascial plane is a viable treatment solution, even if a single treatment was used without complementary therapy (radiotherapy, chemotherapy).

Keywords: skin neoplasms, dog, surgical treatment, resection.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

FELINE LOWER URINARY TRACT DISEASE: A RETROSPECTIVE STUDY

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Summary

The Feline Lower Urinary Tract Disease (FLUTD) is a complex, often multifactorial pathology of clinical importance among domestic cats. It is characterized by inflammation with or without obstruction of the lower urinary tract with frequent clinical signs of dysuria, pollakiuria and hematuria. The present paper aims to evaluate epidemiological aspects of FLUTD in domestic cats by assessing 78 feline patients registered between January 2019 - November 2020 at the department of Internal Medicine, Faculty of Veterinary Medicine, Cluj-Napoca. The research intended to identify possible correlations between the incidence of FLUTD and predisposing factors represented by breed, sex, age, weight and season in which they presented for consultation. The results obtained in our study indicate that FLUTD predominantly affected European Shorthair cats (81%), males (90%), aged between 1 and 3 years (50%), weighing between 3 and 5 kg (50%). The maximum incidence was recorded during the cold season (33%).

Keywords: FLUTD, hematuria, stranguria, dysuria**.**

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

ASSESSMENT OF BODY LANGUAGE (AGGRESSION) IN SHELTER DOGS

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Summary

Dogs in shelters are subjected to a new environment, in which they are constantly exposed to stressors, interacting with people and foreign dogs. These factors lead to anxiety and aggressive defensive behavior. A number of 20 dogs (10 males and 10 females) were selected for this study, from a number of 200 dogs permanently housed in a shelter in the Municipality of Timişoara. This test aims to make an inventory and recognition of the specific behaviours of anxious, defensive dogs, which are prone to manifestation of aggression in this form, as a result of their accommodation in shelters. The behaviour of the dogs was videotaped, the images were subsequently processed and interpreted. The evaluation team consisted of two people, one evaluator and one person who registered. In order to determine if the evaluated dogs exhibit anxiety and defensive behavior, their response was assessed in three stages. At the end of the test, blood samples were taken from all individuals, from the cephalic vein in vacutainers without anticoagulant, to determine serum serotonin. The average serotonin values in the category of adoptable dogs was 251.25 ng / ml, they accepted the interaction with the evaluator, they were balanced dogs that did not show anxious behavior, nor other behavioural disorders. The category of dogs that showed fear, anxiety towards people through defensive posture, had an average serotonin values of 320 ng / ml, these individuals having a fearful attitude, behavioural therapy or socialization was recommended, depending on the individual needs of each dog. Extremely anxious dogs that exhibited aggressive behaviours were not considered suitable for adoption, the average serotonin values in this category was 450 ng / ml.

Keywords: dog, body language, serotonin, shelter.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

NEW PERSPECTIVES OF INTRAOCULAR ARTIFICIAL LENS IN DOGS - REVIEW ARTICLE

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Summary

Cataract surgery is the only effective treatment of choice nowadays for restoring vision in dogs with cataract. Phacoemulsification technique with the implantation of an artificial intraocular lens (IOL) is currently the most desired treatment. IOL implantation improves the optics of the aphakic eye and reduces the formation of posterior capsular opacity (PCO) after surgery. There are 3 major classes of materials of IOLs.

Keywords: IOL, intraocular lens, dog, cataract, phacoemulsification.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

ALTERNATIVE RECIPES FOR IMPROVING THE AVERAGE DAILY GAIN IN LAMB

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Summary

The weight gain of lambs is one of the most important indicators of production in sheep farming. The study presents comparatively different feeding recipes for infant lambs and their effectiveness in terms of average daily gain (ADG) performed on 3 groups of animals from the second week of life until the age of 6 weeks. In addition, the animals were parasitologicaly examinated to confirm the lack of parasitic elements that would induce erroneous results. Group 1 (control group) consumed only sheep's milk and voluminous feed (plain hay), group 2 consumed in addition to group 1 concentrated commercial feed from authorized producers, and lot 3 consumed in addition to group 1 concentrated feed produced in own regime having the main composition of corn and oats. The results show an advantage of ADG for the groups that also received concentrated feed and a better economic advantage in favor of the feed group with concentrated feed produced in own regime.

Keywords: average daily gain (ADG), lambs, corn, oats.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

BLUETONGUE EVOLUTION IN ISRAEL BETWEEN 2010 AND 2019 – AN EPIDEMIOLOGICAL APPROACH

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Summary

Currently, the presence of Bluetongue, an infectious disease with vector transmission (through *Culicoides*), is reported in many countries in Europe, Africa, the Middle East, Asia, as well as in Australia, and the USA. Given the importance of the disease, we considered it useful to address this research topic whose main purpose was to inventory cases of bluetongue in Israel over a period of 10 years, as well as the analysis of their distribution in order to be able to orient and focus, in the future, the prophylaxis measures. The cases were presented by region, to see where there is the greatest need for prevention and control measures. In addition, a case-by-case presentation of domestic and wild animals and a comparison of the total number of cases in Europe and Italy were provided. Were identified more serotypes in BT outbreaks in Israel. The most frequent serotypes were 2, 3, 4, 8, 9, and 16. Besides this, other serotypes identified were: 1, 12, 15, and 24. Association between serotypes 4, 8, and 12 in 2010 and 2 and 4 in 2012 was correlated with the highest number of outbreaks.The reemergence of high pathogenic serotypes of BTV and in the absence of a vaccine and control measures, the virus could spread to other countries, becoming a risk.

Keywords: Bluetongue, prevalence, Europe, serotypes, Israel.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

PREVALENCE OF ZOONOTIC BACTERIA IN TERRESTRIAL AND AQUATIC TORTOISE FROM A ZOO PARK AND FROM OWNERS IN ROMANIA

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Summary

The importance of reptiles in the transmission of microbial agents with zoonotic properties has increased greatly in recent times. It is well known that turtles can be carriers and eliminators of various species of *Salmonella* that can pose a risk to owners, carers and veterinarians. The most exposed to *Salmonella spp*. infection are children, the elderly or the immunocompromised. Contamination with *Salmonella spp*. of turtles can be done very easily, by overpopulated aquatics, with dirty water with feces or organic matter. The aim of this study was to determine the prevalence of *Salmonella* in water and land turtles from a zoo and private keepers, and to identify bacterial species isolated in association or not with *Salmonella*, especially those known to have zoonotic potential. Of the 41 turtles studied, 7.31% strains of *Salmonella spp*. were isolated, (3 strains) two of them being classified at the species level as belonging to the species enterica subsp. arizonae, and one could only be identified at the gender level. *Salmonella* strains were isolated from two specimens of semi-aquatic turtles (Trachemys scripta elegans) and from one specimen of land turtle (Testudo graeca). In addition to the isolated *Salmonella* strains, other bacterial genera were also identified, namely a *Morganella morgani* strain and a *Citrobacter braakii* strain. All species identified from turtles have zoonotic potential.

Keywords: Salmonella, prevalence, semi-aquatic turtles, zoonotic potential.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2021, TIMIŞOARA

EPILEPTIC DISCHARGES IDENTIFIED IN A CANINE PATIENT WITH QUADRIGEMINAL CYST BUT UNRELATED TO LOCALIZATION OR TO THE PATIENT'S EVOLUTION UNDER CONSERVATIVE TREATMENT

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Summary

Congenital intracranial arachnoid cysts have been described in humans and dogs. Quadrigeminal cysts represent the most common type of intracranial arachnoid cysts in dogs, primarily affecting males and small brachycephalic breeds. Frequently, quadrigeminal cysts represent an incidental finding; their clinical significance in dogs and the best therapeutic strategies for these canine patients remain controversial. We describe here electroencephalogram (EEG) changes observed in a dog with epileptic seizures, in which a QC was identified by magnetic resonance imaging (MRI). We attempted to establish a correlation between the localization of electrical epileptic foci and that of the QC, and to evaluate the value of EEG monitoring in assessing clinical evolution under conservative treatment.

Keywords: EEG, epileptic discharges, quadrigeminal cyst.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

THE INFLUENCE OF BLOOD GAS ANALYSIS IN THE PROGNOSIS OF GASTROINTESTINAL STASIS IN THE DOMESTIC RABBIT (*ORYCTOLAGUS CUNICULUS*)

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Summary

The aim of this study was to perform blood gas analysis both in rabbits diagnosed with gastrointestinal stasis and clinically healthy rabbits, to compare the results and evaluate blood gases values influence on the prognosis. The study included 7 domestic rabbits diagnosed with gastrointestinal stasis and 5 clinically healthy domestic rabbits. Medical treatment was instituted in all patients with gastrointestinal stasis at the time of hospitalization. 2 of the rabbits from the gastrointestinal stasis group died. The analyzed parameters were: body temperature, blood pH, pCO_2, HCO_3, BE_{ecf}, Na^+, K^+, Cl^-, blood glucose and lactate. According to the results of this study, low body temperature may be considered a possible negative prognosis factor in rabbits with gastrointestinal stasis. The evaluation of blood lactate did not reveal statistically significant differences between the two groups, but its low value at hospitalization may be of importance for determining the prognosis. Both the small number of patients and the number of blood samples can be factors that limit results regarding the evaluation of lactate influence on the prognosis of the gastrointestinal patient, therefore a larger number of patients would be needed for better evaluation.

Keywords: domestic rabbit, *Oryctolagus cuniculus*, gastrointestinal stasis, blood gas.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

THE INCIDENCE OF KETOSIS IN 4 DAIRY FARMS FROM SATU MARE COUNTY

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Summary

A study was carried out in 4 farms with a total of 320 cattle in the first 80 days after calving, from each animal included in the study was collected a milk sample from which was determined the concentration of BHB (betahydroxybutyrate), fat and protein. Cattle were grouped according to season, breed and farm of origin, each variable being reported at the BHB level in milk. The highest level of BHB was found in spring (28.87%) with a significant decrease for the following seasons until winter where the level of BHB was the lowest. The prevalence of ketosis for all animals studied was 17.82% relative to BHB concentration in milk. Compared to the prevalence for each farm, it was established that two farms (A and B) have a higher percentage of animals affected by ketosis, 19.64%; 18.95%, compared to farms C and D where the percentage of affected animals is significantly lower represented by 2.22% and 3.03%. The breed most affected by ketosis was the German spotted cattle (Baltata Germana) followed by the Romanian spotted cattle (Baltata Romaneasca) and Red Holstein. The fat in cow's milk with higher beta-hydroxybutyrate levels was higher by 8.90% and protein by 1.76% lower.

Key words: ketosis, incidence, cows.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

ACTIVITY BUDGETS OF *PANTHERA LEO* IN TÎRGU MUREȘ ZOO, ROMANIA

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Summary

The present study investigated diurnal or daily activity patterns of a pair of captive lions (Panthera leo) in Tîrgu Mureș Zoo, Mureș County, Romania comparing to the normal activity of the free ranging lion and other captive lions. Behavioral observations of 147 hours in 21-days observation were analyzed descriptively for common Felidae behaviors identified using a standardized Felidae ethogram. The methodology used was focal animal sampling with continuous sampling of data record or 5-minute sampling periods. We reported that the captive lion allocated the most time budget in inactive behavior or sleeping with the percentage of 67% in the case of the male lion and 65% was the percentage for the lioness. The dominant sleeping behavior may be considered normal to captive Felidae in many zoos. In this case we wanted to see the impact of the habitat and the changes that occur in the daily activity schedule. By knowing the natural activity pattern of an lion and comparing it with the on site pattern we can calculate the impact of an artificial habitat, measuring the wealfare, risks and percentage of a stereotipycal pattern chances of occurrence.

Keywords: ethogram, Panthera leo, time budget.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

EPIDEMIOLOGICAL EVALUATION AND CLINICAL FEATURES OF FELINE PKD

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Summary

Polycystic kidney disease is characterized by a progressive, stage-type evolution, being dominated by clinical manifestations specific to chronic kidney disease. The study was conducted during 2014-2018, within the Clinic of the Faculty of Veterinary Medicine Bucharest and in the private veterinary practices Canivet and Vet Medical Consulting SRL, on a number of 21 cats, presented at the clinic with symptoms suggestive of chronic kidney disease, who were subjected to specific stages of clinical examination. The results obtained indicate a high prevalence among the Persian race (64%) and a significant incidence in the age group of 6-10 years (56%). The neuromuscular repercussions in nitrogen retention syndrome are mainly represented by a depressive syndrome and a precomatous condition detected with a high intensity in 11 cats (52.38%). In terms of body weight, 13 cats underwent severe changes with a considerable loss of body weight. As a result of the interpretation and assessment of body temperature in patients with CKD, hypothermia was recorded in 66.67% of individuals (n = 14) and the presence of a body temperature within physiological limits in relation to species and age in 33.33% of patients (n = 7). The analysis of the anamnesis and clinical signs identifies the presence of severe anorexia in 14 patients (66.67%) and moderate in a percentage of 19.05% (n = 4), the presence of vomiting, consequence of increased serum uremia and uremic gastritis, at 7 patients (33.33%) and diarrhea syndrome in 4 cats. Polyuria-polydipsia syndrome was a specific symptom of orientation in the diagnosis of chronic kidney disease, being identified in a number of 16 patients (76.19%). The symptomatology in polycystic kidney disease has the character of orientation towards the functional diagnosis, the clinical aspects relevant for the chronic renal insufficiency, followed by its confirmation by paraclinical methods.

Keywords: polycystic kidney disease, felines, chronic kidney disease.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2021, TIMIŞOARA

DIVERSITY OF TICK SPECIES SAMPLED FROM RECREATIONAL AREAS IN ARAD MUNICIPALITY

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Summary

Recreational areas are important in the urban habitat, but may act as favoring factors in the spreading of parasites such as ticks if the vegetation is abundant and the hosts are present. The study was undertaken to provide data on tick diversity from several recreational areas of Arad municipality and to evaluate the possible risk for the public health and companion animals. The methodology of the present study was based on 362 ticks collected using the dragging method from 5 locations from Arad Municipality and its surrounding areas, including public parks and forest areas. The ticks were identified using a stereomicroscope and the SEM method. The following species and genera were found*: Ixodes ricinus*, *Dermacentor reticulatus*, *Haemaphysalis* spp. The number of collected ticks varied among the studied areas from 106 (highest value) in Area 5 – park to 20 (lowest value) in Area 1 – forest zone. *Ixodes ricinus* and *Dermacentor reticulatus* were mainly found in park areas, while *I. ricinus* was better represented in forest areas. The identification of a high number of *I. ricinus* nymphs in forest areas draws attention on the possibility of transmission of *Borellia* spp. in humans. In addition, they can also harbor several other tick-borne pathogens. *Dermacentor reticulatus,* found mostly in parks frequented by dogs, highlighted the possibility of transmission of *Babesia* spp. in dogs. Therefore, people visiting recreational areas like public parks or woodlands together with their companion animals should be aware that may be at risk of coming into contact with these parasites and the pathogens transmitted by them.

Keywords: ticks, forest, park, dragging.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

OCCURRENCE AND MANIFESTATION OF STEREOTYPIC BEHAVIOUR IN CAPTIVE URSUS ARCTOS

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Summary

The present study investigated the occurrence and manifestation of stereotypic behaviour in captive Ursus Arctos, the overall rate of displayed behaviour and the specific trigger that causes the manifestation. It is very well known the fact that an artificial environment can cause in different species abnormal behaviour during their captive life that can cause a decline in the welfare if the behaviour is not evaluated and corrected by specific measures. The results of this study showed that the occurrence of the abnormal behaviours is strongly linked to lack of environment enrichment and to an inadequate space allowance. The presence of stereotypic behaviour indicated poor welfare related to the inability to express normal behaviour.

Keywords: captive bears, ethogram, stereotypic behaviour.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

A RETROSPECTIVE STUDY OF THE CONGENITAL MALFORMATIONS IN DOGS AND CATS (2019-2021)

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Summary

Congenital malformations are considered structural and functional defects of different regions of the body that occur during embryogenesis and are seen immediately after parturition. The causes can be genetic, environmental or a combination of both. Most of these malformations have a genetic predisposition due to genetic mutations that are transmitted between generations. The mutant gene can accumulate in the population through various ways such as: the existence of carriers, selection for a specific character that can be related to deleterious genes, genetic drift or even no selection against abnormal phenotypes. The present study aims to centralize the incidence of congenital malformations in dogs and cats encountered at the Small Animal Reproduction Clinic, FMV Timisoara, between 2019-2021. The results obtained after the examination of 294 animals were the identification of 29 cases (9.86%) with congenital malformations, of which 23 cases (7.82%) in dogs and 6 cases in cats (2.04%). It was observed that in purebred animals the frequency of birth defects was higher, so 86.96% of affected dogs and 66.67% of affected cats were purebred. Among the clinically congenital malformations identified we mention: hydrocephalus, lip cleft, palate cleft, cheilognatopalatoschisis, heterochromia, polydontia, syndactyly, polymastia or albinism. Most malformations are congenital, but there are also cases in which the defects are visible after a few months postpartum or even years later. Regardless of whether it is pure bred or mixed breed, it is important to have a correct diagnosis through genetic tests or pedigree, when available, to identify the carriers, to improve the veterinary care and finally to make a genetic advice to the breeders in order to increase the health of the animals of the future generations.

Keywords: congenital malformations, gene, carrier, purebred, mixed breed.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

MICROBIOLOGICAL AND SENSORY INDICES OF DOMESTIC RABBIT MEAT

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Summary

The paper presents the results obtained from the assessment of sensory and microbiological indices of rabbit carcasses of different origins. The studied carcasses were purchased from a specialized store, from the market and from a farm. The obtained data indicate an increased bacterial load in the carcass from the market both on the surface and in depth, and the carcass from the specialized store fell into the category of fresh meat according to sensory and micro biological indices.

Keywords: rabbit meat, microbiological indices, microflora.

LUCRĂRI ŞTIINŢIFICE MEDICINĂ VETERINARĂ VOL. LV(2), 2022, TIMIŞOARA

STUDY REGARDING THE ENDOPARASITISM IN GOATS FROM DOLJ COUNTY

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Summary

The prevalence of gastrointestinal parasites in goats is associated with various environmental and host related factors. The environmental factors include specificity of area, temperature, quantity and quality of pasture, humidity, and grazing behavior of the goat. Moreover, the results of endoparasites on productions is obviously. In this context, the purpose of this study was to identify the presence of endoparasites in a herd of goats in Craiova, Dolj County, using classical coproparasitological methods, macroscopic and microscopic examination of gastrointestinal mass and organs from goats. We identified, morulated stongilid eggs (gastrointestinal nematodes), *Nematodirus spp.* eggs, protozoan oocysts, *Trichocephalus* eggs and oviger proglots (cestodes oncosfers). In conclusion, we recommend a responsible parasitological control, focused on pasture and the correct administration of anthelmintics.

Keywords: goat, endoparasitism, Dolj County.

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BIOFILMS IN THE FOOD INDUSTRY: A FOCUS ON THE METHODS USED FOR DETECTION AND STUDY OF MICROBIAL BIOFILMS

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Summary

Biofilms represent microbial communities that live embedded in a self-secreted extracellular polymeric substance which grants them protection and vital nutrients, and are attached to a biotic or abiotic surface. The biofilm is a survival strategy implemented by microbes to survive in difficult environmental conditions. Their presence on the food-industry surfaces poses a great challenge for these industries, increasing food cross-contamination which will then lead to economic losses through food decay, and damaged processing equipment, public health issues, and eventually outbreaks. Due to the biofilms raising negative potential, many interdisciplinary researchers were determined to study biofilm characteristics in order to improve antibiofilm strategies and prevention methods. The final result is a multitude of knowledge and inventive technologies. In this article, we will review some of the most frequently used model systems for detection and study of biofilms in the food industry, ranging from traditional methods, to cutting-edge assays. Furthermore, this review can assist novice researchers in choosing the appropriate study methods.

Keywords: biofilms, biofilm study methods, food industry, food safety.

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HEMATOLOGICAL AND BIOCHEMICAL PROFILE IN GOATS FROM ALBA COUNTY DURING THE POST-PARTUM PERIOD

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Summary

The aim of the present study was to investigate the impact of the pregnancy on hematobiochemical parameters in a number of 20 goats. Blood samples were collected during the postpartum period (21 days), (n=20 goats, including 12 Carpathian goats and 8 hybrids of Carpathian and French-Alpine goats). Non-pregnant adult goats (n=20) were used as controls. The hematobiochemical parameters: hemoglobin (Hb), blood serum glucose (GL), total protein (TP), albumin (AL), uree (UR), total cholesterol (TC), creatinine (CR), alanine aminotransferase (ALT), alkaline phosphatase (AP) and gamma-glutamyl transferase (GGT) were measured using commercial kits. Also the levels of minerals such as: calcium (Ca), phorphorus (P) and iron (Fe) were investigated. The result showed that the mean values for Hb, ALT and GGT were significantly higher in post-partum stages when compared with controls. In contrast, we observed a decrease in TP, AL, Ca, P and Fe^{3+} during the post-partum period. In conclusion, the haemato-biochemical profile of the goats during the post-partum period suffered some changes when compared with the non-pregnant goats. These variations in the metabolic profile are representative for monitoring the goats' nutritional status and health.

Keywords: biochemistry, goats, post-partum period, metabolic profile.

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EVALUATION OF THE PARASITIC LOAD IN FALLOW DEER (*DAMA DAMA L.*) FROM ARAD COUNTY

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Summary

The fallow deer (*Dama dama L.*) is a notable representative of the *Cervidae* family in the Romanian fauna, particularly of the genus *Dama,* being an allogeneic species reintroduced into the country's fauna during antiquity by the Romans. A species with a high gregarious instinct, the fallow deer is directly dependent on the conditions offered by the habitat, and from this interaction, between the need of the species and the trophic offer, results in relations of interference and interspecific conditionality, respectively competition between individuals of the same species or between individuals of different species. One of the types of interspecific relationship encountered in the fallow deer species is predation. Exhaustively simplistic predation can be defined as the phenomenon by which some living individuals eat/consume all or part of other living individuals, excluding here detritivores and necrophages. One form of predation is parasitism. In this context, the purpose of the present study was to identify the presence of endoparasites in fallow deer from Arad County using the coprologic methods. We identified, morulated strongilid eggs (gastrointestinal nematodes), *Nematodirus spp.* eggs, oncosphers of cestodes, eggs of *Paramphistomum spp.* and eggs of *Gongylonema spp*. In conclusion, the increased prevalence of endoparasitism with the risk of infestation of the domestic ruminants, in fallow deer, indicates the existence of an epidemiological context favorable to the development of parasitic elements in Arad County and a warning for domestic animal breeders.

Keywords: fallow deer, endoparasitism, Arad County.

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MORPHOLOGICAL FEATURES OF THE THORACIC LIMB BONES IN RED-NECKED WALLABY (*MACROPUS RUFOGRISEUS* – DESMAREST, 1817) - CASE STUDY

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Summary

The study aims to describe the morphological features of the thoracic limb bones in red-necked wallaby (*Macropus rufogriseus*). The morphological characteristics found in these bones are useful for the diagnosis of the species. In order to perform this study, the bones of the thoracic limbs of a red-necked wallaby were used. The study of the thoracic limb bones, especially the long bones, led to the following conclusions: the scapular spine ends with an evident acromion, flanked by a reduced processus suprahamatus, the clavicle is present, flattened from side to side and extremities are widened, the humerus presents an supracondylar foramen, the lateral epicondylar crest is evident, in the proximal third of the radius body a crest for muscle insertion is observed, the olecranon tuberosity is evident and convex from side to side, the anconeal process is directed to the medial part, the first metacarpal bone is small in size.

Keywords: scapula, humerus, lateral epicondyle, olecranon tuberosity, radius.

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THE EFFECTS OF DIETARY SUPPLEMENTATION WITH PHYTOADDITIVES ON THE PRODUCTIVE PERFORMANCES OF WEANED PIGLETS

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Summary

Since the European Union banned the use of antibiotics in animal nutrition, natural alternatives have been sought for the control of various pathologies. This led to the concept of phytoadditives, and these natural plant extracts (phytoadditives) are gaining ground in pig breeding. In the present study, phytoadditives were tested in order to improve growth indicators in piglets, by reducing the incidence of digestive pathologies in animals and improving food indices with an effect on increasing productive parameters. Thus, 36 piglets, divided into 3 experimental groups (White, Green and Blue) received a herbal animal feed supplement for 28 days. At the end of the experiment, the productive parameters were evaluated: average daily gaining (ADG), specific consumption and feed conversion rate (FCR), observing the lowest values in the Blue group, for ADG and specific consumption, instead, at the same group, obtaining the best values for FCR. For the White and Green groups, average values were obtained. This study highlights the effectiveness of using phytoadditives in piglet feed.

Keywords: phytoadditives, piglets nutrition, productive parameters.

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ANTIMICROBIAL RESISTANCE OF *STAPHYLOCOCCUS SPP*. IN BOVINE MASTITIS

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Summary

Bovine mastitis is one of the most important bacterial diseases of dairy cattle worldwide and is responsible for huge economic losses for the dairy industry and milk producers. Bovine intramammary infection caused by *Staphylococcus aureus* is characterized by subclinical mastitis and persistent long-term infection, and the curative effect of antimicrobial therapy is low. Methicillin-resistant *St. aureus* (MRSA) has become a notable problem as a causative agent in diseases of domestic animals, including bovine mastitis, and most cases of this disease are caused by *S. aureus* ST398. Moreover, bovine mastitis caused by *MRSA*, well known as a typical multidrug-resistant organism, has been reported in all parts of the world and has attracted a great deal of attention. Staphylococcal resistance to methicillin and all *β-lactam* antibiotics is associated with the presence of the *mecA* gene encoding *PBF2a*, an alternative penicillin-binding protein. Thus, the *mecA* gene is responsible for staphylococcal resistance to penicillin-like antibiotics. In order to survive, microorganisms undergo certain mutations in the chromosomal DNA or RNA, providing them resistance. The cell wall of bacteria acts as a barrier and helps them survive, but due to altered chromosomal DNA or genetic mutations, the composition of the cell wall or plasma membrane changes, thus contributing to the phenomenon of resistance. This study aims to investigate the antimicrobial resistance (AMR) profiles of mastitis-causing *S. aureus*.

Key words: mastitis, AMR, *Staphylococcus aureus,* β-lactam antibiotics.