

suggest that among Romanian resident *Bison bonasus* exemplars, there is a high level of genetic similarity and that the individuals are close blood relatives. However, based on dissimilarity matrix data a genetic distantly related male was identified and suggested as potential sperm donor.

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The biotechnological behaviour evaluation of some lactic bacteria in *Aloe vera* enriched medium



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This study intends to define the kinetic parameters of growth and cells stability during the storage, of three probiotic strains, *Lb. plantarum*, *Lb. rhamnosus* and *Lb. casei* by cultivation on an electrolytes formulated medium and on MRS broth, both enriched with 0.5% lyophilized *Aloe vera* integral powder, compared to the MRS broth control medium.

The addition of *Aloe vera* lyophilized powder had a positive influence on cells multiplication and their viability. The higher viable counts were obtained for *Lb. rhamnosus* strain at 72 h of fermentation using the *Aloe vera* enriched medium (9.095×10^8 CFU/mL), while *Lb. casei* and *Lb. plantarum* strains had similar counts as the control (4.64×10^8 CFU/mL, respectively 1.28×10^8 CFU/mL). The rate of multiplication for *Lb. casei* strain was higher for *Aloe vera* medium ($v=0.508 \text{ h}^{-1}$) vs. control ($v=0.44 \text{ h}^{-1}$), while *Lb. plantarum* and *Lb. rhamnosus* had similar multiplication rate as on control medium ($v=0.55 \text{ h}^{-1}$, respectively $v=0.4 \text{ h}^{-1}$). *Lactobacillus* strains presented a good viability after 21 days of preservation in electrolytes medium supplemented with *Aloe vera* (1.1×10^6 CFU/mL for *Lb. rhamnosus*, 2.9×10^6 CFU/mL for *Lb. plantarum* and 9.07×10^6 CFU/mL for *Lb. casei*). The results offer a new opportunity for the use of probiotic and *Aloe vera* active compounds in order to develop pharmaceutical products for topic use in skin disorders.

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The importance of antibiotic resistance evolution in Western Romania’s swine units



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Inappropriate use of the antimicrobials, as a way of prevention or treatment of enteric colibacillosis in pigs can determine the rapid emergence of the antibiotic-resistant strains. The goal of our study was to follow up the bacterial resistance evolution to commonly used antibiotics in west part of Romania. The researches were con-

ducted on piglets, around the weaning age, samples being gathered from the top 10 pig growing units placed in Arad and Timis counties. The diagnosis of colibacillosis was confirmed initially morphopathologically, and it was followed by identification and isolation of the etiologic agent using classical methods from microbiology. From total of 167 samples tested, 75.44% were pathogenically positive, 10.77% were haemolytic strains, and the remaining 13.79% were found negative. From these, the non-haemolytic positive samples were tested by Kirby-Bauer disc-diffusimetric method, comparing the most used 11 antibiotics, and the results were microbiologically interpreted with CLSI/2009 and statistically by *t*-test. Results revealed a different evolution of resistance pattern for some antibiotics, probably due to the therapeutic management of visited units: in Arad County were observed elevated resistance levels to doxycycline and lincospectin ($P < 0.001$), and in Timiș high levels for neomycin and amoxicillin/clavulanic acid ($P < 0.001$), concluding that antibioresistance became highly significant threat, epidemiologically and economically for swine industry in Romania.

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Research on the evolution of blood biochemical parameters in calves treated with phyto-therapeutic extracts



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Respiratory disorders in calves are particularly important in veterinary pathology; the damage caused in the first three months of life is very high. The complex of respiratory diseases in calves, such as microbial, parasitic, as well as “a frigore”, evolves from simple rhino-laryngo-tracheitis to acute pulmonary thromboembolism. The purpose of this paper is to study the effect of administration in feed ration of phyto-therapeutic products in calves with respiratory disease and their influence on some biochemical parameters and blood components. The research was conducted in a farm on a number of 21 calves Simmental breed with respiratory disease of different intensities, administering for 10 days the therapeutic purposes, alcoholic extract of *Echinacea purpurea* combined with *Valeriana officinalis*, dose of 20 ml/calf, morning and evening. In order to conduct laboratory tests, blood samples were collected from diseased calves before and after treatment determining the WBC counts, serum transaminases (ASAT, ALT), GGT, calcium, phosphorus and magnesium. Analyzing the results obtained after treatment conclude the following: calves in the study, both before and after treatment, presents medium condition of anaemia; in the case of leukocyte formula by administration of the phyto-therapeutic extract significantly increases the number of lymphocytes and neutrophils counts decreases; in severe cases, phyto-therapy is recommended associated with anti-infectives.

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