

ANATOMICAL STUDY OF THE DIGESTIVE APPARATUS IN RED-EARED SLIDER (*CHRYSSEMYS SCRIPTA ELEGANS*; FAM. EMYDIDAE)

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*Three red-eared sliders (*Chrisemys scripta elegans*) were used for anatomy-descriptive study of digestive apparatus. Oral orifice is large and jawbone are thin plate horny covered. Esophagus is short and muscular. Stomach has "U" letter shape, and it surrounds the left liver lobe. Duodenum is short, arcuate, with pancreas on small curvature. Jejunum is long and spiral. Ilion is very short and it is opened in caecum at the ileo-caecal valve level. Caecum is voluminous and has a hook shape. Colonum is very short and it is opened in cloaca. Liver has 2 lobes united by an istm.*

Key words: *Chrisemys scripta elegans*, red-eared slider, digestive apparatus, anatomy-descriptive.

ETUDE SUR L'INDICE DE PROLIFICITE AUX RENARDS BLEUS ET ARGENTES

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Cette etude a ete effectuee par l'intermede de l'inventaire d'un nombre de 316 mises bas et 1939 renardeaux obtenus pour renard bleu et d'un nombre de 249 mises bas et respectivement 879 renardeaux mi-bas pour la renard argenti, entre 1994-1996. L'indice de prolificite a ete etabli par l'utilisation de la formule de calcul: nombre d'animaux mi-bas/nombre de femelles mettant bas. A toutes les deux especes de renard on a constate une tres grande variabilite du nombre de renardeaux mi-bas /femelle concretise par 1-15 renardeaux/femelle aux renards bleus et 1-7 renardeaux aux renards argentes.

Mots cle: *renard, indice de prolificite.*

PHENOTYPIC CORRELATIONS BETWEEN SOME BLOOD INDICES AND SERUM COMPONENTS OF THE HORSE IMMUNE SYSTEM

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Based on 2276 observations of 14 blood indices, done upon a 379 horses sample of four different breeds (Lipizzaner, Furioso North-Star, Transylvanian Half-Heavy and Thoroughbred) between 1991-1999, has been established and analyzed phenotypic correlations between three serum components with immune role gammaglobulines, properdine and lysozyme - and some blood indices (erythrocyte count, hemoglobin, iron, glucose, creatinine, urea, cholesterol, proteinogram).

The values of the phenotypic correlations performed on the whole sample have been established dependence (positive and medium) only between gammaglobulines and serum proteins (0.398) and serum globulines (0.472). No correlations were finding between the three studied components of the immune system.

Key words: *horse, immunologic parameters, blood indices, correlation.*

1 H NMR STUDIES OF WATER STATE IN GLYCERINATED RAT SKELETAL MUSCLE

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Skeletal muscle is a very good model for fundamental research of aging process due to its postmitotic character. In order to obtain new data concerning muscle contraction at the molecular level, the polar groups of contractile proteins have been investigated by means of 1 H NMR Spectroscopy. Glycerinated sartorius muscle from 6 and 37 months old rats has been used for proton transverse relaxation time measurements in Ri, Co and Re. At different [ATP]. The distribution of negative charges in contraction and relaxation has been measured by exposing glycerinated muscle from 6 to 37 months old rats to different [Mn+2]. Our data have pointed out the existence of two proton relaxation times; T2s and T2l accounted for two water compartments. The modifications in water state are related with modifications in contractile activity. The elongation of proton transverse relaxation time is associated with a decrease in the degree of water molecules aggregation. T2s and T2l are correlated with a reduction in muscle hydration, contraction being a function of ions binding to the protein sites. These sites are implicated in determination of protein hydration state.

Key words: / H NMR, aging, glycerinated muscle, contraction, relaxation, rigor

MODIFICATIONS OF PHYSIOLOGICAL PARAMETERS OF ISOLATED PERFUSED RAT HEART OF DIFFERENT AGES

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The aim of our study was the investigation of physiological parameters of 32 months old female Wistar rats' hearts, versus young rats (6 months old). Isolated hearts have been mounted and perfused with Krebs-Henseleit buffer at 37 degree centigrade in Langendorff retrograde perfusion system at a constant pressure. Over 60 minute's period of time (i.e. at 10) 20) 30) 40) 50) 60") have been determined: heart rate, (HJL.), coronary flow (C.F.) and LVPD (left ventricle pressure developed). TAGS Apoptotic DNA Laddering has been used to assay heart cells for apoptosis after 60 minutes perfusion. Our data have pointed out that, in old rats, cardiac frequency presents higher values than in controls. Coronary flow is variable in time in aging rats in comparison with young ones where is a slow decrease during experiment. Pressure developed by the left ventricle is not elevated in aging rats but, with fluctuations in time. No internucleosomal fragmentation and DNA laddering displaying has been observed for this experimental model.

Keywords: myocardium, aging, coronary flow, heart rate, left ventricle pressure developed

MOLECULAR ASPECTS OF CARDIAC REMODELING INDUCED BY L TRIIODOTHYRONE IN WISTAR RATS

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Heart is a major organ of thyroid hormone action, hyperthyroidism results in enhanced myocardial contractility, an increased cardiac output and fall in systemic vascular resistance. The aim of our study was to induce cardiac hypertrophy in rats treated with L Triiodothyronine (T3). Molecular studies concerning RNA and protein synthesis as well as myofibrillar ATP ase activity and proton transverse relaxation times measurements along with the study of mechanisms of apoptosis by means of DNA laddering in left ventricle. Our data have pointed out the anabolic effects played by T3 on rat heart metabolism, expressed by an increase in mRNA and protein synthesis and an increase in myofibrillar ATP-ase activity and in T21 proton relaxation times as an expression of restructuring of interfilamentary water. T3 induces hypertrophy in rat heart, by inhibiting the normal mechanisms of apoptosis.

Key words: heart, apoptosis, thyroid hormone, hypertrophy

THE EFFECT OF THYROID HORMONES UPON MUSCLE METABOLISM AND IONIC FLUXES IN AGING RATS .THE IMPACT OF GEROVITAL H3

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The aim of this study was to see the effect of Thyroxine administrated in excess upon striated and cardiac muscle metabolism and upon $^{45}\text{CaCl}_2$ transport in old rats. Another objective was to see the effect of Gerovital H3 upon ^3H Uridine and ^3H Tryptophane uptake in rat heart treated with thyroxine in excess. Our data have pointed out that thyroid hormones administrated in excess in Wistar rats have an influence on protein and nucleic acid metabolism as well as upon membrane permeability. Our data concerning the effect of "in vitro" incubation with Gerovital H3 upon ^3H Uridine and ^3H Tryptophane uptake in rat heart treated with different doses of thyroxine can have a clinical value concerning the use of Gerovital H3 therapy in patients with hyperthyroidism leading to the improvement of metabolic junctions of cardiac muscle cells.

Key words: thyroxine, rat heart, ageing, Gerovital H3 .

THE INVESTIGATION OF IONIC BEHAVIOR DURING CONTRACTILE ACTIVITY IN GLYCEROL EXTRACTED MUSCLE

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Glycerol extracted rabbit psoas muscle has been used for investigation of water state during contractile activity by means of spectrometry in liquid phase using tritiated water by measuring T2O distribution between muscle water and medium. Our studies have pointed out that the state of water in the contractile system of striated muscle fibers is a phenomenon correlated with the contractile process and development of the active force of contraction. R tends towards value 1 at the isoelectric point of the myofibril providing the repeatability of studies on the distribution of tritiated water as an indicator of macromolecular hydration. Contraction implies reduction of the degree of association of water molecules within muscle. The concentration of fixed charges increases in Co in comparison with Ri and Re accounting for swelling theory of muscle contraction. Variations in the state of water may explain the ionic changes, which appear during contraction.

Key words: rigor, contraction, relaxation, muscle

MODIFICATION DE LA MUQUEUSE DES VÉSICULES CONIQUES RUMINALES AUX AGNEAUX DE LAIT SOUS L'INFLUENCE DE LA PRÉPARATION FOURRAGÈRE "PROSIMBIONT B"

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On a étudié les modifications de la muqueuse des vésicules coniques ruminales, induites par la préparation fourragère administrée aux agneaux de lait sous deux formes de présentation: mélangée au fourrage combiné, pendant toute la durée de l'expérience (11-49 jours) et sous forme de pâte, distribuée en deux doses à l'âge de 11 jours et respectivement 16 jours. L'étude microscopique relève au cas des lots expérimentaux, la croissance en hauteur des papilles ruminales, des hypoplasies de l'épithélium, la réaction positive à la phosphatase alcaline, la réduction jusqu'à disparaître de la kératinisation et la multiplication du réseau vasculaire.

Mots clé: agneaux de lait, préparation fourragère, histologie, vésicules coniques ruminales.

MODIFICATIONS DE LA MUQUEUSE DES SACS RUMINAUX AUX AGNEAUX DE LAIT SOUS L'INFLUENCE DE LA PRÉPARATION FOURRAGÈRE "PROSIMBIONT B"

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On a étudié les modifications de la muqueuse des sacs ruminaux, déterminées par la préparation fourragère administrée aux agneaux de lait sous deux formes de présentation: mélangée au fourrage combiné, pendant toute la durée de l'expérience (11-49 jours) et sous forme de pâte, distribuée en deux doses à l'âge de 11 jours et respectivement 16 jours. Les images microscopiques mettent en évidence, au cas des lots expérimentaux, que, au niveau de la muqueuse des sacs ruminaux, il y a une série de modifications qui peuvent expliquer l'intensification de la fonction d'absorption au niveau de l'épithélium.

Mots clé: agneaux de lait, préparation fourragère, histologie, sacs ruminaux

STUDY OF EUTROPHIZATION PROCESS IN SURFACE WATERS

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The important aspects likely to arise from wastewater discharges are macronutrients (C, N, and P) enrichment with its associated bacterial plankton and phytoplankton growth. The biological indicators of water exist commonly in rivers and lakes; these indicators' dynamics in macronutrient enriched waters account for the evidence of impurifying and the eutrophication condition. The growth order of biomass is 10. Within the small cycle, trophic levels alternation occurred.

Key words: eutrophication, surface water, biological indicators

THE USE OF LECITHIN IN YOUNG BULLS FEEDING

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In this trial was studied the influence of supplementing the rations by adding lecithin into the concentrates 150 g/bulls/day.

The experimental study showed an increase of the daily gain by 21% (822 g. for bulls in the experimental group, comparatively with 677 g for control group). The specific consumption decreased for the experimental group.

Lecithin had a balancing effect for the metabolism of carbohydrates, protein and mineral salts and some hypolipidic and hypocholesterolic effects.

Key words: young bull feeding, lecithin supplementing, daily gain, specific consumption

THE EFFECT OF SOURCE AND SUPPLEMENTING LEVEL OF COBALT, ZINC AND SELENIUM ON GERMS TOTAL NUMBER AND CELULASIC ACTIVITY FROM RUMINAL FLUID

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After isolation in 1970s, Campylobacter jejuni become the most commonly recognized cause of bacterial gastroenteritis in man. In animals is frequently found in bovines on ovines. Publishing of the genome sequence of Campylobacter jejuni 11168 (Parkhill, 2000) revealed the presence of only one cytochrome P450 in an operon involved in sugar and cell surface biosynthesis. The gene name is Cj1411c, is 1359 bp long and encodes 453 aa. The sequence is strictly conserved in Campylobacter jejuni RM221. Similarities with two cytochrome P450s, one form Silicobacter sp. and one form Poloromonas sp., were identified. These two enzymes are known to be involved in ascorbate and aldarate metabolism. The recombinant construct allowed the expression of active P450 enzyme with a 450 nm peak when binds CO. The protein was purified in proportion of ~ 70 %. By deleting the P450 gene from the Campylobacter jejuni 11168 genome clear changes in cell morphology were identified cells becoming wider and shorter. The capsular sugar profile of the NCI strain reveals the presence of arabinose which was not found in the wild type strain. The arabinose was identified by both High Performance Liquid Chromatography (HPLC) and Nuclear Magnetic Resonance (NMR).

THE USE OF E VITAMIN IN SOWS ALIMENTATION

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The investigations were done on 39 sows, grouped in thne lots. The duration of experiment included three periods: gestation I, gestation II, lactation. The aim of the experiments was to study the influence of vitamin E concentrations (28, 35 and 42 mg/kg nutrients) on sows' abilities for reproduction. The use of vitamin E was effective, particularly the concentration of 42 mgper kg of nutrients.

Key words: *Alimentation, vitamin E, sows, reproduction*

RESEARCH CONCERNING THE OPTIMISATION OF STIMULATORS DOSING QUANTITY ADMINISTRATION AT ANIMALS THROUGH UTILISING LIKE ANALISING ELEMENT OF "GAUSSIENE" DIAGRAM

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In the study regarding the stimulators quantities dosing optimisation is presented a diagram with a gaussian curve with its deriyates and combined curves. The diagram was divided in four fields: the increasing field of the effect produced by stimulators, the optimum field with a point with maximum effect for each subject, animal group, the dangerous negative zone where the effect is destructive positive comparative with control and negative destructive dangerous zone were the effect is negative destructive comparative with control.

It is shown that in the case that the stimulators are dosing over the optimum zone, the effects start to decrease and in the last two zones\ produce animals intoxications and in the last phase, their death.

Key words: *stimulator, increase zone of the effect, optimum zone, maximum point, dangerous negative zone*

THE DETERMINATION OF THE INTERPOLATING POLYNOMINAL OF THE INDEPENDENCE TIME-BODY WEIGHT OF THE BROILERS

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This method decides the polynomial interpolating concerning "the noise" produced during the weighing and the knowledge of its degree.

Key words: *polynomial, interpolating*

THE MATHEMATICAL MODEL FOR TESTING THE INCREASE IN WEIGHT OF THE BROILERS

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This work presents a model of analyzing the evolution in weight of the broilers starting with their birth to slaughtering, concerning only the initial the initial and the intermediate weights at the end of each week.

Key words: broilers

ASSESSMENT OF MICROBIOLOGICAL STABILITY OF FEEDS AND FORAGES IN CONSTANT WATER ACTIVITY (A(W)) MOISTURE CHAMBERS

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The physical phenomenon of constant RH equilibrium in the atmosphere over saturated solution of inorganic crystals can be utilized in the construction of stabilized A(w) moisture chambers for studies on the kinetics of microbiological growth in feed samples. The constant A(w) chambers proposed can be constructed and used in any laboratory for feed microbiology, cheap and simple enough to make a set of them. As A(w) region of microbial feed spoilage, the installation of A(w)=0.95 (KJOJ, A(w)= 0.84 (KCl), A(w)=0.75 (NaCl) chambers can be recommended. The constant A(w) moisture chambers are versatile tools in the practice of feed microbiology: it is enabling to study growth kinetics of toxinogenic fungi, susceptibility of feed as microbial substrate, efficiency of antifungal additives, DM vs. A(w) in processed feeds, in addition, it can be used as authentic standards in the calibration of RH-meters and sensors.

Keywords: microbiological stability, storability, constant A(w)

MINERAL CONTENTS OF FORAGES OBTAINED FROM A MOUNTAIN PASTURE OF FESTUCA RUBRA + AGROSTIS TENUIS (MOUNTAIN REGION OF CINDREL) AS INFLUENCED BY VARIOUS SYSTEM OF MANAGEMENT

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Mineral contents evolution (P, K, Ca, Mg) of forages obtained from a mountain pasture of Festuca rubra + Agrostis tenuis (in mountain region of Cindrel) as influenced by treatment with N, P, K mineral fertilizer and alternative harvesting (grazing or mowing) are pointed out.

According to P, K, Ca and Mg contents, the conditions of mineral nutrition of forages plants (Festuca rubra and Agrostis tenuis) are discussed.

Key words: mineral contents of forages; mineral nutrition of Festuca rubra + Agrostis tenuis

INFLUENCE OF MODE GROWING AT CRIMSON CLOVER (TRIFOLIUM INCARNATUM) ABOUT PRODUCTION OF BIOMASS

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An important source for animal and vegetal yield increasing with minimum of investments is the efficient using of agricultural potential of some forager species, not very used nowadays, like Trifolium incarnatum.

At us this legume it is cultivated on limited spaces especially for seed producing and also cultivated on stubble field for fodder producing.

Comparing the clean Trifolium incarnatum crop all the others crops mixed with Lolium multiflorum have a higher yields with 0,7/10,14 t/ha of biomass.

Key words: *Trifolium incarnatum, technologies, mixture.*

THE INFLUENCE OF VARIETY AND FERTILIZATION MADE WITH NITROGEN ABOUT SEEDS OF THE AUTUM FODDER PEAS

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Autumn fodder peas are for Romanian condition, the most used species of annual leguminosarum in the structure of autumn mixtures. The production of beans is influenced, in a big way by the kind of variety used, in the sense of rising with 20-80% depending on the variety that is used.

Fertilization made with N₂, though is influencing positively bean production, does not realize bigger efficiency production, comparative with the use of.

Key words: *peas autumn, variety, and autumn mixtures*

THE INFLUENCE OF SOME ELEMENTS OF TECHNOLOGY ON SEED YIELD OF BIRDSFOOT TREFOIL

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In the paper they are indicated methods of harvesting and methods of chemical pest control present in seed lot of birds foot trefoil.

Key words: *birds foot trefoil, seed yield.*

THE EFFECTS IMPROVEMENT OF ENVIRONMENTAL NITROGEN SYMBIOTIC FROM BACTERIAN INOCULATION, ABOUT QUALITY PRODUCTION OF FORAGES AT SOME SPECIES OF PERINEAL LEGUMINOSARUM

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*Bacterial inoculation of perinneeal leguminosarum seeds *Rhizobium* sp., had a positive effect on the quality production of forages, with 7% high production of protein comparing with the untreated model.*

Key words: *quality production, red clover, white clover, bird's foot trefoil*

BEHAVIOUR OF HUNGARIAN GREY CATTLE ON GRASSLAND

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The ethological research on Hungarian Grey Cattle was started in April 1999 in the Gy&Mrkut area of Hortobágy in Hungary. The aim of the study was to define the habits and the typical behavioural patterns of the breed and to compare the observations -with others written about cattle in general.

The behaviour of the herd kept extensively in natural condition, differs from the modern breeds in many aspects. Emphasis must be laid on the great maternal care of the cows, the grazing ability of the calves developing in their very young age and the adaptive behaviour of the animals in the herd in harmony with their environment.

Key words: *grazing, Hungarian Grey Cattle, calf, behaviour, extensive*

SYNTHETICAL INDICES OF ESTIMATING CERTAIN TRAITS OF MEAT PRODUCTION IN YOUNG CATTLE

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The investigations were carried out on 312 young cattles of Romanian Spotted Breed structured in 14 age group and 185 young Romanian Breed Buffaloes (of these 102 males and 83 females), structured in 8 categories of age. The results obtained have revealed the main production indices on slaughter and in carcass having been established, in dynamics, new indices of prolificness; of these some have to be included in selection criteria.

From results point of view, the report is genuine, along with numerous priorities in the field.

Key words: *meat, young cattle*

RESEARCHES CONCERNING THE EFFECT OF CALVING INTERVAL LENGTH ON THE PRINCIPAL INDICATORS OF MILK PRODUCTION AT AN ROMANIAN SPOTTED CATTLE POPULATION

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The item of the researches are a Romanian Spotted Cattle population raised in Cluj county, testing a number of 4624 villages in development, starting with the calving interval (CI) between the first and the second lactation till the lactation X and XI. Depending on CI longer, the biological material under the researches was structured in 8 age groups, starting with CI less than 365 days till to CI higher then 500 days. For this 8 intervals are in test the most important milk production indicators and the development of individual average daily milk production on all lactation (II-XI) depending on total length of lactation and a CI.

Key words: *calving interval, cows, milk*

RESEARCHES CONCERNING THE EFFECT OF YEAR OF BIRTH ON THE PRINCIPAL INDICATORS OF MILK PRODUCTION AT AN ROMANIAN SPOTTED CATTLE POPULATION

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The researches are performed on 2629 Romanian Spotted Cattle reared in Cluj county, testing a number of 6653 lactation in development. The effect of year of birth was study during of 9 years, starting with the animals born in 1985 till 1993. One of the first aspects what take the attention is the age of first calving, who starting from the animals born in 1985 ($1385,58 \pm 19,71$ days) and till 1993 ($1060,02 \pm 9,59$ days) have an accentuate descending character. Regarding that, the age of first calving is decreasing on the animals born in 1986 regarding the animals born in with 12,06% (meaning 167 days), age what in the next year descres with an other 102 days. The same evolution is in the milk production per normal lactation, that decreasing gradually from 2830 kg milk and 108,11 kg pure fat on the animals born in 1985 till 2381 kg milk and 90,98 kg pure fat on the animals bom in 1987.

Key words: *year of birth, cows, milk*

EFFECT OF CROSSBREEDING THE RED HOLSTEIN AND ROMANIAN SPOTTED DAIRY COWS PRODUCTION IN COMMERCIAL FARMS

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Red Holstein breed is used in crossbreeding with Simmental breeds for increasing of the milk production, for better conformation of the udder in mechanic milking, and for a better productive precocity. Improvement of Romanian Spotted bred (RS) with Red Holstein (RH) genes in commercial farms, we obtain a positive effect on milk quantity and quality (the fat percent increase). The best results were registered in cows with 25-50% RH genes, which had a superior production with 217 kg / lactation. The average production / day was superior with 3,06 kg milk and 0,12 kg fat ($p < 0,001$) reported to the Romanian Spotted breed.

Key words; *crossbreeding, Red Holstein, Romanian Spotted breed.*

ANTISTRESS TREATMENT INFLUENCE ON PRODUCTIVE PERFORMANCES IN FATTENING ROMANIAN SPOTTED YOUNG BULLS

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The aim of researches were to determine in which measure the antistress treatment (Combelen, glucose solution, AD₃E vitamins, Serum, Ferodex, C vitamin) used in young bulls fattening farms can reduce the negative effect which stress can present on some meat production indices. The best results on stress prevention were obtained using the heterohemotherapy with or without association of glucose solution with AD₃E vitamins. In animals treated with above mentioned intervention, daily gain were 840 g to 867 g, the whole body weight from 190 kg to 191,7 kg, which were between 9,41% to 13,33% higher than those observed in other treatment groups.

Key words: *antistress treatment, fattening Romanian Spotted young bulls*

THE PERFORMANCES OBTAINED BY THE NONNJS HORSE AT THE QUALIFICATION EVENTS FROM 1924 UP TO THE PRESENT

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The results obtained by the Nonius species at a number of four qualification events from 1924 up to the present are being rendered.

The results got establish the superiority concerning the energetic capacity of the Nonius species to the other breads of traction horses in our country.

Key words: *resistance tests, speed tests.*

THE EVOLUTION OF THE MORPHO-PRODUCTIVE TYPE OF THE NONIUS HORSE FROM ITS IMPORTATION IN OUR COUNTY UP TO THE PRESENT

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It has been ascertained that in a period of 80 years there has taken place the reduction of its corporal dimensions its waist by 4,1 cm and its corporal weight by 35,7 kg). The duration of life and the length of exploiting the mares-mothers have also been reduced. The number of the live products obtained has decreased by 1,7 and the foals kept for breeding by 0,83 throughout the whole activity of the mall-mothers.

RESEARCHES CONCERNING THE PERIOD BETWEEN GENERATIONS ON PATERNAL LINE OF THE NONIUS HORSES

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On the bases of the stock/arm records of the Nonius species bred at present at the Studfarm from Izvin they calculated the period between generations on paternal line.

Out of a number of 168 he-foals (malefoales) kept for breeding - the period between generations between the stallion and the he-foal is of 132,19 + 3,06 months, respectively 11,02 years and as for a number of 213 she-foals (female foals) - the period the stallion and the she-foal is of 136,94[^]9,38 months, respectively 11,41 years being on average 21 years. This period is the lowest as compared to the other breed of horses reared in our country.

Key words: *interval, generations*

BEHAVIORAL STUDIES ON SPORT HORSES

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The main behavior aspects have been studied on 60 sport horses (1/2 Thoroughbred) during 6 months (april-september). This study focuses on a stabled ethogram as a measure of what do the horse all the day, and if these animals have well-being conditions. The main behaviors in 24 hours included : standing 91,31% (standing alert 61,11% and stand resting 30,20%) and eating 36,11%. Frequency behaviors included in a main procent stable vices (1,73%), what means there is a need for more scientific studies on animals well-being.

Key words: *behavior, sport horses, ethogram.*

BIOMETRICAL COMPARATIVE STUDIES ON ROMANIAN SPORT HORSES AND THOROUGHBRED HORSES

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The study was carried out on 30 stallions (15 Romanian Sport Horses and 15 Thoroughbred) used in show jumping; 15 body measurements were made on each horse. The "t test" was computed between the Romanian Sport Horse body measurements and the Thoroughbred body measurements, used in the same competitions.

Key words: *sport horse, body measurements*

SOME PECULIARITIES OF THE KALEMIC SYSTEM IN THE ZOOTECNICAL LINES OF BLACK VARIETY OF THE BOTOSANI KARAKUL BREED

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*S. C.P. C. O. PopSuti-Botosani ** Faculty of Animal Sciences and Biotechnologies, Timisoara, Romania

Among the zootechnical lines of the Botosani Karakul breed there are more or less significant differences in the respect of the biochemical-genetic structures from the Ke locus level; these differences are determined by the peculiarities of the selection systems used for the improvement and morpho-productive specialization of the black sheep of this breed. The distributional configuration of the potassium allele, phenotypes and genotypes notices the genetic similarities between the line 528 and cross on the one hand, between the lines 1557 and 2000 on the other hand, and between them there is the line 5. The lines 5, 1557 and 2000 are better associated with the LK phenotype, while in the case of the lines 528 and cross the association is more relevant with the HK phenotype.

Key words: potassium phenotype, zootechnical line.

THE MAIN FEATURE OF MOHAIR FIBRES AT THE ANGORA GOATS EFFECTIVE IMPORTED FROM FRANCE

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Investigation was made on Angora goats imported from France. For praising the quality of mohair we determine the fibres fineness, relative and absolute length of those and the number of wave/linear cm. Also, we effectuate observation about silkiness and grade of whiteness. The results of investigation revealed a high grade of fineness and the necessity of amelioration, in future, of fibres. The others feature are well express on the studied population.

Key words: goat, mohair

LA CORRELATION DES RANGUES DES VALEURS D'AMELIORATIONS APRECIE PAR LES PERFORMANCES INDIVIDUELS ET APRES LES PERFORMANCES DES DESCENDENTS

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**S.C.P.C.O., Carei

*Les investigations ont ett effectue'es sur 11 b&liers de la race Merinos de Stavropol et sur 10 filles de magne b&liers. Ces biliers ont ete" hi&rarchise's selon leur propre performance (PP) et selon leur descendance (TDL) pour la production annuelle de laine, la longueur de la laine, le diametre et le rendement an lavage de la laine. On n 'a pas trouve de la concordance (bvalue'e par la correlation des rangs) entre la valeur de l 'amelioration d&terminke par le PP et le TDL, a l 'exception des correlations entre le diametre des fibres (PP) et la production annuelle de laine (TDL) $r = 0,804^{**}$; la production de laine (PP) et la production de laine (PP) et la longueur de la laine (PP), $r = 0,631^{*}$ et la production de laine (PP) et la longueur de la laine (TDL), $r = 0,663$. On peut sugg&rer que, pour les parametres de la production de laine, la performance des beliers ne puisse pas substituer le testage sur descendance.*

Mots cle: Merinos de Stavropol, laine, propre performance, testage sur descendance, correlations.

LAMB MEAT QUALITY OF DIFFERENT GENOTYPES IN HUNGARY

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The author investigated 153 lambs of nine genotypes originating from breeding flock, and 50 lambs originating from production flock. The investigations were performed between 1995 and 1998. The author investigated the proportion ratio of valuable meat in case of the different genotypes, and - out of the internal value indicators - the dry-matter content, the protein content, the fat content, the connective-tissue content, and the hemin content, and compared the flavour, the aroma, the tenderness, and the oven loss of the different genotypes. The following should be mentioned among the achievements and findings:

◆ *Readiness for slaughter, typical of each genotype, has to be defined, and slaughter in proper weight has to be achieved.*

◆ *It has to be re-evaluated, whether the Hungarian Merino is the only breed which can be used in Hungary, as none of the investigations really prove the special characteristics and significance of this breed.*

*The author summarizes the findings of the investigation in three tables. **Key words:** sheep, meat, quality, carcass*

INVESTIGATION OF THE MILK COMPOSITION OF DIFFERENT GENOTYPE MILKING SHEEP IN HUNGARY

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**University of Szeged College of Food Engineering, Hungary **University of Debrecen, Hungary*

The authors investigated the fat, protein, lactose content, protein composition, and somatic cell count of milk samples of six genotypes milking sheep and their milk production during lactation. The Langhe, Merino, and Pleveni genotype gave the best values for the fat, the Langhe and Merino for the protein and lactose content, respectively. The somatic cell count fluctuated during the lactation months and distributed about 30% for the 1st; 2nd, and 3rd. class each and about 10% for the 4th class. As for milk production, the Cigdja and East Frisian produced the highest amount of milk during lactation what were about 30 % more than the Hungarian Merino.

Key words: *Composition of sheep milk, milk production, different milking sheep genotypes*

THE QUALITY OF DIFFERENT SHEEP GENOTYPES IN HUNGARY

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The quality of the Hungarian lamb's carcass moves in a wide range. Taking into consideration that the percentage of the carcass is varying between 44 and 52% and there are lambs in E and P category in the Hungarian production, furthermore that the fat coverage can be found in 12 subclass of EUROP classification, we can easily see the reason for the existence of the statement. Regarding other parameters of the quality we can see the same variation in the valuable meat proportion, fat and connective tissue-content, to mention only the most important parameters of objective qualification. The diversity is similar in the subjective parameters like odour, taste, etc. This great diversity gives work to the breeders, but it can also help them to change the method of selection, or to choose the possible crossing partner.

Naturally it gives only the possibility of the efficient work, the breeder has to take many factors into consideration that can influence the result. The following characteristics are the most important: the economical weight of the features, breeder and breeding potential possibilities, the objectivity of the classification, harmonisation of quality demands, genetic establishment of considerable features, and genetic intervention and improvement of the quality in such a way that it is established in real demands and actual possibilities.

In the material we analyse the following six main factors that can influence the quality:

- Quality of the live animal*
- Proportion of the carcass*
- Quality of the carcass.*
- Proportion of valuable meat*
- Composition of tissue*
- Roast loss*

All of these factors are influences the price as well.

Key words: *quality, sheep meat, EUROP quality*

THE EFFECT OF THE POLITICAL CHANGE ON THE SHEEP SECTOR IN HUNGARY

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Situation of sheep production was very special in Hungary as well as before and after the political change in 1989. A kind of crisis can be seen in this sector from the middle 1980's which was followed by a sharp decrease in sheep population number and sheep product quantity (table 1 and 2). It is a paradox that the domestic consumption and the market positions of the Hungarian sheep products have not changed, a large part of grazing is not utilized and at the same time production and output decreased. The reasons for the crises are numerous and complex, but the main fields of the decline are the next:

- *Unfavorable and non-eligible breeding system and policy*
- *Low quality, productivity and effectiveness (meat and milk yields)*
- *Lack of capital and assets*
- *Low quantity and price of wool*
- *Non adequate nutrition and keeping technology*
- *Low level of tools and equipment*
- *Non-determined production, regulation and supporting policy*
- *Producers have no effect on the market and marketing activity*
- *Lack of processing industry and marketing*

By the political changes economic situation of sheep producers became worse. Privatization brought a special position: ownership of land, stocks and assets are separated and renting and leasing costs are emerged. The gap between input and agricultural prices became larger. All these facts put straits on sheep producers and drive them and the sector towards collapse. To stabilize and improve the sheep production central regulation, production and supporting policy were required, which is still not significant enough to develop a competitive and profitable sheep industry in Hungary.

Key words: *Political change, separation of ownership system, privatization, lack of sources and assets, current assets, decrease in the sheep population and production, breeding policy, change in the sheep production distribution, determined markets.*

THE INFLUENCE OF A TEMPORARY MAGNETIC FIELD DURING STORAGE AND INCUBATION ON CHICKEN HATCHING

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In the work the influence of magnetic field with the intensity 0.07T on hatching of ROSS 208 chickens was observed. The hatchability of the eggs that were influenced by magnetic field during the storage of the egg set (20-40 minutes) was increased in comparison with eggs that were not influenced by magnetic field ($P < 0.05$). In the eggs were influenced by magnetic field during their incubation, the hatchability in experimental groups decreased to $66.19 \pm 1.54\%$ and $67.58 \pm 3.62\%$. The difference was relevant ($P < 0.001$). The negative influence of magnetic field was manifested by lower weight of the hatched eggs in experimental groups ($34.58 \pm 1.54\text{g}$ and $36.81 \pm 1.04\text{g}$). The results were relevant ($P < 0.05$) in comparison with the control groups with the average weight of hatched chickens $41.43 \pm 0.92\text{g}$, and $43.75 \pm 1.50\text{g}$.

Key words: *chickens; hatching; hatchability; magnetic field; weight of chickens.*

THE INFLUENCE OF ULTRASOUND ON THE CHICKEN HATCHING

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In the work the influence of synthetic ultrasound on the hatching of the Rhode Island Red breed chicken was investigated. The embryos from control groups were not ultrasound stimulated during the incubation. In the experimental embryos were, from the first hour of incubation, stimulated by ultrasound generated by the transducer oscillating at the frequency of 30 kHz and the power of 60 W. The pathological influence of ultrasound was demonstrated especially on the embryos with highly developed allantochorionic blood circulation. We suppose, that after the violation of allantoid vessels the intensity of oxidation processes in embryos decreased and allow all for the most embryos the accumulated carbon dioxide resulted in the decrease of their blood pH that consequently influenced the sex differentiation in control groups in favour of males.

Key words: *ultrasound, hatching, sex, chicken*

NEW DATA REGARDS THE TECHNICAL MODIFICATIONS IN STRUCTURE MILKING COW MACHINES AND INSTALLATION OPTIMISATION

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Milking installation through machines glasses make the milking cycle. During the exploitation period of the cows of 8 - 10 years is produced 1,5-4 million cycles. Milking cycle is considered like a force that operates on the cow's nipples. When the operation is aggressive is produced a strong stress with serious negative influences in the milk production and cow's health.

Milking installation must be updated continuousles, especially the pulsatory, in order to realise a correct milking and reduced the milking time and the energy consumption.

Key words: *milking installation, collector, pulsatory*

AUTOMATIC MILKING SYSTEMS - MILKING SYSTEM FOR 21ST CENTURY

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***Facultatea de Horticultura, Timisoara*

An automatic milking system is more than the robot for attaching the teat cups. It also includes the design of the milking place, the routing of the cows towards that place, the rules for selection and treatment of the animals the signaling of oestrus and anomalies and the control of feeding. Various European-developed prototypes of devices that automatically attach milking units to cows are described Several are being Mailed on experimental and working farms in the Netherlands. The information gained from these experiments is being used to develop management information system to monitor and control the whole process of automatic milking.

Key words: *automatic milking system; milking robot; the routing of the cow.*

A COMPARATIVE STUDY CONCERNING THE PERFORMANCES IN WORK OF THE PRECISION DRILLS

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Because of the sowing process, in the case of crop hoed it is possible to appear the increase of the production's price because of the seed unequal distributed on the row, the linings and the failures.

For avoid these causes we must be attention in first time when we choose the seeder because his performance depends from the constructive type and the producer.

Now, will be presents some types of seeders and them individuals and comparatives performances that were obtain on the stand and in the field.

Key words; *unequal distributed, linings, failures*

BAZNA PIG BREED AS A LOCAL BREED OF CARPATIAN HILLS

FL SPADARU

U.S.A.M.V., Cluj-Napoca

Necesitatea pdstrdrii unor nuclee de conservare pentru rasele de porcine cu efective reduse este pe deplin justificatd. In cadrul S.C.A. Turda, jud. Cluj, exista in conservare un astfel de nucleu de rasa Bazna, ale cdrui performance de productie si reproduce au fast si sunt in continuare in atepa specialistilor. Prin lucrarea de fata dorim sd prezentam in evolupa lor o serie de date vizdnd performanple inregistrate de efectivele aflate in controlul producpei in cadrul acestui nucleu.

Key words: *swine rare breeds, preservation, Bazna*

THE PROJECT: PRESERVATION AND REHABILITATION OF BAZNA SWINE RARE BREED NOTE I. GENERAL CONSIDERATIONS

FL SPADARU, DARABAN S.

U.S.A.M.V.B., Cluj-Napoca

The project is coordinated by the University of Agricultural Science of Cluj-Napoca, the Swine Technology Department in collaboration with Schw&bisches H&llisches Schwein Asociation and the sustaining of „Europ(xisches Naturerbe" Foundation. There are tree stages in the project:

1. a systematic inventory of existing animals in the area;

2. showing the animals to a commission of experts and taking the typical animals in a registration system;

3. Starting a breeding program in collaboration with Animal breeders Asociation from Transilvania and starting a production with registrate mark for these special products by Bazna meat.

We hope to have your support in our program **Key words:** *swine rare breeds, preservation, Bazna*

THE PROJECT: PRESERVATION AND REHABILITATION OF BAZNA SWINE RARE BREED NOTE H. MINIMAL REQUIREMENTS FOR ADMISSION IN PROGRAM

FL SPADARU, DARABAN S.

U.S.A.M.V.B., Cluj-Napoca

This project is coordinated by the specialists in animal breeding from the University of Agricultural Science of Cluj-Napoca in collaboration with Schwdbisches HMisches Schwein Asociation and the sustaining of '„ Europdisches Naturerbe" Foundation. In this paper we present the minimal requirements for admission in this program for the farms and individual breeders, and some of the performances what we ask from the animals to be registered as Bazna pure breed swine.

Key words: *swine rare breeds, preservation, Bazna*

RESEARCHES REGARDING REPRODUCTION IN BRACHYDANIO RERIO (FAM. CYPRINIDAE) FISH AND GROWING OF THIS SPECIES LARVAE

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Ten family (10 females and 20 males) ofzebrafrsh was used for reproduction for determination of the properly breeding substrate. The aquarium bottom net is the best substrate especially because it protects the eggs. Embryo stage is 96 hours (4 days), or 80°days. At hatching moment larvae have 3,44- mm total length and in two day of life 3,71 mm, with a significant difference ($p<0,001$). Maximum height of larvae is 0,51 mm at hatching moment and 0,49 mm in two day of life, but differences are insignificant ($p>0,05$)

Key words: *Brachydanio rerio, zebrafish, reproduction, larvae growing.*

CONTRIBUTIONS TO AN IMPROVED KNOWLEDGE OF BIOGENIC CAPACITY IN SOME AQUATIC SITES USED AS FISHERIES

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, Cluj-Napoca*

Research was upholdedin two different fisheries, in order to assess the biogenic capacity for the improvement of production performances.

Therefore, beside the physical and chemical parameters of the water, algae and aquatic. The aim of this work was to exactly appreciate the trophicity in both fisheries and appropriate fish specie to be selected for maximum use of natural aquatic feed sources.

Key words." *aquatic fauna, physical and chemical parameters, fish*

THE EVOLUTION OF CARPS REPRODUCTION IN BANAT RELATED TO WATER TEMPERATURE

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In the period 1984-2000, the water temperature was daily recorded at 7 am, 3 pm and 8 pm. According to these measurements the medium temperature was then calculated.

The number of degrees days/year were calculated, degrees days from 1.01 until the first were calculated, the number of degrees days from fight were calculated and the number of rounds and water temperature at the first fight.

From the observation made results that in Banat the carp's reproduction takes place at the end of April, beginning of May. The fight takes place in 1-3 rounds and through the recording of the daily medium water temperature the reproduction can be approximated with an accuracy of 3-4 days.

Key words: *carp (Cyprinus carpio), reproduction, water temperature.*

THE PH INFLUENCE ON THE NITRITE REDUCTION IN THE MEMBRANE MEAT PRODUCTS ACCORDING TO THE APPLIED TERMICAL TREATMENT

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In this experiment we assessed the pH influence on the nitrite reduction rate in a half finished product (bradt, srot) and the final composition for the Verona salami taking into account the thermic treatment and the storage period.

Key words: *bradt, srot, nitrite.*

THE MEAT CHEMICAL COMPOZITION VARIATION DEPENDING ON THE SPECIES, AGE AND ANATOMIC REGION

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We assessed in this experiment the extent to which the meat chemical composition modified according to species, age and anatomical region.

Key words: *chemical composition, species.*

FINANCIAL EVALUATION OF THE RESULTS IN DAIRY HUSBANDRY IN SOME PRIVATE FARMS OF DOLJ COUNTY

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**U.S.A.M. V., BUCUREȘTI **Proiectul romdno-german-AGCT Romania*

This study was aimed to evaluate the financial results in dairy farming in some private farms of Dolj County. Using the data collected in the year 1999 from 11 dairy farms, the following indicators/cow were estimated: milk and meat production, variable costs, incomes and gross margin. The average farm size in the area is 10 cows, producing 4,083 kg milk/lactation in average. The animal average income was 14,917,310 lei/cow/farm, while the average variable costs were 9,000,684 lei/cow. As a result, the average gross margin/cow at zonal level was 6,093,808 lei.

It was noticed that the higher the number of cows/farm, the variable costs, but also the higher incomes. It is a significant correlation between milk yield and farm income. Therefore, the higher milk production, the higher gross margin. To increase gross margin, the farmers must increase milk yield/cow and marketable milk, which represents around 93 % of total income, look for a better milk price and optimize variable costs, mainly the forage cost representing around 70 % of total costs.

Key words: average milk production, variable costs, incomes, gross margin

THE STUDY OF THE FORMING SOURCES OF OFFER AT THE BEEF PRODUCE IN THE ARAD COUNTY

E. GRIGOROIU, I. POPESCU, Adina DANJI

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The paper present the grouping of count's localities depending on the animal's number bred at the 1000 inhabitants, the grouping of the localities according to the animal number per 100 ha, the grouping of the localities according to the flesh product achieved per inhabitant annually.

Key words: cows, economic indicators.

THE STUDY OF THE FORMING SOURCES OF OFFER AT THE PORK PRODUCE IN THE ARAD COUNTY

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The paper present the grouping of count's localities depending on the animal's number bred at the 1000 inhabitants, the grouping of the localities according to the animal number per 100 ha, the grouping of the localities according to the flesh product achieved per inhabitant annually.

Key words: pigs, economic indicators

THE STUDY OF THE FORMING SOURCES OF OFFER AT THE MUTTON AND GOATS PRODUCE IN THE ARAD COUNTY

E GRIGOROIU, I. POPESCU, Adina DANJI

Faculty of Animal Sciences and Biotechnologies, Timisoara, Romania

The paper present the grouping of count's localities depending on the animal's number bred at the 1000 inhabitants, the grouping of the localities according to the animal number per 100 ha, the grouping of the localities according to the flesh product achieved per inhabitant annually.

Key words: sheep, goats, economic indicators

THE STUDY OF THE FORMING SOURCES OF OFFER AT THE BEEF PREODUCE IN THE BIHOR COUNTY

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The paper present the grouping ofcoiint's localities depending on the animal's number bred at the 1000 inhabitants, the grouping of the localities according to the animal number per 100 ha, the grouping of the localities according to the flesh product achieved per inhabitant annually.

Key wftrds: cows, economic indicators.

ERGEBNISSE DER EFFECTIVITDTSUNTERSUCHUNG IM LEBENSMITTELVERTRIEB

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Scopul lucrarii este analiza costurilor si veniturilor tn fazele superioare aleflilierelor agro-alimentare, respectiv analiza economics a activittipi de comert alimentar. Cercantarile au fast efectuate tn unittip economice cu suprafatd de vdnzare de 200-300 m² si cu spafiu de depozitare intre 50-200 m². Cifra de afaceri ale aces tor magazine variaza" intre 120-180 mill. HUF/an, iar numarul angajatilor variazaS intre 15 si 17persoane. Profitul realizat de cdtre eipoate atinge valori de 16-20 mill. HUF/an. Comparand profitul cu costul alternativ, activitatea lor poate fi considerate ca fiind rentabil, chiar tn conditiile concentr&rii piefelor de desfacere.

Key words: costs, profit

THE STUDY CONCERNING THE PORK PRODUCTION IN TIMIS

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The paper presents a study concerning the situation of the pig breed in the localities from Timis, the grouping of localities according to the animal number bred per 1000 inhabitants and the meat production per inhabitant. For making the study it had been used the fundamental methods: the documentation, the analysis, and the synthesis, the comparing using the specific economic indicators.

Key words: pigs, economic indicators

SOME ECONOMIC ASPECTS OF THE REGULATIONS OF ANIMAL PROTECTION IN HUNGARIAN PIG RAISING

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Pig production in Hungary has always played a very important role in the consumption and export structure of the meat industry. There was a huge decrease in the number of pigs in the 1990's, involving the number of sows. Hungary's intention to join the EU makes it necessary to adopt, introduce and use the EU system of law. We examined 9 pig farms in Hajdu-Bihar, Borsod-Abaúj-Zemplén and Heves counties. We chose those farms which use the combined breeding technology most frequently found in Hungary. The most important part of the welfare directive is the definition of the minimum space per animal. On the basis of the analysis, it can be said that there is a narrow cross-section: the breeding of piglets. During a cost analysis, we analyzed cost and highlighted the permanent cost. We studied how these costs would change if EU animal welfare laws were observed. We also examined the specific data per 1 sow and per 1 kilogram of slaughter pig. It can be stated that after decreasing the sow live-stock in accordance with EU directives, the permanent cost would increase by 17,7 % per sow. If the required space per sow were provided, the total cost per sow would increase by 1,9 % from 421,1 thousand HUF to 429 thousand HUF, on average. This would mean a decrease of 7,9 thousand HUF profit per sow.

***Key words:** animal welfare laws, permanent cost, cost analysis, pig farm, pig production, profit per sow*

DOMESTIC ANIMALS AS "BIOREACTORS" FOR PRODUCING OF HUMAN PROTEINS

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The paper gives evidence (by speciality literature) that domestic animals can receive human genes and produce their proteins. This can be accomplished by a technique called transgenesis.

Transgenesis implies the isolation of the interest gene from the human genome, its attachment to an appropriate promoter which was taken from another species and which would allow the gene to express in the given tissue. The tandem gene+promoter is then injected by a micromanipulator into the male pronucleus of a zygote, 20 hours before the fecundation.

***Key words:** transgenesis, gene*

THE INFLUENCE OF THE HETEROZICTY DEGREE UPON THE PRIMITIVE LANE IN THE EARLY EMBRIOGENESIS IN CHICKENS FOR MEAT PRODUCTION

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The aim of this paper was to study the degree in which the difference in the genetic structure has an effect upon the dynamics and evolution of primitive lane in the early embriogenesis in chickens.

The experiments were held on two genetics structures. With the help of one special technique during the 26-60 hours period of incubation, from ten to ten hours, measurements were made upon the dimensions of the primitive lane. The data suggests that earlier stages of development and for the embryos with a higher degree of heterozigocy there is a higher developmental speed.

Key words: *heterozis, heterozicity, embriogenesis.*

THE STUDY OF THE HETEROZIS EFFECT UPON THE DEVELOPMENT OF THE PELLUCIDE ZONAE OF THE GALLUS DOMESTICUS EMBRYOS DURING THE FIRST 60 HOURS OF INCUBATION

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The aim of this paper was to study the degree in which the difference in the genetic structure, namely "the heterozis effect", appear and have an influence upon the dynamics of the pellucide zonae, during the early stages of Gallus domesticus embriogenesis. has an effect upon the dynamics and evolution of primitive lane in the early embriogenesis in chickens.

The experiments were made on two representative groups of embryos with different genetic structures. With the help of a special technique, during the 26-60 hours period of incubation, from ten to ten hours, measurements were made. The measurements showed the fact that the pellucide zonae area was growing and developing strongly in the embryos with a higher degree of heterozigocy.

Key words: *heterozis, heterozicity, embriogenesis.*

THE PH INFLUENCE IN THE RUMMINAL FLUID CELLULASE IMMOBILIZATION ON COLLAGEN SUPPORT

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The rumminal fluid is a complex medium which contains many biocatalists as well as vitamines and enzymes that are not utilised after the sloghting of rumminants. The fodder for nonrumminants contains high ammounts of cellulose, hemicellulose and lignines, compounds which can not be metabolised due to the absence of the necessary enzymes in the digestive tract. The aim of our study is the immobilization of the rumminal fluid cellulose on collagen membrane as biocompatible support for nonrumminants nutrition.

Key words: *immobilized cellulase, collagen support, rumminal fluid.*

LEAD ACCUMULATION IN LABORATORY MOUSE

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Four groups of mice were treated with different doses of lead acetate (0, 0,1mM, 0,2mM, 0,3mM) in 1ml/WOg body weight for five days. All mice were killed and liver and kidney are recovered. Catalase activity, determined in liver shows a decrease after treatment with increasing doses of lead salt. Lead content in kidney were higher than in liver.

Key words: mouse, lead, catalase activity, liver, kidney

EXAMINATION THE OUT-OF-SEASON HORMONAL FUNCTION OF THE OVARY IN THE PROLIFIC MERINO SHEEP BREED.

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In order to examine ovarianjunction, a traditional method in animal husbandry is to assay progesterone (P4) levels in the blood. Collection of blood, however, is painful and stressful; therefore methods of fecal steroids examination have been developedfor assessing endocrine status. The latter method is based on the phenomenon that certain metabolites ofP4 (first of all its various 20-oxo-, 20a-OH-, 20^OH-, and 5a- or 5fi-pregnane derivatives) are excreted with the bile through the gastrointestinal tract. Using prolific sheep breeds presents one possibility for improving the meat production of the sheep flocks. In Hungary, the booroola fecundity gene (FecB gene) was transferred to Hungarian Merino and a new breed, the Prolific Merino, was bred. Prolific Merino ewes are able to mate not only in autumn, but out-of-season too; however, fertilization out-of-season depends on the hormonal status and the cyclicity of the ewes. In this study, we examined the ovarian function of the Prolific Merino ewes in the out-of-season (springtime) reproductive period by hormonal analysis of the blood andfeces and by laparoscopic methods.

Key words: prolific sheep, reproduction, laparoscopy, faces, hormone

THE EFFECT OF RBGH ON GOT AND GPT TRANSAMINASE ACTIVITY

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In our paper work, 5 Holstein Frisian were injected on 14 days interval with 500 mg rbGH/head with the aim to determine GOT and GPT enzyme activity. The evolution of GOT is identically at the control and experimental group. In the other way, the GPT had recorded a rise of his seric level immediately after first administration of rbGH (from 9 U/l to 15 U/l) and after that descreases sequentially arrived at the recorded value beetwen the first injection, after a month from the end of treatment.

Key words: dairy cows, recombinant bovine somatotropine (rbGH), GOT, GPT

SINCRONIZATION OF PARTURITION AT SOWS WITH $PgF_{2\alpha}$ AND OXYTOCINE

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For parturition grouping during the day, we administered 175 mcg Cloprostenol in the 114th of the gestation and, after 22 hours, we at 4 sows the parturition began before the Oxytocin administration. At 14 sows, the parturition began in the first 90 minutes from the Oxytocin the next night. From the 20 sows that have had induced maturation. 14 sows (70%) had parturition during the day.

Key words: sow, parturition inducing, oxytocine, cloprostenol

SUPEROVULATION INDUCING AT EMBRYO DONATING COWS WITH GESTAGEN, PITUITARY FSH EXTRACTS AND $PGF_{2\alpha}$

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The research aim was to induce superovulation with gestagen hormones, FSH and $PgF_{2\alpha}$. We used implants with 3 mg Norgestomet and Folltropin-V, in total dose of 400 mg NIH. Starting with the 5th day from the introduction of implants, were administrated 50 mg FSH on 12 hours intervals. At the same time with the last two doses of FSH, were administrated 25 mg Lutalyse. Norgestomet implant was removed in the morning of the 9th day from introduction. The females were double inseminated in the 11th day and embryos were recovered in the 18th day from the introduction of implants. In media were harvested 21.5 embryos, from which 13.5 embryos able for transfer. Most of the embryos were in blastocyst stage.

Key words: cow, superovulation, Norgestomet, FSH, $PgF_{2\alpha}$

L'EFFET DE L'UTILISATION DES IMPLANTS A MELATHONINE INSERES EN CONTRE-SAISON SUR LA FONCTION DE REPRODUCTION DES BREBIS MERINOS DE TRANSYLVANIE

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La un lot de 30 oi (17 mioare + 13 adulte) s-a inserat la fiecare oaie un implant sucutanat cu 18 mg melatonina (produsul Melovin), in data de 1 iunie .Indicele de natalitate la mioarele din lotul experimental (64,7%) nu a crescut semnificativ ($p>0,05$) fata de lotul de control (60%). La oile adulte natalitatea a fost cu 25,7% mai mare ($p<0,001$) comparativ cu lotul de control. Pe total lot experimental s-a obtinut un plus de 13,3 miei ($p<0,05$) la 100 oi. Este o sugestie ca utilizarea implantelor cu melatonina de tipul Melovin la inceputul verii, determina cresterea semnificativa a natalitatii la oile adulte.

Cuvinte cheie: implante cu melatonina, extrasezon, tratament hormonal, merinos de transilvania

BREEDING CHINCHILA AS PET

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In the present paper, we try make a very short exposure regarding the breeding system of Chinchillas in house condition as pet. The breeding in house as pet is essentially different of the system used in farms, for far production, is we must agree with that if we want to have welfare for our "guest" and to assure for this a long life.

There are presented some constructive solutions for housing chinchillas and the feeding and keeping systems.

Key words: *Chinchilla, behavior, pet*

ANIMAL COMMUNICATION VERBS IN ROMANIAN. A POSSIBLE CLASSIFICATION

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Less numerous than similar French verbs, for example, Romanian animal communication verbs have had a very interesting evolution. Though their etymology is not always sure, they seem to indicate a tendency to derivation rather than an onomatopoeic origin.

Cuvinte cheie: *verbe de comunicare animala, etimologie, derivare sufixala, derivare prefixala, regionalisme.*