

**Lucrări științifice**  
**Seria zootehnie**  
**Volum 49 (11)**

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**SCIENTIFIC FUNDAMENTS OF ANIMAL PRODUCTION  
LASTING DEVELOPMENT IN ROMANIA IN CONDITIONS  
OF INTEGRATION IN EU**

*A.T. BOGDAN, I.M. POP, P.C. BOISTEANU, I. GILCA*

*A modern and efficient agriculture, at European level, is possible in Romania only in conditions of animal production development, putting into practice the progress in techniques and sciences obtained in all domains connected with the animal production sciences and the lasting development principles.*

*In this society, characterized by globalization and explosive information, the knowledge is the essence of value and the main resource of development in any domain.*

*The agricultural, zootechnical and veterinarian higher education system and the specific scientifically research must to be directly involved, with a determinant contribution, in the elaboration of the animal production lasting development strategies and theirs objectives achievement.*

**PARTICULARITĂȚILE EXTERIORULUI ȘI ANATOMO –  
MORFOLOGICE ALE GĂNILOR DIN DIFERITE CROSSURI**

*Gh. BÂRLĂDEAN, N. BUCĂȚARU*

*For the highest anatomo-morphological index it gives emphasis to the hens from hybrid „, ROSO-SL-2000”. This way, they were classified on the first place by the body weight, the bases measurement, the blood quantity, the dimensions of the digestive tract and corpulence mass, the trachea length and the lungs mass, the kidneys mass and the numbers of the ovocytes.*

**RĂSPUNSUL IMUN UMORAL, SERIC ȘI VITELIN, OBȚINUT  
LA GĂINI DIN RASA ROSO SL, ÎN URMA IMUNIZĂRII CU  
SALMONELLA ENTERICA**

*Adriana CRISTE, Mariana DINEA, F. CRISTE*

*Salmonella enterica serovar gallinarum is the causative agent of flow typhoid, systemic disease of chickens that results in high mortality amongst infectet flocks. Use of salmonelic antigens in laboratory made or a standard vaccine containing Salmonella entrica, going to obtaining a humoral immune responses detected at 4 weeks post immunisation.*

*Specific antibodies anti-salmonella titres are progresive incresed during the exeriment tuching maximal value to the experimental groups when the antigen was innoculate with the adjuvant, where the titres are  $9,14 \pm 0,68$  in serum and  $9,60 \pm 0,48$  in egg yolk.*

*Use of a hiperimmunsiation protocol going to obtaining a high titres level of a serum and vitelin antibodies, witch can be used in immunodiagnostic, immunoglobulin isolated from egg it is find in high concentration comparative the serum, have a high resistance to temperature and pH and it is not interfere with mammalian antibodies.*

## **EPIGEIC SPIDER COMMUNITIES (ARANEAE) OF THREE WINTER WHEAT FIELDS: DOMINANCY AND DIVERSITY**

*Fetykó KINGA*

*The epigeic spider communities of three winter wheat fields were investigated. A total of 4540 adult individuals of 57 spider species from 12 families were collected from May to August 2001 with 7 day frequency. The eudominant family was Lycosidae represented with 17 species, and Pardosa agrestis was the dominant epigeic agrobiont species. A considerable similarity was found in the species composition and dominance structure of the investigated winter wheat fields. The Pardosa agrestis seasonal dynamics showed one generation per year.*

*Diversity analyses reveal a higher diversity profile of every margin rows in each sampling site.*

## **BIOLOGICAL INDICATORS OF EXPOSURE TO ENDOCRINE DISRUPTING PESTICIDES**

*B. GEORGESCU, Carmen GEORGESCU, C.I. WEBER*

*Last years attention has focused on the link between endocrine disruptors and hormonal abnormalities in wildlife and human. Widely-used agricultural pesticides are man-made chemicals with endocrine disrupting activity. Predominantly, they act by binding and stimulating estrogen receptors (xenoestrogens) or androgen receptors or by influencing sex steroid hormones metabolism. Pesticides have been proposed as a cause of abnormalities of sexual differentiation, of decreased sperm quality (ejaculate volume, sperm counts and motility) and reproductive capacity and of endocrine-dependent malignancies (breast, prostate and testicular cancer) and, possibly, thyroid diseases. Efforts are directed towards the development of screening assays of substances with endocrine disrupting activity. In vivo tests assess the survival rate, food consumption, behavior changes, and changes in the rate of fertility and fecundity of sentinel species, or evaluate the expression of biological markers. Until now, specific tests have been validated in invertebrates, amphibians, fish, birds and mammalians (rodents). These tests are able to decide whether or not a substance (pesticide) may be considered as an endocrine disruptor.*

## **PARTICULARITĂȚILE FIZIOLOGICE ȘI BIOSINTEZA TULPINII STREPTOMYCES SP.22**

*G. DARIE, Elena MARANDICI, S. BURȚEVA, I. RASTIMEȘINA, Vera GRANACI, Alisa MORARU*

*The isolated actinomycetes from the soils of the Republic of Moldova. Were studied and it was found that the strains streptomyces sp.22 is an active biological produce which can be used in the animal reproduction biotechnology.*

## **STUDIUL UNOR ENZIME IMPLICATE ÎN METABOLISMUL GLUCIDIC ÎN SEMINȚELE GERMINATE LA UNELE GRAMINEE CULTIVATE ȘI SPONTANE**

*Elena CIORNEA, D. COJOCARU, Gabriela VASILE*

*The present paper represents a comparatively study on the activity of alpha- amylase and alpha- glucanphosphorylase in germinated caryopses of millet (*Panicum miliaceum*) and bristle grass (*Setaria glauca*) during fifteen days of germination, the obtained results being expressed in micromoles maltose/g, and respectively, in micrograms P/g. For each sample subjected to analysis, 3 parallel determinations have been made, and the obtained results being processed statistically.*

# RESEARCHES CONCERNING THE MUSCULAR FIBERS' AND FASCICLES' MORPHOLOGY AND THE PROPORTION OF THE MAIN TISSUAL CATEGORIES IN SOME SHOULDER BLADE AND EPISOMATIC MUSCLES ON THE "PINZGAU DE DORNA" BREED YOUNG STOCK

V. TEUȘAN, R.M. RADU-RUSU

*Some young males "Pinzgau de Dorna" breed had been slaughtered in order to take some histological samples from the Supraspinatus (SS); Infraspinatus (IS); Deltoideus (D) and Longissimus dorsi (LD) muscles. The animals were 230-250 Kg living weight and 13-14 months old. The samples were processed through the paraffin section technique, and the issued lamellas were investigated using a MC3 type binocular photonic microscope. The large and small diameters of the muscular fibers and fascicles were measured within the microscopic field. The cross-section area and the proportion of pure muscular and conjunctive tissue were also determined in these morphological units, obtaining some different results, as it follows: into the SS muscle, the 1<sup>st</sup> order muscular fascicles (MF I) had an average diameter of 411 $\mu$ , a cross section area of 114502 $\mu^2$  and a pure muscular tissue proportion (MT) of 77,86 $\pm$ 2,41%. Within the IS muscle, the MF I had an average thickness of 443 $\mu$ ; a cross section area of 142487 $\mu^2$  and a MT proportion of 76,63 $\pm$ 1,66%. Into the D muscle, the MF I had an average diameter of 399 $\mu$ ; a cross-section area of 117946 $\mu^2$  and a MT participation of 71,83 $\pm$ 1,81%; into the LD muscle, the MF I had an average thickness of 340 $\mu$ ; a cross-section area of 88,067 $\mu^2$  and a pure muscular tissue proportion (TM) of 79,25 $\pm$ 0,73%.*

## POLIMORFISMUL FRAGMENTELOR DE RESTRICȚIE A GENOMULUI FAGULUI $\lambda$

T. VINTILĂ, Daniela VINTILĂ, D. DRONCA

*In this experiment, we tried to characterize the viral genome of  $\lambda$  phage through RFLP technique, which analyze the restriction fragment length polymorphism.*

*This technique emphasizes the differences or the genetic similarities between individuals through visualization at molecular level of the number and position of some restriction enzyme sites used for splitting the genomic DNA. Basically, the method use fact that the individuals with genetic differences for a certain locus will show a different number of sites for a certain couple of DNA probe-restriction enzyme. A certain number of DNA fragments with different length characterize the DNA profile, specific for each individual.*

## CONTRIBUȚII LA STUDIUL FORMĂRII TERMINOLOGIEI DE SPECIALITATE.

### I. SENSURI NOI LA CUVINTE VECHI (Cu privire specială asupra termonologiei din avicultură)

Maria MORARU, R.A. MORARU

*The authors try to establish – having as a starting point some selected terms taken from the Romanian –German Dictionary of Aviculture, published in 2005 - the way in which certain words that belong to the main core of general vocabulary have developed new meanings. These meanings are to be found in the language of specialized texts and mention must be made that the explanatory Romanian dictionaries do not record the analysed words yet. Such is the case of words like (sageata, spin, carena, trandafir, calota, saboti, etc). Comparing the current situation of the Romanian language with that of other languages, one may conclude that these terms owe their existence to a "common intelligence" of many people, while other terms, that are not to be found in any other language, may prove to be autochthon creations.*



## RESEARCH CONCERNING THE WORLD NATURAL SILK MARKET

*Alexandra MATEI, Agatha POPESCU,  
M. DOLIȘ, P.I. TZENOV, K. BOUGIOUSKOS*

*This study aimed to analyze the evolution of silk market during the last 15 years in order to identify the main trends, based the empirical data provided by FAO Stat. Despite that silk production has continuously decreased in the most of the countries, except China, Thailand and Vietnam, the world production has slightly exceeded the level recorder in 1995 by 1.40 %. The main silk producers and exporters are China, India, Vietnam, Brazil and Thailand, and the most importers are India, Italy, Japan, Korea, Romania, China and Iran. China is definitely on the 1<sup>st</sup> position, keeping 80 % of world natural silk production and exports.*

## DYNAMICS OF INFECTIOUS VIRAL DISEASES

*I. BURDUJAN*

*The model of a directly transmitted viral microparasite, proposed by J. D. Murray ș6ț, is considered. This model is realized as a quadratic differential system. Some qualitative properties of this system are analyzed.*

## THE EFFECT OF EXERCISE ON THE PROTEIN METABOLISM IN HORSES

*Rodica CĂPRIȚĂ, A. CĂPRIȚĂ, Iuliana CREȚESCU*

*The aim of this study was to determine the effect of moderate exercise on protein metabolism in horse. We investigated the main protein metabolism parameters: blood total protein and urea, at rest and after effort. The experiment was conducted on 5 male and female horses between 1 and 9 years old. The horses were fed three times daily with a forage type about 10-25 kg/head. To investigate the effect of moderate exercise, the horses were walked, trapped, and galloped one hour. The experimental data reveal an increase of the hematocrit due to dehydration, subsequent to the decrease of the plasmatic volume, that explain also the increase in blood proteinemia after effort. The increase in the blood urea along with the proteinemia is also due to the water elimination from the body. The modifications don't suggest an intensification of ureogenesis during exercise.*

## REDUCEREA CONSUMURILOR ENERGETICE ȘI A COSTURILOR DE ÎNCĂLZIRE PRIN IZOLAȚIE TERMICĂ

*C. LEONTE, Doina LEONTE, Valerica MACOVEI, F. AMARIȚEI*

*In order to protect the buildings of high temperatures (cold or warm weather) we can use layers of insulating material for the closing devices wich are in direct contact with the exterior. The materials that are being used in the construction field for thermic insulating purposes are characterised by a high porosity and a reduced apparent density (under 1000 kg/m<sup>3</sup>), these features assure high insulating qualities to the materials.*

*These materials must have sufficient resistance to be manipulated, transported and adapted according to our needs without depreciate their qualities.*

*Using layers of insulating materials is the most efficient and economic method to protect the environment in the new and even in the old buildings.*

*When renewing a building we can correct design mistakes and in the same time we can guarantee that the costs of heating the building on its entire exploitation time will decrease*

## HEMATOLOGIC PARAMETERS IN RATS AFTER SINTROM<sup>®</sup> 4 ADMINISTRATION

*Letiția STANA, Alexandra TRIF, Mihaela PETCU,  
F. MUSELIN, D. MORAR, Ileana BRUDIU*

*Sintrom<sup>®</sup> 4 (a.i. acenocoumarol) an oral anticoagulant, has a wide utilization in humans thromboembolic diseases. There are no informations about its use and consequences in animals. The aim was to evaluate the dynamics of some hematologic parameters, specific indicators of exposure to anticoagulant as: blood clotting time (BCT), Quick prothrombine time (PT), Quick prothrombine percentage (QPP), less specific, erythrocyte (E), hematocrit (Ht), hemoglobin (Hb) and not specified in studied references: red blood cells osmotic resistance (OR), leucocytes (L), platelets (Pt), and leukogramme (Lk) in condition of rats oral exposure Sintrom<sup>®</sup> 4, possible to be used in thromboembolic diseases in animals. OR was appreciated by hemolysis degree using a colorimetric method (spectrophotometer UV-VIS Camspec,  $\lambda$  540 nm, for Hb Drabkin method.*

*Oral administration in rats of 0.15 mg/kg bw/day and 0.45 mg/kg bw/day (equivalent of the maintenance doses in humans – 2mg respectively 6 mg/individual) 4 weeks has had the follows consequences:*

- progressive alteration of hemostasis related to dose and administration period;*
- fluctuation, (with increase tendency), but in physiologic range of E, Ht, Hb and L.*
- decrease of Pt number, especially after 0.45 mg/kg bw/day,*
- decrease of minimal osmotic resistance down to 0.65% NaCl even after one week of 0.45 mg/kg bw/day, indicating a slight tendency towards hemolysis.*

*By common laboratory method were determined BCT, PT, QPT and the another parameter, by automatic analyzer MS 9 VET.*

## DEVITALIZAREA SECTORULUI CREȘTERII TAURINELOR ÎN PERSPECTIVA INTEGRĂRII EUROPENE

*S. CHILIMAR*

*According to the analysis of the present existing situation and of the scientific reserches rezults of taurines breeding with taurines breeding sector renovation in the Republic of Moldova for the 2006-2015 period.*

## DIGITAL EVALUATION OF CATTLE CHROMOSOMES

*Ioana NICOLAE, C.P. POPESCU, B. HEMERY, R. BURLACU*

*The critical parameters for gene mapping are DNA content and genome size, correlated with the relative size of chromosomes. In order to obtain digital images of cattle chromosomes we used a photometrics camera with a cooled CCD technology and a MacIntosh CCD workstation. The workstation permits the determination of chromosome length, centromeric index and density profiles. The chromosome edges, the median axis and the centromere location of the RBG banded chromosomes, were manually determined. Ideograms were automatically obtained by detection of the zero gradient on density profile graphics. The width of the bands was measured in the middle of two successive zero gradients. The relative size of each chromosome, the centromeric index and the digital ideograms obtained by this technology are a potential basis for gene mapping in cattle. In the same time, the purpose of the present paper is to draw attention to the great potential of the digital technology for definite identification of cattle chromosome in routine analysis, to interpret the rearrangements and to link them to molecular maps.*

## **RUNNING THE APPLICATION SOFTWARE FOR PARENTAGE DETERMINATION IN SHEEP**

*Gh. HRINCĂ*

*The paper presents all hypostases to use this application software for the determination of any parentage type in sheep (confirmed, invalidated, unconvulsive), by all modalities (only by blood groups, only by polymorph proteins and minerals or by association of immunogenetic and biochemical-genetic systems), under different conditions (controlled or uncontrolled mating) and in every farm type (elite, production, private).*

## **LITTER BALANCE EXAMINATION IN THE SWINE FARM OF THE COLLEGE OF NYÍREGYHÁZA TRAINING FARM**

*ISTVÁN, FORGÓ-LÁSZLÓ, TÉCSY-ISTVÁN,  
GYÖRKÖS-GUSZTÁV, VATTAMÁNY*

*The national progeny-testing system examines the one-day-old litter size. It has not spread over the litter weight and the litter balance, although it is well known that the weight of the piglets has a great impact on, the shortfalls after birth, and it greatly determine the later growth. Besides the large birth weight piglets frequently cause dystocia. Considering these, we think that is serious to examine the birth litter balance. We investigate the birth and the 21<sup>st</sup> day old litter balance, as well as the influence of the sow's and boar's lines for the maternal quality in the College of Nyíregyháza Training Farm on Hungarian large white and Hungarian lowland pedigree breeding pigs.*

## **ANALIZA CARACTERELOR PRODUCȚIEI DE CARNE LA UN EFECTIV DE HIBRIZI DUBLI TRIPOPULAȚIONALI DE ORYCTOLAGUS CUNICULUS**

*D. DRONCA, N. PĂCALĂ, T. OROIAN, Mihaela PUP*

*The aim of this paper was the study of sacrification quality to hybrids resulted through female cross breeding from local populations of Chinchilla gigantea from Banat county with males from New Zealand breed. Experiments were made on 61 hybrids, obtained following a special cross breeding scheme, to whom 25 characters were measured and analyzed, which gives the quality of the carcass. The obtained results demonstrated that the two breeds used had a good special combinative capacity for sacrification qualities and that's why we recommend that type of cross breeding for meat production hybrids in household production structures.*

## **STRUCTURA GENETICĂ A LINIILOR UTILIZATE ÎN CIREADA SECȚIEI EXPERIMENTALE A INSTITUTULUI DE ZOOTEHNIE ȘI MEDICINĂ VETERINARĂ, REPUBLICA MOLDOVA**

*V. FOCȘA, Alexandra CONSTANDOGLO*

*The antigenetic structure of oxes posterity in 10 lines was studied. The compared lines differ between them by the alele's number in AEB-locus: in posterity of the line Seilng Traiun Rokit were exposed 88 alele. Vis Bek Aidial – 54 alele, Reflection Sovering – 48 alele, Pavni Farm Arlinda Cif – 55 alele.*

*The differences were found and after allele's frequency. The total frequency of the widespread alleles varied from 0.4687 (line Ues Ideal) till 0.7045 (Rozey Siteition). The lowest coefficient of homozygote (Ca) was identified in posterity of the line Pavni Farm Arlinda Cif – 3,88%.*

*It was stabilized that in posterity of studied lines the most extended allele AEB-locus were  $G_2Y_2E'_1Q'$ ,  $G_2Y_2D'$ ,  $G_1I_1$ ,  $I_2$ ,  $O_1$ ,  $Q'$ .*

## **CREAREA LINIEI DE OVINE KARAKUL DE CULOARE SUR CU PRODUCȚIA DE LAPTE SPORITĂ**

***Silvia EVTODIENCO***

*There are represented the results of creation according to ram nr.7001 of the sheep line Karakul, colour aguti. Since the foundation of the line and its successors rams with the registered numbers 0285, 0267, 0130 1054 and 2501 during the activity were obtained the total of 413 successors. Lambs of high class elite and class I made 79,9 %. The production of milk of offer born cattle consist  $78,4 \pm 4,6$  kg. milk of lactation.*

## **MODERN METHODS FOR MILK PRODUCTION CONTROL IN SHEEP**

***Elena GHIȚĂ, C. DRAGANESCU, Mariana REBEDEA***

*The economy of sheep production in Romania relies and depends on milk production. However, milk production control and breeding for milk production is not achieved at the level of the current scientific requirements, hence its low efficiency under the prospective challenges of EU market. The present paper aims to bring to the attention of animal science specialists the importance of a fast redirection of sheep exploitation and breeding targets in Romania toward milk and meat production, as it was done in EU member states, as well as the importance of adopting the controlling methods recommended by ICAR. Sheep production under EU competitive conditions depends on the degree of milk production improvement, which is strictly tied to production control and to selection conducted at the top of the breeding pyramid. The international animal production regulations recommend standardised methods of control, only the data produced by standardised methods being accepted within the international relations. These methods are developed by ICAR (the International Committee for Animal Recording). According to ICAR regulations, several methods for milk production control can be used in sheep, which vary with the specific countries and which have several variants of application.*

## **CERCETĂRI PRIVIND ÎNRUDIREA MEDIE, MĂRIMEA EFECTIVĂ ȘI CONSANGVINIZAREA ÎN POPULAȚIA LSP – 2000**

***R.AI. POPA, Dana POPA, H. GROSU, V. BĂCILĂ***

*The population average relationship it is the average genetic relations between all individuals. For this parameters it is possible to describe three components: genetic relations between boars, sows and boars-sows respectively. The last of them it is most important because determine increase of population inbreeding in the next generations.*

## **RESEARCHES REGARDING DEUTERIUM DEPRIVED WATER EFFECT ON THE PRESERVED BOARS SPERM AT 17°C TEMPERATURE**

**Gh. NACU, D. TĂNASE**

*Seminal material harvested from boars from 408 and 1075 synthetic lines was diluted with an bidistilled water base diluents (witness probes) and with an deuterium deprived water base diluents (experimental probes), using Merck III and BTS synthetic diluents. Obtained dozes were kept at 17°C. The effect of using deuterium deprived water was the prolonging of the preservation period of spermatozoids mobility by minimum 60% ,in average with 11 hours, with oscillations of differences level between witness and experimental probes, in rapport with boars age (21, 25 hours for 3,5 years old boars), boars synthetic line (15,9 hours for 408 synthetic line), used diluents (13 hours in case of using Merck III), and research's calendaristic period (12,5 hours in July).*

## **RESEARCH CONCERNING THE INFLUENCE OF ORGANIC SELENIUM SUPPLEMENTED IN FEED ADMINISTERED TO LAYING HENS ON PRODUCTION PERFORMANCES**

**A. ȘARA, M. BENȚEA, Antonia ODAGIU, L. PANTĂ, Mariana DINEA**

*The research was performed on 54 laying hens, Roso – SL hybrid, divided in two groups, 27 heads/group. Organic Se (Sel-plex) was supplemented in total mixed ratio (TMR) in group 2E using a proportion of 0.03%. The trial developed within 17 weeks, first laying stage (21 weeks – 38 weeks of age), respectively. The laying hens were individually weighted, in the beginning, middle and in the end of the trial. During trial, the following issues were studied: evolution of body weight, laying intensity, average weight of eggs, forage consumption by egg and egg structure. The use of 0.03% organic selenium (Sel-plex) supplements in feed administered to group 2E determined an increase of laying intensity by 3.27%, increase of average weight of eggs by 2.89%, reducing specific consumption by egg by 3.44%, and improvement of egg quality compared to control group. The results confirm the advantage of administration of organic Se on main production and consumption indices in laying hens in first laying stage.*

## **EXAMINATION OF MICROELEMENT SUPPLY OF BREEDING MARES**

**LÁSZLÓ, TÉCSY-ISTVÁN, FORGÓ-ISTVÁN,  
GYÖRKÖS-GUSZTÁV, VATTAMÁNY**

*Some mares from the College of Nyíregyháza Training Farm's horse stock showed disadvantageous health condition in spite of the good overall condition; for this purpose we started a microelement research. We examined from the physiologically important microelements the quantity of the Cu, Mn, Zn, Fe, Se, Co and I. According to our findings we do not found deficiency from the copper. The manganese supply had great individual dispersion, totally the proportion of deficiently supplied horses exceed the 30% in each examined years. The zinc supply was required in the horse stock. In the extended circle of the microelements, the Fe and the Co supply were required in the year of 2006. In case of the iodine, we learnt deficiency 52% of the examined stock. The selenium supply was under the normal value in every studied mare. At the same time we do not found symptoms of the Se deficiency, probably feeding of the high E-vitamin content concentrate feeds.*

## **CERCETĂRI PRIVIND EFECTUL TIPULUI DE ALIMENTAȚIE ASUPRA INDICILOR MORFO-PRODUCTIVI ȘI DE REPRODUCȚIE LA OI DE LAPTE AFLATE ÎN PERIOADA DE GESTAȚIE**

**C.I. NEACȘU, Marilena-Gabi NEACȘU, Adriana VICOVAN, A. CĂLĂTOIU, Doina ARDELEANU, Gh. BRĂDĂȚAN, N. IFTIMIE, Maria SAUER, Elena ILIȘIU, Gh. DOGĂROIU**

*Experiments were effectuated on pregnant ewes of 4 genetics types selected for milk on were tested 3 rations types (fiber, half-succulent, half-concentrate) which provided the same level of nutrition.*

*The results obtained show that halfconcentrates rations determined a liveweight of ewes more 53,8% in comparison with halvesucculents rations and more 10,3% than fibrous type.*

*The note for body condition rise with 4,8% and respective 4,4% at fibrous and halfconcentrate type and only 0,9% for halvesucculent type.*

*The percentage of ewes unturned on reproduction was between 97,1-96,0%, for fibrous and halfconcentrate type and 89,4% for halvesucculent type.*

## **CERCETĂRI PRIVIND UTILIZAREA BICARBONATULUI DE SODIU ÎN HRANA GĂINILOR OUĂTOARE AFLATE LA SFÂRȘITUL CICLULUI DE OUAT**

**Cristina RADU-RUSU, S. MAN, P. HALGA**

*The research goal was to determine the effects of the sodium bicarbonate utilization in end-laying cycle hens' feeding on the eggshell quality.*

*In order to accomplish the research target, a flock of 20 ISA Brown 56 days old laying hens was used. The biological material was divided in two groups: a witness group (M), fed with standard mixed fodder and an experimental group (E<sub>1</sub>) fed with mixed fodder, added with 1% sodium bicarbonate. The feed intake, the numeric egg production and the eggs' weight were daily measured. Every week, five eggs were randomly collected from each group, as samples to measure some parameters: egg weight, Haugh index, percentage of the shell in the entire egg weight, eggshell weight, eggshell thickness, proportion of integer shell eggs, proportion of broken shell eggs, percentage of soft shell eggs, proportion of eggs without shell.*

*The addition of 1% NaHCO<sub>3</sub> into the feed influenced positively the feed intake as well as the egg production quantity and quality.*

## **DIGESTIBILITATEA FRUNZEI DE DUD ÎN FUNCȚIE DE RASA/HIBRIDUL LARVELOR DE MĂTASE**

**M. DOLIȘ, Șt. LAZĂR, Roxana STĂNESCU, M. LUPU**

*The mode how the digestibility of mulberry tree's leaf is influenced by the breed or hybrid of silk larva was monitorized at four hybrids of larvas ((Băneasa Super, Zefir, Record și Triumf), which had been feed with leafs from selectioned mulberry tree's hybrid.*

*The digestibility coefficients of mulberry tree' leaf were calculated by any kind of Bombyx mori hybrid and larva period, and the result datas were centralized and statistical computed.*

*In function of silk larva's hybrid, the dried substance from mulberry tree was digestible in proportion of 58,45-59,14%. The highest digestibility was recorded at Zefir hybrid, and the lowest at Record hybrid, the diference between the two hybrids was 0,69 procentual points, respectively 1,18%.*

*The highest digestibility of crude protein was recorded at Triumf hybrid , this one being bigger with 4,42 procentual points, respectively with 6,68 compared with Zefir hybrid, which was at the lowest value in this way.*

*The bigger value of crude fibre's digestibility coeficients was recorded at Triumf hybrid , at a difference of 6,47 procentual points (31,06%) compared with Zefir hybrid, 7,20 procentual points (35,82%) with Record hybrid and 9.23 procentual points (51,08%) compared with Baneasa Super hybrid.*

*For the non-nitrogenous extracted substance's digestibility , the values of digestibility coeficients was between 60,34% and 63,15%.*

## **EFFECTUL PRODUCTIV AL UNUI PREBIOTIC ASUPRA PERFORMANTELOR PRODUCTIVE LA PUII BROILER DE GĂINĂ**

***D. SIMEANU, Gh. STAN, Ruxandra ȚIBULCĂ***

*To establish the productive effect of the NUTRI-SURE DW1 prebiotic over the boiler chicken, two experimental lots were formed (E1 and E2), of 25 chicken each, together with a witness lot (M), containing 50 chicken. The chicken in the experimental lots received 2%, respectively 2,5% of experimental factor in the drinking water, in the 1-21 days of life period, and 1%, respectively 1,25% in the 22-35 days of life period.*

*The use of this prebiotic at the boiler chicken had profitable results, especially in the first week of life, determining production increases of 3,2-4,08% in the experimental lots over the witness lot. The specific food consumption was fairly influenced, the differences being insignificant. The state of health was corresponding, the loses in the overall number being registered within normal limits for this category of poultry.*

## **CARACTERISTICILE REOLOGICE ALE FLUIDULUI RUMINAL LA RUMEGĂTOARELE MICI FURAJATE CU RAȚII CU PROPORȚII DIFERITE DE ORZ**

***Iuliana CREȚESCU, C-tin MATEESCU, Rodica CĂPRIȚĂ, D. DRÎNCEANU***

*In ruminants, the digestive use of the feeds depends mostly on the ruminal fermenting processes that provide most of the nutrients absorbed at the digestive tract level. These problems, from the perspective of nutritionists and physiologists, were and still are studied, but from the perspective of the physicists, there is not enough knowledge regarding the underlying of some biophysical processes, the way these processes could be manipulated. Introducing 20% barley in the feeding diet does not produce significant alterations in the ruminal fluid, from the rheologically point of view. Production of 40% barley in the feeding diet increases the ruminal fluid pseudoplasticity ( $n = 0.52-0.60$ ) compared to the 20% barley ratio ( $n = 0.47-0.77$ ) or compared to the control one, where the barley ratio is 0% ( $n = 0.53-0.72$ ). The barley content increase up to 40% also augments the K (consistency coefficient) values by 1.25-4 times compared to the  $R_1$  diet (Table 1) and 2-4 times compared to control (M). The 60% barley content accentuates even more the pseudoplastic character of the ruminal fluid, the flow behavior index decreasing almost to half compared to the fluids obtained when hay feeding or  $R_1$  diet were used and with almost 33% compared to the  $R_2$  feeding. The increase of the consistency coefficient is spectacular even if its values reported are to those obtained for the 40%barley diet ( $R_2$ ), being obtained 5-10 times increases.*

# **INFLUENȚA UNUI ADITIV BOTANIC, ROSMARIN (*Rosmarinus officinalis* L) ASUPRA CREȘTERII PUIILOR DE CARNE, ALTERNATIVĂ LA INLOCUIREA ANTIBIOTICELOR**

*Lenuța FOTEA, Doina LEONTE*

*The rosemary (*Rosmarinus officinalis* L) effect on broilers growing performances was studied, as an alternative to the antibiotics usage.*

*The botanical additive was used as powder 0.5% or as essential oil 0.05%. Its influence on broilers production was compared to the effect of an antibiotic (oxitetracilin 20ppm and 10ppm). The results concerning the average body weight of the 42 days old broilers were 1.8% superior on the antibiotic group than those obtained by the 0.5% powder group, respectively 3.3% superior than those given by the 0,05% essential oil. The food conversion rate was 3.37% better in the group received 0.5% powder than the value observed on the antibiotic group. It could be considered that the botanical additive given as powder 0.05% had beneficial effects on broilers zootechnical performances and on their metabolism. Par consequence, this additive could be used as an alternative to the antibiotics usage as growth promoter. It is recommended to test a 0.5% additive level in broilers feeding, in intensive production farms.*

## **CONTRIBUȚII LA STABILIREA PARAMETRILOR OPTIMI DE STOCAJ PENTRU OUĂLE DE GĂINĂ DESTINATE INCUBAȚIEI**

*I. VACARU-OPRIȘ, Anastasia BUCȘAN*

*We intended in the current paper to establish the stocking parameters of the hatching eggs provided by the parents of the “COBB-500” commercial broiler hybrids. These parameters were established on a 9 days.*

*The researches have been set up on 2 (two) groups of eggs, respectively a control group (Lc) and another group, called experimental (Lexp.).*

*On the Lc group, the studied eggs' stocking conditions were those used in the main part of the incubation stations in Romania; so, the stocking temperature of the eggs was of  $+16\div+18^{\circ}\text{C}$  and the relative air humidity was of 65-70%.*

*On the experimental group (Lexp.) the sticking temperature of the eggs was reduced till  $+10\div+12^{\circ}\text{C}$  but the relative humidity of the air maintained its values, of 65-70%.*

*Eggs turning started from the 4<sup>th</sup> stocking day, in both experimental groups, three times each day.*

*Basing on the experimentally results we obtained, straightly concerning the hatching proportion, the hatchability percentage of the eggs and the quality of the day old chickens, we conclude the egg stocking technology we used still requires some new trial experiments in order to confirm the best results. The researches are on going.*

## **VALOAREA GENETICĂ A VACILOR MAME DE TAURI NOMINALIZATE PE ANUL 2005 ÎN ROMÂNIA**

*V. UJICĂ, I. NISTOR, Gh. NEAȚĂ, Cr. ȘONEA, V. MACIUC*

*The bull dams nominated in 2005 in Romania were studied in our research. Those dams belonged to three breeds: 390 females to the Romanian Black Mottled (BNR) breed, 360 females to the Romanian Mottled (BR) breed and 235 females to the Brown (B) breed.*

*The phenotypic parameters of the breeding characters (milk production indexes, body development and conformation indexes, reproduction indexes) and the breeding value were estimated on hose populations.*



*The results show an average performance of 9310,67 kg milk (EM) and 381,10 kg fat for the BNR bull dams; of 7315,98 kg milk and 286,88 kg fat for the BR bull dams, of 5877,73 kg milk and 234,09 kg fat for the Brown breed bull dams.*

*The bull dams selected in 2005 had a well body frame development, proved by an average withers' height of 144.85 cm and a bodyweight of 672.04 Kg in the BNR breed; by an average withers' height of 140.53 cm and a bodyweight of 686.25 Kg in the BR breed and by an average withers' height of 135.65 cm and a bodyweight of 600.82 Kg in the B breed.*

*Comparing the values we found this year to those estimated for the last year, we could say that the bull dams selected in 2005 met superior performances to those selected in 2004. Par consequence, the new selected females guarantee the deployment of a new high genetic value bulls' generation, in all the tree breeds we studied.*

## **ESTIMAREA POTENȚIALULUI MELIFER AL AREALULUI FORESTIER DIN JUDEȚUL IAȘI**

**Șt. LAZĂR, M. DOLIȘ, O.C. VORNICU, P.M. VOICU, V. GÎNGĂ**

*The forestry activity in the area around Iasi is organized on eight forest zones, being expended on a total surface of 8740 ha.*

*For each forest zone, the surfaces with the main species of trees of melliferous interest and potential have been determined.*

*The most important species, the acacia and the lime take 21.12% of the forest surface assuring a harvesting potential of 90.06%, while other species which take 78.88% of the forest surface assure a potential of only 9.94%.*

*The whole harvesting melliferous potential in the researched forest area allows the keeping of 48678 bee colonies on the basis of the measures offered starting from March with best results in June and July, followed by massive decrease afterwards.*

## **STUDIU PRIVIND CARACTERIZAREA POTENȚIALULUI AGRICOL DIN TRANSILVANIA PENTRU CREȘTEREA VACILOR DE LAPTE**

**G. ONACIU, E. JURCO**

*The researches were effected into 10 counties from Transylvania with a total effective of 722740 bovines heads, from which 458486 cows and buffalo milk, approximatively 25% from Romania's bovines, conformable to objectives and activities established by the elaborated researching plan. In this sense, it was proceeded to the necessary researches elements for possible projection of the technological modules farms (micro farms, farms) for milk cow breeding and exploitation. These elements are doing reference to the agricultural area of land categories (APF) on fertility groups, breed structure, total effectives and bovines breed (cows and buffalos) and their group on exploitation dimensions, milk and meat productions making reference to the obtaining technique. In addition, reference to insemination systems and reproduction index, animal nutrition with references to the total and average productions of cereals, forage plants, data about keeping systems practised in bovines breeding. This study aims to present comparatively the situation at the end of 2005 concerning some elements: the number of cows and total effectives, exploitation dimensions, land, pastures and meadow surfaces*

## **ANALIZA PROCESULUI DE INCUBAȚIE LA OUĂ PROVENITE DE LA UNELE LINII PURE DE GĂINI**

**M. G. USTUROI, I. VACARU-OPRIȘ, R.M. RADU-RUSU**

*The avian genetic diversity is indispensable to the new poultry hybrids' creation programs. Par consequence, any avian biological material resources should be identified and kept as a future supply. According to these reasons, the establishment of a micro aviary of pure-breed poultry was considered to be an opportunity. This collection was also designed to provide didactic and the scientific support.*

## **STUDIU COMPARATIV PRIVIND VITEZA DE MULS ȘI CANTITATEA DE LAPTE OBTINUTĂ LA VACILE DIN RASA H-F UTILIZÂND DOUĂ TIPURI DE PULSATOARE**

**I. BENCSIK, N. PACALA, S. ACATINCĂI, D. DRONCA, Jana STĂNCULEȚ, Ada TELEA, V. CARABĂ**

*The researches were conducted on 22 Holstein Frisian dairy cows, from a familial farm localized in Giroc district, which were in different months of lactation. The milking operations were made, using a mechanical milking machine with pipe collection and a bookstall of 5×1, twice a day (in the morning and in the evening). There were used two types of pulsations: collector pulsation and electric commanded pulsator. The milk quantity was measured with a milk meter and the milking duration was measured with a chronometer. There were no significant differences ( $p < 0.05$ ) between the mean milking speed A of 2.49 l/min (accomplished with the collector pulse) and the mean speed B of 2.52 l/min (accomplished with electric commanded pulsator). There are significant differences between the mean milking quantity A (attained with collector pulse) 18.23 l, and the mean milking quantity B (attained with electronic commanded pulsator) 18.48 l ( $p > 0.05$ ). The pulsator type did not influence the milking speed but greatly influenced the milk quantity attained.*

## **GENETIC HISTORY OF AN AUSTRALIAN MERINO STRAIN IN ROMANIA**

**G.P. VICOVAN, Adriana VICOVAN, R. RĂDUCU, I. ȘAPERĂ**

*The researches were made on the sheep effective from Australian Merinos breed, which was imported to Romania in 1974. In the analyzed population, the total inbreeding raised from 1.24 % in the period of years 1972-1980, to 5.68% in the period of years 1999-2003, the incest also raised from 0.20% to 2.27% for the same periods. The kindred itself of the population raised from 5.93% in the period of years 1972-1980, to 13.58% in the last analyzed period. The Australian Merinos strain did not have the tendency to subdivide itself into lines, except the period of the years 1991-1993 when the subdivision indices had the value of 2.65. The strain has developed relatively isolate in the point of view of reproduction, in two of the five analyzed periods, the isolation being total ( $CIR = +1$ ).*

## **RELAȚIA DINTRE COMPORTAMENTUL TROFIC ÎN PRIMELE 72 ORE DE VIAȚĂ ȘI GREUTATEA LA ÎNȚĂRCARE A MIEILOR KARAKUL**

**M. FILOTE, Elena FILOTE, S. BOSÂNCIUC, Margareta CONFEDERAT**

*The passage from in utero and out of utero feeding of the new born leads amongst others to the setup of the motivational state of hunger which appears after various periods of time after birth, according to species, sex etc. As the growth energy during the breast feeding time is strongly related to the environmental factors rather than the genetic ones, the first earlier breast feeding and the greater number of these sessions are important for the development of the lamb and avoiding their loss.*

*The study has been conducted on 30 lambs karakul belonging to both sexes, that were grouped according to the average number of fosters in the first 72 hours of life and the period between birth and first breast feeding. The experiment has been conducted on lambs belonging to mothers that had 2 or three previous births, that also proved good mothers with a high possibility of being selected for breeding (good quality pelts).*

*The lambs have fed 28-31 times a day in the first 72 hours of life, have achieved growth degree 3-6% higher than those who fed only 25-26 times a day. Moreover, these lambs have achieved an average growth degree 7-11% higher than those that fed only 23 times a day, even if the latter started feeding earlier (45-48 min. after birth)*

*The average number of times the lambs fed per day and the first feeding earlier are important for the achievement of a greater consumption of the first milk as the absorbant capacity of the intestinal mucus is at a peak in the first 5-7 hours of life. So, the delay in breast feeding and the reduced frequency of breast feeding per day causes a reduces consumption of first milk and also to the reduced immunization of the body of the new born.*

## **STUDIUL ÎNSUȘIRILOR MORFOPRODUCTIVE ALE TAURINELOR DE RASĂ BĂLȚATĂ CU NEGRU ROMÂNEASCĂ (BNR) CRESCUTE ÎN GOSPODĂRIILE POPULAȚIEI DIN AREALUL COMUNEI VÎRFU CÎMPULUI, JUDEȚUL BOTOȘANI**

***I. GÎLCĂ, Roxana Teodora STĂNESCU, G. HOHA***

*The researches were done in a population of 45 cows Romanian Black and White breed from private exploitation in the area of Vîrfu Cîmpului commune, Botoșani county. There were analyzed the following aspects: the productive performance to the first lactation, the main reproduction indexes, body weight and the most important of body size.*

## **RESEARCHES REGARDING THE PRECOCIOUS UTILIZATION IN REPRODUCTION OF THE SHEEP**

***C-TIN PASCAL, L. STĂNCESCU, S. BOSÎNCIUC***

*The principal measure that is supposed to be taken for the rising of the economical profitableness from the sheep growing section is the increasing of the lamb number resulted from each female of the live stock, a relative easy thing to accomplish through out the increasing of the reproduction activity and throughout the precocious of the young sheep during that specific time.*

*For the purpose that the young female sheep to be used in time, without affecting the further body development of these, a special attention will be accorded to the growing technology allocated to the young categories so the sexual maturity to be installed as soon as possible.*

*In that which recalls the age and optimum weight for the first time of the young sheep, there is a large variety between populations. So, as age, after some complex researches the Dyrmondson and the Haresings, quoted by Gh. Sandu, details for almost all the races the 6 – 8 months interval, but it can be postponed until the age of 18 months, but it mentions that the situation in which some female young sheep are, proceeded from late bring fourths, can conceive from the first autumn, at the age of 4 months.*

*As weight, the specialised literature shows the fact that the reproduction can have place with out negative repercussions that can appear when a corporal development is reached for at least 60 – 70 % from the one that is specific for the adult sheep like that of Merinos type and of 50 – 60 % at the fertile type and at those of English meat. The females from twine bring forts can reach puberty at a bigger age and at a smaller corporal weight.*

## **CERCETĂRI PRIVIND INFLUENȚA SISTEMULUI DE REPRODUCȚIE ASUPRA REZULTATELOR FINANCIARE ALE UNEI CRESCĂTORII ORGANIZATE ÎN SISTEM PRIVAT**

*Elena COSTĂCHESCU, G. HOHA, Alexandrina DIAC*

*The reproduction is the main way to profitableness in rabbits' husbandry.*

*In semi-intensive growing system useful in a private farm watching to evidence the influence of reproduction performance about on economical efficiency, for elaborate a plan of mount and bringing forth witch to obtain good financial results.*

*The results demonstrated to us that only with 5-6 bring fort hon the year, the rabbits husbandry is not profitable, so is need by minim 9 bring forth on year for obtain profit.*

## **ASPECTE CU PRIVIRE LA CALITATEA CARCASELOR DE SUINE CRESCUTE ÎN NORD-ESTUL ROMÂNIEI**

*G. HOHA, B. PĂSĂRIN, Tr. STAN, C. HALDAN*

*The pork meat by Romanian, is not competitive in presentwith demands U.E. The interns criterions of appreciation a quality– if take in consideration- are aplicated subjectivity.*

*The analyses effected at Kosarom Pascani Group is referring at meat procent carcass obtain to pigs with are from population housekeeping by areal Pașcani and from a farm with intensive growing system by pigs, respective S.C.Suinprod Roman S.A.*

*The results obtained show to use that quality of carcass to came from pigs witch grow in population housekeeping is in majority by inferior quality, again carcass witch to came from S.C. Suinprod Roman S.A. is situated in superior class by incadrating carcass in accordance with EUROP system.*

## **EVALUAREA IMPACTULUI UTILIZĂRII DEJECȚIILOR DE BOVINE ASUPRA MEDIULUI ÎN BAZINUL HIDROGRAFIC MUREȘ**

*Dana POPA, R.Al. POPA, Gabriela MALOȘ, G. MALOȘ*

*This paper presents the impact of uncorrected bovines manure application methods on the environment quality. For this reason, the nitrogen forms pollution in the surface water will increase above standard limits.*

## **THE OPPORTUNITIES OFFERED BY THE NEW EUROPEAN RURAL DEVELOPMENT POLICY TO THE ROMANIAN RURAL SPACE**

*Elvira BAKKER*

*Between the Romanian rural space and the rural spaces from the other member states of the European Union there are significant quantitative and qualitative disparities, regarding both the percentage of population living in the rural areas and the infrastructure and the endowment with resources.*

*The objective of this paper is to analyze the impact of implementing in Romania, after the accession to the European Union, of the new Rural Development Policy for the programming period 2007-2013.*

*In this paper, we will make a short description of the present development status of the Romanian rural space and will detail the four axes of the new Rural Development Policy. Further on, we will make a forecast of the impact of the actions envisaged by the Ministry of Agriculture, Forests and Rural Development assuming we will fully absorb the amount of funds negotiated by Romania for the rural development in Chapter 7 "Agriculture".*

## **OBIECTIVE ȘI PRIORITĂȚI ALE CERCETĂRII DIN DOMENIUL CREȘTERII BOVINELOR ÎN CONTEXTUL CERCETĂRII EUROPENE ACTUALE**

**R. BURLACU, Ioana NICOLAE, S. BĂLAN**

*The bovine research breeding represents an important topic in the new frame created by European Research Area. For this reason, it is stressed to develop a real analysis of this field. First of all, our problem means to understand the current status of Romanian bovine breeding researches and then to solve it by developing a permanent and objective analysis. In this way the most efficient strategy must to establish the correct rules of the research sistem and the objectives related with it. In fact, this process require an optimal relationship between the present resources and the aim and the priorities of this important field. Much more, we are interested, on one hand, to have a good conection between knowledge and performance and, between tradition and the new wave, on the other hand. In the same time, to keep the reasearch animal breeding up-to-date with the political and economical changes given by the new context of intergration, became a must. From this point of view our charge is to define the role of scientifiqu research according with our long tradition in the field and the new european rules, too. All of these may be the essential elements for a sustainable development of the agriculture research field as a general rule and the bovine breeding research, in particular.*

## **DIRECȚII PRIORITARE ÎN CREȘTEREA OVINELOR ȘI CAPRINELOR DIN ROMÂNIA ÎN CONDIȚIILE INTEGRĂRII ÎN UNIUNEA EUROPEANĂ**

**R. RĂDUCU**

*In the period of years 1990 – 2001 the sheep / goats effectives and implicitly, the productions which were obtained from these were decreased, countinuously. In the year 2002 comparatively with 1990, the effectives were represented 52%, meat production 56%, but milk production, 80%. These diminutions were determined out of economic and social causes.*

*Beginning on year 2002, the effectives of sheep and goats, as well as the productions of these were started to increase, thus it comes out that in 2005, the effectives of these animals were registered an increase with 7 percentage points, but meat and milk productions were more with 1 point and respectively, 8 percentage points. At present, in private sector, 98 – 99 % from the sheep and goats effectives, as well as from the productions of these are achieved. The scientific research from this domain are an important role in order to re-establishing of sheep and goats breeding. At ICDCOC – Palas, Constantza and also, in the profile stations which are co-ordinated on institute were created the sheep populations which are specialized for meat and milk production with high performances. The obtained animals are distributed towards breeders. In the area of sheep / goats breeding, the scientific research is oriented in following directions: elaborating of the improvement programme for the two species; creation of new specialized breeds and lines for meat / milk productions; elaboration of programmes in order to conservating populations which are on disappearance way; elaborating of breeding technologies with high performances. The elaboration of improvement programmes implies to organize the exploitations, such:*

- *pick farms , function to breeds, which hold until 2% of effectives / breed;*
- *reproduction farms, which have in possession until 8% of effectives / breed;*
- *production farms, which have until 90% from effectives of each breed;*
- *farms for conservation of populations which possess genes reserves of populations on loss way.*

*The pick farms and reproduction farms practise growth in „pure breed”, but in production farms is used, both growth in „pure breed” and hybridisation with prolific breeds, with meat / milk breeds in order to improving quality of these In the conservation populations farms which possess genes reserves of populations on loss way are applied programmes for conservation which implies to structure each population in „ram families” and pairing by rotation between families, as well as intra-family, using the average of characters.*

# **CALITATE, SIGURANȚĂ ȘI COMPETITIVITATE PRIN INTEGRAREA SISTEMELOR MODERNE DE MANAGEMENT**

**Cecilia POP, I.M. POP**

*The European politic on quality disseminates the so called "MADE in EUROPE" concept, which will become the modern logo of the products and services provided by the Europeans to the whole worldwide trade community. This concept represents a philosophy of the quality and of the respect given to the customer and to its protection, through the European product or service offered on the market. All these aspects impose all the companies to entertain a competitiveness condition within the European or the worldwide economical environment.*

*The modern management systems which mainly interfere with the competitiveness mainly focus on the processes' quality (quality management system), on the environment (environment management system) and on food safety (food safety management system, according to the HACCP principles).*

*The scientific paper presents some elements concerning these systems' implementation, the links between their certification basis references (e.g. ISO9001-ISO22000-ISO14001) and also the possibility of their integration and processing within an Integrated management system. This integration brings some notable advantages to the companies, regarding the implementation and the certification efforts as well as in their financially situation.*

## **IMPACTUL INSTRUIRII ȘI PREGĂTIRII PROFESIONALE ASUPRA CRESCĂTORILOR DE VACI DE LAPTE CU EFICIENTIZAREA MICROFERMELOR FAMILIALE**

**Gh. GEMENE, Maria PÎNZARIU**

*The paper showed the socio-economic, environment and institutional impact of theoretical and practical training of 253 dairy cow breeders (target group) from 59 localities in Iași and Neamț counties, within an extension project for the support of services in agriculture (SCG 1173). In a multi-institutional partnership (research-agricultural high education - private trade companies – private farmers), we followed the economic effect obtained by introducing elements of technical and genetic progress, economically quantified by training farmers grace to a programme adapted to conditions typical of the studied area. We pointed out significant aspects on the structure of farms categories, grouping of farmers trained according to sex and group, mean yields of milk, opportunities of efficient milk capitalization and technological links, which could be disseminated from animal breeding farms to small size family farms.*

## **FISH CONTROLLED FEEDING IN ECOLOGICAL AQUACULTURE**

**C. MISĂILĂ**

*The paper discusses some diets of the HNDD (High Nutrient Dense Diets) and LPD (Low Pollution Diets) type utilized in fish culture, recognized as both economically and ecologically performant.*

*Pollution in aquaculture represents an alarming reality, once being manifested at planetary level, occurring through water's charging with both SM (suspension materials, below 1  $\mu\text{m}$  in diameter) and DM (dissolved materials of the nitrogenous catabolytes type, as well as ammonia, urea, etc). Each kg of administered fodder means water charging with about 35 g ammonia and 200-300 g faeces and non-ingested food. The richer in easily-digestible nutrients and the poorer in nitrate nutrients a diet is the more will decrease excrement's level and toxicity.*

*The study discusses the application of some original experimental diets, to both salmonides and cultured cyprinides, as to the modification of the SM amounts released in the environment. Consequently, application of some HNDD-type diets reduced the amount of SM / ton produced fish with 17.6%, in the case of the rainbow trout, and with 23,6% respectively, in the case of cyprinides, while the utilization of the LPD-type diets reduced the amount of SM, in pond cyprinides, with 38.6%, comparatively with the control variant.*

# **BIOTEHNOLOGIA CREȘTERII SPECIEI POLYODON SPATHULA (WALBAUM, 1792) (LOPĂȚAR) ÎN VARA I, ÎN HELEȘTEIELE DIN ZONA PODIȘULUI MOLDOVEI**

**M. CUVINCIUC**

*The studies and the applicative surveys regarding the breeding of the species Polyodon spathula (Walbaum, 1972) in ponds in the Acvares Experimental Premises of Iasi county were conducted from 1992 to 2005. The applications regarding the breeding of the one-year paddle-fish in ponds were organized starting with the year 2000.*

*The established biotechnology provides for achieving productions of 600 - 800 kg fish/ha with a rate of survival of 60% from the stage of fry to 1-year old and average weights of 175 g/item (150 - 200 g/item).*

*Fry breeding was organized in a pond with a surface of 1 ha, the average depth of 2.2 m, the maximal depth of 2.8 m, protected with electrical fence and AVIARY. The works of pond preparation in order to get it populated focused on ichtiopathologic prevention and the stimulation of the planctonic biomass development.*

*The population was made with 25-year paddle-fish fry amounting to 10 000 items/ha.*

*No fodder was administered in the pond.*

*In the vegetative period, a SPLASH-type aerator operated permanently.*

## **FISH SPECIES FISHING IN DANUBE DURING SPRING 2005 YEAR WITH THE “DABUBE ALOSA GILL NET” UTILIZED AS A BOTTOM TRAMMELS NET, $a_d = 32$ mm**

**I. VASILEAN, V. CRISTEA**

*At present, the Inferior Danube is the only zone who is accessible for migratory fish. In the past, in this zone also the semi migratory fish have been a big economic importance, especially that who were lived in Danube Delta and were breeding in upward stream, especially in the past flood zones from Braila and Borcea Islands. After levees, there migrations have drastic decreased.*

*By fishing at mile 76, we tried to indicate the presence of different species and the percentage of each of them.*

*The fishing was effectuated during the early spring period of migration, when the Sfantul Gheorghe Hand the fishing was total interrupted.*

## **DATE DIN LITERATURA DE SPECIALITATE PRIVIND CULTURI DE ARTEMIA SALINA**

**A. GRUBER, Tr. STAN, B. PĂȘĂRIN**

*This papers emphasises the major importance of using "Artemia salina" in growing up aquarium fishes.*

*Species have specific demanding, but the most of them prefer alive food and additional cooked food alike.*

*The alive food (and "Artemia salina") is easy to obtain from the naturale enviroument or suitable cultures. There are many ways to obtain "Artemia salina" throught suitable cultures. This paper work provide some methods throught which "Artemia salina"*

## **RESEARCHES CONCERNING THE FEED VALORIZATION BY SOME SWEETWATER FISH SPECIES**

*Valerica MACOVEI, Doina LEONTE, C. LEONTE*

*The researches were set up during the vegetation period of the 2005 year into the Aquaculture and Aquatic Ecology Station, Ezăreni Iași.*

*The goal of the researches was to establish the way how two cyprinidae species, *Ctenopharyngodon idella* și *Cyprinus carpio* ingest and valorize the terrestrial and the aquatic vegetation. Using these feed sources as low intake sources, high quality fish meat could be easily obtained.*

*Within the experiments, some parameters were determined, such as: water's physical-chemical parameters, the individual average daily gain, feed intake index and Fulton coefficient.*

*The fishes were accommodated in floatable wired net cages and they were grouped in four groups, two of them containing *Cyprinus carpio* individuals and the other two, *Ctenopharyngodon idella* fishes. The feed used consisted in mixed fodder, trefoil green mass and reed.*

*The experimental results stated that the fishes belonging to the *Cyprinus carpio* species realized a higher average daily weight gain and a lower feed intake index, than the individuals belonging to the *Ctenopharyngodon idella* species.*

## **STUDIUL COMPARATIV AL PERFORMANTELOR REPRODUCTIVE LA PĂSTRĂVUL CURCUBEU (*ONCORHYNCHUS MYKISS*) ÎN FUNCȚIE DE ANUL DE REFERINȚĂ ȘI LOCAȚIE**

*Anca BOARU, I. BUD, V. MAG*

*In this paper we try to analyze some reproduction indices of rainbow trout, in two different trout farm of our country. Upon the results of research that we made about reproduction material of rainbow trout, reproduction performances and results in these two trout farm, we can draw some conclusions and recommendations concerning production performances and economical issues. The morphological features and reproduction indices of rainbow trout, obtained in these two trout farms, emphasize differences between broodstock individuals of same age and used in the same year. These differences are due to the value of biological material, which is characteristic for each trout farm, and the different medial parameters of these farms. Heterogeneity of the biological material regarding corporal development, implicitly the different reproduction indices, are reflected by obtained results and performances. Even if the results in these two trout farms are frame in the limits of results obtained in our country, we consider that the production performance and economical issues of the rainbow trout are, and can be, significant influenced by reproduction activity, quality and value of the biological material used for reproduction.*

## **EXPRESSION OF THE Y-LINKED COURTSHIP BEHAVIOR GENES LACKS IN XY MALE TO FEMALE SEX REVERSED GUPPIES (*Poecilia reticulata* PETERS, 1859)**

*Ruxandra M. PETRESCU, V.I. MAG*

*Our research had the main porpose producing of XY females and treir identification without progeny testing. Behavior in the resulted XY females was analysed by direct observation for identification of the male specific Y-linked courtship sequences. The XY females were artificially induced by treatment of both gravid females and newly born fry with estradiol valerate. We concluded the followings: functional XY male to female sex reversed individuals can be induced by treatment with estradiol valerate, XY male to female sex reversed individuals can be identified without progeny testing using as marker the X-linked *Nigrocaudatus* gene, XY male to female sex reversed individuals have a normal female specific behaviour with no exception, XY male to female sex reversed individuals lacks the Y-linked male courtship behaviour.*