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= SUMMARY =

GENETICS AND BREEDING

- Distribution of EGFP positive cells derived from a single EGFP expressing blastomere between the embryonic layers of 3.5 and 4.5 dpc chimeric blastocysts** - Stanca Ana Claudia, Cârstea V. B., Ilie Daniela, Gocza Elen, Vintilă I., Băcilă Vasile
- The use of aggregat genotypes PaTf Am as genetic markers for some traits in a pig** - Nicoleta Isfan, Georgescu S.E., Tomita Dragotoiu
- The genetic effects of the inbreeding in silkworm *BOMBYX MORI L.*** - Georgeta Diniță, D. S. Dezmirean
- Statistical methods used for the estimation of the genotype-environment interaction in animal breeding** - H.Grosu
- Estimation of generation interval in a swine pattern line** - R. Al. Popa, Tomița Drăgotoiu, Carmen Nicolae, Gh. Dobrică
- Researches concerning the optimization of generation interval in a swine pattern line** - R. Al. Popa, Tomița Drăgotoiu, Carmen Nicolae, Gh. Dobrică
- Prognosis in the selection of hybrid offsprings between parthenoclones and breeds of bulgarian origin of the silkworm *Bombyx mori L.*** - Yolanda Vassileva, Panomir Tzenov

NUTRITION, ECOLOGY

- Research concerning the antibiotics residues in bees honey** - Tomița Drăgotoiu, Monica Marin, Elena Pogurschi
- Cercetări privind influența unor nutrețuri combinate pe bază de full fat soia și șrot de soia asupra calității carcaselor de pui de carne** - Drăgotoiu D., Stoica I., Monica Marin, Elena Pogurschi, C. Pană
- Research concerning the influence of some compound feed with full fat soy and soy meal on the quality of broilers carcasses** - Drăgotoiu D., Stoica I., Monica Marin, Elena Pogurschi, C. Pană
- Environmental protection strategies for the sustainable development of romanian agriculture in the European Union** - Purdoiu Șerban
- Influence of differently-structured rations for dairy buffalo-cows, including semi-sugar beet, on their milk productivity and the milk composition** - Marina Tzankova
- The effect of probiotics on the performance of suckling calves for the period from birth up to weaning** - E.A. Kipriotis and K.V. Kousenidis
- Researches regarding the use of combined fodders with different compositions in broilers** - Cristina Ionescu, D. Simeanu, Roșu I., Tăpăloagă Dana

REPRODUCTION, PHYSIOLOGY, ANATOMY

Observations regarding some microbiological tests at sows with MMA syndrom - Stoica Angela, Poşan Paula, Tăpăloagă P., Rădulescu Elena

Observations regarding some reproductive indices at cows from agrozootechnic complex Vlăsia - Poşan Paula, Stoica Angela, Tăpăloagă P., Bahaciu M.

Actual approaching of cardiovascular pathology in veterinary medicine - Ioniţă, L., Tăpăloagă Dana, Ioniţă Carmen, Mitrănescu Elena

Data regarding urolithiasis ethiopatogenesis in animals - Ioniţă, L., Tăpăloagă P., Ioniţă Carmen, Mitrănescu Elena

Structural and functional peculiarities of the leptomeninges in *Gallus domesticus* - Laura Daniela Urdeş

The morphology of cerebellum in birds - Laura Daniela Urdeş

TECHNOLOGIES OF ANIMAL HUSBANDRY, MARKETING

Researches about technological equipments influence on unity cost of broiler chick - I. Custură, I. Van, Daniela Custură, Carmen Viorica Radu, A. Marmandiu

Researches about technological equipments influence on unity cost of broiler chick - Minodora Tudorache, Elena Popescu-Micloşanu, I. Van, Daniela Custură, Cristina Pârvuleţ

Study of productive characteristics of carpathian breed exploited in Dobrogea area - Vlad Iulian, Răducuţă Ion, Călin Ion

Comparative study regarding the evolution of egg production and mortality of the Baloteşti and the Faraon qualis populations - Elena Popescu-Micloşanu, Lucian Ioniţă, Ioan Custură, Minodora Tudorache

The influence of the main general environmental agents on some reproduction indexes in a population of White New Zealand rabbits - Cristina Negre, Popescu-Micloşanu Elena, Minodora Tudorache, Ioan Custură

Study about qualitative parameters of buffalo's milk from south area population of Romania - Vidu Livia, Georgescu Gh., Udroui Alina, Ungureanu Maria, Vlăsceanu Florentina

Methods of utilize manure from bovines - Dana Popa, Cristiana Diaconescu, Andra Şuler, M. Maftai

Comparative study regarding the chemical composition of wastes stem from farm bovines and individual households - Dana Popa, Cristiana Diaconescu, Andra Şuler, M. Maftai

Dairy cow grazing in swards over-drilled with a drought-tolerant grass/clover mixture - Jaroslav Golecky, Jozef Javorka, Jarmila Dubravska

The prospects of the European Sericulture within the frame of the EU Common Agricultural Policy - Kipriotis Evripidis, M.Sc., Ph.D.

TECHNOLOGIES OF THE AGRO FOOD PRODUCTS PROCESSING

Changes in fatty acid and conjugated linoleic acid content of milk according season - R.V. Salamon, É. Varga-Visi, J. Csapo

The study of the quantitative and qualitative milk production in the Carabasa sheep breed from Mavrodin Teleorman area biotype - I. Răducuță, A. Marmandiu, Vlad I., Călin I., M. Neda

The flour fortification methods - Nela Caragea, Gh. D. Pasat, Consuela Roibu

Quantification of milk cooling real rates achieved by HCA milk coolers - Maloș Gabriela, Maloș I. G., Nica Eugenia, Ianițchi Daniela, Popa Daniela

The assesement of the hygienical state of the milk coolers' surfaces which make contact with the milk, using microbiological tests - Maloș Gabriela, Maloș I. G., Nica Eugenia, Ianițchi Daniela

WILF LIFE MANAGEMENT, FISHERY AND AQUACULTURE

Researches regarding the pre development and rearing technology summer in an intensive system in *POLYODON SPATHULA* species - Nicolae Carmen, Dana Radu, Cristiana Diaconescu, Dana Tăpăloagă, M. Hangan

= ABSTRACTS =

GENETICS AND BREEDING

DISTRIBUTION OF EGFP POSITIVE CELLS DERIVED FROM A SINGLE EGFP EXPRESSING BLASTOMERE BETWEEN THE EMBRYONIC LAYERS OF 3.5 AND 4.5 DPC CHIMERIC BLASTOCYSTS

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In the present paper we analyzed the developmental potential of a single sexed EGFP expressing blastomere, derived from diploid eight-cell stage embryo, in 2n (1-cell), / 2n (8-cells), and in 2n (1-cell) / 4n (4-cells) chimera embryos. The distribution of EGFP expressing blastomere-derived cells in different parts of chimera embryos was evaluated at 82 hpg (3.5 dpc) and 106 hpg (4.5 dpc). Since we used a single EGFP expressing blastomere, the contribution of EGFP derived cells could be evaluated more accurately, compared to traditional 2n/4n chimera embryos. Significant differences were found between the diploid and diploid/tetraploid chimeras in the contribution of EGFP expressing blastomere-derived cells to the inner cell mass (ICM) and trophoctoderm (TE). With the advent of aggregation chimeras made of single diploid EGFP expressing blastomeres, we were able to follow precisely the fate of the EGFP labeled cells, which was not possible in the traditional 4n/2n chimera embryos.

THE USE OF AGGREGAT GENOTYPES PaTf Am AS GENETIC MARKERS FOR SOME TRAITS IN A PIG

NICOLETA ISFAN, GEORGESCU S.E., TOMITA DRAGOTOIU

Knowing the importance of genetic polymorphism of biochemical structures we considered a study of the genetic characterization of a sample in a pig population, based on the information offered by the genetic polymorphism at pre-albumins and transferrin loci and the analysis of the serum.

Another objective of the study was to study whether the protein fraction types, observed in the electrophoresis field, at the loci coding the three types of proteins, influence certain traits of economic importance in the genetic amelioration programs at pigs. The targeted traits within this study were: the weight at 181 days of age, the thickness of the fat layer, the daily weight gain and the age at the weight of 100 kg.

THE GENETIC EFFECTS OF THE INBREEDING IN SILKWORM *BOMBYX MORI L.*

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The change of the genetic structure of the populations by increase the frequency of the homozygous genotypes and the constitution of the inbred lines inside of the populations there are the main genetic consequences of the inbreeding process. Our studies pointed out the change of the genetic correlation coefficient value and of the heritability. As the inbreeding coefficient increases, heritability decreases and the genetic correlation become higher. This fact shows the

increase of the genetic homogeneity inside of the lines. The total genetic variance of the population is also changed. The variance inside of the line decreases as a consequence of the homozygous state of allele genes. The variance between inbred lines increases as an effect of the dismemberment of the population in more homozygous lines.

STATISTICAL METHODS USED FOR THE ESTIMATION OF THE GENOTYPE-ENVIRONMENT INTERACTION IN ANIMAL BREEDING

H.GROSU

The problem of the genotype-environment interaction had not received much attention in animal breeding field till Hammond (1947) suggested that „... the trait required is best selected for under environmental conditions which its fullest expression”. For Hammond’s theory to be valid, there should be no genotype-environment interaction.

For many species, genotype by environment interactions (GxE) play a critical role in determining the most appropriate biological type for a given environment. Genotype by environment interactions occur when the difference in performance between two or more genotypes changes from environment to environment.

A classic example of the interaction between genotype and physical environment involves animals that are genetically adapted to temperate locations versus animals that are genetically adapted to tropical areas. Genetically adapted to a location means that animals have evolved in that location over many generations and, as a result, carry the genes that allow to survive and thrive there.

The existence of the genotype-environment interaction depends of the difference between the environments and genotypes which follows to be compared.

ESTIMATION OF GENERATION INTERVAL IN A SWINE PATTERN LINE

R. AL. POPA, TOMIȚA DRĂGOTOIU, CARMEN NICOLAE, GH. DOBRICĂ

According to Dickerson and Hazel (1944, cited by Drăgănescu, 1970), the generation interval is one of most important factor of which depends the efficiencies of the animal breeding.

Same authors (1933, cited by Drăgănescu, 1970) are the first which studied the problem of generations succession time, in a genetic analysis of American Rambouillet, although, historian speaking, Darwin is he who arrests the firstling about the question, in 1868.

The generation interval is defined as the average time of change of a generation with other, or "the average age parents to the descendants born date" (Lush, 1945). It must say that he is the descendants kept to reproduction, because except they participate with their genes to the formation of next generation, just they have the genetic persistence in population.

Because the individuals used to reproduction have the descents of both sexes, the generation interval is estimate by four ways: the average age fathers when give the sons, future fathers (T_{TT}), the average age fathers when give the daughters, future mothers (T_{TM}), the average age of the mothers when give the sons, future fathers (T_{MT}) and the average age of mothers when give the daughters, future mothers (T_{MM}).

RESEARCHES CONCERNING THE OPTIMIZATION OF GENERATION INTERVAL IN A SWINE PATTERN LINE

R. AL. POPA, TOMIȚA DRĂGĂTOIU, CARMEN NICOLAE, GH. DOBRICĂ

From the moment in which Dickerson and Hazel (1944) show that annual genetic gain depended on length of the generation interval, this stopped to unmethodical establish, constituting an elemental factor of the breeding programs (Drăgănescu and Grosu, 2003).

The genetic gain is realized in the moment of generations change. So, the generation interval is a very important factor in establish how much genetic gain may be obtain per time unit.

The generation interval, starting to its definition, is a function of population age structure. These determine the average time of reproduction exploitation.

The average time of reproduction exploitation is a very important parameter in any breeding program, because the generation interval, intensity and precision of selection are strict related with these, and, in the mean time, the production and all technological flows also.

The average time of reproduction exploitation is the essential way through it is possible to modify the genetic structure, it may be induce the genetic gain in population, through the curtailment of the generation interval. Diminish the value of this parameter is a priority for maximization of the response of selection, against the growth of accuracy and intensity of selection (Draganescu, 1979).

In this order of ideation, the optimization of the generation interval must be analyzed through the average time of reproduction exploitation point of view. The necessity of this optimization derives from the fact as these affected in contrary ways the generation interval, the accuracy and the intensity of selection also. Due this contradiction, the annual genetic gain on total population becomes maximum just in the situation in which succeed in maximization of i/T ratio. The accuracy of the genetic evaluation is in a little maul the measure affected by the average time of reproduction exploitation.

The goal of this paper is studied the influence of the average time of reproduction exploitation about the parameters which affected the genetic gain, detaching the which variant offers maximum of genetic gain.

PROGNOSIS IN THE SELECTION OF HYBRID OFFSPRINGS BETWEEN PARTHENOCLONES AND BREEDS OF BULGARIAN ORIGIN OF THE SILKMOTH *Bombyx mori* L.

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The subject of the study were 4 ameiotic parthenoclones from Chinese type - P-28, Parthen 1, Pohi and Joana and the Bulgarian breeds: Vratza 38, Vratza 50 Valve 222 from Chinese type and Vratza 19, Vratza 37 and Valve 111 from Japanese type. The use of the best ameiotic parthenoclones as mother form for cross-breeding with the father form from the best studied Bulgarian breeds as especially perspective F_1 industrial hybrids from “parthenoclone x breed” type are Parthen 1 x Valve 111 and Parthen 1 x Vratza 37. Especially perspective, highly heterotic hybrid forms, which can be used for creation of new synthetic selection populations are the hybrids between the studied parthenoclones P-28, Parthen 1, Pohi and Joana with the breed Vratza 50.

NUTRITION, ECOLOGY

RESEARCH CONCERNING THE ANTIBIOTICS RESIDUES IN BEES HONEY

TOMIȚA DRĂGOTOIU, MONICA MARIN, ELENA POGURSCHI

The purpose of the research is to analyse the antibiotics residues in bees honey, using the HPLC fluorimetric determination, with chromatographical liquid and postcolumn detection, as well as the limits where the antibiotics are framed and the framing degree within the maximum admissible limits foreseen by international rules. As a consequence of the effected research, there have been found samples of honey, positive for streptomycin, toxic product with carcinogenic activity. Consequently, it is requested the formation of a law frame, compatible with the one of the European Union, rigorous analysis of the honey taken from apiculturists and its packing in recipients which should keep its sensorial and nutritive qualities.

RESEARCH CONCERNING THE INFLUENCE OF SOME COMPOUND FEED WITH FULL FAT SOY AND SOY MEAL ON THE QUALITY OF BROILERS CARCASSES
DRĂGOTOIU D., STOICA I., MONICA MARIN, ELENA POGURSCHI, C.PANĂ

As a consequence of poultry meat consumption lowering due to the content of saturated fatty acids which leads to the increase of lipid fractions in the broiler carcass, the improvement of the meat quality was tried by introducing some raw materials rich in unsaturated fatty acids. The research which was at the basis of this experiment had as purpose to establish the influence of some compound feed use, having in their composition full fat soy and soy meal, upon zootechnical performances of the Arbor Acres hybrid, carcass quality, content in cholesterol and upon saturated fatty acids.

ENVIRONMENTAL PROTECTION STRATEGIES FOR THE SUSTAINABLE DEVELOPMENT OF ROMANIAN AGRICULTURE IN THE EUROPEAN UNION

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The EU policies include the integration of sustainable development by establishing a system of economic, social and ecological evaluation of the economic impact upon the environment. Considering that economic activity, irrespective of its field of action, influences the environment, the EU aims at drafting an action plan comprising, among others, the following: multiannual management plans; incentives to identify those fishing methods that do not affect the habitat and the fish reproductive capacity; the elimination from the trade acts of the states failing to comply with the EU rules and regulations; the integration of environmental protection within the fishing sector.

INFLUENCE OF DIFFERENTLY-STRUCTURED RATIONS FOR DAIRY BUFFALO-COWS, INCLUDING SEMI-SUGAR BEET, ON THEIR MILK PRODUCTIVITY AND THE MILK COMPOSITION

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One scientific economic experiment has been made with a total of 18 dairy buffalo-cows from the “Bulgarian Murrah” breed, that were divided in three groups (6 cows in each) and were anamorphically equalized by age (consecutive lactation), milk-yield, lactation days and live weight. The rations consisted of corn silage, alfalfa hay, wheat straw, and concentrated mixture of the same composition. In the first group the given corn silage was assumed to be 100%. In the second group 22% (in weight) of that quantity was replaced with semi-sugar beet, and in the third group – 35% (in weight) of the silage of the first group was replaced with semi-sugar beet. In the conditions of the conducted study the replacement of 35% (in weight) of the corn silage in the rations of dairy buffalo-cows with semi-sugar beet and the increase of the share of concentrated fodder had a negative effect on the milk productivity, the milk composition and the usage of the fodder. There is an apparent tendency for decrease of the milk productivity by 16.7%, of the fat substances in the milk by 8.1% and of the protein content by 4.9%.

THE EFFECT OF PROBIOTICS ON THE PERFORMANCE OF SUCKLING CALVES FOR THE PERIOD FROM BIRTH UP TO WEANING

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The effect of probiotics given orally to calves, right after birth and after the first colostrum intake and repeated one week later, was studied during a period of 56 days after birth, up to weaning, by recording live weight gain, food conversion efficiency, scour symptoms and viability. Calves treated with probiotics were given twice orally a boiled culture of *Lactobacillus acidophilus*, containing 20 billion living microorganisms, concentrated in one capsule. The so treated calves were compared against a control group, which was treated by the same way with neutral capsules. Live weight gain in probiotic treated calves, was higher against the control (0,53 against 0,48 kg), ($P \leq 0,05$) reflected by same differences in food conversion efficiency which showed lower values for the treated calves over all the experimentation period (8,84-10,54 kg milk/kg live weight gain for the treated calves against 10,13-12,95 kg milk /kg live weight gain for the control group). The scour symptoms, recorded as days of incidence, in the group of the treated calves appeared to be lower compared to the control (11 days for the treated group against 53 days for the control). In general probiotic treatment calves right after birth and one week later on, seems to be beneficial on their performance, adding as well the advantage of the more biological control of pathogens and the development of a normal and beneficial rumen micro flora

RESEARCHES REGARDING THE USE OF COMBINED FODDERS WITH DIFFERENT COMPOSITIONS IN BROILERS

CRISTINA IONESCU, D. SIMEANU, ROSU I., TĂPĂLOAGĂ DANA

The production of ecologic combined feeders is the aim of the nutritionist in the last period. The specialists are trying to obtain animal products without substances that would pollute those products. Yet, for now, the specialist do not conceive good meat productions without additives'. Researches for ecologic combined feeders in broilers alimentation is on a growing trend in the world. This is also the direction of our researches, that had an objective to establish the productive potential of the combined feeders without additives in broilers.

REPRODUCTION, PHYSIOLOGY, ANATOMY

OBSERVATIONS REGARDING SOME MICROBIOLOGICAL TESTS AT SOWS WITH MMA SYNDROM

STOICA ANGELA, POȘAN PAULA, TĂPĂLOAGĂ P., RĂDULESCU ELENA

In puerperal pathology at sow an important place has MMA syndrome (mastitis-metritis-agalactia), which has a varied of clinic manifestations and a lot of causes. This syndrome affects sows short after parturition and is characterized through a partial or total decreasing of milk secretion, inflammation of one or more mammary gland, endometritis, digestive disorders, locomotion disorders and sometimes even cerebral disorders.

The disease influences the health status of piglets and heading for death of most new-born, which goes to important economical lost.

The most frequent microbial agents there are: mycoplasma, gram positive or gram negative bacteria, mycelium. Bacteria can appear from urine of sows with urinal disorders (kidney or urinary bladder), from uterus, intestines, and work in two ways:

- get multiply in mammary gland, going to infection for 24-48 hours, than there is a spontaneous healing, but with manifestation of agalactia.
- elimination of endotoxine with depressive effect on heart and sanguine circulation to the mammary gland, which determine the decreasing of milk production. This is reduced also because of the decreasing number of blood plaque, apparition of lactic acidosis and modification of plasmatic enzymes. At endocrine glands there is an increasing quantity of cortisol and a decreasing secretion of prolactin – hormone which determine the initiation and maintaining of lactate secretion.

Starting from the fact that resistance of micro-flora is responsible with MMA syndrome manifestation as an actual topic, the purpose of the researches was to do some microbiologic tests on biologic sample from sows with metritis, mastitis and agalactia, in order to recommend an efficient treatment.

OBSERVATIONS REGARDING SOME REPRODUCTIVE INDICES AT COWS FROM AGROZOOTECHNIC COMPLEX VLĂȘIA

POȘAN PAULA, STOICA ANGELA, TĂPĂLOAGĂ P., BAHACIU M.

Knowing the reproductive indices has exceptional significance in studying the biologic reproductive capacity of the cows, especially that, these indices take out in evidence in a great deal the exploitation environment of the animals and help to establish some measures to prevent and control the sterility, because of the low grade of genetic determinism of the reproductive characters.

The purpose of this study was to analyze some reproductive indices at Brown cows, bred at Vlășia agro-zootechnic complex.

ACTUAL APPROACHING OF CARDIOVASCULAR PATHOLOGY IN VETERINARY MEDICINE

IONIȚĂ, L., TĂPĂLOAGĂ DANA, IONIȚĂ CARMEN, MITRĂNESCU ELENA
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On the international level, the veterinary cardiology has a large increasing in the latest 20 years, being placed in an important position within the medical veterinary sciences, as a major branch of medicine, being a discipline with deep involvement in human being cardiology.

By the previous data presented it is emphasized the fact that the specialist in cardiology must possess a complex training, with a high developed clinic sense, to corroborate the data of investigation with the paraclinic and special investigation techniques.

It is remarkable that in the veterinary medicine too, it has started to use special methods of imagistic clinic investigation, as echocardiography, coronarography, catheterism, computerized tomography, nuclear magnetic resonance and in the technologic developed countries, there are also studied on animals new techniques and procedures, practically there it could discuss about veterinary cardiologist specialists and veterinary cardiologist surgeons, as we wish in our country.

DATA REGARDING UROLITHIASIS ETHIOPATOGENESIS IN ANIMALS

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Urolithiasis means the setting of some mineral, organic or anorganic concretions along urinary ducts, starting with the renal pelvis and finishing with urethra.

Depending these formations sizes, it is talked about cristaluria, when urine has mineral crystals, usually in a moderate amount and without pathologic involvement.

Including the urinary lithiasis and sedimentosis is among metabolism and nutrition disorders is justified by a lot of reasons, so it is not a disputable problem. No matter, even these disorders are due to food mineral imbalances, or some genetic disorders, as in the case of cystinuria or xanthinuria, or maybe due to some inflammatory lesions of the urinary ways as in the case of urates or ammonia-magnesium phosphates, the biochemical modifications of blood or urine become the true expression of a metabolism disorder.

We had to admit the fact that, if the lithiasogen process is less clear in its privacy, like in human beings, there are known well enough the nourishing factors able to determine the basal urolithiasis and sedimentosis in animals (see fattening rams urolithiasis).

STRUCTURAL AND FUNCTIONAL PECULIARITIES OF THE LEPTOMENINGES IN *GALLUS DOMESTICUS*

LAURA DANIELA URDEȘ

The modern theory regarding the systematization of meninges in birds is based on embryologic, phylogenetic, morphologic and functional data. It sustains the existence of two meningeal structures, which are the outer (dura) meninges and inner meninges (leptomeninges). This theory excludes the idea of an individualised arachnoida. In fact, the arachnoidian meninges in bird's central nervous system is considered as a slightly differentiation of the dura (7). Hansen-Pruss (5) suggested for the first time that a genuine arachnoida can exist also in domestic birds.

The aim of this scientific work was to study the leptomeninges' structure and bringing up its functional peculiarities in *Gallus domesticus* species.

THE MORPHOLOGY OF CEREBELLUM IN BIRDS

LAURA DANIELA URDEȘ

In birds, as an integrant part of cerebrum, cerebellum is placed at the dorsal surface of the cerebral trunk (1, 2, 3). Cerebellum is constituted by the cerebellum's body and by its two hemispheres. The surface of the body has numerous cerebellous sulci which delimit the cerebellum's lobes and lobules. In each lobule, there are a number of deep sulci dividing the cerebellum in many laminae on which are disposed the cerebellous lamellas. At the surface of cerebellum there is a thin layer of grey matter, homologous with mammalian's cerebellum cortex. The white matter is placed into cerebellum's center, being constituted by association, commissural and projection fibres (3), axons of pear-shaped neurons, glial cells and blood vessels (4). Into the mass of white matter, there are a number of grey matter nuclei (2).

TECHNOLOGIES OF ANIMAL HUSBANDRY, MARKETING

RESEARCHES ABOUT TECHNOLOGICAL EQUIPMENTS INFLUENCE ON UNITY COST OF BROILER CHICK

I. CUSTURĂ, I. VAN, DANIELA CUSTURĂ,
CARMEN VIORICA RADU, A. MARMANDIU
U.S.A.M.V. BUCUREȘTI

Poultry industry in our country had to face competition at European level and it had also to face competition at World level, together with whole European poultry industry, meaning it had to produce a better product than other countries. This objective depends on many factors, including technical management, or reducing cost for product unity. For this reason, this paper aims to display influence of different technological equipments on unity cost for broiler chicken.

Study was performed on a flock of 856 thousands broiler chicks in total during four production cycles. Results shows that system Big Dutchman gives a body weight significantly higher, a mortality and a specific significantly lower, and an unity cost with 241,36 lei/tonne lower

Rapid increase of poultrymeat production is assigned to many factors, including usage of intensive production methods, centralization and vertical integration of poultry industry, feedstuffs availability, poultrymeat processing mechanization, creation of convenient products for consumers and, most important, continuous increase consumers demand. Because of the nature of poultrymeat production, price an important weapon in the competitive arsenal of poultry companies and for this reason there is a pressure to reduce production costs.

RESEARCHES ABOUT TECHNOLOGICAL EQUIPMENTS INFLUENCE ON UNITY COST OF BROILER CHICK

MINODORA TUDORACHE, ELENA POPESCU-MICOȘANU,
I. VAN, DANIELA CUSTURĂ, CRISTINA PÂRVULEȚ
U.S.A.M.V. BUCUREȘTI

Strong European and world competition during last years caused a strong diversification of poultrymeat products, which also caused an increase of consumption of such products, with more and higher requirements of consumers. So producer offer should always take peace with market request.

Starting from this idea, this paper aims to analyze production performances of some broiler chick hybrids and meat cost by unity, in the conditions of industrial poultry production in our country, using two production systems. There were studied two hybrids (A and B), during four production cycles, on a flock of 270000 heads/cycle.

After analyzing and interpreting the results, there was found that hybrid B had better production performances in large captivity and hybrid A had better production performances in tight captivity.

STUDY OF PRODUCTIVE CHARACTERISTICS OF CARPATHIAN BREED EXPLOITED IN DOBROGEA AREA

VLAD IULIAN., RADUCUTA ION., CALIN ION

Main productive characteristics of the analyzed Carpathian breed in Dobrogea area demonstrate that the breed generally adjusts to the dough tier areas, but it also can give rather good milk productions of about 340 l during a lactation of about 205 days and it reaches a peak of the curve in may with a maximum, of 3.8 l/head/day. This phenomenon demonstrates a good hereditary capacity, so that they can productively answer, when administrating a nutritive additive.

The female reproductive youth reaches weights of 30 -31 kg, being rather good for the age of 9 months, in comparison with the weight of 42.5 kg reached by the adult females, representing about 73.3% from the adult weight, phenomenon due to a good management and especially to an appropriate alimentation of the female during the first year of reproduction.

The prolificacy is about 144%, having pluriunitary values of a rustically breed, where an inadequate selection is still made, which presents a rather large variability of the productions and where we meet frequently conformation faults despite its rusticity and adaptability.

COMPARATIVE STUDY REGARDING THE EVOLUTION OF EGG PRODUCTION AND MORTALITY OF THE BALOTESTI AND THE FARAON QUAILS POPULATIONS

ELENA POPESCU-MICLOȘANU, LUCIAN IONIȚĂ,
IOAN CUSTURĂ, MINODORA TUDORACHE

The present study is part of a research series made by the authors for a better knowledge of the quails performances exploited in our country and for making possible the design of some amelioration programs from two quail populations: a meat population (Faraon quails) and an eggs-meat population (Balotești quails). The study is done at the S.C. Ferma Nova S.R.L., from Bucharest, on 1100 reproduction quails, during a period of 8 months egg production. The research established that the Balotești quails present a superior laying intensity to the Faraon ones (65.6 % at the Balotești eggs-meat quail population compared to the 57.5 % at the Faraon meat quails). The Balotești quails has the peak of the egg production in the 4th month (74.26 %) and the Faraon quails reach the peak in the 3rd month (66.80 %). At the Balotești quails the laying intensity is over 70 % for 5 months long, and at the Faraon quails, the intensity is over 60 % for 4 months. The Balotești quails recorded a monthly average mortality of 4.06 %, while at the Faraon the mortality was near double.

The Japanese quail raising for eggs and meat had a great development in the past few decades because of their recognized qualities: great nutritive value, exquisite taste and recommendations of the naturist medicine for their therapeutic special effect.

The research presented in this study is necessary to show the differences between the Balotești and the Faraon quails, for a better knowledge of the biological material performances exploited in our country and for making possible the design of some amelioration programs to obtain a broiler and egg specialized population quails.

THE INFLUENCE OF THE MAIN GENERAL ENVIRONMENTAL AGENTS ON SOME REPRODUCTION INDEXES IN A POPULATION OF WHITE NEW ZEELAND RABBITS

CRISTINA NEGRE, POPESCU-MICLOȘANU ELENA,
MINODORA TUDORACHE, IOAN CUSTURĂ

This experiment proposes to show in what measure the date of the mate and that of the birth influences the principal indexes of reproduction in White New Zealand rabbits sheltered in an intermediary system between semi-intensive and intensive. From this primary data there were calculated the principal values of reproduction. At the final of this experiment, it was established that the reproduction of rabbits grown in an improved semi-intensive system is influenced by natural conditions and seasons.

So the fecundity is higher when the natural mate is made during spring. The same thing happens in the prolificacy case. Viability is better when the natural mate is done in the winter or spring. When we refer to the benefit periods of the year, the fecundity and prolificacy were better when the mate was made in May-June. The viability was higher when the mate was done in January- April. The date of birth influences the fecundity, meaning that it is better in spring and summer when it marks 100 percent value and lower in the rest of seasons. Viability is the lowest when birth is made in the autumn and higher when the birth is made in the spring. To conclude, the most benefit period for birth is between May- June.

STUDY ABOUT QUALITATIVE PARAMETERS OF BUFFALO'S MILK FROM A SOUTH AREA POPULATION OF ROMANIA

VIDU LIVIA, GEORGESCU GH., UDROIU ALINA,
UNGUREANU MARIA, VLASCEANU FLORENTINA

The buffalo's population from Romania is situated on the 4th place concerning about milk production feat, after countries like Italy, Bulgaria, Egypt, and Iran. The buffalos breeding in Germany, are proceeded, most of them, from Romania. They realized 2028 kg milk on the first nursing, in 279, 6 nursing days, and 1793 kg on the second nursing, in 208 nursing days. In this work, there are analyzed the following qualitative parameters of buffalo's milk from a south area population of Romania: grease percentage, protein percentage, density, lactose percentage, freezing point, acidity, hygienic parameters of milk (TNG, SCN). Analyzing all these parameters, it's resulted that milk proceeding from the studied buffalos is placed between the limiting values established by European directives. This fact can promote the utilization of buffalo's milk from Romania for marketing itself or like products for the export. Also, it is recommended the extension of its employment, knowing that for buffalo's milk there are no production quotas, granted by European Union.

MODALITĂȚI DE UTILIZARE A DEJECȚIILOR DE TAURINE METHODS OF UTILIZE MANURE FROM BOVINES

DANA POPA, CRISTIANA DIACONESCU, ANDRA ȘULER, M. MAFTEI

The utilization of dejectiilor from bovines as the fertilizer structurally represents a path for right recycling of the organic matter, accessible as much as zoo technical big units, quotients and of little capacity the middling.

COMPARATIVE STUDY REGARDING THE CHEMICAL COMPOSITION OF WASTES FROM FARM BOVINES AND INDIVIDUALS HOUSEHOLDS

DANA POPA, CRISTIANA DIACONESCU, ANDRA ȘULER, M. MAFTEI

The organic fertilizers assure the important contribution of nutrients in soil, the plants developments and increase the soil quality and biological activities.

The vegetal cultures have the positive reaction to the organic fertilizers.

The fresh manure and mud contents a bigger percent of N-NH₃ than semi-fermentative manure and its have a good efficacy in the first year of application.

The mud contents the cellulosed substances and indigestible lignin's.

The fermentation manure (compost) has a superior effect for increase the soil quality, because it has good nutritive and power values.

DAIRY COW GRAZING IN SWARDS OVER-DRILLED WITH A DROUGHT-TOLERANT GRASS/CLOVER MIXTURE

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Farming has been affected by climate changes also in mountain and upland regions of Slovakia. Among the consequences of this phenomenon is that standard grass/legume mixtures fail to provide enough good quality livestock feed. Mainly the dairy cows experience difficulties since they respond to the reduced

sward volume and quality immediately. In an experiment carried out with dairy cows we analysed a sward over-drilled with grass/clover mixture dominated by *Trifolium repens*, *Lotus corniculatus*, *Festuca rubra* and *Phleum pratense*. The cultivars with the best drought-tolerant qualities were selected.

THE PROSPECTS OF THE EUROPEAN SERICULTURE WITHIN THE FRAME OF THE EU COMMON AGRICULTURAL POLICY

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The European Union (EU) is characterised by a predominantly rural geography, influenced by human occupation and activity. The various rural areas show particular differences, since their natural environments have been affected by numerous schemes of farming and forestry and the associated with them crafts and industries. Agriculture and forestry in the EU represent the major land users, having in this way a dominant role in influencing the rural economies and the rural landscape as well.

Agriculture today may appear less important to the economies of rural areas, compared to past periods, but it still has a significant contribution to their economic growth and environmental sustainability.

EU agriculture is a multi-dimensional activity, involving many different functions, among them the majors being food and fibre production, countryside management, nature conservation, and tourism. Farming can thus be described as having multiple functions.

TECHNOLOGIES OF THE AGRO FOOD PRODUCTS PROCESSING

CHANGES IN FATTY ACID AND CONJUGATED LINOLEIC ACID CONTENT OF MILK ACCORDING TO SEASON

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The purpose of the research was to determine the fatty acid composition of milk of general varieties in Hungary that is Hungarian Simmenthal, Red Holstein Friesian and Black Holstein Friesian and the changes in the fatty acid composition of their milk fat throughout the year with special respect to the conjugated linoleic acid content. The amount of unsaturated fatty acids (oleic acid, linoleic acid and linolenic acid) including conjugated linoleic acid was higher in summer than in winter. In the case of the saturated fatty acids (butyric acid, caproic acid, caprylic acid, capric acid, myristic acid, palmitic acid and stearic acid) an opposite tendency has been shown. The amount of conjugated linoleic acid ranged from 0.8 to 1.4%, with an average value of 1.1%.

THE STUDY OF THE QUANTITATIVE AND QUALITATIVE MILK PRODUCTION IN THE CARABASA SHEEP BREED FROM MAVRODIN TELEORMAN AREA BIOTYPE I.RĂDUCUȚĂ, A. MARMANDIU, VLAD I., I. CĂLIN I., M. M. NEDA

In sheep breeding and exploitation milk has a prevalent role, like major food for lambs and also as a valuable food product for human beings. The aim of this present paper is to establish the quantitative and qualitative parameters of milk production in the Carabasa sheep breed, reared in the Mavrodin -Teleorman area conditions for enhancing the lactogen potential of this biotype through selection method. The results showed a good milk yield (137.08 ± 8.17 liters) and a superior milk quality ($7.65 \pm 0.54\%$ for the milk fat and respective $6.67 \pm 0.21\%$ for the protein matters).

THE FLOUR FORTIFICATION METHODS

NELA CARAGEA, GH.D. PASAT, CONSUELA ROIBU

In Romania the iron and folic acid deficiencies represent a public health problem that affects the population health with a major impact above that of women and children. This deficiency affects the young people and children school performances, reducing the adults productivity, it is responsible for the birth of some children with congenital deficiencies, especially of Neural Tube Deficiency (NTD).

The flour fortification represents an investment with a great efficiency of cost and in the same time represents a simple way of long term administration of a constant micronutrients quantity.

This work presents different types of methods, equipment and designs used to produce flour that is correctly and uniformly fortified.

QUANTIFICATION OF MILK COOLING REAL RATES ACHIEVED BY HCA MILK COOLERS

MALOȘ GABRIELA, MALOȘ IULIU GABRIEL, NICA EUGENIA
IANIȚCHI DANIELA, POPA DANIELA

The initial qualities of milk, given by the inter-relations established between animal organisms (genetic potential, health) and environmental factors (feeding, watering, microclimate), cannot be improved once the milk has left the udder. However, they can be irreversibly lost during the time of harvesting/conditioning/manipulation (milking, cooling, transportation), if the specific requirements of the milk as a "living" product are not well ensured.

The purpose of the present research, performed in concrete conditions of mass-production, is that of quantifying the milk cooling real rate (important factor from the technical-functional parameters' sphere of the milk cooling equipment), in order to establish its influence concerning the qualitative signs of the raw material, milk. The cooling real rates achieved indicate a much more rapid cooling of the lot of milk by using the HCA 8000 cooler: $4.01 \text{ min}/^{\circ}\text{C}$ ($-0.25 \text{ }^{\circ}\text{C}/\text{min}$), compared to the ones achieved for the lots of milk cooled by HCA 5000: $5.77 \text{ min}/^{\circ}\text{C}$ ($-0.17^{\circ}\text{C}/\text{min}$) and HCA 6000: $5.75 \text{ min}/^{\circ}\text{C}$ ($-0.17^{\circ}\text{C}/\text{min}$) coolers.

THE ASSESSEMENT OF THE HYGIENICAL STATE OF THE MILK COOLERS' SURFACES WHICH MAKE CONTACT WITH THE MILK, USING MICROBIOLOGICAL TESTS

MALOȘ GABRIELA, MALOȘ IULIU GABRIEL, NICA EUGENIA IANIȚCHI DANIELA

The initial qualities of milk, given by the inter-relations established between animal organisms (genetic potential, health) and environmental factors (feeding, watering, microclimate), cannot be improved once the milk has left the udder. However, they can be irreversibly lost during the time of harvesting /

conditioning/manipulation (milking, cooling, transportation), if the specific requirements of the milk as a "living" product are not well ensured.

The purpose of the present research, performed in concrete conditions of mass-production, is that of assessing, through an objective method, the hygienical state of the milk coolers' surfaces which make contact with the milk (important factor from the technical-functional parameters' sphere of the milk cooling equipment), in order to establish its influence concerning the qualitative signs of the raw material, milk (technological and nutritional).

WILF LIFE MANAGEMENT, FISHERY AND AQUACULTURE

RESEARCHES REGARDING THE PRE DEVELOPMENT AND REARING TECHNOLOGY (SUMMER 1) IN AN INTENSIVE SYSTEM IN *POLYODON SPATHULA* SPECIES

NICOLAE CARMEN, DANA RADU, CRISTIANA DIACONESCU,
DANA TĂPĂLOAGĂ, MARIUS HANGAN

Polyodon spathula (paddlefish) takes part of the Acipenseriformes order, Polyodontidae family. It is a primitive sweet water sturgeon, originary from Mississippi River area. *Polyodon* is a large weight, long lasting fish. In its natural environment reaches almost 50-70 kg and a body length of 1.5-2 m. This species has two important features: it is a planktonofag, feeding itself only by zooplankton filtered in the water and in high feed level conditions has a very fast weighting rhythm. Its meat and roe are almost like the other's sturgeons. Their biologic and ecologic features allow this species rearing in artificial lakes, in different policulture formula, with ant concentrate forages.

This species has kept the breeders attention due to its fast weighing rhythm (300-500 g in the first summer; 2-2.5 kg in the second one and 4.5-5 kg in the third summer), special fodder and the superior quality of meat and roe (caviar).

This, for helping them, there are suggested two ways of pre development and rearing, having in view the results of the two experimental trials.