ANALIZA MICROSATELIȚILOR - MIJLOC MODERN DE INVESTIGARE A PATERNITĂȚII

MICROSATELLITE ANALYSIS - MODERN TOOL FOR PATERNITY INVESTIGATIONS

M. TURCITU[1], HANDAN COSTE[1], M.D. CODREANU[2], Ş. NICOLAE[1], G. BĂRBOI[1], CARMEN CRIVINEANU[2]
[1] Institutul de Diagnostic şi Sănătate Animală
[2] Facultatea de Medicină Veterinară Bucureşti
turcitu.mihai@idah.ro

Cuvinte cheie: ADN, teste paternitate, analiză fragmente
Key words: DNA, paternity test, fragment analysis

SUMMARY

Molecular biology tests based on identification, amplification and characterization of nucleic acids have revolutionized diagnostic approach, inexact and time consuming tests are now replaced by DNA analysis, much faster and accurate than traditional methods. One example in this direction proved to be biological material analysis with origin establishment of the individual subjected to investigation, through genetic fingerprinting techniques. Such techniques proved their superiority on serological investigation, allowing better inclusion or exclusion of the individuals, a consequence of strategic localization of genetic material subjected to investigation.

APLICAȚII ALE GENETICII MOLECULARE ÎN BIOTEHNOLOGIILE VETERINARE ŞI ANIMALE

MOLECULAR GENETICS APPLICATIONS IN VETERINARY AND ANIMAL BREEDING BIOTECHNOLOGIES

D. D. CIUPERCESCU, I. GROZA, M. CENARIU, EMOKE PALL, LAURA CĂTANĂ, BRÎNDUŞA STEGERAN
Universitatea de Ştiințe Agricole şi Medicină Veterinară, Calea Mănăştur nr. 3-5, Cluj Napoca, dciupercescu@usamvcluj.ro

Cuvinte cheie: genetică moleculară, biotehnologie veterinară, PCR, trasabilitate, selecție asistată de markeri (MAS)

Key words: molecular genetics, veterinary biotechnology, PCR, traceability, marker-assisted selection (MAS)

SUMMARY

The mini-review covers some recent methods and applications of most advanced knowledge in the field of molecular genetics, genetic engineering and animal science biotechnology with declared intention of triggering a rapid modernization in the education system of veterinary students in Romania. The PCR techniques increased considerably the sensitivity of DNA and ARN detection providing a sensitive and reliable tool far pathogen identification, embryo sex determining or genetic diseases diagnostic assays. The advantages of using the new generations of DNA-based vaccines have also been considered. More than 430 genetic diseases are recognized and documented to date in dogs alone. Gene therapy, tissue targeted drug delivery systems (DDS) and cell encapsulation biotechnologies were all briefly described. The importance of transgenic animals technology in the area of basic research and eventually in the alteration of some economically important traits in livestock and fish was also presented. Conservation of indigen animal genetic resources by *ex situ* approaches (domestic animal zoos, cryopreservation of semen, ova and embryos) ought to be considered for a national strategy. There is a strong case to save and preserve individual genes or gene combinations for possible future of *in toto* regeneration of certain strains and breeds at risk of extinction. In order to speed up selection response, marker assisted selection (MAS), gene assisted selection (GAS) and marker-quantitative trait loci (QTL) linkage considerations were analyzed. Finally, food traceability from farm-to-fork and from fork-to-farm give an idea of how outstanding is to raise permanent questions on food safety issues, how important is to identify farm animals by DNA fingerprinting and how genetic biotechnologies could influence our health or our heath risks.

SELECTION INDICES IN A SWINE PATERN LINE AND THE BIOLOGIC EFFICIENCY OF THE CHARACTER

C. CULEA, IULIANA NEAGU, DANA TĂPĂLOAGĂ, A. MARMANDIU
Faculty of Veterinary Medicine Bucharest

Key-words: selection indices, biologic efficiency, global indicator

SUMMARY

The establishing of the objective and the optimum breding technology depends on the relative economic efficiency importance of the characters which places a main role in the breeding decisions.

The most usual procedure of economic percentage estimation of the characters is the one of estimation the characters percentage of the effect its increasing with one unit has had upon a global indicator [1]. For building the partial regression ecuations which lead to price percentage creates some difficulties and imposesother procedures searching which change the economic efficiency by the economic efficiency [2] or replaces the global indicators with the distance to the final aim [1].

The aim of the researches was the estimation of the relative biologic importances of the characters measured in the selection farms in Hampshire breed, no matter the dificulties created to organization of swine breeding by the lack of an economic percentage estimation of the characters.

RELATIVE ECONOMIC IMPORTANCE OF CHARACTERS IN A LEGHORN HEN LINE

CULEA C., IULIANA NEAGU, DANA TĂPĂLOAGĂ, MARMANDIU A.
Faculty of Veterinary Medicine Bucharest

Key-words: economic efficiency, global indicator, biologic efficiency, selection

SUMMARY

Knowing the relative economic importances imposes the selection on many characters [2]. Their differentiation is made by the effect each character modification has with a unit over the met gain on animal [5].

Being the prices subjectivity and also their fluctuations it was searched the economic efficiency replacing by the biologic efficiency [3].

After the primary fixing of the characters which could form the selection objective in the Leghorn hen line, the present paper proposes to establish every character importance for mass of egg per body weight unit maximization thus underlining the final objective of the selection.

NON-PARAMETRIC RANK CORRELATIONS BETWEEN SIRES HIERARCHY UPON THE PREDICTED BREEDING VALUES BY DIFFERENT METHODS

IULIANA NEAGU, C. CULEA, DANA TĂPĂLOAGĂ, A. MARMANDIU
Faculty of Veterinary Medicine Bucharest

Key–words: breeding value, heritability , regression, correlation.

SUMMARY

General breeding value prediction uses as regression, in a way or another, the heritability and as informative source, the own performance and the different relatives performances]. It is questioned the problem of similitudes between the hierarchyzations made by the different estimated of the breeding value.

SELECTION WAITED REPLY IN A MERINO SHEEP POPULATION

IULIANA NEAGU, C. CULEA, DANA TĂPĂLOAGĂ, A. MARMANDIU
Faculty of Veterinary Medicine Bucharest

Key words: selection reply, selection diference, selection intensity, heritability.

SUMMARY

Wool sheep breeding methods are developing fast, but before changing it is useful to know more exactly the traditional work practices and their efficiency.

Previous researches noticed the fact that most of eliminations preced the sheep admission to reproduction and there is a high positive correlation between the wool yield of the admitted sheep in the genealogic book and the number of daughter kept for reproduction.

It was noticed that a large part of their selection effect is realized after admission to reproduction.

INTERRELAȚIA DINTRE ACTIVITATEA ALBINELOR ŞI CONSUMUL DE POLEN

INTERRELATION BETWEEN THE HONEY BEES ACTIVITY AND THE POLLEN INTAKE

MONICA PÂRVU[1], CRISTINA DINU[1], CORINA ZUGRAVU[2], IOANA ANDRONIE[1], A. MARMANDIU[3]

1. Universitatea Spiru Haret, Facultatea de Medicină Veterinară, monica_parvu@yahoo.com
2. Universitatea de Medicină şi Farmacie „Carol Davila”
3. USAMV Bucureşti

Cuvinte cheie: albine, polen
Key words:honey bee, pollen

SUMMARY

The experiment was developed on honey bee colonies with different power (low, medium and high), which was tree sources of feed: filbert, corn and red trefoil. The plant sources influenced the chemical composition of pollen and the biological value. In harvest season, the pollen intake was influenced by the development of honey bee colony, being bigger at the high power colony. The plant sources with low biological value established the growth pollen intake.

CORELAȚIILE DINTRE SUPLIMENTAREA PROTEICĂ DIN HRANĂ ŞI DEZVOLTAREA FAMILIILOR DE ALBINE

CORELATION BETWEEN THE PROTEIC SUPLLY DIET AND THE DEVELOPEMENT OF HONEY BEE COLONIES

MONICA PÂRVU[1], CRISTINA DINU[1], CORINA ZUGRAVU[2], ELENA POTECEA[1], ELENA MITRĂNESCU[3]

1. Universitatea Spiru Haret, Facultatea de Medicină Veterinară, monica_parvu@yahoo.com
2. Universitatea de Medicină şi Farmacie „Carol Davila”
3. USAMV Bucureşti

Cuvinte cheie: albine, supliment proteic
Key words: honey bee, proteic suplly

SUMMARY

The experiment was developed on honey bee colonies with medium power kept up into vertical beehives. Before the hibernate, at the experimental group it was administrated substitute of pollen. Comparative with the control group, the egg laying became earlier in springtime and the larva’s were uniform distributed on the honeycombs.

EFECTUL UNOR EXTRACTE VEGETALE POLIFENOLICE ASUPRA CREŞTERII PUILOR BROILER DE GĂINĂ

EFFECT OF SOME POLIPHENOLIC VEGETAL EXTRACT ON BROILER CHICKEN BREEDING[1]

GH. SOLCAN, V. BOGHIAN, LUMINIŢA DIANA HRIŢCU, CARMEN SOLCAN, DIANA MOCANU, ALINA ANTON, S.BEŞCHEA CHIRIAC, M. MUSTEAŢĂ, M. CARP CARARE

Facultatea de Medicină Veterinară Iaşi, Aleea M. Sadoveanu nr. 8, 700489; E mail gsolcan@univagro-iasi.ro

Cuvinte cheie: pui broiler; creştere, extracte polifenolice
Key words: broiler chickens; breeding; polyphenolic extracts

SUMMARY

The experiment was made on 30 boiler chickens, begining from 18 days of life, lasting 28 days. Chickens were randomly grouped in 6 groups, 5 experimental and a control group. A comercial diet well balanced in nutrients were used for all groups. In experimental groups the polyphenolic extracts were daily added in fodder using the dosis of 90 mg/kg b.w. At the end of the experimental period the mean gain of body weight were: 768 g/chicken in control group, 852 g, in E1 group (supplemented with extract of *Hyppophae rhamnoides*), significantly higher than control (+ 84g); 824 g in E2 group (supplemented with extract of *Vitis vinifera*) low significant difference from control. E3 group (supplemented with *Pleurotus spp.* extract) realized the best body weight gain: 956 g, the difference from control group being very significant (+ 188g). E4 group (treated with *Agaricus spp* extract) and E5 group (treated with *Rosa canina* fruits extract) realized a whole gain of 884 g, significant (+ 116g) in comparison with control. Healthy status, haematology and blood biochemistry showed no significant differences between the groups

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