

# ABSTRACTS

## AGRICULTURAL EDUCATION

УДК 378:51

V.D. Zemzyulina

### **STUDENTS' INDIVIDUAL WORK EFFICIENCY RISE WHILE STUDYING HIGHER MATHEMATICS AT THE HIGHER EDUCATIONAL ESTABLISHMENT**

There is a conflict between teaching mathematics at the higher school connected with the state standard of the subject demand and some difficulties in getting the assigned task. We describe some steps attempted by the staff to solve this problem.

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УДК 37.01:37

G.G. Rumyantseva

### **COGNITIVE INDIVIDUAL ACTIVITY OF STUDENTS AS A PSYCHOLOGICAL AND PEDAGOGICAL PHENOMENON**

Individual activity of students as a psychological and pedagogical phenomenon. Various scientific points of view about this problem.

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УДК 608.1/3(075)

N.I. Kapustin

### **SOME PECULIARITIES OF TECHNICAL SYSTEMS CREATING IN THE AGRICULTURAL HIGHER SCHOOLS**

Agricultural equipment development has some peculiarities and demands some special techniques. It is necessary to present the process of its development in the form of detailed algorithm.

Using this method on the Chair of Agricultural Products Processing Equipment of Altai State Agricultural University in 2006 in making state supported research 10 patents on new designs were received.

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## THEORETICAL DEVELOPMENTS

УДК 517.946

G.A. Pavlov

### **SOLVABILITY OF EXTERNAL INVERSE PROBLEM OF THE POTENTIAL THEORY**

The problem of determining of the area depending on the value of potential is stated. The problem of existence in general as for simply connected domains as well as for multiply connected regions (multitudes) is reviewed. The examples of non-existence of a task are given, as well as the examples of harmonic functions which have behavior in infinity as the potential of volume weight or simple fiber, their concept in the form of potential, and some other concepts.

## AGRONOMY

УДК 631.874

G.G. Morkovkin,  
I.V. Dyomina

### **INFLUENCE OF GREEN MANURE CROPS ON AGROCHEMICAL PROPERTIES OF LEACHED CHERNOZEMS OF TEMPERATE ARID AND FOREST STEPPE OF THE ALTAI REGION**

Green manure crops influence on agrochemical properties of soil and yielding capacity of summer wheat. Dynamics of decomposition of various green manure crops in soil is studied.

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УДК 631.312

M.L. Tsvetkov,  
S.I. Gilyov,  
S.Y. Obyskalov,  
O.P. Dianov

### **RETROSPECTIVE OF CHISEL TILLAGE IN THE ALTAI REGION**

By means of retrospective analysis of the situation agroeconomic and energetic expediency of the use of chisel plough PCH-4.5 for cultivation of stubble backgrounds under spring wheat in the conditions of the Altai Region is substantiated.

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УДК 634.743:631.5:57(571.15)

I.A. Fedotov,  
L.I. Shalaginova,  
T.Y. Khvoina

### **INFLUENCE OF SEA BUCKTHORN FRUIT BEARING STRUCTURAL ELEMENTS DEPENDING ON THE SCHEMES OF ITS PLANTING ON ITS YIELDING CAPACITY IN THE OB AREA OF ALTAI REGION**

Studying the influence of sea buckthorn fruit bearing structure depending on the schemes of its planting on its yielding it was determined that mass of berries per one shoot and mass of 100 berries of the examined varieties is less than that of the test ones. Due to mathematical working up of the results of the research by means of correlation tight dependence of yield on its structural elements was revealed.

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## ANIMAL PRODUCTION

УДК 619:636.5/6:616-022.7

M.N. Chernych

### **MAIN DIRECTIONS OF IMPROVEMENT OF STRAGEDY OF PROPHYLAXIS OF ASSOCIATED INFECTIONS IN INDUSTRIAL POULTRY KEEPING**

Etiology, pathogenesis, manifestation and diagnoses of associated infections in industrial poultry keeping under modern anthropological and ecological commitments.

Use of the genetic potential of high productive poultry bred in Russia and abroad which is characterized by reduced resistance to ecological and technical factors is common in modern industrial poultry keeping that caused the reduction of protective and adaptive potentialities of the poultry organism.

УДК 636.294:591.4

Y.M. Malofeyev

**MORPHOLOGICAL PECULIARITIES OF SIBERIAN DEER (CERVIS ELAPHUS SIB.) SKULL**

The Siberian deer skull bones peculiarities from birth till age of 15 are described. The dimensions of neurovascular foramina and some separate parts of bone base are given. The paper contains two tables and two pictures.

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УДК 636.2.084:577.1:591.11

N.A. Nevinskaya,  
A.M. Bulgakov,  
V.V. Korolyov**BIOCHEMICAL AND MORPHOLOGICAL BLOOD INDICES IN LATENT FORMS OF MASTITIS IN COWS**

Mastitis is one of the problems in cattle breeding that makes great damage. There is an interrelation between the full ration and the resistance of cows to latent mastitis. The analysis of rations revealed sugar deficiency with breach of sugar-protein ratio (0.5-0.6-1) as well as copper deficiency – to 52.4%, zinc deficiency – to 25.9%, cobalt deficiency – to 74.3%, manganese deficiency – to 57%, iodine deficiency – to 66.3% and vitamin D deficiency – to 73.5% which causes the reduction of resistance of the organism to inflammatory diseases and the development of latent forms of mastitis in cows.

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УДК 636.082.22:636.088

N.M. Rudishina,  
I.S. Kondrashkova,  
S.G. Bolgar**ANALYSIS OF ERYTHROCYTIC ANTIGENS OCCURRENCE IN THE KULUNDA TYPE POPULATION OF RED STEPPE CATTLE**

Analysis of genetic diversity was held in nine herds of the Kulunda type cattle of red steppe breed (n = 546 heads). Strong similarity was revealed in erythrocyte antigens between the groups of tested cattle on different farms that reveals relationship between the tested herds and their genetic similarity.

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УДК 636.1:619

I.D. Kolesnichenko

**SOME DATA ON OPISTHORCHOSIS IN SIBERIA**

The fact that there is no opisthorchosis from the Yenisei river area to Tchukotka is caused by organization of some special veterinary measures.

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УДК 636.5.002.5

L.M. Gavrikova

**IODINE STARCH FOR LAYING HENS**

Iodine starch influences on productive indices, qualitative composition of eggs, morphological and biochemical blood indices of laying hens, on chemical structure of muscle tissue.

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## TECHNOLOGIES AND MEANS OF AGRICULTURE MECHANIZATION

УДК 631.171:631.372

V.S. Krasovskikh,  
N.N. Berezhnov

### RESULTS OF RESEARCH SOIL-CULTIVATION SOWING TRANSPORT-DRAWING AGGREGATE

Theoretical calculations and experimental research on the soil-cultivation sowing unit are considered on the basis of tractor K-701 and sowing complex Kuzbass in various layout circuits. On the basis of the analysis of target working-technological parameters of units and calculation of economic efficiency of their use, the substantiation of the rational layout decision is carried out, recommendations on structure and operating modes of an offered variant of the unit are given.

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УДК 631.372:361.499

V.S. Krasovskikh,  
A.I. Klishin,  
V.V. Pavlenko

### THE UNIVERSAL VIBRATING SOWING DEVICE

It is possible to apply vibrations in agricultural production for seeding seeds and fertilizers. The new basic scheme of the vibrating sowing device is offered. There is a mathematical model of movement of a material point. The offered principle of batching of seeds and fertilizers has some advantages.

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## ECONOMICS OF AGRICULTURAL INDUSTRY COMPLEX

УДК 338,431:352(5715)

G.M. Gritsenko,  
A.N. Lukyanov

### THE ROLE OF LOCAL GOVERNMENT IN AGRICULTURAL ECONOMY OF A RURAL METROPOLITAN REGION REGULATION

Based on statistic and economic-mathematical methods the rate of large agricultural products producers in the Kulundinsky area of the Altai Region was created; the structure of agri-industrial complex and small branch of economy were described and the tasks of local government towards large and small enterprises of different branches of economy in the Region are revealed.

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УДК 339.13:338.436.33(571.15)

**M.I. Bublikova,  
V.B. Bublikov**

**THE ROLE OF ENTERPRISE IN THE DEVELOPMENT OF CORN PRODUCING SUBCOMPLEX  
IN THE ALTAI REGION**

A wide range of problems hinder the development of enterprise in the agri-industrial complex in the Altai Region. Role and place of enterprise in the rise of effectiveness of corn producing sub-complex are described and basic measures for its effective functioning are offered.

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УДК 631.162:336.2

**L.I. Kirkeyeva,  
Y.N. Kushner**

**LOSS AND TAX ACCOUNTING ON AUXILIARY DEPARTMENTS AND FARMS  
IN THE REGIME OF SINGLE AGRICULTURAL TAX APPLIANCE TAKING INTO ACCOUNT  
THE LAW CHANGES FROM THE 01. JANUARY, 2006**

Auxiliary departments and farms are important productive structures of agricultural enterprises. The loses of catering reduce tax base on profit tax taking account of the determined variants of infrastructure objects registration and the existence of some trade shops in the given area. The most optimal way is to choose the variant which stipulates for including the costs into the general structure of the costs that reduce the tax base.

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УДК 657

**A.A. Kozienko**

**FINANCIAL ACCOUNTING TRANSFORMATION AS AN INSTRUMENT TO INCREASE  
THE INVESTMENT ATTRACTIVENESS OF RUSSIAN ENTERPRISES**

The principles that allow carrying out the change of accounting in Russia into the international standards of financial accounting are stated.

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