

**A B S T R A C T S****EDUCATION: PROBLEMS AND PERSPECTIVES**

УДК 378

**S.A. Dovbysh,  
G.V. Ostvald,  
N.A. Nevinskaya****ROLE OF HUMANITARIAN COMPONENT IN FORMATION  
OF PROFESSIONAL CULTURE OF AGRICULTURAL SPECIALIST**

In natural sciences traditionally focused on research of the nature itself, humanitarian aspects, as a rule, were excluded from structure of scientific knowledge. Similar representation had negative effect on contents of corresponding courses and on the process and quality of education on the whole. Modern education is urged to lay foundations of intellectual, moral, physically advanced person possessing wide spiritual needs, readiness for realization of the basic social functions, skill to combine personal and public interests. In this regard, of special importance is the problem of formation of humanistic orientation of a personality of a student of an agricultural university.

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УДК 37.015.3:619

**V.M. Zhukov****METHODOLOGICAL FOUNDATION OF CONSCIOUSNESS MODEL  
OF A VETERINARY SPECIALIST**

The developed consciousness model is based on construction of internal picture of the world taking into consideration external behaviour. Verbalization of such behaviour and structures of consciousness are proposed in form of conceptual tools. The presented methodological foundation includes principles, logic, means, objectives and levels of social reality in which a veterinary specialist acts.

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**RESEARCH METHODOLOGY**

УДК 65.012.007.2

**A.A. Boltentkov****ECONOMIC ACTIVITY ANALYSIS METHODOLOGY  
AT ENGINEERING PROBLEMS' SOLUTION**

Design decisions are always connected with the problem of substantiation of measures proposed for economic activity improvement. Application of existing economic activity analysis methodology at solution of engineering problems basically aimed at improving of instruments of production does not bring proper results. Division of analysis according levels of a farm, production and production subdivisions would allow to raise the degree of validity of proposed measures, thus promoting growth of the level of developed engineering projects.

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**AGRONOMY**

УДК 635.64:631.8

**N.I. Zudilov,  
O.I. Antonova****EFFICIENCY OF NON-CONVENTIONAL LIQUID ORGANIC FERTILIZERS  
AT TOMATOES CULTIVATION**

As a result of the carried out research on tomatoes efficiency of liquid organic fertilizers application was established at planting and additional fertilizing by Panacea, Talisman and Artemia in the stages of flowering and fruit bearing. During the experiment it was revealed, that the applied techniques of non-conventional fertilizing improve mineral nutrition of plants during all vegetation and allow achieving high yields of good quality.

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УДК 634.721/.724:631.8

**V.F. Severin,  
V.V. Kandaurova,  
D.S. Sochilov****EFFECTS OF FERTILIZERS ON GROWTH AND DEVELOPMENT OF SEEDLINGS  
OF BLACK CURRANTS FROM HARDWOOD CUTTINGS**

The paper provides the data on effects and aftereffects of nitrophoska (60 kg/ha of the active agent), humus (60 t/ha) and their mix on rooting of hardwood cuttings of currants of the Lama and Ksyusha varieties, which were treated prior to planting for 10 hours with humic fertilizer Phoenix, as well as on change of length of growth, area and weight of the leaf, weight of the root system, formation of buds and reproductive sphere as quality indicator of seedlings; all those were also studied under effect of twice foliar application of this fertilizer in concentration of 0,05%. The conclusion was made, that with the fertilizers application it is possible to obtain standard planting material from hardwood cuttings during one vegetation period, suitable for establishing an orchard. It is not possible to obtain standard seedlings without application of the fertilizers.

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**AGROECOLOGY**

УДК 634.0.232

**Y.G. Paramonov****ZONING OF ARTIFICIAL FOREST RESTORATION  
OF SIBERIAN PINE IN THE WESTERN SIBERIA**

The paper analyses the processes of Siberian pine forest restoration in various natural conditions defining zones of optimal and risky forest cultivation, giving score to each zone.

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УДК 631.6:636

**S.V. Makarychev,  
I.V. Gefke****COEFFICIENTS OF HEAT ACCUMULATION AND TRANSFER  
OF LEACHED CHERNOZEMS OF THE ALTAI PRIOBYE AREA**

Thermal physic properties of chernozem depend on soil-physic factors, such as moisture, density and granulometric composition. Combination of the latter eventually determines distribution of heat capacity, heat- and temperature-conductivity in a soil profile.

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УДК 619.504.53:054:539.16.04

**N.A. Novikov,  
M.G. Kotomina,  
S.D. Maslov****RADIO-ECOLOGICAL MONITORING ON RADIOACTIVE TRACE  
OF TECHNOGENIC RADIONUCLIDE POLLUTION IN DISTANT PERIOD**

The paper presents the results of radio-ecological monitoring on radioactive trace. The results of research of condition of cattle and wild animals in the areas, damaged by the Chernobyl disaster are reported.

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УДК 631.432.22:633.1:631.559

**V.V. Volnov,  
Y.A. Sukharkov,  
A.V. Boyko****INFLUENCE OF FOREST STRIPS ON SOIL MOISTENING AND YIELDS  
OF AGRICULTURAL CROPS**

Estimation of snow accumulating efficiency of forest plantations of various designs and their layouts on fields is provided. Influence of forest strips on water regime of soil is shown depending on their row character and ecological zone. Yields of peas and spring wheat under influence of forest strips are determined.

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УДК 633.366:631.524.82:581.1.032.1

**Y.R. Shukis,  
Y.V. Gurkova****INFLUENCE OF HYDROTHERMAL CONDITIONS ON THE GROWTH  
AND THE DEVELOPMENT OF SWEET CLOVER**

Peculiarities of the growth and the development of sweet clover plants in the year of planting and the second year of growing are considered. Crucial periods in water demand are pointed out for both species of sweet clover. The realization of productive potential in dependence with meteorological circumstances is shown.

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**ANIMAL PRODUCTION**

УДК 619:636.591.4.41

**Y.M. Malofeyev,  
Y.V. Kemmer****TOPOGRAPHIC ANATOMY OF BASIC ARTERIES OF MARALS' HEADS IN AGE ASPECT**

20 specimens of marals of different age were examined. Topographic particularities of vessels of marals' heads were revealed, the main vascular pathways projections were determined.

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УДК 636.2.083.087

S.A. Shevchenko,  
A.M. Yeranov,  
O.N. Prokhorov

**EFFECTS OF SELENIUM AND IODINE SUPPLEMENTS ON GROWTH  
AND DEVELOPMENT OF FATTENING YOUNG ANIMALS OF LARGE HORNED CATTLE  
OF BLACK-AND-WHITE BREED**

The experiment carried out on fattening young animals of the black-and-white cattle of the age between 6 and 18 months revealed that introduction selenium and iodine supplements into a ration deficient for all microelements has positively affected the dynamics of live weight. The combined action of selenium and iodine on studied parameters appeared more expressed, than individual action of each of them.

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**VETERINARY MEDICINE**

УДК 636.5:619-084

M.N. Chernykh,  
S.V. Fedotov,  
Y.G. Yushkov,  
A.A. Kureninov

**STATE AND PROSPECTS OF SPECIFIC PREVENTIVE MEASURES  
IN COMMERCIAL POULTRY FARMING**

Data and results of long-term research of the state and prospects of specific preventive measures in commercial poultry farming are summarized.

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УДК 636.7:636.8:616.34-008314.4

O.A. Kostilyova

**CHARACTERISTICS OF STAPHYLOCOCCAL ENTEROCOLITIS IN DOGS AND CATS**

Two cases of puppies' died of staphylococcal enterocolitis with acute course of the disease are described.

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**MACHINERY**

УДК 534.111:63

I.Y. Fedorenko,  
S.A. Sorokin

**RESEARCH OF FORCED FLUCTUATIONS OF THE MOVING PART  
OF VIBRATING WEIGHER**

The paper studies the forced oscillatory movement of the moving part of vibrating weigher under action of air resistance and inter-layer friction of loose material. Calculation model and laws of working parts movement are presented. Calculation and experimental dependencies of amplitude of oscillatory system on debalance mass of the vibrating drive are presented.

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**УДК 539.3:664****A.A. Gnezdilov****EXPERIMENTAL DETERMINATION OF FORCE APPLIED TO AN EGG  
IN VIBRATION LAYER OF ABRASIVE MATERIAL**

The paper deals in brief with physical foundations of formation of vibration layer of loose material. Results of experimental research force impact on an egg in different sites of vibration layer of abrasive material are provided. Regression equation to determine the force applied to an egg placed in vibration layer of abrasive material is derived. Experimental data are illustrated by graphic dependences.

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**PROCESSING: TECHNOLOGIES AND EQUIPMENT****УДК 636.03:631.36(075.8)****S.N. Zykovich,  
M.G. Zheltunov****PRINCIPAL SCHEME OF PRODUCTION OF FEED PELLETS  
OF FORAGE CROPS GREEN MASS MIXED WITH ROUGHAGE**

The proposed scheme of feed pellets production allows reducing the number of technologic processes, preserving all nutrients of the forage crops, reducing intensity of the forage making period, increasing utilization of roughage up to 50%, reducing production costs, power consumption and metal quantity of forage production.

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**ECONOMICS AND MANAGEMENT****УДК 631.15/. 16****A.I. Kolobova,  
S.P. Vorobyov****AGRICULTURAL PRODUCTION IN CONDITIONS OF MULTI-STRUCTURAL ECONOMY**

The paper considers issues of establishment of multi-structural economy in rural areas, basic tendencies of agricultural production in the Altai Region. The production structure by enterprise categories is studied. Measures to improve competitiveness of the regional agriculture by means of further reforms are proposed.

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**УДК Т46 336.1/.5 (094.4) 351/354 (075.8) 65:631.1:353:37:338.93****M.P. Gritsenko  
A.A. Kashin****ECONOMIC FOUNDATION OF MUNICIPAL FORMATION IN RURAL AREA**

With passing the Federal Law 131, management and regulation of the economy, economic activities in the sphere of agricultural industry complex at the level of a rural municipal formation is changing. Economic foundation of local self-government includes a) municipal property, b) property rights of municipal formations, c) own funds of local budgets. Three economic foundations make an integral part of management and regulation by all the sphere of agriculture at local level. They enable to carry out local social and economic policy in the field of agricultural industry complex at the level of municipal rural settlement and district.

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УДК 338.436

**G.N. Malkova,  
Y.F. Yerzhenina****PERFORMANCE ISSUES OF VERTICALLY INTEGRATED FORMATIONS  
IN AGRICULTURAL INDUSTRY COMPLEX**

The paper deals in details with various variants of creation and functioning of vertically integrated structures in agricultural industry complex. The authors analyze organizational and legal problems of creation and functioning of holdings and financial and industrial groups. The conclusion of the authors is represented proved enough, that in modern conditions the optimum is integration on contractual basis without association of capitals of the enterprises.

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УДК 351.84

**V.I. Rozhentsov****THE MECHANISM OF PENSION INSURANCE SYSTEM IN THE RUSSIAN FEDERATION**

The paper reveals the mechanism of reforming pension system of the Russian Federation when pensions in new pension model are not granted by the state to a person as earlier, but are earned by a person.

The foundation of reforming the pension system is the Federal Laws: "On Labour Pensions of the Russian Federation" and "On Compulsory Pension Insurance in the Russian Federation".

The paper reveals features of current pension system in the Russian Federation when labour age pensions and physical disability pensions consist of three parts: base, insurance and accumulative.

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**FINANCE AND ACCOUNTING**

УДК 338.5

**V.A. Kundius,  
M.G. Kudinova****PROBLEMS OF PRICE DISPROPORTIONS IN AGRI-BUSINESS AND DEVELOPMENT  
OF MECHANISMS OF THEIR OVERCOMING  
(BY THE EXAMPLE OF THE DAIRY-PROCESSING ENTERPRISES  
OF AGRI-INDUSTRIAL COMPLEX OF THE ALTAI REGION)**

The paper considers the problems of price disproportion in agricultural business (by examples of dairy processing enterprises), and mechanisms of their overcoming are developed. The paper reveals objective necessity and expediency of agricultural business development on the basis of indicative approach, and importance of indicative pricing in regulation of agricultural business development. Indicative prices calculation methodology is provided, application of those prices as indicators allows to balance the interests and to level financial and economic position of milk producers and processing enterprises.

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УДК 631.145:633.1(517.15)

**I.V. Kovalyova****PROBLEMS OF STATE REGULATION OF INVESTMENT ACTIVITY  
OF THE REGIONAL MARKET OF AGRICULTURAL INDUSTRY COMPLEX PRODUCTS**

The paper discusses problems of state regulation of investment activity of the market of agricultural products, theoretical and methodological aspects of regulation of the regional market are investigated, the technique of estimation of investment attraction of branch sub-complexes of agricultural industry complex is proposed.

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УДК 330.322.003.13

**L.A. Chetoshnikova****PROBLEMS OF APPLICATION OF ANALYTICAL CRITERIA  
OF INVESTMENT EFFICIENCY IN INVESTMENT SPHERE**

The paper deals with circumstances of modern social and economic situation in Russian economy, which affect with greater extent investment activity and economic evaluation of investments. To maintain methodological correctness and objectivity of evaluation of investment projects the paper reveals important issues of peculiarities of Russian conditions in investment sphere.

The study is intended for university teachers, agricultural specialists, post-graduate students, university level students of agriculture.

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**QUALITY AND EFFICIENCY**

УДК 338.431:633.1(571.15)

**M.I. Bublikova****PROBLEMS OF EFFECTIVE DEVELOPMENT OF GRAIN PRODUCTS SUB-COMPLEX  
OF THE ALTAI REGION**

The paper presents research of the structure of the grain products sub-complex, its role in effective development of economy of agricultural industry complex, the place and the role of the Altai Region in supplying the country with grain and products of grain processing are revealed. The paper identifies the central problems of regional grain products sub-complex development, measures to improve the grain market are proposed.

One of elements of effective grain market and increase of competitiveness of the products is carrying out commodity exchange tenders of the state commodity interventions.

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УДК 338.436

**G.M. Gritsenko,  
I.G. Kalkayev****FACTORS AND PREREQUISITES OF STEADY DEVELOPMENT  
OF REGIONAL GRAIN PRODUCTS SUB-COMPLEX**

Grain products sub-complex is considered as a set of grain producing and grain processing enterprises and organizations, which provide for the region food stability. It functions according to the influence of objective, partly or fully regulated, factors, reasonable combination of which is capable to guarantee its stability. Despite the fact that within the regional limits the sub-complex has a unified and ultimate profit, it is distributed among the manufacturers disproportionately. As a result, the sub-complex basis — the rural economy, is being destroyed. Interindustry regulation mechanism is suggested as the way out of the existing situation.

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УДК 338.24

**G.N. Malkova,  
M.M. Ogorodova****EFFECTIVENESS OF MANAGERIAL DECISION MAKING**

In market conditions, which focus each producer and businessman on achieving high eventual results, management gets new functions, and commodity producers began to realize, that consequences of administrative decisions made by them are of their responsibility. This understanding activated search and development of various ways, methods, tools and mechanisms of management of economic processes in the agricultural enterprises.

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**PHILOSOPHY AND POLITICAL STUDIES**

УДК 1

**A.F. Upravitlev**

**PHENOMENOLOGY OF CREATIVITY**

The paper deals with the issues related to philosophy and psychology of creativity. Creativity in its phenomenological entity can be represented in the aspect of creative process and creative personality. The creative process is creation and expression of novelty. A creative personality has a special attitude to life, time, society, special own arrangement allowing to deal with a problem of definiteness of existence in Dasein and making a creative act possible and necessary.

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УДК 1

**N.A. Darenskaya**

**INDIVIDUALITY OF THE MATERIAL WORLD IN ARTISTIC CREATIVE WORK**

The paper provides research of the contents of individuality by means of reconstruction of the object-material world in artistic reality. The research is based on the analysis of works of A. Carpentier and V. Nabokov.

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УДК 1

**Y.Y. Safronova**

**INDIVIDUAL MEANINGS OF A METAPHOR**

Features of understanding are investigated by an experimental method in this paper. The material is obtained based on the study of individual features of understanding of a metaphor by students.

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УДК 1:330.82

**A.O. Kuraptev**

**CULTURAL AND VALUE SUBSTANTIATION  
OF RUSSIAN LIBERALISM FEATURES AS ORIGINAL PHENOMENON**

The paper analyses the features of Russian liberalism as an original phenomenon in the context of civilizational approach to the mankind history.

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