

# ABSTRACTS

## AGRONOMY

УДК 633.1:631.584.5:633.1:631.524.84

**N.A. Zelenskiy,  
A.S. Savinov**

### **INFLUENCE OF BINARY CROPS ON THE PRODUCTIVITY OF WINTER WHEAT AGROCENOSIS**

Effect of binary crops (winter wheat and alfalfa variable) on soil fertility was studied. The conclusion is that it is reasonable to use alfalfa in coulisse mulch fallow for soil protection from erosion, as well as for productivity improvement of eroded soils.

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УДК 631.52/635.25

**S.V. Zharkova**

### **SCREENING STUDY OF BULB ONION BASED ON MORPHOLOGIC FEATURES IN THE SOUTH OF WEST SIBERIA**

138 bulb onion samples coming from different territories of the South of West Siberia were studied. The reaction of plants on the conditions of the cultivating environment is exemplified by morphologic features formation. The obtained data is required for further selection process.

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УДК 631 527 634

**S.V. Pysina**

### **RESULTS OF STUDY OF VARIETIES AND ELITE FORMS OF STRAWBERRY ON ADAPTABILITY IN CONDITIONS OF THE ALTAI LOW MOUNTAINS**

As the result of 22 years long study of domestic and foreign varieties of strawberry in the Altai low mountains the main limiting factors were revealed for cultivation of strawberry in the given zone. The range of the most adaptive, high-yielding varieties with high quality of berries was selected.

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УДК 631.53.037:631.52/53(571.1)

**V.P. Shamanin,  
A.S. Chursin**

### **EVALUATION OF VARIETIES AND LINES OF KAZAKHSTAN-SIBERIAN SEED PLOT AND CREATION OF BASE LINE FOR SELECTION IN THE CONDITIONS OF SOUTHERN FOREST STEPPE IN WEST SIBERIA**

Selection significance is shown for the studied samples of spring soft wheat from the collection of the Kazakhstan-Siberian Network (KASIB) created within the SIMMIT Program. Variation and correlation coefficients on the quantitative features of the varieties and hybrids of wheat samples in years with different moisture supply are revealed. The importance of genotype and conditions of the year for crop capacity is shown. Base line for spring wheat selection is created for the conditions of West Siberia.

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## AGRICULTURAL ECOLOGY

УДК 631.445.4:574

O.S. Boyko,  
I.I. Vasenyov

### **ANALYSIS OF SOIL MOISTURE DIVERSE-TEMPORAL DYNAMICS IN VIRGIN AND OLD ARABLE CHERNOZEMS IN THE WESTERN PART OF CENTRAL CHERNOZEM REGION**

Basis on the analysis of long-term observation data on diverse-temporal dynamics of soil moisture of representative natural and agricultural landscapes at the Central Chernozem Region the principal regularities of spatio-temporal variability of hydrothermal modes of operation of Chernozems with dated history of land-use are considered.

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УДК 581.6

A.A. Shibanova,  
M.M. Silantyeva

### **ECONOMICALLY IMPORTANT, RARE AND ENDANGERED PLANT SPECIES IN THE FLOODPLAIN OF THE OB RIVER (UPSTREAM)**

Vegetation in the floodplain of the Ob river (upstream) were studied, data on economically important, rare and endangered plant species and their reference to vegetation types, grasslands, shrub communities, birch forests, communities of floodplain ephemeretum is presented.

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УДК 581.6 (571.17)

S.V. Smirnov,  
D.L. Belkin

### **ECONOMICALLY IMPORTANT PLANT SPECIES OF SILENE L. OF THE ALTAI MOUNTAINOUS COUNTRY**

It is revealed, that of 27 representatives of the genus *Silene* L. which grows in the territory of the Altai Mountains, there are 17 economically valuable species. Of those medicinal plants are most numerous; in which such active substances as saponins and flavonoids are most important. It is necessary to note, that among species of genus *Silene* L. there are protected ones, and that limits their economic use. 2 species of the genus *Silene* L. are listed in the Red Book of the Altai Region. 1 species is in the Red Book of the Krasnoyarsk Region.

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УДК 581.6(571.52)

D.D. Sarbaa,  
D.N. Shaulo

### **ECONOMICALLY IMPORTANT PLANTS OF THE CARBONATE UPLANDS OF THE ULUG-KHEM DEPRESSION (CENTRAL TUVA)**

Data on 136 economic species occurring on the carbonate uplands of the Ulug-Khem depression in Tuva is presented.

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## ANIMAL PRODUCTION

УДК 636.22/28:591.111:576.31:636.083.37

A.I. Afanasyeva,  
K.N. Lots,  
S.G. Katamanov

### FEATURES OF MORPHOLOGICAL PARAMETERS OF BLOOD IN HEIFERS OF RED STEPPE BREED OF DIFFERENT FUNCTIONAL MATURITY IN VARIOUS WAYS OF REARING IN EARLY POSTNATAL PERIOD OF ONTOGENESIS

Clinical condition, level and dynamics of morphologic parameters of blood of the Red Steppe breed newborn calves that have various functional maturity, and are kept in the calf sheds with adjustable and uncontrollable microclimate were investigated. It is experimentally established, that, on average, hypotrophic calves have lower morphologic parameters of blood, than functionally mature ones. Hypotrophic calves grown up in "cold" conditions have lower morphologic parameters of blood, than normotrophic ones kept in similar conditions, that indicates their low adaptability.

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УДК 636:611.1:615.032:541.64

Y.M. Malofeyev,  
S.N. Chebakov,  
O.S. Mishina

### MAKROFLEX CONSTRUCTION FOAM APPLICATION FOR INVESTIGATION OF BLOOD VASCULAR OF ANIMALS

Method of vessel injection with «Makroflex» construction foam that is supposed to be injected through major arteries and veins is described. That original method makes it possible to obtain excellent corrosion preparations of vascular system of certain organs as well as of the entire organism.

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УДК 619:615:636.5

S.V. Fedotov,  
A.B. Polskikh

### PECULIARITIES OF BIOLOGICAL EFFECT OF CHINESE MAGNOLIA VINE TINCTURE FOR CANCER PREVENTION IN CHICKEN

Brief characteristics and methods of application of adaptogen preparation of Chinese magnolia vine tincture is presented along with evaluation of therapeutic action in papilloma, liver sarcoma, osteosarcoma, bone reticulosarcoma.

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## TECHNOLOGIES AND MEANS OF AGRICULTURE MECHANIZATION

УДК 636.085.55:631.383(571.15)

M.V. Budeykin,  
S.N. Vasilyev,  
N.M. Oskorbin

### SUBSTANTIATION OF TECHNOLOGICAL SCHEME OF FEED PRODUCTION AND METHODOLOGY OF EQUIPMENT CHOICE ON THE FARMS OF THE ALTAI REGION

Issues of efficiency of cattle-breeding industry in the Region are considered. Analysis of technological schemes and the choice of the most perspective scheme for the production of compound feeds in farm conditions are made. Methodology of score evaluation of equipment by their general features, and also the example of calculations is presented.

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УДК 664.741.8

O.N. Terekhova

**PNEUMATIC CENTRIFUGAL SEPARATION OF DISPERSE MATERIALS**

The process of pneumatic centrifugal separation of disperse materials is considered, some disadvantages of the existing methods are revealed, ways for the intensification of the process at the expense of the centrifugal factor amplification when installing revolving working elements are proposed. The possibility to separate fine particles that are separated out during the process of flour production is substantiated, the dependency for determining the minimal size of the particle separated in proposed way is proposed. The trajectories of the moving particles from different systems in the process of their separation are made in the working area of the qualifier. Some possible variants to use the obtained results in the grain milling technologies are proposed.

УДК 664.784.6

A.N. Ostrikov,  
F.N. Vertyakov

**RESEARCH OF HEAT IRRADIATION AT BUBBLE BOILING OF FRUIT AND VEGETABLE PUREES  
IN CONDITIONS OF FREE MOVEMENT**

Research of the basic laws of heat irradiation process was carried out at bubble boiling of fruit and vegetable purees at free movement of purees on a vertical wall of the vacuum-chamber under action of gravity.

**ECONOMICS OF AGRICULTURAL INDUSTRY COMPLEX**

УДК 336.2.027:631.11

V.A. Kundius,  
Y.N. Ivanova

**LAND TAXATION OF THE USA AND THE EU COUNTRIES.  
EXPERIENCE FOR THE RUSSIAN AGRICULTURAL INDUSTRY COMPLEX**

Main aspects of land taxation in agriculture of the USA and the EU countries are considered. Measures for increasing effectiveness of land taxation in Russia are proposed.

УДК 338.431:332 (571.15)

Y.S. Peregudova

**MAIN IMPROVEMENT DIRECTIONS OF LAND RELATIONS IN AGRARIAN SPHERE**

Positive results were reached in agriculture because of realization of the National Project "Development of Agricultural Industry Complex". But some problems of rural area still remain. Reformation of the agricultural sector requires completion of separation of public land; assignment of land under realization of the program of district agricultural industry complex development, differentiation of land fee, compensation of input costs.

УДК 336.14:352

N.M. Baranova,  
O.V. Borisova

**INFLUENCE OF ASSORTMENT STRATEGY OF THE ALTAI CHEESEMAKING ENTERPRISES  
ON COMPETITIVENESS IMPROVEMENT**

The assortment strategies of the Altai cheese making enterprises are considered; the factors influencing on the Altai cheeses competitiveness improvement are revealed.



УДК 338.242.2

I.F. Rau,  
O.V. Borisova

**PECULIARITIES OF COMMERCIAL ACTIVITY ORGANIZATION AT THE DAIRY PRODUCTS MARKET**

Development of regional dairy products market is described, the core problems of commercial activity organization at the dairy industry enterprises are revealed.

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УДК 657. 372.1:574

N.A. Shavkunova

**ECOLOGICAL CHARACTERISTICS OF ACCOUNTING AND BOOKKEEPING REPORTING**

The issues of preparation and introduction of eco-focused accounting reports in the Russian enterprises are dealt with. The value of the given information tool in the field of environmental protection is defined, the concept of "ecologic accounting reporting" is defined, and also some recommendations concerning the substantial filling of the accounting eco-reports of special and integrated formats are presented.

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УДК 657.47:338.242+338.512

L.G. Glubokova

**CLASSIFICATION OF TRADING COSTS TYPES**

Some methodological approaches of domestic and foreign economists to classification of trading costs types are described, and their most complete classification is proposed from the point of view of management process.

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УДК 331.221

A.R. Zidymakov,  
R.N. Sayranov

**CHOICE OF THE FACTORS OF WORKING RATES**

Description of the factors of labor rating and the problems of their choice in the working rates are presented. It is necessary to combine the difficulty records and labor conditions in the comparison of the level of payment for labor according to the appointment of the staff. The necessity of the combined account of complexity and working conditions is determined by comparison of wages on official positions at the enterprises.

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УДК 631.16

V.A. Kundius,  
M.A. Kalney

**MECHANISM OF LEVELING INCOME PARITY  
OF AGRICULTURAL ENTERPRISES AS PARTICIPANTS OF THE AGRI-FOOD MARKET**

Current condition of the agricultural sector of economy is analyzed. Mechanism of leveling evening income parity of the agricultural enterprises is proposed for restoration equivalence of economic relations of the participants of the agri-food market.

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