

# **ABSTRACTS**

## **AGRONOMY**

УДК 633.11.321:631.526:631.55

**I.T. Trofimov,  
L.V. Sokolova**

### **EFFECT OF VARIOUS SEEDING METHODS ON YIELDS OF SPRING SOFT WHEAT VARIETIES**

The results of studies of the effect of various seeding methods on yields of spring soft wheat varieties Saratovskaya 29, Altaiskaya 50 and Pamyati Azieva in the conditions of temperate arid forested steppe of the Altai Region during the period of 2003-2005 (the Training Farm "Prigorodnoye") are presented. The analysis of the obtained results revealed that different spring soft wheat varieties need different seeding methods to achieve maximum yield.

---

УДК 631.4:631:8 (571.15)

**G.G. Morkovkin,  
I.V. Dyomina**

### **EFFECT OF GREEN MANURE ON STRUCTURAL-AGGREGATE COMPOSITION OF LEACHED CHERNOZEMS**

Effect of green manure on structural-aggregate composition of leached chernozems was investigated. It is revealed that application of pea-oats mix and buckwheat increases number of agronomically valuable aggregates and positively affects the content of water-stable aggregates in soil.

---

УДК 633/635 (571.15)

**N.V. Yashutin,  
D.A. Pugach**

### **AGROPHYTOCENOSIS OF THE ALTAI MOUNTAINS PIEDMONTS: DESCRIPTION AND EVALUATION OF THEIR USE**

Field and meadow agrophytocenosis of the Altai Mountains piedmonts are examined, description of their species composition is presented, integrated evaluation of their productivity is given.

---

УДК 632.954

**A.V. Ilyin,  
N.V. Yashutin****EFFECT OF RATES OF GRAMICIDES' APPLICATION ON INFESTATION  
AND YIELDS OF SPRING WHEAT IN THE ALTAI PRIOBYE AREA**

Spring wheat in the Priobye area of the Altai Region is infested by annual monocotyledonous weeds. To suppress annual monocotyledonous weeds the following gramicides are generally applied – Fenoxaprop-P-Ethyl with antidote (Puma Super 100 CE, Gepard Extra CE, Puma Super 7.5 of Bayer) and Clodinafop Propargyl with antidote (Topik CE of Syngenta).

When the crops are well developed, and the weeds grow actively the rate of Puma Super 100 CE application is 0.4-0.5 litres per ha, Topik CE application rate is 0.3 litres per ha. Decrease of application rates to greater extent results in biological effectiveness drop, to lesser extent in economic effectiveness drop.

---

УДК 634.13:581.5

**V.F. Severin,  
L.M. Kozhevnikova,  
N.V. Burlachko****PEAR IN THE FOREST-STEPPE OF THE OMSK REGION**

The studies on possibility of growing pear in the forest-steppe of the Omsk Region were carried out in the Omsk State Variety Testing Station with seven varieties of Krasnoyarsk and Altai breeding as competitive variety trial started in October 1987. The effect of weather conditions on the trees winter hardiness, their yields and fruit quality in the period between 1993 and 2006 was monitored. It is revealed that pear may be grown in the Omsk Region; the varieties Sibiryachka and Krasnoyarskaya Krupnaya, Olenyok and Nevelichka have prospects for commercial gardening, while the varieties Svarog, Kuyumskaya and Veselinka have no such prospects.

---

УДК 632.651:633.34

**Lee Khunpen,  
L.K. Dubovitskaya,  
I.B. Kozhushko****EVALUATION OF SOYBEAN VARIETIES AND SELECTION VARIETIES  
ON RESISTANCE TO SOYBEAN CYST NEMATODE**

20 soybean varieties and selection varieties were examined on their resistance to soybean cyst nematode with invasion load of 20, 40 cysts per 3.5 kg of soil. Highly resistant selection varieties Amurskaya 2026, 2029, 2031, Kheikhe 4, 8, 9, 18, 19 were identified. Impact of the nematode on photosynthetic parameters and productivity of soybean plants of Kheikhe 14 and Sonata varieties. Reduction of seeds' weight and of beans' number was revealed in the invaded areas.

---

## AGRICULTURAL ECOLOGY

УДК 631.4:630.43

I.T. Trofimov,  
I.Y. Bakhareva

### **PECULIARITIES OF POST-PYROGENIC TRANSFORMATION OF SOD-PODZOLIC SOILS OF SOUTH-WEST PART OF BANDED FORESTS OF THE ALTAI REGION**

Forest fires influence sod-podzolic soil properties in different ways.

Under the influence of forest fires there occurs alkalization of soils, hydrolytic acidity is reduced. Development of sod process results in humus content increase as well as increase of constituting humic acids.

---

УДК 556.114.6 (571.15)

S.F. Spitsina,  
T.N. Tkachenko,  
V.G. Bakharev

### **TRACE ELEMENTS WATER MIGRATION COEFFICIENTS: COPPER, ZINC, MANGANESE, COBALT, BORON, AND MOLYBDENUM IN THE ALTAI REGION**

Data on water migration coefficients of trace elements as copper, molybdenum, manganese, zinc, cobalt and boron figured by A.I. Perelman's method (1966) in various areas of the Altai Region is presented. It is revealed that cobalt and manganese have the lowest coefficients, molybdenum and boron have the highest coefficients in arid conditions, zinc has the highest coefficient in humid conditions.

---

## ANIMAL PRODUCTION

УДК 636.93.061

N.Y. Vladimirova,  
N.I. Vladimirov

### **EFFECT OF LIGHT REGIME ON SOME PECULIARITIES OF GROWTH AND DEVELOPMENT OF POLAR FOXES OF GAGARINSKAYA BREED**

Shading of cages of both female and male species of polar foxes of Gagarinskaya breed positively results in live weight increase making up 0.5-7.4%, body length increase - 0.8-2.7%, chest girth increase behind shoulders - 0.2-2.4%, all in individual periods with reliable difference. The farms raising polar foxes of Gagarinskaya breed are advised to shade the sheds of finishing animals for the period up to 135 days.

---

УДК 636.294:591.471.42/.44

**A.V. Bezmaternykh,  
Y.M. Malofeyev**

**MECHANICAL STRENGTH OF HUMERUS  
AND RADIUS OF MARAL IN AGE-SPECIFIC ASPECT**

The study of maximum strength of humerus and radius of maral revealed that factor being lower in humerus than in radius during the whole postnatal ontogenesis. It is revealed that in newly born marals the strength of the studied bones is minimal. Compression strength increases during five years (most intensively from birth to six months) reaching its maximum. By the age of 12 marals reveal some decrease of humerus and radius strength.

---

**TECHNOLOGIES AND MEANS OF AGRICULTURE MECHANIZATION**

УДК 631.58:631.4(71)

**V.I. Belyayev**

**EXPERIENCE OF CONSERVATION CROP FARMING PRACTICES  
IN THE PLAIN PROVINCES OF CANADA**

Analysis of current state of crop farming in the plain provinces of Canada is presented. The major advantages of no-till practices are analysed. The principles of the practices and the implementation results are presented.

---

УДК 631.363.2:636(075.8)

**I.Y. Fedorenko,  
A.F. Knorr,  
I.N. Goryunov**

**THEORY OF MULTIPLE-STAGE OF FORMULA FEED MIXING**

Regularities of formula feed mix production in serial continuously working mixers are considered. Operative formulas are obtained, calculation techniques of necessary number of mixing stages are proposed, as well as of forecasted value of the mix's coefficient of non-uniformity.

---

УДК 631.3.145

**V.A. Zavora**

**SOME ISSUES OF PERSPECTIVE EQUIPMENT OF CROP FARMING SECTOR  
OF AGRICULTURAL INDUSTRY COMPLEX WITH MACHINERY**

The issues and problems of perspective equipment of crop farming sector of agricultural industry complex with machinery are considered, some measures to increase level of farm mechanization with least expenditures are proposed.

---

УДК 633.34.664.0:636.084

**V.I. Zemskov,  
G.M. Kharchenko****DESCRIPTION OF VEGETABLE OILS' REFINING METHODS**

Vegetable oils' refining methods are described. The processes contributing to specific refining operation are analysed. It is pointed out that centrifugation with application of zeolite filtering plate alongside with removal of mechanical impurities, fine-dyspersated particles, and soap stock adsorbs dye-stuffs and water. Conclusion is made on advantages of filtering centrifuges compared to different mechanical methods of vegetable oils' refining.

---

**ECONOMICS OF AGRICULTURAL INDUSTRY COMPLEX**

УДК 64.024.3/.4:63:339.13 (571.15)

**V.A. Kundius,  
N.V. Trushina****ISSUE OF FORMATION OF MECHANISM OF DIRECT INTERACTION OF ENTERPRISES  
OF PUBLIC CATERING AND AGRICULTURE IN THE REGIONAL FOOD MARKET**

Foodstuffs, its production, exchange and consumption are important components of economic system directly connected with life-support of people. The main producer of foodstuffs is agriculture. Interaction between production and consumption of foodstuffs is provided by the mechanisms of the food market.

---

УДК 657:631.145

**Y.V. Kashinskaya,  
L.I. Kirkeyeva****THE ROLE OF MANAGERIAL ACCOUNTING IN ECONOMIC DEVELOPMENT  
OF THE AGRICULTURAL INDUSTRY COMPLEX ENTERPRISES**

The main aspects dealing with the role of managerial accounting, issues of managerial accounting definition, and its substance are revealed. Various authors' viewpoints regarding the definition of managerial accounting are considered.

---

УДК 331.522.4(371.15)

**A.A. Fannenshtil,  
V.V. Gorshkov,  
I.M. Penkova****ROLE OF EMPLOYMENT SERVICE IN JOB PLACEMENT OF RURAL POPULATION**

The role of employment service of municipalities in job placement of rural population is studied by the example of the Blagoveshchenskiy District of the Altai Region. Number of people who applied to the employment service in search for job in 2006 increased by 27.6% compared to 2004. The activity of the employment service in 2006 reduced the number of registered unemployed 1.5 times more than in 2004; employment growth was more than 10.5%, vocational training more than 40%.

---

УДК 33.001

R.K. Tuguz

**DYSFUNCTIONALITY OF IDEOLOGY IN THE DEVELOPMENT OF ECONOMIC THEORY**

Concept of re-ideologisation of economic science is criticized and an attempt is undertaken based on short historic analysis to prove scientific and pedagogic dysfunctionality of any ideology in the development of modern economic theory.

---

УДК 331.5 (571.15)

V.I. Belyayev,  
M.V. Kotvanov

**METHODOLOGY OF LABOUR MARKET TENSION ANALYSIS BY THE EXAMPLE  
OF AGRICULTURAL LABOUR MARKET OF THE ALTAI REGION**

The issue of reliable evaluation of the situation in the labour market in the agricultural industry sector of the Altai Region is discussed. Methodology of labour market tension analysis is proposed; the methodology may be used in research activity and in solution of applied problems.

---