

ABSTRACTS

AGRONOMY

УДК 631.48 (571.15)

L.M. Burlakova
G.G. Morkovkin

SYNDENUDATION SOIL-FORMATION IN THE CONDITIONS OF THE HIGH ALTAI PRIOBYE

Application of the term "high" Altai Priobye (the Ob River area) is substantiated, influence of denudation processes on the direction of chernozem soil-formation process is demonstrated. The measures decreasing soil degradation processes are proposed.

УДК 634:631.559.2 (571.13)

A.V. Zhuravlyova,
P.V. Sologalov

SELECTION EVALUATION OF ZONED AND PERSPECTIVE VARIETIES OF HALF-CULTURED APPLE TREES ACCORDING TO BASIC ECONOMICALLY VALUABLE FEATURES IN THE CONDITIONS OF FOREST-STEPPE OF THE OMSK REGION

Based on 4-years long studies (2002-2005) results of selection evaluation of 17 varieties of half-cultured apple tree are presented on yield potential, periodicity of fruiting, marketing and flavor features, and general evaluation in the conditions of south forest-steppe of the Omsk region. In average maximum complex of economically valuable features on summing 100 grade index-digital system the group of highly valuable varieties was comprised of Alyonushka, Gornoaltaiskoye, Uralskoye Nalivnoye, Lyubava, Krasnaya Grozd', Morskoye Botanicheskoye. The group of valuable varieties with 61-80 grades was comprised of Fonarik, Lada, Berdskoye.

УДК 632.7:634.11:004,9(075)

S.V. Murashkin,
Z.V. Nikolayeva

PECULIARITIES OF RECORD METHODOLOGY AND STATISTICAL TREATMENT OF EXPERIMENTAL DATA BY APPLICATION OF MICROSOFT EXCEL SOFTWARE BY THE EXAMPLE OF RESEARCH OF SUCKING APPLE PESTS

Distribution of sucking apple pests is characterized by right-hand asymmetry and is better be coordinated to gamma distribution, than with normal distribution or Student's distribution. The formulas necessary for calculations and methodology of record of main sucking apple pests are presented.

УДК 581.143.6

N.A. Vechernina,
O.K. Tavartkiladze,
A.A. Erst,
A.B. Gorbunov

MICRO-PROPAGATION OF BOG WHORTLEBERRY *IN VITRO*

The method of introduction and micro-propagation *in vitro* of the selected form No. 3 of bog whortleberry (*Vaccinium uliginosum* L.) is described. *In vitro* cultivation of explants was carried out

on Anderson medium. It is revealed, that at the stage of micropropagation lateral buds it is necessary to grow them on the medium supplemented with $2 \cdot 10^{-5}$ M of 2iP for two weeks, and then to transfer them to the medium of decreased cytokine concentration ($5 \cdot 10^{-6}$ M). The coefficient of propagation for one passage (45 days) was 8-12. At the stage of rooting IPA was more effective as inductor of rhizogenesis (10^{-5} M). All regenerates successfully adapt for *ex vitro* conditions at hydroponics equipment Minivit 0.35.

AGRICULTURAL ECOLOGY

УДК 634.93:631.4

**I.T. Trofimov,
M.V. Klyuchnikov,
N.V. Mikhailova**

EFFECT OF WOODY AND SHRUBBY PLANTS ON SOME PROPERTIES OF LEACHED CHERNOZEM OF PRE-ALTAI PROVINCE

Effect of woody and shrubby plants on properties of leached chernozem is studied, increase of water-stable aggregates under the influence of woody plants is revealed. Larch, birch and oak do not acidify the soil. Fir acidifies and podzolizes the soil.

УДК 662.733:636.08.51

**L.I. Inisheva,
R.T. Tukhvatulin,
M.V. Gostishcheva**

METHOD OF RESEARCH BIOLOGICAL ACTIVITY OF PEAT HUMIC ACIDS AND SAPROPELS

Identification of the most quality raw materials for production of veterinary preparations based on peat humic acids and sapropels requires testing their biologic activity on physiologic processes occurring in bioplast; such testing is missing. The study was aimed at research of biologic activity of peat humic acids and sapropels of various genesis by means of the process of opposing reaction of erythrocytes. Samples of peats and organic sapropels were taken. All the deposits are found in the Tomsk Region. Humic acids were extracted by alkali and pyrophosphate leachates. Pharmaceutical preparations trental (pentoxifylline) and reopolyglucin (dextran) were used as check. Differences of the action mechanism of the studied extracts on opposing reaction of erythrocytes were revealed. A new method of identification biologic activity of humic acids was developed.

УДК 635.1.(031)

L.V. Ternovaya

THERMALPHYSIC FEATURES AND WATER REGIME OF LEACHED CHERNOZEMS WHEN GROWING CABBAGE IN THE CONDITIONS OF PRIOBYE

Total moisture reserves and summary temperatures have the feature to considerably change in time and space. Regulation of thermal and water regimes depending on external factors of environment allow creating favorite conditions for growing vegetable crops.

УДК 581.9

I.V. Naumov

ECONOMICALLY VALUABLE PLANTS OF THE SOUTH-CHUYSKIY RIDGE

The review of economically valuable species of flora of the South-Chuyskiy ridge is presented. Of the total amount 316 useful species belonging to 11 groups were identified. The basic groups are described in details, the application directions of some species are provided.

ECOLOGY

УДК 619.576.895.77

**Z.M. Isimbekov,
K.M. Madiyeva****SPECIES COMPOSITION, NUMBER PROPORTIONS AND LANDSCAPE CONFINEDNESS
OF BLOOD-SUCKING DIPTEROUS INSECTS OF THE SOUTH-WEST ALTAI**

In meadow-steppe and forest-meadow zone of the South-West Altai (the EKR, Katon-Karagay district), marals husbandry pasture revealed 44 kinds of blood-sucking insects. Among them 12 kinds of mosquitoes, 10 biting midges, 7 blackflies, 15 horseflies. The early well-known in the EKR kinds of blood-sucking insects completed with *Hybomitra arpadi*, *H. olsoi*, *H. sexfasciata* (horseflies), *C. glushchenkovae* (biting midge). 7 kinds of mosquitoes (58.33%), 5 (45.45%) biting midges, 4 (57.14%) blackflies, 8 (57.14%) horseflies are dominant and subdominant kinds.

УДК 574.52

**G.I. Yegorkina,
Y.K. Pavlova,
A.L. Vereshchagin,
N.V. Bychin,
V.V. Kirillov,
N.S. Romanova****ON IDENTIFICATION OF ARTEMIA PARTHENOGENETIC POPULATIONS IN SIBERIAN REGION**

Chromosome sets of *Artemia* from parthenogenetic populations of Siberian region were investigated. It is shown that the higher water mineralization, the higher ploidy level of *Artemia* and variability of chromosome set. Scanning electron microscopy of cysts chorion surface demonstrated that surface topography can be categorized into 3 types.

УДК 54:63:631.95

**V.A. Shin,
V.V. Rudchenko,
L.P. Kozhevina****ECOLOGIC SIGNIFICANCE OF OXIDIZING-REDUCTION PROCESSES FOR BIOLOGIC OBJECTS**

Issues of oxidizing-reduction processes of natural phenomena which influence bioactivity of organisms are discussed. Their ecologic significance and mechanism of phenomena for prevention of negative after-effects of various chemical transformations and development of measures of their prevention are discussed.

ANIMAL PRODUCTION

УДК 636.22 / 28.084.523.087.72

**S.Y. Buzoverov,
A.M. Kostin****OPTIMIZATION OF MICROELEMENT NUTRITION OF LACTATING COWS
AND ITS EFFECT ON MILK COMPOSITION AND CHEESE QUALITY**

In the conditions of sub-mountain zone of the Altai Region by experimental method optimal availability to animals of salt complex of such microelements as copper (10 mg), zink (60 mg), cobalt (1 mg), iodine (0.6 mg) in 1kg of dry matter was achieved by application of Polinorm premix. That promoted milk yields by 8.1-18.9% as well as fat, protein and microelement content. The quality of the Soviet cheese made of such milk improved as well.

УДК 636.5 + 546.23

**G.A. Trifonov,
O.P. Yvseyeva****INFLUENCE OF PREPARATION CONTAINING SELENIUM AND VITAMIN E
ON BLOOD PARAMETERS OF LAYING HENS IN THE PARENT FLOCK**

The preparation diacetophenonilselenid, containing selenium in the complex with vitamin E in comparison with Na₂SeO₃ (natriumselenid) influences more effectively biostimulating influence in the process of blood-formation, on the exchange of protein, vitamin and of minerals, promotes the raising of the productive quality of hen in the parent flock of Plymouth Rock during the reproductive period.

УДК 619.616.1/4:616-07

**Al.V. Trebukhov,
An.V. Trebukhov****INTERRELATION OF CHANGES OF SOME FEATURES OF HYDROCARBON AND FAT EXCHANGE BY
ACETONEMIC CONDITIONS OF DAIRY COWS**

Studies were carried out in winter-spring period on black-and-white cows. Correlation interrelation was revealed between parameters of hydrocarbon and fat exchange that allowed proposing extrapolational method of calculating total ketone in blood.

TECHNOLOGIES AND MEANS OF AGRICULTURE MECHANIZATION

УДК 62-83 (075.8)

**A.A. Bagayev,
V.G. Lukyanov,
R.S. Chernus****DC MOTOR AS PRIMARY CONVERTER OF TWISTING MOMENT
OF CENTRIFUGAL FLOW METERS OF LOOSE AGRICULTURAL MATERIALS**

Analysis of potential opportunities of DC motor and it use as the gauge – the primary converter of the twisting moment of systems of measurement of flow of loose agricultural materials in a stream is presented.

УДК 631 347.8 (088.8)

**V.A. Tsymbalist,
G.V. Polyayev****DEVICE FOR CONTROL OF LEVEL AND DENSITY OF A LIQUID**

The device provides measurement the density of a liquid (liquid fertilizers) for crop irrigation. It secures high precision of measurements and it is manufacturable due to its simple design.

УДК 629.114.2.001.5

**A.N. Ploshchadnov,
T.N. Ubogova,
Y.I. Butakova****THE RANGE OF MODERN IMPLEMENTS FOR HIGH SPEED AGRICULTURAL CRAWLER T-250**

Crawler high speed powerful farm T-250 tractor of drawbar category 5 is manufactured by public corporation «Altai Tractor» and is considered to be multi-purpose by right. It is the only 5 ton

class crawler ready to be manufactured in Russia nowadays. With regard to performance attributes T-250 does not yield to its import analogues but even exceeds them and it is cheaper at the same time. The application of modern implements recommended in the article will improve the tractor's capability.

ECONOMICS OF AGRICULTURAL INDUSTRY COMPLEX

УДК 331.5:330.59 (571.150)

O.I. German

CORRELATION ANALYSIS IN THE RESEARCH OF CONNECTION BETWEEN LIVING STANDARDS OF THE POPULATION AND THE SITUATION ON THE LABOR MARKET: REGIONAL ASPECT

A complex approach is used for the evaluation of the labor market conditions and the standards of living. As well as correlation analysis is used for the research of the connection between the living standards of the population and the labor market in of the Altai Region.

УДК 332.3

T.A. Pudovkina

ANALYSES OF EFFECTIVENESS OF THE SYSTEM OF STATE LAND CADASTER

It is necessary to consider qualitative and ecological conditions of land plots, especially on the agricultural lands and settlements for creating the effective system of land cadastre.

УДК 338.97

I.Y. Rybalchenko

ANALYSIS OF DYNAMICS OF ECONOMIC ENTITIES' BANKRUPTCY AND SOCIAL-ECONOMIC SITUATION OF A REGION

The results of the analysis of the dynamics of the city of Rubtsovsk's enterprises' bankruptcy are presented. Systematization of bankruptcy factors is carried out, and social-economic consequences of enterprises' failure are considered.

УДК 338

N.M. Baranova

ASSORTMENT STRATEGIES AT THE CHEESEMAKING ENTERPRISES OF THE ALTAI REGION

The article deals with new technologies of cheese-making in the Altai Region and some assortment strategies suitable for cheese-making enterprises.

УДК 657.421:631.15/.16

T.A. Kuznetsova

ACCOUNTING INFORMATIONAL ENSURING OF ADMINISTRATIVE SOLUTIONS IN THE PROCESS OF REPRODUCTION OF KEY ENABLERS

Timeliness and quality of the administrative resolves made are greatly dependent on the process of accounting informational ensuring. The main problem on the agricultural enterprises nowadays is the reproduction of key enablers. Appropriately accounting informational ensuring must be created to allow making administrative resolves on the reproduction of key enables.
