

A B S T R A C T S**THEORETICAL DEVELOPMENTS**

УДК 631.3.004.67

**V.N. Chizhov,
N.M. Mishustin****DETERMINATION OF ELECTROMAGNETIC FORCES AT ELECTROCONTACT SINTERING OF POWDER COMPOSITIONS**

The paper deals with the method of manufacturing microporous plain bearing bushings by electrocontact sintering of powder compositions. In particular, there is presentation of a technique to determine power source voltage depending on the force required to form a plain bearing bushing out of sintered band. Applying that technique, it is possible to determine power source voltage; reliability of the results is established by comparison of values of the force required to form the sintered band into bearing bushing, obtained experimentally and determined theoretically.

УДК 33:631.3.06:631.155.3

**A.M. Zubakhin,
S.A. Kamsha****ESTIMATION OF GRAIN LOSSES BY COMBINE HARVESTER**

Based on primary accounting data of operation of combines manufactured in different years, the crop losses by a combine were calculated, as well as the costs of those losses depending on crop yields and service life of the machinery.

AGRONOMY

УДК 631.4:577:631.174

**Y.G. Pivovarova,
Y.M. Sovrikova****SEASONAL DYNAMICS OF MOBILE NUTRIENTS' CONTENT AND MATHEMATICAL SUBSTANTIATION OF SOIL AGROCHEMICAL SURVEY DUE DATES**

The paper deals with regularities of seasonal dynamics of mobile nutrients' content studied to substantiate adequate agrochemical soil evaluation. The paper provides pattern analysis of seasonal dynamics of mobile nutrients' content at 30 days' intervals in common chernozems and leached chernozems on the Training Farm "Prigorodnoye" on 8 fields of farming crop rotations (n = 21).

УДК 633.11 < 3 2 1 > 631.543

F.M. Strizhova,
L.V. Ozhogina

FORMATION OF LEAF SURFACE AREA BY SPRING WHEAT VARIETIES

In conditions of temperate-arid wooded steppe of the Altai Region there was a study of spring soft wheat varieties of Russian and German selection for the purpose of leaf surface area formation. Larger leaf surface area was identified in the varieties Omskaya 28, Altaiskaya 50 and Triso. The greatest mineral nutrition improvement response was revealed in the varieties Vega, Altaiskaya 92, and Novosibirskaya 22.

УДК 631.4,636.294:636.04(571.1/.5)

S.I. Gribov,
S.I. Gaskov

SOILS OF REINDEER PASTURES OF THE LATITUDINAL OB RIVER AND THEIR EVALUATION

The research was carried out in the Uraiskiy and the Surgutskiy tracts of land. Soil productivity was investigated, and evaluation of vegetation eatability by reindeer in the regions of the latitudinal Ob River was given. The soil cover of those tracts of lands includes 101 soil combinations. Mostly the soil combinations are represented by families of podsollic, gleysolic-taiga, boggy-podsolic and marshy soils. Lichens are characterises by the greatest eatability.

ANIMAL PRODUCTION

УДК 619:636.591.4.41

Y.M. Malofeyev,
I.I. Grishina

MORPHOLOGY OF GREAT VENOUS VESSELS OF THE THORACIC CAVITY OF FETUS AND NEWBORN MARAL DEER

The research was carried out to study great venous vessels of thoracic cavity of maral foetuses of 2 and 4,5 months of age, and of new-borns of 3 days' age. Research was carried by the methods of vessel injection with corroding substances, common and fine specimen preparation, morphometry and photographing. The vessel topography, areas of their formation and the sizes were described. Average 2 times increase in length and diameter of venous vessels was detected with maral foetus growth and development (age of 2; 4,5; 8.5 months - new-borns). It was revealed, that the azygous vein in marals is located at the left, as in horned cattle and reindeer.

УДК 637.5:636.294(571.15)

V.A. Okhremenko,
S.S. Lee

QUALITATIVE CHARACTERISTICS OF WILD DEER MEAT OF THE ALTAI REGION

Quality and full value of wild deer meat is caused by their evolutionary adaptation to natural conditions of their habitat, plasticity, unpretentiousness, and, at the same time, by their high selectivity in forages consumption. Wild deer diets include about 1200 plant species.

The presented research results provide relatively good values of deer meat productivity. Dressing output is at the level of 54,8-58,1%, succulence index is 3,1-3,8 %, and ,flesh weight is between 72,7 and 75,8%.

Deer meat is characterised by high biological full value. The contents of irreplaceable amino acids, the ratio of irreplaceable and replaceable amino acids exceed corresponding values of beef. Besides, deer meat is ecologically safe.

VETERINARY MEDICINE

УДК 619:616-089

A.S. Kashin,
L.V. Medvedeva

ADVANTAGES OF APPLICATION ONE-LINE SUTURES ON DIGESTIVE ORGANS OF DOMESTIC ANIMALS

Carrying out abdominal surgeries, in most cases we prefer one-line continuous intestinal sutures. They appear to less prevent blood supply in the tissues being repaired, they are of sufficient mechanical durability and biological hermetic sealing, and they promote formation of thin gentle connective tissue cicatrix within minimal period. Developed by the authors, Gily's suture modified by Medvedeva, and Kashin-Medvedeva suture are applied on the organs of gastrointestinal tract of domestic animals when carrying out experimental research and in clinical practice.

УДК 619:616.611.3:636.2-053.81

Y.V. Kuryatova

APPLICATION OF PREPARATION «MALAVIT» AT ACUTE GASTROENTERITIS OF NON-INFECTIOUS ETIOLOGY IN CALVES

A homeopathic preparation "Malavit" used to treat acute gastroenteritis of calves positively influences on restoration of hemocytopoiesis function and adaptation mechanisms of homeostasis.

УД: 619:636.92:616-002.95

**N.M. Ponamaryev,
E.V. Ryabtseva****INFLUENCE OF ALBEN ANTHELMINTIC ON CLINICAL
AND HAEMATOLOGY PARAMETERS OF RABBITS' ORGANISM**

The results of experimental research provide evidence that anthelmintic preparations, Alben in this case, can change animals' physiological status, though for a short time, and that is not contra-indication for the preparation; twice-repeated oral Alben application in doze of 0,2 g per 2 kg of an animal's weight is the most acceptable for preventive de-helminthization of rabbits.

УДК 619:616.3:246.2:017.1:615.849.19:636.7

**A.N. Chubin,
L.A. Naboka****INFLUENCE OF COMBINED EFFECT OF ENTEROSGEL, RIBOTAN AND LASER RADIATION IN
CONSTANT MAGNETIC FIELD ON SECRETORY FUNCTION OF GASTRIC GLANDS
OF DOGS AT EXPERIMENTAL STOMACH ULCER**

Overall aim of our research was observation over change of secretory reaction of gastric glands at experimental stomach ulcer of dogs on combined effect of enterosgel, ribotan and laser radiation in constant magnetic field.

As the result of carried out research, it is established, that combined effect of enterosgel, ribotan, laser radiation in constant magnetic field normalises secretory function of gastric glands; there is normalisation both due to decrease of secreted juice volume, and due to decrease of its basic components concentration.

MACHINERY

УДК 631.31

**V.I. Belyaev,
N.N. Berezhnov,
D.V. Tyurin****RESULTS OF TRACTION TESTS OF TILLAGE-SEEDING COMPLEXES "KUZBASS"
IN THE ALTAI REGION**

The research presented in the paper allowed to determine the basic power parameters of seeding units' operation, and statistics of their change considering influence of operational speed of movement and seeds and fertilisers load in the tank, both on individual fields, and on different farms.

УДК 631.3

V.S. Krasovskikh,
T.V. Dobrodomova

**SUBSTANTIATION OF PARAMETERS AND OPERATING MODES
OF THE SOIL-TILLAGE-SEEDING COMPLEX BASE ON MT-5**

Values of mathematical expectation of traction resistance of the unit for group of fields, weight of technological material, engine capacity are determined. The obtained values are used to calculate modes of operations and parameters of the unit.

УДК 001.891.575:002.5

A.A. Boltenkov

**ON SUBSTANTIATION OF DISK ATOMIZATION MECHANISM PARAMETERS I
N DRYING CHAMBERS**

Pulverisation of liquid in drying chambers is of great importance when drying materials. Due to dispersion of liquid the contact area of material with drying agent can increase up to 700 times, that considerably intensifies the material drying process. In this case interrelation of atomisation mechanism parameters with particles' sizes resulted by dispersion becomes important.

Having considered the process of liquid disintegration, we derived equation, which allows coordinating many factors compared to the equation derived in the study by V.F. Dunskey and N.V. Nikitin. In addition, the equations have comparable factor of correlation of calculated and experimental data.

ECONOMICS AND MANAGEMENT

УДК 65.011.52:658.310.138

A.I. Kolobova,
V.V. Deulina

THE MAIN STAGES OF EMPLOYEES MOTIVATION IMPROVEMENT

The paper provides a literary review on employees' motivation; problems and solutions are discussed.

УДК 35:657:378

L.I. Kirkeyeva,
M.Y. Polyakova

**ACCOUNTING OF COSTS FOR SPECIALISTS' TRAINING WITH ISOLATION
OF GENERAL MANAGEMENT AND MAINTENANCE CHARGES**

Although educational institutions belong to non-profit category, and they may officially not declare value of the profit, they have the right to reinvest their profit to extend reproduction. Therefore, according to the author, in educational institutions it is expedient to introduce marginal method of internal cost accounting, which will allow operating incomes, profit and costs, as well as to calculate threshold number of students.

The author provides costs classification according the character of their interrelation with volume of educational process, the basic advantages of marginal method of internal cost accounting compared with traditional system of accounting are determined, and basic stages of that method of cost accounting application are revealed.

Considered by the author accounting records on bills mean not simply technical "registration procedure". Their application will improve information base of managerial system. Thus account becomes an important diagnostic tool of costs management and reliable profit forecasting.

УДК 338 (075.8)

I.V. Kovaleva

**INVESTMENT APPEAL OF THE REGION: EXPERIENCE, PROBLEMS,
PROSPECTS OF DEVELOPMENT**

The paper considers the issues of investment appeal formation of the regional market; international experience is evaluated.

УДК 338.(075.8)

L.V. Misnyakova,
L.N. Minova

**THE COMPARATIVE CHARACTERISTIC OF METHODS
OF LABOUR PRODUCTIVITY MEASUREMENT**

The paper deals with evaluation of modern technique of labour measurement. The author examines characteristics of labour measurement techniques according various criteria.

QUALITY AND EFFICIENCY

УДК 633.1 «321 »:631.8

S.F. Spitsyna,
A.V. Pautova

ECONOMIC EFFICIENCY OF FERTILIZERS APPLICATION IN THE WESTERN-KULUNDA ZONE OF THE ALTAI REGION IN CURRENT ECONOMIC CONDITIONS

The paper deals with the issues of economic feasibility of spring wheat cultivation with mineral fertilisers' application in the Western-Kulunda zone of the Altai Region. It is revealed that economic efficiency of fertilisers' application should be evaluated with consideration of their after-effects and positive effect of fertilisers on quality and cost of wheat grain.

УДК 332.33.003.13

A.I. Kolobova,
T.N. Cheredova

THE MAIN DIRECTIONS OF INCREASE OF LAND RESOURCES USE EFFICIENCY

The paper reveals tendencies of land resources use under conditions of agrarian reforming and the main directions of increase of land resources use efficiency based on intensive factors.

УДК 638.1:33

R.I. Samokhvalova,
D.L. Kononov

WAYS TO INCREASE ECONOMIC EFFICIENCY OF APICULTURE

The Altai Region is one of the advanced apiculture regions of Russia. However, for last decade economic efficiency of apiculture production reduced drastically.

The authors describe the current state of apiculture in the Region, indicate the reasons of its crisis condition, reveal reserves to increase economic efficiency of apiculture, and offer ways out of the existing crisis condition.

