

# ABSTRACTS

## AGRONOMY

УДК 633.11.321:631.526:631.55

L.V. Sokolova,  
V.V. Sokolov

### EFFECT OF SEEDING METHODS AND RATES ON THE SHAPE OF PLANTS NUTRITION AREA AND SUMMER SOFT WHEAT YIELD

**Key words:** botany, agronomy, cereal crops, summer wheat, seeding, seeding methods, seeding rates, seeding density, crop yield.

Evaluation of shape of plants nutrition area of summer soft wheat is dealt with depending on rates and methods of seeding in the conditions of moderate-arid steppe of the Altai Region; coefficient of plants nutrition area  $k$  for selection rational combination of rates and methods of summer soft wheat seeding is proposed.

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УДК 635.34/.36-2(571.15)

Y.V. Kashnova,  
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### DISEASE RESISTANCE OF BREEDING MATERIAL OF WHITE CABBAGE IN THE CONDITIONS OF THE ALTAI REGION

**Key words:** white cabbage, disease resistance, sample.

Some data on disease resistance of breeding material of white cabbage over the period of 2000-2007 in the conditions of the Altai Region is presented.

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## AGRICULTURAL ECOLOGY

УДК 631.4

A.V. Puzanov,  
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### ECOLOGICAL-BIOGEOCHEMICAL SOIL EVALUATION IN THE MID KATUN VALLEY

**Key words:** soil, profile, medium reaction, absorption capacity, carbonates, granulometric composition, humus, microelements, radioactive nuclides, the Katun.

The outcomes of studying physical-chemical and physical properties of a soil cover in the mid Katun valley as well as heavy metals and radioactive nuclides content in the soils are presented. The ecological-biological situation is evaluated as background one.

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УДК 532.536: 631.6

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### INFLUENCE OF STRIPE SNOW RETENTION ON TEMPERATURE REGIME OF CHERNOZEMS IN WINTER

**Key words:** moisture, migration, congelation, snow retention, temperature, moisture retention, Chernozems, capillaries, isotherm, profile.

Winter congelational-temperature regime of loess-like black soils, water regimen formation and moisture retention during winter melioration were analyzed.

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S.V. Makarychev,  
I.V. Shorina

### GENERATION OF TEMPERATURE REGIME OF LEACHED CHERNOZEM ON SLOPING GROUNDS

**Key words:** temperature regime, leached chernozem, catena soil (slope), sloping grounds, accumulated temperatures, diurnal temperature oscillation.

Temperature regime of soil depends on slope exposure. It should be noted that during the first half of the vegetation period the slopes of south-western exposure are more powerfully heated than the slopes of north-western exposure.

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**FORESTRY**

УДК 630\* 232. 524.84

A.A. Malenko

**VITALITY OF SQUARE AND ROW PINE PLANTINGS IN THE CONDITIONS OF DRY STEPPE**

**Key words:** *dry steppe, belt pine forest, pine plantings, square and row placement, growth, productivity.*

The growth and productivity of pine species in the age class IV, planted with square and row placement in the conditions of dry steppe were studied. Expedience of those plantings in dry conditions of belt pine forests in the Altai Region is considered.

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УДК 551.588.6:581.132 (470.22)

V.A. Usoltsev,  
M.P. Voronov,  
N.V. Nakai

**AUTOMATIC SYSTEM OF ESTIMATING AND MAPPING CARBON DEPOSITES  
IN FOREST ECOSYSTEMS BY MEANS OF ADABAS AND NATURAL SOFTWARE**

**Key words:** *biomass carbon, forest stand, CO<sub>2</sub> concentration, carbon sink, automatic system of databases management, space analysis.*

A system of spatial analysis of carbon deposition on forest cover using ADABAS and NATURAL software is proposed. The system gives a possibility for automatic actualization of data of forest biomass plots and of data of National Forest Inventory System (NFIS) that is synchronized with the interactive map-scheme of territorial arrangement of forest cover carbon.

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V.V. Reutskaya,  
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**BIOTIC INTEGRATION IN FOREST ECOSYSTEMS OF CENTRAL RUSSIAN FOREST-STEPPE AS THE BASIS OF THEIR STEADY DEVELOPMENT**

*Key words:* green zone, biodiversity, biotic integration, Central Russian forest-steppe.

Deep decomposition as consequence of anthropogenous influence and natural changes, determines modern shape of forest tracts of Central Russian forest-steppe. Their viability, ecological importance and economic potential are reduced. Biodiversity is a basis of rehabilitation of integration mechanisms in forests among steppes.

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**ANIMAL PRODUCTION**

УДК 636.082.2+636.083

Y.M. Malofeyev,  
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**CHARACTERISTICS OF SOME HAUNCH EXTREMITIES MUSCLES OF MARAL IN CONNECTION WITH MEAT PRODUCTIVITY**

*Key words:* maral deer, velvet antlers, maral meat, muscles, haunch extremity, weight, linear dimensions, age.

Substantiation of the conducted research of marals muscles is given. The characteristics of the main groups of muscles in haunch extremity are given that are of interest for the evaluation of marals meat productivity. Weight and linear dimensions were examined in three age groups of marals.

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УДК 636.2.084: 636.088

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**METABOLIC CHARACTERISTICS IN COWS DEPENDING ON DIFFERENT MEANS OF FEEDING WITH CONCENTRATES**

**Key words:** *metabolism, concentrated feed, feeding, digestibility, feed protein, lactation, test groups of cows.*

It was determined that extruded feed and amidoconcentrated additives processed with urease inhibitor can make milk productivity in dairy cows go up 6.6 – 10.8%, fat and protein content – 3.4 – 5.8 and 2.5 – 5.1 relative rates, respectively. The highest digestibility of feeding stuffs and nitrogen balance were registered in animals from the experimental groups, where concentrated feeds were processed with urease inhibitor.

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**TECHNOLOGIES AND MEANS OF AGRICULTURE MECHANIZATION**

УДК 629.4.082.3:621.3.004.12

V.V. Belyi

**ELECTROMAGNETIC COMPATIBILITY OF TECHNICAL DEVICES OF AGRICULTURAL POWER-SUPPLY AND PRODUCTION SYSTEMS**

**Key words:** *rural power-supply systems, technical means, electric power quality, electromagnetic compatibility of equipment.*

Growing electrification of agricultural production and complexity of modern power-supply systems brought to a greater production volume dependence on the quality and reliability of power supply. For its turn, the power supply reliability and its quality depend on the electromagnetic compatibility of different technical devices of agricultural power-supply and production systems.

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УДК 633.1.004.16:631.171

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EVALUATION OF BIOLOGICAL LOSSES OF WHEAT YIELD IN THE ALTAI REGION

**Key words:** evaluation, biological losses, crop yield, harvesting, labour costs, harvesting area, zoning, loss factor, cost of losses, climatic factors.

Evaluation of biological losses of yield in the conditions of the Altai Region was carried out, loss factors of wheat crop yield and costs of those losses were revealed.

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**ECONOMICS OF AGRICULTURAL INDUSTRY COMPLEX**

УДК 333 (571.15)

A.V. Minenko,  
M.N. Romanov**STRATEGIC LANDMARKS AND PROBLEMS OF REALIZATION STATE INVESTMENT POLICY  
IN AGRICULTURAL SECTOR OF THE ALTAI REGION**

**Key words:** *agricultural sector, state investment policy, legal base, private investments, conception of long-term social-economic development, special economic zone.*

The strategic directions and problems of realization of state investment policy in agricultural sector of Russia and the Altai Region are considered. Conclusions are made about necessity of more detailed study of directions of state's investment policy in the agricultural sector. It should be based on optimum combination of the state and private investments.

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УДК 383.43

Y.Y. Poroshina

**INNOVATIVE DEVELOPMENT OF AGRICULTURAL INDUSTRY COMPLEX OF THE ALTAI REGION**

**Key words:** *innovative activity, venture fund, cluster approach, scientific potential, resource-intensiveness, information-consulting centers.*

The scientific potential of the Altai Region is studied, the level of innovation activity in resource-intensive branches is shown, it is proposed to create a venture fund and to develop the cluster approach to the innovation activity, as well as to organize municipal information-consulting centers.

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УДК 339.72:351.773:63:519.862.6

V.A. Kundius,  
N.V. Trushina**SUBSTANTIATION OF INTERACTION MECHANISMS OF CATERING BUSINESSES  
AND AGRICULTURAL COMMODITY PRODUCERS BASED ON ECONOMETRIC MODEL**

**Key words:** *the consumer market, an agriculture, public catering establishments, food safety, quality of a feed, food stuffs, agricultural manufacturers, suppliers of raw material, an agrarian policy, model of interaction.*

The influence of agrarian policy and food market is characterized by direct and indirect effect on food safety and quality of life of the population. The high degree of direct linear interrelation between turnover of public catering and production of agriculture confirms necessity of development of economic mechanism of direct interaction of public catering and agricultural enterprises.

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УДК 332.122.62

N.V. Zhidkikh

**DETERMING THE AREAS OF INVESTMENT ATTRACTIVENESS OF THE CITY OF BARNAUL**

**Key words:** *conception of social-economic development, points of accelerated growth, forms of economic activity, evaluation of investment attractiveness.*

One of the algorithms of identification the most investment attractive forms of the city's economic activity based on the information resources of the local authorities is proposed.

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**SEGMENTATION OF INTER-COMPANY ENVIRONMENT OF ENTREPRENEUR COMPANIES**

*Key words:* segments, clusters of inter-company environment, subjects of business, marketing mix.

The business promotion to transcend the limits of projects and business plans, the subjects of business should develop inter-company and company communications by means of which they might promote their business. In the field of inter-company interaction it is necessary to determine the collaboration circle and sphere of direct competition, divide the market between the followers and the competitors. To promote the business its owners should definitely determine, as Mayakovsky said, "where to go, what camp to struggle in".

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**IMPROVING METHODS OF DISCOUNTS ACCOUNTING IN THE ENTERPRISE**

*Key words:* accounts receivable, account payable, discount, wholesale trade, retail trade, gross method, pure method, discounts on price, discounts on selling, methods of accounting.

The main categories of the discounts affordable for the customers and the approaches how to reflect those in the accounting are given, the necessity of detached accounting of the discounts is substantiated, the methods of discounts on sailing accounting is offered for the purpose of data ware of management in accounts receivable and account payable in the factory.

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