

Contents

Vol. 39, No. 4, 2013

A simultaneous English language translation of this journal is available from Allerton Press, Inc.
Distributed worldwide by Springer. *Russian Agricultural Sciences* ISSN 1068-3674.

Plant Cultivation

- Study of Spring Barley Grain Protein Qualitative Composition under Conditions in the Middle Volga Region
V. V. Glukhovtsev and N. V. Droval'eva 291
- Influence of Landscape Conditions on Efficiency of Winter Rye
D. A. Ivanov, N. G. Kovalev, O. N. Antsiferova, O. V. Karaseva, and M. V. Rublyuk 294
- Nomothetic Taxonomy of the Genus *Triticum*
B. V. Romanov, G. A. Kozlechkov, and I. Yu. Sorokina 298
- Productivity and Quality of Seeds of *Fagopyrum esculentum* Moench under Treatment with Virescenosides A and a Sum of Glycosides of Marine Fungus *Acremonium striatisporum* at Super Low Concentrations
A. G. Klykov, L. M. Moiseenko, E. L. Chaikina, Sh. Sh. Afiyatullo, and M. M. Anisimov 303
- Changes in Maize Seedlings Growth and Membrane Permeability under the Effect of Epibrassinolide and Heavy Metals
A. S. Lukatkin, N. N. Kashtanova, and P. Duchovskis 307
- Effect of Heavy Metal Salts on the Activity and Multiple Forms of RNases of Soybean Seedlings After Inoculation with *Bradyrhizobium japonicum* and *Sinorhizobium fredii*
V. A. Til'ba, S. I. Lavrent'eva, S. A. Begun, M. V. Yakimenko, L. E. Ivachenko, and A. S. Konichev 311
- Usage of Cold Shock Domain Proteins for Improvement of Frost Hardiness in Plant Biotechnology
V. V. Taranov, M. V. Berdnikova, N. E. Zlobin, and A. V. Babakov 315
- Role of Soil Bed-Banks in Orchards with the Fallow Soil Management System
M. V. Pridorogin 318
- AM Fungi Ameliorates Growth, Yield and Nutrient Uptake in *Cicer arietinum* L. Under Salt Stress
Nisha Kadian, Kuldeep Yadav, Neetu Badda and Ashok Aggarwal 321
-

Plant Protection

- Natural Cucumber Mosaic Virus Reservoirs in Seed Farms in Primorskii Krai
Z. N. Kozlovskaya, Yu. G. Volkov, and N. N. Kakareka 330
-

Agrochemistry. Soil Science

- Dynamics of the Mobile Forms of Phosphorus and Potassium in the Soils of Prolonged Trials
R. A. Afanas'ev and G. Ye. Merzlaya 333
- Role of Sweetclover and Phacelia in Agriculture Ecology Improvement for Droughty Left-Bank Areas of Saratov Region
V. N. Titov and A. N. Mamonov 338

Animal Husbandry

Genetic Differentiation of the Novosibirsk Population of Primorsky Honey Bee

N. A. Zinovieva, V. A. Soloshenko, M. S. Fornara, K. S. Shatokhin, G. I. Kharchenko, A. V. Borodachev, V. I. Lebedev, E. A. Gladyr, and G. M. Goncharenko

346

State of the Hemostatic System in Iron-Deficient Newborn Calves

S. Yu. Zavalishina

350

Ultrastructural Organization of Piglet Small Intestine Immunoglobulin Cells

Yu. N. Mas'yanov, A. G. Shakhov, and S. M. Suleimanov

354

Rheological Properties of Erythrocytes and Blood Coagulation Characteristics of Healthy Milk-Fed Piglets

I. N. Medvedev, A. V. Parakhnevich, and V. I. Maksimov

359

Modeling

Mathematical Formalization of Reproduction Processes in Raising Turkeys

A. I. Kuev

363

Storage and Processing of Agricultural Products

Changes in the Permeability of Oilseed Crops during the Process of Oil Extraction from Rape Extrudates

E. V. Slavnov

367

Computer Simulation of the Mechanism of Interaction of Red Grape Flavonoids with Cholesterol

V. V. Sadovoy, A. A. Aralina, and T. V. Shchedrina

370

Homogenous Liquid-Liquid Microextraction for Determination of Betulinic Acid in the Food Samples Using RP-HPLC

Mostafa Khajeh, Mansour Ghaffari Moghaddam and Atousa Zafar Danesh

373

Hydraulic Engineering. Amelioration

Management of the Hydrophysical Barrier on Mineral Soils at Amelioration in the Nonchernozem Zone of the Russian Federation

S. A. Maksimov

377

Joint Operative Dynamics of Pumping Stations and Pressure Regulating Capacities

S. N. Karambirov, D. A. Manuk'yan, and L. B. Bekisheva

382
