

---

**CONTENTS**
**S. S. Abremskaya, A. M. Artemyeva**

<i>Brassica rapa</i> L. double haploid lines characterization by productivity elements under greenhouse and field conditions .....	15
--	----

**N. G. Andrianova, G. S. Bimurzina**

Creation of collection of ecologically resistant apple cultivars with different mature and storage terms in Central Kazakhstan .....	20
--	----

**N. G. Andrianova, T. O. Sirotina, G. S. Bimurzina, T. V. Likhacheva**

Berry quality of strawberry varieties in Zhezkazgan Botanical Garden .....	25
--	----

**N. V. Andronova**

Genetic collection of strawberry of the Kokino base station of ARHIBAN and its usage in breeding .....	31
--	----

**R. D. Babina, V. V. Tankevich, P. G. Khoruzhy**

Evaluation of promising seed stocks for the pear in the Crimea .....	35
--	----

**E. P. Bezukh**

Evaluation of productivity of superintensive seven-year mother-cutting apple and pear orchard .....	39
---	----

**F. A. Berensen, A. M. Artemyeva, Yu. V. Chesnokov**

Molecular phylogenetic analysis of accessions from VIR <i>Brassica rapa</i> L. core collection .....	46
---	----

**A. I. Bokhan, V. E. Yudaeva, E. A. Naumova, V. I. Kozak, E. V. Skaryukina**

Maintenance and study of the genetic resources of vegetables and potatoes in FSBSI ARHIBAN .....	50
--	----

**A. A. Bydarin, K. V. Klemeshova**

The roses collection of The Research Institute of Floriculture and Subtropical Crops .....	53
--	----

**J. I. Vargach, M. E. Mertvicheva, I. G. Loskutov**

Antioxidant activity of grains and hulls of oats .....	57
--	----

**A. V. Veliki**

The influence of meteorological conditions on the productivity of the tea plant on the background of the making of macro- and micronutrients .....	62
--	----

**E. V. Vlasova, S. M. Motyleva, M. E. Mertvicheva, J. V. Gorbunova**

Antioxidant properties of <i>Lupinus angustifolius</i> L. & <i>Glycine max</i> (L.) Merr. leaf extracts .....	70
---	----

**V. F. Vorobyov, V. V. Khromenko, L. A. Prineva**

Age variability of the productivity of apple-trees and effective operation period of the orchard .....	76
--	----

**A. M. Galasheva, Z. E. Ozhereleva, N. G. Krasova, A. R. Pavel**

Evaluation of drought resistance of summer apple varieties on different weak tall rootstocks .....	82
--	----

**M. V. Gvasaliya**

Micropagation and deposition of tea valuable genotypes ( <i>Camellia sinensis</i> (L.) Kuntze) <i>in vitro</i> culture .....	87
--	----

---

<b>M. V. Gvasaliya</b>	
Breeding of tea ( <i>Camellia sinensis</i> (L.) O. Kuntze), achievements and perspectives .....	94
<b>S. E. Golovin</b>	
Species diversity of oomycetes of the genus <i>Phytophthora</i> on red raspberries in the middle zone of Russia .....	98
<b>O. D. Golyaeva, O. V. Panfilova</b>	
Genetic collection of All-Russian Research Institute of Fruit Crop Breeding of red currants – results and perspective of using .....	103
<b>E. A. Goncharova, N .V. Vavilov, G. V. Eremin, T. A. Gasanova</b>	
Methodology of evaluation of stress resistance of cultivated crops and strategy of its diagnostic for breeding .....	107
<b>O. A. Gribova</b>	
Effect of mineral nutrition on yields and on the photosynthetic productivity indicators of momordika ( <i>Momordica shantia</i> L.) plants .....	111
<b>T. N. Doroshenko, N. V. Zaharchuk, D. V. Maksimtsev</b>	
Peculiarities of the heat resistance of fruit plants during the summer period .....	116
<b>M. L. Dubrovsky, A. S. Lyzhin, A. V. Kruzhkov, R. E. Kirillov</b>	
Experimental analysis of resistance of <i>Cerasus</i> Mill. and <i>Pyrus</i> L. genotypes to osmotic stress .....	120
<b>M. L. Dubrovsky, M. Yu. Pimkin, R. E. Kirillov</b>	
The methodical approach to the experimental evaluation of heat resistance of fruit crops in the analysis of chlorophyll fluorescence dynamics .....	124
<b>S. N. Evdokimenko, M. A. Podgaetskiy</b>	
Breeding evaluation of raspberry gene fund of the Kokino Base Station of ARHIBAN .....	128
<b>I. L.Efimova</b>	
Ecological substantiated agric measures for cultivation of apple planting material under the conditions of higher summer temperatures .....	133
<b>A. A. Zhuchenko-jr.</b>	
Environment-improving technologies .....	138
<b>A. S. Zemisov, V. V. Chivilev, [N. I. Savelyev]</b>	
Inheritance of low temperature resistance in apple and pear progenies in the middle of wintering .....	148
<b>V. N. Zolotarev, N. I. Perepravo</b>	
Agrobiological features of varieties of the fescue – raygraphy hybrid at cultivation on seeds .....	152
<b>Yu. A. Ivashchenko, E. P. Shoferistov, S. Yu. Tsiupka</b>	
Susceptibility of nectarine varieties and hybrids to powdery mildew ( <i>Sphaerotheca pannosa</i> (Lev.) var. <i>persicae</i> Woronich) in the Crimea .....	158
<b>N. V. Kozak, Z. A. Imamkulova</b>	
Collection samples of blue honeysuckle ( <i>Lonicera caerulea</i> L.) are sources of economic useful properties .....	162

<b>N. V. Kozak, S. V. Motyleva, M. E. Mertvischeva</b>	
Morphological and biochemical characteristics of leaves of some varieties of <i>Schisandra chinensis</i> (Turcz.) Baill. ....	167
<b>I. I. Kozlova</b>	
New sources of economic-valuable attributes for strawberry breeding programs ...	171
<b>O. J. Kolmykova, V. V. Churilova, A. A. Nazarova, S. D. Polishchuk</b>	
Determination of optimal concentrations of cobalt and copper nanoparticles on the seeds and seedlings of vegetables .....	175
<b>T. Ye. Kondratenko, A. I. Trokhymchuk</b>	
Efficiency of using the apple collections at the Institute of Horticulture of NAAS of Ukraine .....	179
<b>A. M. Konova, A. Yu. Gavrilova</b>	
Effect of different doses of mineral fertilizers on the yield and quality of spring triticale on sod-podzolic light loam soil .....	183
<b>A. A. Krinitsina, O. A. Churikova, S. V. Kuptsov, E. A. Labunskaya, A. S. Speranskaya</b>	
The influence of temperature on anatomy and pigment composition of <i>Allium pskemense</i> B. Fedtsch. leaves .....	188
<b>N. S. Krayushkina, E. V. Ergenov</b>	
Results of primary appreciation of black currants hybrid in condition of Nord-West region of Russia .....	192
<b>I. B. Kuznetsov, S. S. Makarov, Abdurasuli Bobokhon</b>	
The influence of growth regulating substances on the organogenesis of regenerated plants on the stage actually micropropagation cloning crops .....	198
<b>N. M. Kuzmina, A. V. Fedorov</b>	
Technological methods of storage and use in landscaping of Izhevsk small-flowered cannes <i>Canna indica</i> L. ....	203
<b>E. M. Lyakh, I. G. Vorobyova, M. A. Tomoshevich</b>	
Economically-biological evaluation of <i>Syringa vulgaris</i> L. variety's collection at the CSBG of the SB of RAS (Novosibirsk) .....	207
<b>O. V. Matushkina, I. N. Pronina</b>	
Regeneration ability of promising varieties of apple <i>in vitro</i> .....	211
<b>Ye. V. Mikhailova, E. B. Yanushevskaya, N. N. Karpun</b>	
Ecological role of applying Ecogel in peach plantings .....	216
<b>I. G. Mishchenko, G. V. Yakuba</b>	
Changes in the mycopathokomplexes structure of the fruit cultures of Krasnodar region under the contemporary environmental conditions .....	225
<b>S. M. Motyleva, N. G. Morozova, M. E. Mertvishcheva</b>	
Elemental composition and low-molecular metabolites – antioxidants in fruits of sweet cherry ( <i>Prunus Cerasus avium</i> L.) .....	229
<b>G. S. Mukanova , A. G. Sankaibayeva, L. Sh. Shadmanova, Sh. N. Kujabergenova</b>	
Chemical and technological evaluatian of <i>Malus sieversii</i> clones-varieties for juice production .....	235

---

<b>S. Ya. Mukhortov, I. B. Tikhomirova</b>	
Evaluation of mustard genotypes on the application of growth regulators .....	241
<b>S. Ya. Mukhortov, I. B. Tikhomirova, Ju. S. Mikulina</b>	
The breeding value of genotypes of the coriander in changing environment .....	245
<b>A. X. Okhundjanov, J. Yangibaev, M. A. Ergasheva, Z. A. Imamkulova</b>	
The propagation of clonal rootstock Myrobalan 29 C .....	250
<b>M. L. Ponomareva, S. N. Ponomarev, Gulnaz S. Mannapova, L. F. Gilmullina, S. I. Fomin, Gulnara S. Mannapova</b>	
Genetic resources of winter rye on the technological parameters for breeding in the Middle Volga .....	254
<b>S. V. Prakh, M. E. Podgornaja</b>	
Species composition of entomocenosis of stone fruit crops in Krasnodar region ....	258
<b>T. A. Roeva, E. V. Leonicheva, L. I. Leontieva, O. A. Vetrova</b>	
The content of bound and available water in apple leaves depending on the foliar fertilizing .....	264
<b>A. A. Rusinov, G. A. Plenkina, A. P. Sofronov</b>	
The term impact of grafting and varietal characteristics on release of standard planting material of plump in condition of Kirov region .....	269
<b>N. I. Savel'ev, V. V. Chivil'yov, A. S. Zemisov, A.N. Yushkov, R.Ye. Bogdanov</b>	
Genetical resources of VNIIG&SPR (FSBSI ARRIG&BFP) and their use in plant breeding .....	274
<b>F. F. Sazonov, I. D. Sazonova, A. A. Nikulin</b>	
Potential of the black currant gene pool in connection with the breeding to increase C-vitamin contents of fruits .....	278
<b>R. Z. Saodatova, A. A. Ershova</b>	
Drought-resistant ornamental plants on the exposition of flora of Eastern Europe of MBG of RAS .....	284
<b>A. V. Satibalov, L. H. Nagudova</b>	
Resistant varieties of apples and pears to stress effects of drought .....	289
<b>A. V. Satibalov, L. H. Nagudova</b>	
Resistant varieties of apples and pears to stress effects of winter .....	294
<b>N. N. Sokerina</b>	
Promising for the Republic of Komi varieties of red currant .....	299
<b>N. N. Sokerina</b>	
The productivity of strawberry in conditions of Komi Republic .....	307
<b>V. N. Sorokopudov, A. G. Kuklina, J. V. Burmenko</b>	
Perspective varieties of golden currant ( <i>Ribes aureum</i> Pursh) in middle of Russia ..	311
<b>G. S. Stephanovich, V. P. Rymar</b>	
New types of cereals for animal feed and gardening in the Ural region .....	316
<b>T. V. Stupnikova</b>	
Biology of seeds of the species belonging to the genus <i>Spiraea</i> L. cultivated in the south of the Amur region .....	321

<b>G. Yu. Upadysheva</b>	
Use of interspecific hybrids of <i>Cerasus</i> L.variety as clonal rootstocks for the sweet cherry .....	331
<b>D. A. Fateev, A. M. Artemyeva, Yu. V. Chesnokov</b>	
QTL analysis of <i>Brassica oleracea</i> L. morphological and biochemical traits .....	336
<b>O. S. Fedorova, A. V. Smykov, Yu. A. Ivashchenko, T. V. Shishova</b>	
The genefund of the italian peach cultivars in NBG-NSC and its using in breeding .....	340
<b>Yu. A. Fedulova, M. Yu. Pimkin</b>	
Chaenomeles in the Middle zone of Russia .....	347
<b>L. V. Frolova, A. M. Dmitrieva, M. S. Shalkevich, O. V. Emelyanova, L. A. Murashkevich</b>	
Genetic resources of currants, raspberries and sea buckthorn in breeding for suitability for mechanized harvesting .....	351
<b>S. Yu. Tsiupka, E. P. Shoferistov, Yu. A. Ivashchenko</b>	
Susceptibility of nectarine cultivars and hybrids to leaf curl in Nikita Botanical gardens .....	355
<b>O. A. Churikova</b>	
Conservation of genetic resources of wild apple trees <i>in vivo</i> and <i>in vitro</i> .....	359
<b>T. V. Shishova, A. V. Smykov, O. S. Fedorova</b>	
Peach hybrid seedlings with late flowering periods and prospects of their use .....	363
<b>A. G. Shevkun</b>	
The study of introduced varieties of intersectional hybrid peonies in FSBSI ARHIBAN .....	367
<b>E. P. Shoferistov, S. Yu. Tsiupka, Yu. A. Ivashchenko</b>	
Susceptibility of nectarine hybrids to leaf curl and powdery mildew in the Crimea .....	371
<b>T. V. Shpatova, A. A. Kuzmina</b>	
Resistance of promising varieties and hybrids of black currants to biotic stressors in the conditions of forest-steppe of Novosibirsk Ob .....	375
<b>E. G. Yurchenko</b>	
Grape genotype and its influence on the vegetating mycopathocomplexes organs structure and mycopathocomplexes biologised control .....	380