

НАУЧНЫЕ ПУБЛИКАЦИИ СОТРУДНИКОВ ВИР В ЖУРНАЛАХ, ИНДЕКСИРУЕМЫХ В БАЗАХ ДАННЫХ  
«СЕТЬ НАУКИ» (WEB OF SCIENCE) И SCOPUS. 2022 г. (на 25.09.2022)

Afanasenko O., Rozanova I., Gofman A., Lashina N., Novakazi F., Mironenko N., Baranova O., Zubkovich A. Validation of Molecular Markers of Barley Net Blotch Resistance Loci on Chromosome 3H for Marker-Assisted Selection. *Agriculture*. 2022;12(4):439. DOI: 10.3390/agriculture12040439

Egorova A.A., Chalaya N.A., Fomin I.N., Barchuk A.I., Gerasimova S.V. De Novo Domestication Concept for Potato Germplasm Enhancement. *Agronomy*. 2022;12(2):462. DOI: 10.3390/agronomy12020462

Fedorina J., Tikhonova N., Ukhatova Y., Ivanov R., Khlestkina E. Grapevine Gene Systems for Resistance to Gray Mold *Botrytis cinerea* and Powdery Mildew *Erysiphe necator*. *Agronomy*. 2022;12(2):499. DOI: 10.3390/agronomy12020499

Gavrilenko T.A.; Pendinen G.I.; Yermishin A.P. GISH Analysis of the Introgression of the B Subgenome Genetic Material of Wild Allotetraploid Species *Solanum stoloniferum* into Backcrossing Progenies with Potato. *Agronomy*. 2022; 12(4):787. DOI: 10.3390/agronomy12040787

Glagoleva A., Kukoeva T., Mursalimov S., Khlestkina E., Shoeva O. Effects of Combining the Genes Controlling Anthocyanin and Melanin Synthesis in the Barley Grain on Pigment Accumulation and Plant Development. *Agronomy*. 2022;12(1):112. DOI: 10.3390/agronomy12010112

Khlestkin V., Erst T., Igoshin A., Khlestkina E., Rozanova I. Meta-Analysis of Genetic Factors for Potato Starch Phosphorylation. *Agronomy*. 2022;12(6):1343. DOI: 10.3390/agronomy12061343

Sinjushin A., Semenova E., Vishnyakova M. Usage of Morphological Mutations for Improvement of a Garden Pea (*Pisum sativum*): The Experience of Breeding in Russia. *Agronomy*. 2022;12(3):544. DOI: agronomy12030544

Sokolova D.V., Shvachko N.A., Mikhailova A.S., Popov V.S. Betalain Content and Morphological Characteristics of Table Beet Accessions: Their Interplay with Abiotic Factors. *Agronomy*. 2022;12(5):1033. DOI: 10.3390/agronomy12051033

Tyryshkin L.G., Zeleneva Y.V., Brykova A.N., Kudryavtseva E.Y., Loseva V.A., Akhmedov M.A., Shikhmuradov A.Z., Zuev E.V. Long-Term Multilocal Monitoring of Leaf Rust Resistance in the Spring Bread Wheat Genetic Resources from Institute of Plant Genetic Resources (VIR). *Agronomy*. 2022;12(2):242. DOI: 10.3390/agronomy12020242

Panova G.G., Semenov K.N., Shilova O.A., Bityutskii N.P., Artem'eva A.M., Khamova T.V. Korniyukhin D.L., Yakkonen K.L., Kanash E.V., Udalova O.R., Khomyakov Y.V., Anikina L.M., Zhuravleva A.S., Verbebnii V.E., Charykov N.A., Bankina T.A., Sharoyko V.V. New biologically active agents based on carbon and silicon nanostructures: The basis of creation and application in crop production. *AIP Conference Proceedings*. 2022;2390(1):030070. DOI: 10.1063/5.0069545

Kolesnikov L.E., Popova E.V., Novikova I.I., Kolesnikov Y.R., Balagurova E.D. Application of Chitosan to Protect Wheat from Diseases and Boost Yields. *Applied Biochemistry and Microbiology*. 2022;58(3):329-335. DOI: 10.1134/S0003683822030073

Okhlopko Z.M., Razgonova M.P., Pikula K.S., Zakharenko A.M., Piekoszewski W., Manakov Y.A., Ercisli S., Golokhvast K.S. *Dracocephalum palmatum* S. and *Dracocephalum ruyschiana* L. Originating from Yakutia: A High-Resolution Mass Spectrometric Approach for the Comprehensive Characterization of Phenolic Compounds. *Applied Sciences*. 2022; 12(3):1766. DOI: 10.3390/app12031766

Strygina K., Khlestkina E. Flavonoid Biosynthesis Genes in *Triticum aestivum* L.: Methylation Patterns in *Cis*-Regulatory Regions of the Duplicated *CHI* and *F3H* Genes. *Biomolecules*. 2022;12(5):689. DOI: 10.3390/biom12050689

Kolesova M.A., Lysenko N.S., Tyryshkin L.G. Resistance to diseases in samples of rare wheat species from the N.I. Vavilov All-Russian Institute of Plant Genetic Resources. *Cereal Research Communications*. 2022;50(2):287-296. DOI: 10.1007/s42976-021-00179-5

Khlestkina E.K., Khlestkin V.K. Interdisciplinary approaches in plant breeding and genetics: on the anniversary of Academician N.A. Kolchanov. *Ecological Genetics*. 2022;20(1):61-68. DOI: 10.17816/ecogen105794

Fedorina J.V., Khlestkina E.K., Seferova I.V., Vishnyakova M.A. Genetic mechanisms underlying the expansion of soybean *Glycine max* (L.) Merr. cultivation to the north. *Ecological Genetics*. 2022;20(1):13-30. DOI: 10.17816/ecogen83879

**Федеральный исследовательский центр Всероссийский институт генетических ресурсов растений имени Н.И. Вавилова**  
**N.I. Vavilov All-Russian Institute of Plant Genetic Resources**

- Gnutikov A.A., Nosov N.N., Loskutov I.G., Machs E.M., Blinova E.V., Probatova N.S., Langdon T., Rodionov A.V. New insights into the genomic structure of the oats (*Avena L.*, Poaceae): intragenomic polymorphism of ITS1 sequences of rare endemic species *Avena bruhsiana* Gruner and its relationship to other species with C-genomes. *Euphytica*. 2022;218(3). DOI: 10.1007/s10681-021-02956-z
- Porokhovinova E.A., Matveeva T.V., Khafizova G.V., Bemova V.D., Doubovskaya A.G., Kishlyan N.V., Podolnaya L.P., Gavrilova V.A. Fatty acid composition of oil crops: genetics and genetic engineering. *Genetic Resources and Crop Evolution*. 2022. DOI: 10.1007/s10722-022-01391-w
- Samarina L.S., Malyarovskaya V.I., Rakhmangulov R.S., Koninskaya N.G., Matskiv A.O., Shkhalakhova R.M., Orlov Y.L., Tsaturyan G.A., Shurkina E.S., Gvasaliya M.V., Kuleshov A.S., Ryndin A.V. Population Analysis of *Diospyros lotus* in the Northwestern Caucasus Based on Leaf Morphology and Multilocus DNA Markers. *International Journal of Molecular Sciences*. 2022;23(4):2192. DOI: 10.3390/ijms23042192
- Besedin A.G., Putina O.V. Influence of climatic indicators on the dynamics of the growing season duration and forecasting vegetable peas' harvest date. *IOP Conference Series: Earth and Environmental Science*. 2022;949(118):012018. DOI: 10.1088/1755-1315/949/1/012018
- Kolesova M.A., Zakharov V.G., Tyryshkin L.G. Possible Effect of Abiotic Environmental Factors on Changes in Wheat Resistance to Leaf Rust. *Journal of Agricultural Science and Technology*. 2022;24(4):989-999.
- Runno-Paurson E., Agho C.A., Zoteyeva N., Koppel M., Hansen M., Hallikma T., Cooke D.E.L., Nassar H., Niinemets Ü. Highly Diverse *Phytophthora infestans* Populations Infecting Potato Crops in Pskov Region, North-West Russia. *Journal of Fungi*. 2022;8(5):472. DOI: 10.3390/jof8050472
- Razgonova M.P., Zakharenko A.M., Golokhvast K.S. Investigation of supercritical CO<sub>2</sub>-extracts of wild *Ledum palustre* L. (*Rhododendron tomentosum* Harmaja) and identification of its metabolites by tandem mass spectrometry. *Khimiya Rastitel'nogo Syr'ya*. 2022;(1):179-191. DOI: 10.14258/jcprm.2022019506
- Vishnyakova M., Sinjushin A., Čupina B., Rubiales D., Ellis N., Patto C.V., Medović A., Zorić L., Smýkal P. Aleksandar Mikić, the legume (re)searcher. *Legume Science*. 2022. DOI: 10.1002/leg3.134
- Vecherskii Maxim V., Khayrullin David R., Shadrin Andrey M., Lisov Alexander V., Zavarzina Anna G., Zavarzin Alexey A., Leontievsky Alexey A. Metagenomes of Lichens *Solorina crocea* and *Peltigera canina*. *Microbiology Resource Announcements*. 2022;11(1):e01000-21. DOI: 10.1128/MRA.01000-21
- Vladimirova Maria E., Muntyan Victoria S., Afonin Alexey M., Muntyan Alexey N., Baturina Olga A., Dzyubenko Elena A., Saksaganskaya Alla S., Simarov Boris V., Roumiantseva Marina L., Kabilov Marsel R. Complete Genome of *Sinorhizobium meliloti* AK76, a Symbiont of Wild Diploid *Medicago lupulina* from the Mugodgary Mountain Region. *Microbiology Resource Announcements*. 2022;11(3):01088-21. DOI: 10.1128/mra.01088-21
- Azeem F., Ijaz U., Ali M.A., Hussain S., Zubair M., Manzoor H., Abid M., Zameer R., Kim D.S., Golokhvast K.S., Chung G., Sun S., Nawaz M.A. Genome-Wide Identification and Expression Profiling of Potassium Transport-Related Genes in *Vigna radiata* under Abiotic Stresses. *Plants*. 2022;11(1):2. DOI: 10.3390/plants11010002
- Gnutikov A.A., Nosov N.N., Loskutov I.G., Blinova E.V., Shneyer V.S., Probatova N.S., Rodionov A.V. New Insights into the Genomic Structure of *Avena L.*: Comparison of the Divergence of A-Genome and One C-Genome Oat Species. *Plants*. 2022;11(9):1103. DOI: 10.3390/plants11091103
- Kibkalo I. Effectiveness of and Perspectives for the Sedimentation Analysis Method in Grain Quality Evaluation in Various Cereal Crops for Breeding Purposes. *Plants*. 2022;11(13):1640. DOI: 10.3390/plants11131640
- Porokhovinova E.A., Shelenga T.V., Kerv Y.A., Khoreva V.I., Konarev A.V., Yakusheva T.V., Pavlov A.V., Slobodkina A.A., Brutch N.B. Features of Profiles of Biologically Active Compounds of Primary and Secondary Metabolism of Lines from VIR Flax Genetic Collection, Contrasting in Size and Color of Seeds. *Plants*. 2022;11(6):750. DOI: 10.3390/plants11060750
- Radchenko E.E., Abdullaev R.A., Anisimova I.N. Genetic Resources of Cereal Crops for Aphid Resistance. *Plants*. 2022,11(11):1490. DOI: 10.3390/plants11111490
- Razgonova Mayya P., Burlyaeva Marina O., Zinchenko Yulia N., Krylova Ekaterina A., Chunikhina Olga A., Ivanova Natalia M., Zakharenko Alexander M., Golokhvast Kirill S. Identification and Spatial Distribution of Bioactive Compounds in Seeds *Vigna unguiculata* (L.) Walp. by Laser Microscopy and Tandem Mass Spectrometry. *Plants*. 2022;11(16):2147. DOI: 10.3390/plants11162147
- Razgonova M., Zinchenko Y., Pikula K., Tekutyeva L., Son O., Zakharenko A., Kalenik T., Golokhvast K. Spatial Distribution of Polyphenolic Compounds in Corn Grains

Федеральный исследовательский центр Всероссийский институт генетических ресурсов растений имени Н.И. Вавилова  
N.I. Vavilov All-Russian Institute of Plant Genetic Resources

- (*Zea mays* L. var. *Pioneer*) Studied by Laser Confocal Microscopy and High-Resolution Mass Spectrometry. *Plants*. 2022; 11(5):630. DOI: 10.3390/plants11050630
- Smolikova G., Strygina K., Krylova E., Bilova T., Medvedev S., Khlestkina E., Vikhorev A., Frolov A. Seed-to-Seedling Transition in *Pisum sativum* L.: A Transcriptomic Approach. *Plants*. 2022;11(13):1686. DOI: 10.3390/plants11131686
- Temirbekova Sulukhan K., Kulikov Ivan M., Ashirbekov Mukhtar Z., Afanasyeva Yuliya V., Beloshapkina Olga O., Tyryshkin Lev G., Zuev Evgeniy V., Kirakosyan Rima N., Glinushkin Alexey P., Potapova Elena S., Rebouh Nazih Y. Evaluation of Wheat Resistance to Snow Mold Caused by *Microdochium nivale* (Fr) Samuels and I.C. Hallett under Abiotic Stress Influence in the Central Non-Black Earth Region of Russia. *Plants*. 2022;11(5):699. DOI: 10.3390/plants11050699
- Ozerski P.V. On colour variability of the common green grasshopper *Omocestus viridulus* (Orthoptera: Acrididae) in northwestern Russia. *Proceedings of the Zoological Institute RAS*. 2022;326(2):115-124. DOI: 10.31610/trudyzin/2022.326.2.115
- Chepinoga I.S. Introduction and studying of the species polymorphism in the almond genetic diversity preserved at Krymsk Experiment Breeding Station of VIR in the prebreeding stage. *Proceedings on applied botany, genetics and breeding*. 2022;183(2):103-112. DOI: 10.30901/2227-8834-2022-2-103-112
- Lenivtseva M.S., Kuznetsova A.P., Radchenko E.E. Leaf spot resistance in sweet and sour cherries. *Proceedings on applied botany, genetics and breeding*. 2022;183(2):177-182. DOI: 10.30901/2227-8834-2022-2-177-182
- Tikhonova O.A. Morphometric parameters of black currant berries and racemes under the conditions of Northwest Russia. *Proceedings on applied botany, genetics and breeding*. 2022;183(2):90-102. DOI: 10.30901/2227-8834-2022-2-90-102
- Mursalimov S., Glagoleva A., Khlestkina E., Shoeva O. Chlorophyll deficiency delays but does not prevent melanogenesis in barley seed melanoplasts. *Protoplasma*. 2022;259:317-326. DOI: 10.1007/s00709-021-01669-3
- Filyushin M.A., Khatefov E.B., Kochieva E.Z., Shchennikova A.V. Comparative Analysis of Transcription Factor Genes *liguleless1* and *liguleless1-like* in Teosinte and Modern Maize Accessions. *Russian Journal of Genetics*. 2022;58(3):296-306. DOI: 10.31857/S0016675822030055
- Ulianich P.S., Belimov A.A., Kuznetsova I.G., Sazanova A.L., Yuzikhin O.S., Laktionov Yu.V., Karlov D.S., Vishnyakova M.A., Safronova V.I. Effectiveness of nitrogen-fixing symbiosis of guar (*Cyamopsis tetragonoloba*) with strains *Bradyrhizobium retamae* RCAM05275 and *Ensifer aridi* RCAM05276 in pot experiment. *Sel'skokhozyaistvennaya Biologiya [Agricultural Biology]*. 2022;57(3):555-565. DOI: 10.15389/agrobiology.2022.3.555eng
- Razgonova M.P., Tekutyeva L.A., Podvolotskaya A.B., Steepochkina V.D., Zakharenko A.M., Golokhvast K. *Zostera marina* L.: Supercritical CO<sub>2</sub>-Extraction and Mass Spectrometric Characterization of Chemical Constituents Recovered from Seagrass. *Separations: Open Access Separation Science Journal*. 2022;9(7):182. DOI: 10.3390/separations9070182
- Brutch E., Zabegaeva O., Nozkova J., Brutch N. Cadmium tolerance and its absorption ability in fibre flax and linseed variet. *Turkish Journal of Agriculture and Forestry*. 2022;46(1):83-89. DOI: 10.3906/tar-2011-118
- Novikova L.Yu., Ozerski P.V. Forecast for the zone of viticulture in European Russia under climate change. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2022;26(3):264-271. DOI: 10.18699/VJGB-22-33
- Porotnikov I.V., Mitrofanova O.P., Antonova O.Yu. A system of molecular markers to identify alleles of the *Rht-B1* and *Rht-D1* genes controlling reduced height in bread wheat. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2022;26(2):128-138. DOI: 10.18699/VJGB-22-16
- Sokolova D.V. Dynamic changes in betanin content during the growing season of table beet: their interplay with abiotic factors. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2022;26(1):30-39. DOI: 10.18699/VJGB-22-05
- НАУЧНЫЕ ПУБЛИКАЦИИ СОТРУДНИКОВ ВИР В ЖУРНАЛАХ, ИНДЕКСИРУЕМЫХ В БАЗЕ ДАННЫХ SCOPUS. 2022 г. (статьи еще не загружены в БД SCOPUS)**
- Dunaeva S.E., Krasovskaya L.S., Gavrilenko T.A. *Ex situ* conservation of *Rubus* L. (Rosaceae) genetic resources (a review). *Proceedings on applied botany, genetics and breeding*. 2022;183(1):236-253. DOI: 10.30901/2227-8834-2022-1-236-253
- Fadeeva I.D., Ignatieva I.Yu., Khakimova A.G., Mitrofanova O.P. Source material for breeding winter bread wheat for grain quality in the north of the Middle Volga Region. *Proceedings on applied botany, genetics and breeding*. 2022;183(1):118-126. DOI: 10.30901/2227-8834-2022-1-118-126

**Федеральный исследовательский центр Всероссийский институт генетических ресурсов растений имени Н.И. Вавилова  
N.I. Vavilov All-Russian Institute of Plant Genetic Resources**

Khatefov E.B., Grushin A.A., Boyko V.N. Cytogenetic factors decreasing the fertility of pollen and cobs during clogging of tetraploid maize with triploid grains (*Zea mays* L.). *Proceedings on applied botany, genetics and breeding*. 2022;183(1):135-146. DOI: 10.30901/2227-8834-2022-1-135-146

Khlestkina E.K. A strategy of the new “green revolution” in wheat breeding: celebrating the jubilee of Lyudmila A. Bessalova, Full Member of the Russian Academy of Sciences. *Proceedings on applied botany, genetics and breeding*. 2022;183(1):254-258. DOI: 10.30901/2227-8834-2022-1-254-258

Khlestkina E.K. Genetic resources in Russia: from collections to bioresource centers. *Proceedings on applied botany, genetics and breeding*. 2022;183(1):9-30. DOI: 10.30901/2227-8834-2022-1-9-30

Loskutov I.G., Shelenga T.V., Konarev A.V., Khoreva V.I., Kerv Yu.A., Blinova E.V., Gnutikov A.A., Rodionov A.V., Malyshev L.L. Assessment of oat varieties with different levels of breeding refinement from the Vavilov Institute’s collection applying the method of metabolomic profiling. *Proceedings on applied botany, genetics and breeding*. 2022;183(1):104-117. DOI: 10.30901/2227-8834-2022-1-104-117

Podorozhniy V.N., Piyanina N.A. Improvement of the technique applied to preserve species and varieties of *Fragaria* L. in the field genebank at Krymsk Experiment Breeding Station of VIR. *Proceedings on applied botany, genetics and breeding*. 2022;183(2):9-16. DOI: 10.30901/2227-8834-2022-2-9-16

Semenova E.V., Vasipov V.V., Anisimova I.N. Identification of duplicate accessions in the pea (*Pisum sativum* L.) collection at VIR. *Proceedings on applied botany, genetics and breeding*. 2022;183(1):147-156. DOI: 10.30901/2227-8834-2022-1-147-156

Sherstobitov V.V., Bandurko I.A., Ozerski P.V. Analysis of the data obtained while studying European plum (*Prunus domestica* L.) cultivars developed at Maikop Experiment Station of VIR. *Proceedings on applied botany, genetics and breeding*. 2022;183(2):113-121. DOI: 10.30901/2227-8834-2022-2-113-121

