

НАУЧНЫЕ ПУБЛИКАЦИИ СОТРУДНИКОВ ВИР В ЖУРНАЛАХ, ИНДЕКСИРУЕМЫХ В БАЗАХ ДАННЫХ
«СЕТЬ НАУКИ» (WEB OF SCIENCE) И SCOPUS. 2023 г. (на 31.12.2023)

Artemeva A.M., Solovieva A.E., Ageeva T.T., Kurina A.B. Resistance of *Brassica* L. vegetable crops to Lepidoptera insects correlates to the content of biologically active substances. *Acta Horticulturae*. 2023;1394:339-346. DOI: 10.17660/ActaHortic.2023.1394.44

Kurina A.B., Zvereva O.A., Artemeva A.M. Aromatic and medicinal plants gene pool from the VIR collection: diversity and potential. *Acta Horticulturae*. 2023;1358:1-10. DOI: 10.17660/ActaHortic.2023.1358.1

Razgonova M., Kulikova V., Khodaeva V., Bolotova L., Baigarashev T., Plotnikova N., Zakharenko A., Golokhvast K. Simultaneous Determination of Steroidal Alkaloids and Polyphenol Group from Eight Varieties of Siberian *Solanum tuberosum* L. through Tandem Mass Spectrometry. *Agriculture*. 2023;13(4):758. DOI: 10.3390/agriculture13040758

Verzhuk V., Eremin V., Gasanova T., Eremina O., Novikova L.Y., Filipenko G., Sitnikov M., Pavlov A. Post-Cryogenic Viability of Peach (*Persica vulgaris* Mill.) Dormant Buds from the VIR Genetic Collection. *Agriculture*. 2023;13(1):111. DOI: 10.3390/agriculture13010111

Gavrilenko T., Pendinen G., Antonova O., Makarova T., Thieme R. Homoeologous Chromosome Pairing and Alien Introgression in Backcrossing Progenies Derived from Hybrids *Solanum tuberosum* (+) Mexican 2x (1 EBN) B-Genome Potato Species. *Agronomy*. 2023;13(7):1809. DOI: 10.3390/agronomy13071809

Nawaz M.A., Chung G., Golokhvast K.S. The Genetics, Genomics, and Breeding of Cereals and Grain Legumes: Traits and Technologies for Future Food Security. *Agronomy*. 2023;13(8):2065. DOI: 10.3390/agronomy13082065

Mikhailova D.V., Shevchenko O.G., Golubev D.A., Platonova E.Y., Zemskaya N.V., Shoeva O.Y., Gordeeva E.I., Patov S.A., Shaposhnikov M.V., Khlestkina E.K., Moskalev A. Antioxidant Properties and Geroprotective Potential of Wheat Bran Extracts with Increased Content of Anthocyanins. *Antioxidants*. 2023;12(11):2010. DOI: 10.3390/antiox12112010

Novikova L., GavriloVA V. An analysis of yield dynamics in Peredovik sunflower variety in the conditions of the North Caucasus. *Biological Communications*. 2023;68(2):97-104. DOI: 10.21638/spbu03.2023.204

Semilet T., Shvachko N., Smirnova N., Shipilina L., Khlestkina E. Using DNA markers to reconstruct the lifetime morphology of barley grains from carbonized cereal crop remains unearthed at Usvyaty Settlement. *Biological Communications*. 2023;68(1):3-9. DOI: 10.21638/spbu03.2023.101

Verzhuk V., Murashev S., Novikova L., Kiru S., Orlova S. Conservation of the Bird Cherry (*Padus* Mill.) Germplasm by Cold Storage and Cryopreservation of Winter Cuttings. *Biology*. 2023;12(8):1071. DOI: 10.3390/biology12081071

Rozanova I.V., Grigoriev Y.N., Efimov V.M., Igoshin A.V., Khlestkina E.K. Genetic Dissection of Spike Productivity Traits in the Siberian Collection of Spring Barley. *Biomolecules*. 2023;13(6):909. DOI: 10.3390/biom13060909

Chepinoga I.S., Erastenkova M.V., Khokhlenko A.A., Verzhuk V.G. Viability assessment of quince cuttings (*Cydonia* Mill.) and pear pollen (*Pyrus* L.) after cryoconservation in liquid nitrogen vapor (-183-185°C). *BIO Web of Conferences*. 2023;78:03001. DOI: 10.1051/bioconf/20237803001

Kislin E.N., Sherov-Ignatiev P.V. Creation, preservation, and study of ampelographic collection in the branch of the SPB “Pushkin and Pavlovsky Laboratories of the N.I. Vavilov All-Russian Institute of Plant Genetic Resources (VIR) (St. Petersburg)”. *BIO Web of Conferences*. 2023;78:02006. DOI: 10.1051/bioconf/20237802006

Murashev S.V., Kislin E.N., Khokhlenko A.A., Verzhuk V.G. Biochemical analysis of grape berries of varieties of different ecological and geographical origin after low-temperature storage. *BIO Web of Conferences*. 2023;78:05004. DOI: 10.1051/bioconf/20237805004

Tanaka Katsunori, Sugiyama Mitsuhiro, Shigita Gentaro, Murakami Ryoma, Duong Thanh-Thuy, Aierken Yasheng, Artemyeva Anna M., Mamypbelov Zharas, Ishikawa Ryuji, Nishida Hidetaka, Kato Kenji. Melon diversity on the Silk Road by molecular phylogenetic analysis in Kazakhstan melons. *Breeding Science*. 2023;73(2):219-229. DOI:10.1270/jsbbs.22030

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

- Shilova O.A., Khamova T.V., Panova G.G., Udalova O.R., Artemyeva A.M., Korniyukhin D.L., Nikolaev A.M., Kovalenko A.S., Sinelnikov A.A., Kopitsa G.P. Sol-Gel-Derived Functional Coatings for Pre-Sowing Seed Treatment. *Coatings*. 2023;13(12):1978. DOI: 10.3390/coatings13121978
- Badaeva E.D., Kotseruba V.V., Fisenko A.V., Chikida N.N., Belousova M.Kh., Zhurbenko P.M., Surzhikov S.A., Dragovich A.Yu. Intraspecific divergence of diploid grass *Aegilops comosa* is associated with structural chromosome changes. *Comparative Cytogenetics*. 2023;17:75-112. DOI: 10.3897/CompCytogen.17.101008
- Makarenko M.S., Azarin K.V., Gavrilova V.A. Mitogenomic Research of Silverleaf Sunflower (*Helianthus argophyllus*) and Its Interspecific Hybrids. *Current Issues in Molecular Biology*. 2023;45(6):4841-4849. DOI: 10.3390/cimb45060308
- Makarenko M.S., Gavrilova V.A. NGS Reads Dataset of Sunflower Interspecific Hybrids. *Data*. 2023;8(4):67. DOI: 10.3390/data8040067
- Gnutikov A.A., Nosov N.N., Loskutov I.G., Blinova E.V., Shneyer V.S., Rodionov A.V. Origin of Wild Polyploid *Avena* Species Inferred from Polymorphism of the ITS1 rDNA in Their Genomes. *Diversity*. 20;15(6):717. DOI: 10.3390/d15060717
- Protopopova M., Pavlichenko V., Chepinoga V., Gnutikov A., Adelshin R. *Waldsteinia* within *Geum* s.l. (Rosaceae): Main Aspects of Phylogeny and Speciation History. *Diversity*. 2023;15(4):479. DOI: 10.3390/d15040479
- Kuular O. Assessment of the resistance of strawberry varieties to major diseases in the south of Sakhalin. *E3S Web of Conferences*. 2023;392:01026. (II International Conference on Agriculture, Earth Remote Sensing and Environment (RSE-II-2023), Dushanbe, Republic of Tajikistan, April 19–21, 2023. Les Ulis: EDP SCIENCES S A, 2023). DOI: 10.1051/e3sconf/202339201026
- Bemova V.D., Yakusheva T.V., Asfandiyarova M.S., Gavrilova V.A., Kishlyan N.V., Novikova L.Y. Variability in the productivity of peanut accessions (*Arachis hypogaea* L.) at ecological-geographical testing. *Ecological genetics*. 2023;21(2):155-165. DOI: 10.17816/ecogen340801
- Berensen F.A., Piskunova T.M., Kuzmin S.V., Moskalu A.F., Antonova O.Y., Artemyeva A.M. Molecular screening of squash and patisson squash collection samples using markers of the *Pm-0* gene, which controls resistance to powdery mildew. *Ecological genetics*. 2023;21(2):107-121. DOI: 10.17816/ecogen110988
- Golgshtein V.G., Nosovskaya L.P., Adikaeva L.V., Bazgiev M.A., Badurgova K.S., Buzurtanov A.I., Khoreva V.I., Boyko V.N., Grushin A.A., Israfilova S.F., Fil I.V., Khatefov E.B. The productivity potential of some corn hybrids of the VIR collection for starch extraction during deep grain processing. *Ecological Genetics*. 2023;21(1):19-31. DOI: 10.17816/ecogen111879
- Ong P.W., Lin Ya.P., Chen H.W., Lo Ch.Yu., Burlyaeva M., Noble T., Nair R.M., Schafleitner R., Vishnyakova M., Bishop-von-Wettberg E., Samsonova M., Nuzhdin S., Ting Ch.Ti., Lee Ch.R. Environment as a limiting factor of the historical global spread of mungbean. *eLife*. 2023;12:e85725. DOI: 10.7554/eLife.85725
- Mironov S.V., Zabashta A.V., Malyshev L.L. Biodiversity of Feather Mites Parasitizing Passerines of the Lower Don Area and Quantitative Characteristics of Their Invasion. *Entomological Review*. 2023;103(5):573-599. DOI: 10.1134/S0013873823060081
- Kroupin P.Y., Badaeva E.D., Sokolova V.M., Chikida N.N., Belousova M.K., Surzhikov S.A., Nikitina E.A., Kocheshkova A.A., Ulyanov D.S., Ermolaev A.S., Khuat T.M.L., Razumova O.V., Yurkina A.I., Karlov G.I., Divashuk M.G. Erratum: *Aegilops crassa* Boiss. repeatome characterized using low-coverage NGS as a source of new FISH markers: application in phylogenetic studies of the Triticeae. *Frontiers in Plant Science*. 2023;14:1207880. DOI: 10.3389/fpls.2023.1207880. [This corrects the article DOI: 10.3389/fpls.2022.980764. Erratum. eCollection 2022].
- Samarina L., Wang S., Malyukova L., Bobrovskikh A., Doroshkov A., Koninskaya N., Shkhalakhova R., Matskiv A., Fedorina J., Fizikova A., Manakhova K., Loshkaryova S., Tutberidze T., Ryndin A., Khlestkina E. Long-term cold, freezing and drought: overlapping and specific regulatory mechanisms and signal transduction in tea plant (*Camellia sinensis* (L.) Kuntze). *Frontiers in Plant Science*. 2023;14:1145793. DOI: 10.3389/fpls.2023.1145793
- Azarin K., Usatov A., Kasianova A., Makarenko M., Gavrilova V. Origin of CMS-PET1 cytotype in cultivated sunflower: A new insight. *Gene*. 2023;888:147801. DOI: 10.1016/j.gene.2023.147801
- Njuguna J.N., Clark L.V., Anzoua K.G., Bagmet L., Chebukin P., Dwiyantri M.S., Dzyubenko E., Dzyubenko N., Ghimire B.K., Jin X., Johnson D.A., Jørgensen U., Kjeldsen J.B., Nagano H., Peng Ju., Petersen K.K., Sabitov A., Seong E.S., Yamada T., Yoo Ji.H., Yu Chang Yeon, Zhao Hua, Long Stephen P., Sacks Erik J. Biomass yield

- in a genetically diverse *Miscanthus sacchariflorus* germplasm panel phenotyped at five locations in Asia, North America, and Europe. *GCB Bioenergy*. 2023;15(5):642-662. DOI: 10.1111/gcbb.13043
- Njuguna J.N., Clark L.V., Lipka A.E., Anzoua K.G., Bagmet L., Chebukin P., Dwiyantri M.S., Dzyubenko E., Dzyubenko N., Ghimire B.K., Jin X., Johnson D.A., Nagano H., Peng Ju., Petersen K.K., Sabitov A., Seong E.S., Yamada T., Yoo Ji.H., Yu Ch.Ye., Zhao H., Long S.P., Sacks E.J. Genome-wide association and genomic prediction for yield and component traits of *Miscanthus sacchariflorus*. *GCB Bioenergy*. 2023;15(11):1355-1372. DOI: 10.1111/gcbb.13097
- Okhlopko Zh., Ercisli S., Razgonova M., Ivanova N., Antonova E., Egorov Yu., Kucharova E., Golokhvast K. Primary Determination of the Composition of Secondary Metabolites in the Wild and Introduced *Artemisia maritjanovii* Krasch: Samples from Yakutia. *Horticulturae*. 2023;9(12):1329. DOI: 10.3390/horticulturae9121329
- Panova G.G., Semenov K.N., Zhuravleva A.S., Khomyakov Y.V., Volkova E.N., Mirskaya G.V., Artemyeva A.M., Iamalova N.R., Dubovitskaya V.I., Udalova O.R. Obtaining Vegetable Production Enriched with Minor Micronutrients Using Fullerene Derivatives. *Horticulturae*. 2023;9(7):828. DOI: 10.3390/horticulturae9070828
- Razgonova M.P., Navaz M.A., Sabitov A.S., Zinchenko Yu.N., Rusakova E.A., Petrusha E.N., Golokhvast K.S., Tikhonova N.G. The Global Metabolome Profiles of Four Varieties of *Lonicera caerulea*, Established via Tandem Mass Spectrometry. *Horticulturae*. 2023;9(11):1188. DOI: 10.3390/horticulturae9111188
- Sinyavina N.G., Kochetov A.A., Kocherina N.V., Egorova K.V., Kurina A.B., Panova G.G., Chesnokov Y.V. Breeding Approaches for Controlled Conditions of Artificial Light Culture for Small Radish and Radish (*Raphanus sativus* L.). *Horticulturae*. 2023;9(6):678. DOI: 10.3390/horticulturae9060678
- Gerasimova S.V., Kolosovskaya E.V., Vikhorev A.V., Korotkova A.M., Hertig Ch.W., Genaev M.A., Domrachev D.V., Morozov S.V., Chernyak E.I., Shmakov N.A., Vasiliev G.V., Kochetov A.V., Kumlehn J., Khlestkina E.K. WAX INDUCER 1 Regulates β -Diketone Biosynthesis by Mediating Expression of the *Cer-cqu* Gene Cluster in Barley. *International Journal of Molecular Sciences*. 2023;24(7):6762. DOI: 10.3390/ijms24076762
- Karetnikov D.I., Vasiliev G.V., Toshchakov S.V., Shmakov N.A., Genaev M.A., Nesterov M.A., Ibragimova S.M., Rybakov D.A., Gavrilenko T.A., Salina E.A., Patrushev M.V., Kochetov A.V., Afonnikov D.A. Analysis of Genome Structure and Its Variations in Potato Cultivars Grown in Russia. *International Journal of Molecular Sciences*. 2023;24(6):5713. DOI: 10.3390/ijms24065713
- Kulyan R., Samarina L., Shkhalakhova R., Kuleshov A., Ukhatova Yu., Antonova O., Koninskaya N., Matskiv A., Malyarovskaya V., Ryndin A. InDel and SCoT Markers for Genetic Diversity Analysis in a Citrus Collection from the Western Caucasus. *International Journal of Molecular Sciences*. 2023;24(9):8276. DOI: 10.3390/ijms24098276
- Samarina L., Fedorina J., Kuzmina D., Malyukova L., Manakhova K., Kovalenko T., Matskiv A., Xia E., Tong W., Zhang Z., Ryndin A., Orlov Yu.L., Khlestkina E. Analysis of Functional Single-Nucleotide Polymorphisms (SNPs) and Leaf Quality in Tea Collection under Nitrogen-Deficient Conditions. *International Journal of Molecular Sciences*. 2023;24(19):14538. DOI: 10.3390/ijms241914538
- Novokhatin V.V., Shelomentseva T.V., Aitbayeva R.N., Zuev E.V. Genetic productivity potential in soft spring wheat varieties of the collection of the All-Russian Institute of Genetic Plant Resources (VIR) in the Trans-Urals. *IOP Conference Series: Earth and Environmental Science*. 2023;1206:012028. DOI: 10.1088/1755-1315/1206/1/012028
- Pasternak T., Pérez-Pérez J.M., Ruperti B., Aleksandrova T., Palme K. A New In Vitro Growth System for Phenotypic Characterization and Seed Propagation of *Arabidopsis thaliana*. *Journal of Plant Growth Regulation*. 2023. DOI: 10.1007/s00344-023-11093-x
- Guro P., Ulianich P., Belimov A., Sazanova A., Kuznetsova I., Vishnyakova M., Safronova V. Draft Genome Sequence of Guar (*Cyamopsis tetragonoloba* L.) Microsymbiont *Rhizobium* sp. Strain RCAM05973. *Microbiology Resource Announcements*. 2023;129(6):e0007123. DOI: 10.1128/mra.00071-23
- Ukhatova Y.V., Erastenkova M.V., Korshikova E.S., Krylova E.A., Mikhailova A.S., Semilet T.V., Tikhonova N.G., Shvachko N.A., Khlestkina E.K. Improvement of Crops Using the CRISPR/Cas System: New Target Genes. *Molecular Biology*. 2023;57(3):375-397. DOI: 10.1134/S0026893323030135
- Igolkina Anna A, Noujdina Nina V, Vishnyakova Margarita, Longcore Travis, von Wettberg Eric, Nuzhdin Sergey V, Samsonova Maria G. Historical Routes for Diversification of Domesticated Chickpea Inferred from Landrace Genomics. *Molecular Biology and Evolution*. 2023;40(6):msad110. DOI: 10.1093/molbev/msad110
- Sivolapova Anastasia B., Polivanova Oksana B., Goryunov Denis V., Chebanova Yulia V., Fedorova Alina V., Sotnikova Evgeniia A., Karabitsina Yulia I., Benko Nikolai I., Mukhina Zhanna M., Anisimova Irina N., Demurin Yakov N., Goryunova Svetlana V. Refinement of *Rfl*-gene localization and development of the new molecular markers

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

for fertility restoration in sunflower. *Molecular Biology Reports*. 2023. DOI: 10.1007/s11033-023-08646-4

Razgonova M.P., Cherevach E.I., Tekutyeva L.A., Fedoreyev S.A., Mishchenko N.P., Tarbeeva D.V., Demidova E.N., Kirilenko N.S., Golokhvast K. *Maackia amurensis* Rupr. et Maxim.: Supercritical CO₂ Extraction and Mass Spectrometric Characterization of Chemical Constituents. *Molecules*. 2023;28(5):2026. DOI: 10.3390/molecules28052026

Okhlopkova Zh.M., Razgonova M.P., Rozhina Z.G., Egorova P.S., Golokhvast K.S. *Dracocephalum jacutense* Peschkova from Yakutia: Extraction and Mass Spectrometric Characterization of 128 Chemical Compounds. *Molecules*. 2023;28(11):4402. DOI: 10.3390/molecules28114402

Ukhatova Y.V., Erastenkova M.V., Korshikova E.S., Krylova E.A., Mikhailova A.S., Semilet T.V., Tikhonova N.G., Shvachko N.A., Khlestkina E.K. [Improvement of Crops Using the CRISPR/Cas System: New Target Genes]. *Molekuliarnaia biologiya*. 2023;57(3):387-410. [Article in Russian]. DOI: 10.31857/S0026898423030151

Rogozina E.V. Genetic Resources of Potato with Tolerance to Elevated Temperature, Frost, and Drought. In: Gupta N.K., Shavrukov Yu., Singhal R.K., Borisjuk N. (eds). *Multiple Abiotic Stress Tolerances in Higher Plants: Addressing the Growing Challenges*. USA, Boca Raton: CRC press, 2023. P. 235-254. DOI: 10.1201/9781003300564

Chepurnov G.Y., Ovchinnikova E.S., Blinov A.G., Chikida N.N., Belousova M.K., Goncharov N.P. Analysis of the Structural Organization and Expression of the *Vrn-D1* Gene Controlling Growth Habit (Spring vs. Winter) in *Aegilops tauschii* Coss. *Plants*. 2023;12(20):3596. DOI: 10.3390/plants12203596

Gavrilenko T., Chukhina I., Antonova O., Krylova E., Shipilina L., Oskina N., Kostina L. Comparative Analysis of the Genetic Diversity of Chilean Cultivated Potato Based on a Molecular Study of Authentic Herbarium Specimens and Present-Day Gene Bank Accessions. *Plants*. 2023;12(1):174. DOI: 10.3390/plants12010174

Krylova E.A., Mikhailova A.S., Zinchenko Y.N., Perchuk I.N., Razgonova M.P., Khlestkina E.K., Burlyaeva M.O. The Content of Anthocyanins in Cowpea (*Vigna unguiculata* (L.) Walp.) Seeds and Contribution of the *MYB* Gene Cluster to Their Coloration Pattern. *Plants*. 2023;12(20):3624. DOI: 10.3390/plants12203624

Loskutov I.G., Ebert A.W., Diederichsen A. The Impact of Vavilov's Concept of the Centres of Crop Origin and Diversity on Research, Conservation, and Utilisation of Plant Genetic Resources Today: A Review on the Occasion of Vavilov's 135th Anniversary. *Plants*. 2023;12(14):2685. DOI: 10.3390/plants12142685

Perchuk I.N., Shelenga T.V., Burlyaeva M.O. The Effect of Illumination Patterns during Mung Bean Seed Germination on the Metabolite Composition of the Sprouts. *Plants*. 2023;12(21):3772. DOI: 10.3390/plants12213772

Radchenko E.E., Abdullaev R.A., Akimova D.E., Anisimova I.N. Genetic Diversity of Barley Accessions from East Asia for Greenbug Resistance. *Plants*. 2023;12(22):3797. DOI: 10.3390/plants12223797

Rogozina E.V., Gurina A.A., Chalaya N.A., Zoteyeva N.M., Kuznetsova M.A., Beketova M.P., Muratova O.A., Sokolova E.A., Drobyazina P.E., Khavkin E.E. Diversity of Late Blight Resistance Genes in the VIR Potato Collection. *Plants*. 2023;12(2):273. DOI: 10.3390/plants12020273

Solberg S.Ø., Loskutov I.G., Breian L., Diederichsen A. The Impact of N.I. Vavilov on the Conservation and Use of Plant Genetic Resources in Scandinavia: A Review. *Plants*. 2023;12(1):143. DOI: 10.3390/plants12010143

Vishnyakova M.A., Frolova N., Frolov A. Drought Stress Response in Guar (*Cyamopsis tetragonoloba* (L.) Taub): Physiological and Molecular Genetic Aspects. *Plants*. 2023;12(23):3955. DOI: 10.3390/plants12233955

Khatefov E.B., Goldstein V.G., Krivandin A.V., Wasserman L.A. Main Characteristics of Processed Grain Starch Products and Physicochemical Features of the Starches from Maize (*Zea mays* L.) with Different Genotypes. *Polymers*. 2023;15(8):1976. DOI: 10.3390/polym15081976

Abdullaev R.A., Lukina K.A., Batasheva B.A., Kovaleva O.N., Radchenko E.E. Genetic diversity of barley accessions from East Asian countries in terms of resistance to powdery mildew. *Proceedings on applied botany, genetics and breeding*. 2023;184(3):178-186. DOI: 10.30901/2227-8834-2023-3-178-186

Abdullaev R.A., Yakovleva O.V., Lebedeva T.V. Inheritance of juvenile resistance to powdery mildew in barley accessions from Ethiopia. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):116-123. (In Russ.). DOI: 10.30901/2227-8834-2023-4-116-123

Askhadullin D.F., Askhadullin D.F., Vasilova N.Z., Tazutdinova M.R., Khusainova I.I., Gayfullina G.R., Kirillova E.S., Iysenko N.S. Breeding improvement of spring Indian dwarf wheat *Triticum sphaerococcum* Percival under the conditions of the Middle Volga region. *Proceedings on applied botany, genetics and breeding*. 2023;184(1):21-

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

32. DOI: 10.30901/2227-8834-2023-1-21-32

Bemova V.D., Asfandiyarova M.S., Yakusheva T.V., Gavrilova V.A., Kishlyan N.V. Ecogeographic study of peanut accessions from the VIR collection. *Proceedings on applied botany, genetics and breeding*. 2023;184(3):79-89. DOI: 10.30901/2227-8834-2023-3-79-89

Efremova O.S., Volkova N.N., Rybakov D.A., Lisitsyna O.V., Ozerski P.V., Gavrilenko T.A. Development of the potato cryocollection preserved in the VIR cryobank. *Proceedings on applied botany, genetics and breeding*. 2023;184(3):9-20. DOI: 10.30901/2227-8834-2023-3-9-20

Gavrilova V.A., Makarova L.G., Stupnikova T.G., Alpatieva N.V., Kusnetsova E.B., Anisimova I.N. The trait-specific collection of large-seeded sunflower at VIR: a source for breeding cultivars and hybrids. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):64-78. (In Russ.). DOI: 10.30901/2227-8834-2023-4-64-78

Goldshstein V.G., Suprunov A.I., Bogdan P.M., Sherstobitov V.V., Khoreva V.I., Nosovskaya L.P., Adikaeva L.V., Khatefov E.B. Productivity potential of maize hybrids developed at the P.P. Lukyanenko National Grain Center for deep grain processing. *Proceedings on applied botany, genetics and breeding*. 2023;184(3):51-60. DOI: 10.30901/2227-8834-2023-3-51-60

Gulyaeva E.I., Shaydayuk E.L., Smirnova R.E., Abdullaev K.M., Kurkiev K.U. Virulence diversity of the yellow rust pathogen population in Dagestan. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):190-204. (In Russ.). DOI: 10.30901/2227-8834-2023-4-190-204

Gumerova G.R., Galimova A.A., Kuluev B.R. Bread wheat callusogenesis and organogenesis using mature embryos as explants. *Proceedings on applied botany, genetics and breeding*. 2023;184(2):19-28. DOI: 10.30901/2227-8834-2023-2-19-28

Gurkina M.V., Burlyaeva M.O. New cultivars of vegetable cowpea (*Vigna unguiculata* (L.) Walp.) developed at VIR. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):143-152. (In Russ.). DOI: 10.30901/2227-8834-2023-4-143-152

Inozemtseva A.V., Elatskova A.G., Khlestkina E.K., Shvachko N.A. Genetic bases of compact forms among cucurbit crops. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):241-250. (In Russ.). DOI: 10.30901/2227-8834-2023-4-241-250

Khlestkina E.K. Introductory article by the Editor-in-chief, dedicated to the 115th anniversary of the journal. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):11. (In Russ.). DOI: 10.30901/2227-8834-2023-4-11-11

Kochegina A.A., Koryakina V.M. Evaluation of commercial traits in the accessions of the wheatgrass genus (*Agropyron* Gaertn.) under the conditions of Central Yakutia. *Proceedings on applied botany, genetics and breeding*. 2023;184(2):87-100. DOI: 10.30901/2227-8834-2023-2-87-100

Kulemina T.V. Dynamics of variability in agronomic characters of millet cv. 'Gorlinka' under the climate conditions of the southern part of the East European Plain. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):31-44. (In Russ.). DOI: 10.30901/2227-8834-2023-4-31-44

Lebedeva T.V., Brykova A.N., Zuev E.V. Effective sources of powdery mildew resistance among spring bread wheat for the northwest of the Russian Federation. *Proceedings on applied botany, genetics and breeding*. 2023;184(1):205-214. DOI: 10.30901/2227-8834-2023-1-205-214

Loskutov I.G., Blinova E.V., Gnutikov A.A. The collection of oat genetic resources held by VIR as a source of information on the history of cultivation and taxonomy of the genus, and breeding trends (a review). *Proceedings on applied botany, genetics and breeding*. 2023;184(1):225-238. DOI: 10.30901/2227-8834-2023-1-225-238

Mamedova S.M., Popov V.S., Solovyeva A.E., Perchuk I.N., Malyshev L.L., Vishnyakova M.A. Concerning the issue of early diagnostics of low tannin content in faba bean seeds (*Vicia faba* L.). *Proceedings on applied botany, genetics and breeding*. 2023;184(1):194-204. DOI: 10.30901/2227-8834-2023-1-194-204

Mironenko N.V., Kovalenko N.M., Baranova O.A., Mitrofanova O.P. Resistance of old winter bread wheat landraces to tan spot. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):205-214. (In Russ.). DOI: 10.30901/2227-8834-2023-4-205-214

Nikolaev P.N., Yusova O.A., Aniskov N.I., Kovaleva O.N., Safonova I.V. Retrospective analysis of spring barley cultivars developed by Omsk breeders (1936–2021). *Proceedings on applied botany, genetics and breeding*. 2023;184(2):120-138. DOI: 10.30901/2227-8834-2023-2-120-138

Novikova L.Yu., Berzegova A.A., Gurkina M.V., Buravtseva T.V. Productivity and growing-season stability in common bean (*Phaseolus vulgaris* L.) under contrasting ecogeographic conditions. *Proceedings on applied botany, genetics and breeding*. 2023;184(3):105-115. DOI: 10.30901/2227-8834-2023-3-105-115

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

- Novikova L.Yu., Zuev E.V., Brykova A.N. Ranking of spring bread wheat genotypes according to the heading date and growing season duration in different ecogeographic environments. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):79-89. (In Russ.). DOI: 10.30901/2227-8834-2023-4-79-89
- Novokhatin V.V., Zuev E.V., Shelomentseva T.V., Leonova T.A. Indicators of environmental variability in spring bread wheat cultivars under the conditions of Tyumen Province. *Proceedings on applied botany, genetics and breeding*. 2023;184(3):70-78. DOI: 10.30901/2227-8834-2023-3-70-78
- Oskina N.A., Gavrilenko T.A., Chukhina I.G. Typification of intraspecific taxa in *Solanum andigenum* Juz. et Buk. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):163-173. (In Russ.). DOI: 10.30901/2227-8834-2023-4-163-173
- Pavlov A.V., Porokhovina E.A., Brutch N.B., Pavlov A.V., Verzhuk V.G. The effect of cryopreservation in liquid nitrogen on the viability of flax seeds. *Proceedings on applied botany, genetics and breeding*. 2023;184(1):9-20. DOI: 10.30901/2227-8834-2023-1-9-20
- Piskunova T.M., Shelenga T.V., Ozersky P.V., Solovyeva A.E. Carotenoids and carotenes in the fruits of *Cucurbita maxima*, *C. moschata* and *C. pepo* under the conditions of Northwestern Russia. *Proceedings on applied botany, genetics and breeding*. 2023;184(1):118-127. DOI: 10.30901/2227-8834-2023-1-118-127
- Popov V.S., Konarev A.V., Kovaleva O.N., Konkova N.G., Khoreva V.I. Weight method for determination of soluble β -glucans in barley grain. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):45-52. DOI: 10.30901/2227-8834-2023-4-45-52
- Radchenko E.E., Abdullaev R.A., Dyatlova K.D., Akimova D.E., Zveinek I.A. Diversity of barley accessions from the Asian part of Russia in greenbug resistance. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):215-221. (In Russ.). DOI: 10.30901/2227-8834-2023-4-215-221
- Radchenko O.E., Novikova L.Yu. Biological features of the vegetative and flowering phenophase onsets among diploid plum species in Northwestern Russia. *Proceedings on applied botany, genetics and breeding*. 2023;184(2):101-111. DOI: 10.30901/2227-8834-2023-2-101-111
- Rogozina E.V., Gurina A.A. Distribution of potato mosaic viruses on plants of the *Petota* Dumort. section of *Solanum* L. in the VIR collection. *Proceedings on applied botany, genetics and breeding*. 2023;184(2):226-234. DOI: 10.30901/2227-8834-2023-2-226-234
- Safonova I.V., Aniskov N.I. The effectiveness of using some criteria for determining adaptability on the example of winter rye cultivars. *Proceedings on applied botany, genetics and breeding*. 2023;184(2):66-75. DOI: 10.30901/2227-8834-2023-2-66-75
- Shamanin V.P., Pototskaya I.V., Esse S.A., Gladkih M.S., Shepelev S.S., Zuev E.V., Vinichenko N.A., Koksel H., Morgounov A.I. Wheat landraces as sources of high grain quality and nutritional properties. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):103-115. (In Russ.). DOI: 10.30901/2227-8834-2023-4-103-115
- Shelenga T.V., Kerv Yu.A., Perchuk I.N., Popov V.S., Solovyeva A.E., Khoreva V.I., Khlestkina E.K. Prof. Alexey V. Konarev (celebrating the 75th birthday). *Proceedings on applied botany, genetics and breeding*. 2023;184(1):249-254. DOI: 10.30901/2227-8834-2023-1-249-254
- Shen G., Zheng F., Zhou L., Zeng X., Konkova N.G. Effects of irrigation frequency on growth and yields of *Taraxacum kok-saghyz* Rodin. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):53-63. DOI: 10.30901/2227-8834-2023-4-53-63
- Sidorova V.V., Konarev A.V., Kerv Yu.A. Zein patterns as effective markers of valuable agronomic traits in maize. *Proceedings on applied botany, genetics and breeding*. 2023;184(2):160-175. DOI: 10.30901/2227-8834-2023-2-160-175
- Stepochkin P.I., Gordeeva E.I., Khlestkina E.K. Marker-assisted breeding of hybrid lines of *Triticum dicoccon* (Schrank) Schuebl. \times *Triticum aethiopicum* Jakubz. with purple grain. *Proceedings on applied botany, genetics and breeding*. 2023;184(2):139-148. DOI: 10.30901/2227-8834-2023-2-139-148
- Supplements to the *Proceedings on Applied Botany, Genetics and Breeding*: dedicated to the 115th anniversary of the journal. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):251-261. (In Russ.). DOI: 10.30901/2227-8834-2023-4-251-261
- Tikhonova N.G., Ukhatova Yu.V., Zavarzin A.A., Vladimirov D.R., Iurmanov A.A. Fruits of the future: the results of the project 'Fruits in line with science'. *Proceedings on applied botany, genetics and breeding*. 2023;184(2):245-250. DOI: 10.30901/2227-8834-2023-2-245-250
- Tikhonova O.A. Studying self-fertility in new black currant cultivars from the VIR collection in Northwestern Russia. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):90-102. (In Russ.). DOI: 10.30901/2227-8834-2023-4-90-102

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

- Tuz R.K., Asfandiurova M.S., Podolnaya L.P. 'Braun': the first russian cotton cultivar with naturally colored fiber. *Proceedings on applied botany, genetics and breeding*. 2023;184(1):154-162. DOI: 10.30901/2227-8834-2023-1-154-162
- Ukhatova Yu.V., Shlyavas A.V. Vsevolod L. Vitkovsky (1928–2005): dedication to his 95th birthday. *Proceedings on applied botany, genetics and breeding*. 2023;184(3):233-239. DOI: 10.30901/2227-8834-2023-3-233-239
- Ulyanovskaya E.V., Suprun I.I., Bogdanovich T.V., Chernutskaya E.A., Tokmakov S.V., Talovina G.V. Nomenclatural standards and genetic certificates for apple-tree cultivars developed at the North Caucasian Federal Scientific Center of Horticulture, Viticulture, wine-making. *Proceedings on applied botany, genetics and breeding*. 2023;184(4):174-189. (In Russ.). DOI: 10.30901/2227-8834-2023-4-174-189
- Vlasova E.V., Gorbunova Yu.V., Seferova I.V. Phenological assessment of early-maturing soybean accessions (*Glycine max* (L.) Merr.) under the conditions of Moscow Province. *Proceedings on applied botany, genetics and breeding*. 2023;184(3):90-104. DOI: 10.30901/2227-8834-2023-3-90-104
- Voronova O.N., Babro A.A., Lyubchenko A.V. Comparative embryological study of some Jerusalem artichoke (*Helianthus tuberosus* L.) accessions with different seed-setting ability from the VIR collection. *Proceedings on applied botany, genetics and breeding*. 2023;184(2):190-203. DOI: 10.30901/2227-8834-2023-2-190-203
- Yakovleva O.V. Genetic diversity of wild barley (*Hordeum spontaneum* K. Koch) in the context of resistance to toxic aluminum ions. *Proceedings on applied botany, genetics and breeding*. 2023;184(1):215-224. DOI: 10.30901/2227-8834-2023-1-215-224
- Zaikina E.A., Kayumova R.R., Kuluev A.R., Ismagilov R.R., Kuluev B.R. Analysis of nucleotide sequences of the *GT47* glycosyltransferase gene in rye cultivars differing in the content of water-soluble pentosans in grain. *Proceedings on applied botany, genetics and breeding*. 2023;184(2):112-119. DOI: 10.30901/2227-8834-2023-2-112-119
- Zaretsky A.M., Kurina A.B., Sokolova D.V. On the issue of producing doubled haploids of table beet (*Beta vulgaris* L. var. *conditiva* Alef.) (a review). *Proceedings on applied botany, genetics and breeding*. 2023;184(4):232-240. (In Russ.). DOI: 10.30901/2227-8834-2023-4-232-240
- Zhang W., Zheng F., Wei D., Shen G., Zeng X., Kon'kova N.G. Effects of nitrogen, phosphorus, and potassium base fertilizers on growth and yield of *Taraxacum kok-saghyz* Rodin. *Proceedings on applied botany, genetics and breeding*. 2023;184(1):70-78. DOI: 10.30901/2227-8834-2023-1-70-78
- Zuev E.V., Lyapunova O.A., Khlestkina E.K. Olga P. Mitrofanova (celebrating the 75th birthday). *Proceedings on applied botany, genetics and breeding*. 2023;184(2):251-256. DOI: 10.30901/2227-8834-2023-2-251-256
- Razgonova M.P., Zakharenko A.M., Golokhvast K.S. Investigation of the Supercritical CO₂ Extracts of Wild *Ledum Palustre* L. (*Rhododendron Tomentosum* Harmaja) and Identification of Its Metabolites by Tandem Mass Spectrometry. *Russian Journal of Bioorganic Chemistry*. 2023;49(7):1645-1657. DOI: 10.1134/S1068162023070889
- Anisimova I.N., Alpatieva N.V., Voronova O.N., Gavrilova V.A., Karabitsina Yu.I., Kuznetsova, E.B., Radchenko, E.E. A Recombination Suppressed Region of Sunflower (*Helianthus annuus* L.) Linkage Group 13 Covers Restoration of Fertility (*Rf1*) and Downy Mildew Resistance (*Pl*) Gene Clusters. *Russian Journal of Genetics*. 2023;59(5):453-465. DOI: 10.1134/S1022795423050022
- Fateev D.A., Berensen F.A., Artemyeva A.M., Babak O.G., Yatsevich K.K., Drozd E.V., Kilchevsky A.V. Study of the *Myb114* Gene Polymorphism in the Cole Crops (*Brassica oleracea* L.) in Connection with Anthocyanin Biosynthesis Regulation Based on Comparison with the MYB Factors of Vegetable Nightshades (Solanaceae). *Russian Journal of Genetics*. 2023;59(1):30-39. DOI: 10.1134/S1022795423010040
- Fisenko A.V., Lyapunova O.A., Zuev E.V., Novoselskaya-Dragovich A.Y. Dynamics of Rye Translocation Frequency in Genotypes of Cultivars of Russian Common Wheat *Triticum aestivum* L. *Russian Journal of Genetics*. 2023;59(6):558-567. DOI: 10.1134/S1022795423050058
- Belimov A.A., Sazanova A.L., Ulianich P.S., Yuzikhin O.S., Guro P.V., Shaposhnikov A.I., Sokolova D.V., Safronova V.I. Cross-Nodulation and Symbiosis Efficiency of Rhizobia Isolated from Nodules of *Cyamopsis tetragonoloba* on *Vigna unguiculata* and *Glycine max*. *Russian Journal of Plant Physiology*. 2023;70(8):182. DOI: 10.1134/S1021443723601878
- Okhlopko Z.M., Razgonova M.P., Kucharova E.V., Egorova P.S., Golokhvast K.S. Rare Plant of Central Yakutia *Polygala sibirica* L.: Phytochemical Profile and In Vitro Morphogenic Culture. *Russian Journal of Plant Physiology*. 2023;70(7):176. DOI: 10.1134/S1021443723603099

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

- Razgonova, M.P., Petrusha, E.N., Rusakova, E.A., Golokhvast K.S. The Determination of Secondary Metabolites of Kamchatka Honeysuckle *Lonicera caerulea* var. *kamtschatika* Sevast. *Russian Journal of Plant Physiology*. 2023;70(7):177. DOI: 10.1134/S1021443723603063
- Dzyubenko E.A., Safronova V.I., Vishnyakova M.A. Objectives of guar breeding in the Russian Federation in connection with the prospects of domestic guar gum production. *Sel'skokhozyaistvennaya Biologiya [Agricultural Biology]*. 2023;58(1):43-59. DOI: 10.15389/agrobiology.2023.1.43eng
- Grishechkina S.D., Kovalenko T.K., Kirpicheva T.V., Antonets K.S., Nizhnikov A.A. Modified semisynthetic medium MMBt for production of preparations based on *Bacillus thuringiensis*. *Sel'skokhozyaistvennaya Biologiya [Agricultural Biology]*. 2023;58(3):416-428. DOI: 10.15389/agrobiology.2023.3.416eng
- Kurina A.B., Zheleznova K.O., Solovieva A.E., Sinyavina N.G., Panova G.G., Artemyeva A.M. Morphological and biochemical variability of VIR garden cress (*Lepidium sativum* L.) collection under intensive light culture. *Sel'skokhozyaistvennaya Biologiya [Agricultural Biology]*. 2023;58(5):889-901. DOI: 10.15389/agrobiology.2023.5.889eng
- Novikova I.I., Popova E.V., Kolesnikov L.E. Kolesnikova Yu.R., Chekurova S.S. Multifunctional biopreparations and complexes based on microorganisms and chitosan increase diseases resistance, productivity and leaf photosynthetic pigment contents in spring soft wheat (*Triticum aestivum* L.). *Sel'skokhozyaistvennaya Biologiya [Agricultural Biology]*. 2023;58(1):158-183. DOI: 10.15389/agrobiology.2023.1.158eng
- Rozhkova-Timina I.O. Feed Allowance for Holstein Cows During Lactation and Dry Periods (Sakhalin Island). *Siberian Journal of Life Sciences and Agriculture*. 2023;15(4):56-73. DOI: 10.12731/2658-6649-2023-15-4-56-73
- Njuguna J.N., Clark L.V., Lipka A.E., Anzoua K.G., Bagmet L., Chebukin P., Dwiyanthi M.S., Dzyubenko E., Dzyubenko N., Ghimire B.K., Jin X., Johnson D. A., Kjeldsen J.B., Nagano H., de Bem Oliveira I., Peng J., Petersen K.K., Sabitov A., Seong E.S., Yamada T., Yoo J.H., Yu C.Y., Zhao H., Munoz P., Long S.P., Sacks E.J. Impact of genotype-calling methodologies on genome-wide association and genomic prediction in polyploids. *The Plant Genome*. 2023:e20401. DOI: 10.1002/tpg2.20401
- Chikida N.N., Razgonova M.P., Bekish L.P., Zakharenko A.M., Golokhvast K.S. Tandem mass spectrometry analysis reveals changes in metabolome profile in *Triticosecale* seeds based on harvesting time. *Turkish Journal of Agriculture and Forestry*. 2023;47(1):31-47. DOI: 10.55730/1300-011X.3062
- Razgonova M.P., Boiko A.P., Zinchenko Yu., Tikhonova N.G., Sabitov A.Sh., Zakharenko A.M., Golokhvast K.S. *Actinidia deliciosa*: a high-resolution mass spectrometric approach for the comprehensive characterization of bioactive compounds. *Turkish Journal of Agriculture and Forestry*. 2023;47(2):155-169. DOI: 10.55730/1300-011X.3074
- Galimova A.A., Kuluev A.R., Ismagilov K.R., Kuluev B.R. Genetic polymorphism of high-molecular-weight glutenin subunit loci in bread wheat varieties in the Pre-Ural steppe zone. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2023;27(4):297-305. DOI: 10.18699/VJGB-23-36
- Galimova A.A., Kuluev B.R. Identification of new nucleotide sequences of the *Glu-B1-1* gene encoding x- type glutenins in bread wheat. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2023;27(5):433-439. DOI: 10.18699/VJGB-23-52
- Loskutov I.G., Gnutikov A.A., Blinova E.V., Rodionov A.V. The application of Vavilov's approaches to the phylogeny and evolution of cultivated species of the genus *Avena* L. *Vavilovskii Zhurnal Genetiki i Seleksii*. 2023;27(8):921-932. DOI: 10.18699/VJGB-23-107
- Malysheva N.Yu., Shelenga T.V., Solovyeva A.E., Nagiev T.B., Kovaleva N.V., Malyshev L.L. Metabolomic approach to investigate *Dactylis glomerata* L. from the VIR collection. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2023;27(2):111-118. DOI: 10.18699/VJGB-23-16
- Sochalova L.P., Aparina V.A., Boyko N.I., Zuev E.V., Morozova E.V., Musinov K.K., Vinichenko N.A., Leonova I.N., Piskarev V.V. Studying a collection of common-wheat varieties for leaf rust resistance, crop yield and grain quality in the environmental conditions of Novosibirsk region. *Vavilovskii Zhurnal Genetiki i Seleksii*. 2023;27(8):988-999. DOI: 10.18699/VJGB-23-114
- Vishnyakova M.A., Salikova A.V., Shelenga T.V., Egorova G.P., Novikova L.Yu. Alkaloid content variability in the seeds of narrow-leafed lupine accessions from the VIR collection under the conditions of the Russian Northwest. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2023;27(2):119-128. DOI: 10.18699/VJGB-23-17
- Kozlova A.P., Saksaganskaia A.S., Afonin A.M., Muntyan V.S., Vladimirova M.E., Dzyubenko E.A., Roumiantseva M.L. A Temperate *Sinorhizobium* Phage, AP-16-3,

Closely Related to Phage 16-3: Mosaic Genome and Prophage Analysis. *Viruses*. 2023;15(8):1701. DOI: 10.3390/v15081701

