

НАУЧНЫЕ ПУБЛИКАЦИИ СОТРУДНИКОВ ВИР В ЖУРНАЛАХ, ИНДЕКСИРУЕМЫХ В БАЗАХ ДАННЫХ  
«СЕТЬ НАУКИ» (WEB OF SCIENCE) И SCOPUS. 2021 г. (на 12.02.2022)

Shlyavas A.V., Trifonova A.A., Dedova L.V., Boris K.V., Kudryavtsev A.M. NBS-LRR resistance genes polymorphism in apple landraces inferred from NBS-profiling. *Acta Horticulturae*. 2021;1324:329-334. DOI: 10.17660/ActaHortic.2021.1324.50

Shlyavas A.V., Trifonova A.A., Shamshin I.N., Boris K.V., Kudryavtsev A.M. Genetic diversity of apple landraces from VIR collection based on SSR markers. *Acta Horticulturae*. 2021;1307:105-108. DOI: 10.17660/ActaHortic.2021.1307.16

Saltan N., Slukovskaya M., Mikhailova I., Zarov E., Skripnikov P., Gorbov S., Khvostova A., Drogobuzhskaya S., Shirokaya A., Kremenetskaya I. Assessment of Soil Heavy Metal Pollution by Land Use Zones in Small Towns of the Industrialized Arctic Region, Russia. In: *Advanced Technologies for Sustainable Development of Urban Green Infrastructure. SSC 2020: Proceedings of Smart and Sustainable Cities 2020. Springer Geography*. Vasenev V. et al. (eds). Springer; 2021. p.100-110. DOI: 10.1007/978-3-030-75285-9\_10

Beketova M.P., Chalaya N.A., Zoteyeva N.M., Gurina A.A., Kuznetsova M.A., Armstrong M., Hein I., Drobyazina P.E., Khavkin E.E., Rogozina E.V. Combination Breeding and Marker-Assisted Selection to Develop Late Blight Resistant Potato Cultivars. *Agronomy*. 2021;11(11):2192. DOI: 10.3390/agronomy11112192

Gavrilenko T.A., Khiutti A.V., Klimenko N.S., Antonova O.Y., Fomina N.A., Afanasenko O.S. Phenotypic and DNA Marker-Assisted Characterization of Russian Potato Cultivars for Resistance to Potato Cyst Nematodes. *Agronomy*. 2021;11(12):2400. DOI: 10.3390/agronomy11122400

Fizikova A., Tikhonova N., Ukhatova Y., Ivanov R., Khlestkina E. Applications of CRISPR/Cas9 System in Vegetatively Propagated Fruit and Berry Crops. *Agronomy*. 2021;11:1849. DOI: 10.3390/agronomy11091849

Kochetov A.V., Afonnikov D.A., Shmakov N., Vasiliev G.V., Antonova O.Y., Shatskaya N.V., Glagoleva A.Y., Ibragimova S.M., Khiutti A., Afanasenko O.S., Gavrilenko T.A. NLR Genes Related Transcript Sets in Potato Cultivars Bearing Genetic Material of Wild Mexican Solanum Species. *Agronomy*. 2021;11(12):2426. DOI: 10.3390/agronomy11122426

Konkova N.G., Shelenga T.V., Gridnev G.A., Dubovskaya A.G., Malyshev L.L. Stability and Variability of *Camelina sativa* (L.) Crantz Economically Valuable Traits in Various Eco-Geographical Conditions of the Russian Federation. *Agronomy*. 2021;11(2):332. DOI: 10.3390/agronomy11020332

Loskutov I.G., Novikova L.Yu., Belskaya G.V., Blinova E.V. Long-Term Analysis of the Variability of Agronomic Characters in the VIR Oat Germplasm Collection in Central Black Soil Region of Russia. *Agronomy*. 2021;11(3):423. DOI: 10.3390/agronomy11030423

Polivanova O.B., Gins E.M., Moskalev E.A., Voinova M.S., Koroleva A.K., Semenov A.Zh., Sivolapova A.B., Ivanova A.S., Kazakov O.G., Simakov E.A., Chalaya N.A., Rogozina E.V., Goryunova S.V. Quality Evaluation, Phytochemical Characteristics and Estimation of Beta-Carotene Hydroxylase 2 (*Chy2*) Alleles of Interspecific Potato Hybrids. *Agronomy*. 2021;11(8):1619. DOI: 10.3390/agronomy11081619

Rogozina E.V., Beketova M.P., Muratova O.A., Kuznetsova M.A., Khavkin E.E. Stacking Resistance Genes in Multiparental Interspecific Potato Hybrids to Anticipate Late Blight Outbreaks. *Agronomy*. 2021;11(1):115. DOI: 10.3390/agronomy11010115

Kolesnikov L.E., Belimov A.A., Kudryavtseva E.Y., Hassan B.A., Kolesnikova Yu.R. Identification of the effectiveness of associative rhizobacteria in spring wheat cultivation. *Agronomy Research*. 2021;19(3):1530-1544. DOI: 10.15159/ar.21.145

Kolesnikov L.E., Priyatkin N.S., Arkhipov M.V., Razumova I.E., Radishevskiy D.Yu., Kolesnikova Yu.R. Influence of the structural and functional characteristics of the seeding material on the yield structure elements and resistance to leaf diseases of spring soft wheat. *Agronomy Research*. 2021;19(4):1791-1812. DOI: 10.15159/ar.21.152

Kolesnikov L.E., Uspenskaya M.V., Kremenevskaya M.I., Orlova A.G., Razumova I.E., Kolesnikova Yu.R. The biological basis for the use of acrylic hydrogel and protein growth stimulant in the soft wheat and triticale cultivation. *Agronomy Research*. 2021;19(3):1545-1561. DOI: 10.15159/ar.21.157

Shelenga Tatyana V., Kerv Yulia A., Perchuk Irina N., Solovyeva Alla E., Khlestkina Elena K., Loskutov Igor G., Konarev Alexey V. The Potential of Small Grains Crops in

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

- Enhancing Biofortification Breeding Strategies for Human Health Benefit. *Agronomy*. 2021;11(7):1420. DOI: 10.3390/agronomy11071420
- Novikova L.Yu., Chalaya N.A., Sitnikov M.N., Gorlova L.M., Kiru S.D., Rogozina E.V. Dynamics of tuber weight in early potato varieties in the contrasting weather conditions of the Northwestern Russia. *Agronomy Research*. 2021;19(1):185-198. DOI: 10.15159/AR.20.241
- Zakharenko Alexander M., Razgonova Mayya P., Pikula Konstantin S., Golokhvast Kirill S. Simultaneous Determination of 78 Compounds of *Rhodiola rosea* Extract by Supercritical CO<sub>2</sub>-Extraction and HPLC-ESI-MS/MS Spectrometry. *Biochemistry Research International*. 2021;2021:9957490. DOI: 10.1155/2021/9957490
- Trifonova A.A., Dedova L.V., Zuev E.V., Goncharov N.P., Kudrytsev A.M. Comparative analysis of the gene pool structure of *Triticum aethiopicum* wheat accessions conserved *ex situ* and recollected in fields after 85 years. *Biodiversity and Conservation*. 2021;30(2):329-342. DOI: 10.1007/s10531-020-02091-6
- Krylova E., Strygina K., Khlestkina E. Structural organization of *TFL1*-like genes in representatives of the tribe Phaseoleae DC. *Biological Communications*. 2021;66(2):85-108. DOI: 10.21638/spbu03.2021.201
- Sokolkova A.B., Bulyntsev S.V., Chang P.L., Carrasquilla-Garcia N., Cook D.R., von Wettberg E., Vishnyakova M.A., Nuzhdin S.V., Samsonova M.G. A Genomic Analysis of Historic Chickpea Landraces. *Biophysics*. 2021;66(1):32-39. DOI: 10.1134/S0006350921010061
- Sokolkova A.B., Bulyntsev S.V., Chang P.L., Carrasquilla-Garcia N., Cook D.R., von Wettberg E., Vishnyakova M.A., Nuzhdin S.V., Samsonova M.G. The Search for Agroislands in the Chickpea Genome. *Biophysics*. 2021;66(3):395-400. DOI: 10.1134/S0006350921030192
- Sekridova A.V., Shilov I.A., Kislin E.N., Malyuchenko O.P., Kharchenko P.N. A Technology for Genetic Identification of Varieties and Wild Forms of Grapes Based on Multilocus Microsatellite Analysis. *Biotekhnologiya*. 2021; 37(3):85-95. DOI: 10.21519/0234-2758-2021-37-3-85-95
- Chernova A.I., Gubaev R.F., Singh A., Sherbina K., Goryunova S.V., Martynova E.U., Goryunov D.V., Boldyrev S.V., Vanyushkina A.A., Anikanov N.A., Stekolshchikova E.A., Yushina E.A., Demurin Ya.N., Mukhina Zh.M., Gavrilova V.A., Anisimova I.N., Karabitsina Yu.I., Alpatieva N.V., Chang P.L., Khaitovich Ph., Mazin P.V., Nuzhdin S.V. Genotyping and lipid profiling of 601 cultivated sunflower lines reveals novel genetic determinants of oil fatty acid content. *BMC Genomics*. 2021;22(1):505. DOI: 10.1186/s12864-021-07768-y
- Bekish L., Uspenskaya V., Chashin D., Chikida N. Efficiency of using indexes method in the comprehensive assessment of the genetic collection in the winter hexaploid triticale. *BIO Web of Conferences*. 2021;36:01029. DOI: 10.1051/bioconf/20213601029
- Loskutov I., Shelenga T., Blinova E., Gnutikov A., Konarev A. Metabolomic profiling in evaluation of cultivated oat species with different ploidy level. *BIO Web of Conferences*. 2021;36:01026. DOI: 10.1051/bioconf/20213601026
- Razgonova M.P., Tikhonova N.G., Sabitov A.S., Mikhailova N.M., Luchko S.R., Zakharenko A.M., Pikula K.S., Golokhvast K.S. Identification of phenolic constituents in *Lonicera caerulea* L. by HPLC with diode array detection electrospray ionisation tandem mass spectrometry. *BIO Web of Conferences*. 2021;32:02010. DOI: 10.1051/bioconf/20213202010
- 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*. 2021. DOI: 10.1007/s42976-021-00179-5
- Buszewski B., Wrona O., Razgonova M.P., Zakharenko A.M., Kalenik T.K., Golokhvast K.S., Piekoszewski W., Rafińska K. The potential application of supercritical CO<sub>2</sub> in microbial inactivation of food raw materials and products. *Critical Reviews in Food Science and Nutrition*. 2021;1-14. DOI: 10.1080/10408398.2021.1902939
- Azarin K., Usatov A., Makarenko M., Gorbachenko O., Khachumov V., Chaplygin V., Mandzhieva S., Gavrilova V. Data on the polymorphic sites in the chloroplast genomes of seven perennial *Helianthus* species. *Data in Brief*. 2021;35:106904. DOI: 10.1016/j.dib.2021.106904
- Kolesova M.A., Zueva A.A., Tyryshkin L.G. Revision of Flor's Gene-for-Gene Theory for the Phenomena of Interaction of Cereals Seedlings with Rust Pathogens. *Doklady Biological Sciences*. 2021;496(1):13-16. DOI: 10.1134/S0012496621010051
- Appaev S., Kagermazov A., Khachidogov A., Bizhoyev M., Khatefov E. Development of self-pollinated maize lines based on the teosinte collection of the N.I. Vavilov

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

institute of plant industry (VIR). *E3S Web of Conferences*. 2021;262:01010. DOI: 10.1051/e3sconf/202126201010

Chepinoga I., Tikhonova A. Source material for quince varieties selection with high commercial and consumer qualities of fruits in the Krymsk EBS, VIR Branch gene pool. *E3S Web of Conferences*. 2021;254:01042. DOI: 10.1051/e3sconf/202125401042

Eremin G., Tikhonova A., Gorelikova O. Promising garden plum varieties of Krymsk EBS, VIR Branch breeding for prunes production. *E3S Web of Conferences*. 2021;254:01044. DOI: 10.1051/e3sconf/202125401044

Podorozhny V. Prospects of using cordon-free bush technology in the commercial production of Black Satin variety blackberry. *E3S Web of Conferences*. 2021;254:10010. DOI: 10.1051/e3sconf/202125410010

Radchenko O.E., Erastenkova M.V., Pavlov A.V., Verzhuk V.G. Initial and post-cryogenic assessment of viability of russian plum cultivars pollen (*Prunus rossica* Erem.) in the conditions of the North-West of Russia. *E3S Web of Conferences*. 2021;254:02002. DOI: 10.1051/e3sconf/202125402002

Razgonova M.P., Zakharenko A.M., Derbush I.V., Sabitov A.S., Golokhvast K.S. Research of 5 extracts of wild Amur grape *Vitis amurensis* Rupr. and identification of its polyphenolic composition by tandem mass spectrometry (HPLC-MS / MS). *E3S Web of Conferences*. 2021;254:01012. DOI: 10.1051/e3sconf/202125401012

Panichev A.M., Trepets S.A., Chekryzhov I.Y., Seryodkin I.V., Vakh E.A., Makarevich R.A., Eskina T.G., Bibina K.V., Stolyarova T.A., Mitina E.I., Ivanov V.V., Ostapenko D.S., Kholodov A.S., Golokhvast K.S. A study of kudurs used by wild animals located on the water sources high in REE content in the Caucasus Nature Reserve. *Environmental Geochemistry and Health*. 2021;43(1):91-112. DOI: 10.1007/s10653-020-00670-8

Gur'ev S.S., Popov V.S. Properties of Starter Cultures Based on Non-Traditional Flours. *Food Processing: Techniques and Technology*. 2021;51(3):470-479. DOI: 10.21603/2074-9414-2021-3-470-479

Sallam A.H., Smith K.P., Hu G., Sherman J., Baenziger P.S., Wiersma J., Duley C., Stockinger E.J., Sorrells M.E., Szinyei T., Loskutov I.G., Kovaleva O.N., Eberly J., Steffenson B.J. Cold Conditioned: Discovery of Novel Alleles for Low-Temperature Tolerance in the Vavilov Barley Collection. *Frontiers in Plant Science*. 2021;12:800284. DOI: 10.3389/fpls.2021.800284

Witzel K., Kurina A.B., Artemyeva A.M. Opening the Treasure Chest: The Current Status of Research on *Brassica oleracea* and *B. rapa* Vegetables From *ex situ* Germplasm Collections. *Frontiers in Plant Science*. 2021;12:643047. DOI: 10.3389/fpls.2021.643047

Azarin K., Usatov A., Makarenko M., Khachumov V., Gavrilova V. Comparative analysis of chloroplast genomes of seven perennial *Helianthus* species. *Gene*. 2021;774:145418. DOI: 10.1016/j.gene.2021.145418

Grigoreva E., Tkachenko A., Arkhimandritova S., Beatovic A., Ulianich P., Volkov V., Karzhaev D., Ben C., Gentzbittel L., Potokina E. Identification of Key Metabolic Pathways and Biomarkers Underlying Flowering Time of Guar (*Cyamopsis tetragonoloba* (L.) Taub.) via Integrated Transcriptome-Metabolome Analysis. *Genes*. 2021;12(7):952. DOI: 10.3390/genes12070952

Nawaz M.A., Lin X., Chan T.F., Lam H.M., Baloch F.Sh., Ali M.A., Golokhvast K.S., Yang S.H., Chung G. Genetic architecture of wild soybean (*Glycine soja* Sieb. and Zucc.) populations originating from different East Asian regions. *Genetic Resources and Crop Evolution*. 2021;68:1577-1588. DOI: 10.1007/s10722-020-01087-z

Zhang K., He M., Fan Yu., Zhao H., Gao B., Yang K., Li F., Tang Yu., Gao Q., Lin T., Quinet M., Janovská D., Meglič V., Kwiatkowski Ja., Romanova O., Chungoo N., Suzuki T., Luthar Z., Germ M., Woo S.H., Georgiev M.I., Zhou M. Resequencing of global Tartary buckwheat accessions reveals multiple domestication events and key loci associated with agronomic traits. *Genome Biology*. 2021;22(1):23. DOI: 10.1186/s13059-020-02217-7

Egorova K.V., Sinyavina N.G., Artemyeva A.M., Kocherina N.V., Chesnokov Y.V. QTL Analysis of the Content of Some Bioactive Compounds in *Brassica rapa* L. Grown under Light Culture Conditions. *Horticulturae*. 2021;7(12):583. DOI: 10.3390/horticulturae7120583

Kolesnikov L.E., Kremenevskaya M.I., Melnikov S.P., Tambulatova E.V., Hassan B.A., Kolesnikova Yu.R. The influence of agroecological factors on diseases development and wheat productivity. *IOP Conference Series: Earth and Environmental Science*. 2021;866:012011. DOI: 10.1088/1755-1315/866/1/012011

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

- Kolesnikov L.E, Kremenevskaya M.I., Melnikov S.P., Tambulatova E.V., Hassan B.A., Kolesnikova Yu.R. The influence of agroecological factors on diseases development and wheat productivity. *IOP Conference Series: Earth and Environmental Science*. 2021;866:012011. DOI: 10.1088/1755-1315/866/1/012011
- Kolesnikov L.E., Novikova I.I., Popova E.V., Radishevsky D.Yu., Kolesnikova Yu.R. Biological Rationale for the Use of Polyfunctional Biological Products Based on Antagonist Microbes and Chitosan in Wheat Cultivation. *IOP Conference Series: Earth and Environmental Science*. 2021;852(1):012048. DOI: 10.1088/1755-1315/852/1/012048
- Tretyakova M.O., Pikula K.S., Kirichenko K. Yu., Golokhvast K.S. Ecotoxicological Impact Assessment of Micro-Sized Coal Particles on Zooplanktonic Crustacean *Artemia Salina*. *IOP Conference Series: Earth and Environmental Science*. 2021;720(1):012082. DOI: 10.1088/1755-1315/720/1/012082
- Verbitskaya A.A., Ivanova A.S., Konkova N.G., Gaponenko A.K. The creation of a *Taraxacum kok-saghyz* high frequency regeneration system. *IOP Conference Series: Earth and Environmental Science*. 2021;843(1):012041. DOI: 10.1088/1755-1315/843/1/012041
- Askhadullin D.F., Askhadullin D.F., Vasilova N.Z., Lysenko N.S. Prospects of creating Indian dwarf wheat varieties *Triticum sphaerococcum* Perciv. based on samples endemic to the Hindustan peninsula. *Indian Journal of Genetics and Plant Breeding*. 2021;81(3):1-9. DOI: 10.31742/IJGPB.81.3.5
- Filipenko G.I., Adamovich S.N., Oborina E.N., Rozentsveig I.B., Safina G.F. Effects of protatranes on the germination of wheat and triticale seeds after their long-term storage. *Izvestiya Vuzov. Prikladnaya Khimiya i Biotekhnologiya = Proceedings of Universities. Applied Chemistry and Biotechnology*. 2021;11(2):272-280. DOI: 10.21285/2227-2925-2021-11-2-272-280
- Xing H.X., de Barros AOD (da Silva de Barros, Aline Oliveira), Mello FDCE (Chaves e Mello, Francisco do Vale), Sozzi-Guo F., Muller C., Gemini-Piperni S., Alencar L.M.R., Maia F.F., Freire V.N., de Menezes F.D., Aran V., Devalle S., Moura-Neto V., Ricci E., Bouskela E., Pikula K., Golokhvast K., Santos-Oliveira R.. Graphene: Insights on Biological, Radiochemical and Ecotoxicological Aspects. *Journal of Biomedical Nanotechnology*. 2021;17(1):131-148. DOI: 10.1166/jbn.2021.3006
- Magne T.M., de Oliveira Vieira T., Alencar L.M.R., Maia F.F.M., Gemini-Piperni S., Carneiro S.V., Fechine L.M.U.D., Freire R.M., Golokhvast K., Metrangolo P., Fechine P.B.A., Santos-Oliveira R. Graphene and its derivatives: understanding the main chemical and medicinal chemistry roles for biomedical applications. *Journal of Nanostructure in Chemistry*. 2021. DOI: 10.1007/s40097-021-00444-3
- Grigorev S.V., Illarionova K.V., Konarev A.V., Shelenga T.V. Differences in Metabolites of White and Naturally Colored Cotton: Implications for Biofunctional and Aseptic Textiles. *Journal of Natural Fibers*. 2021. DOI: 10.1080/15440478.2021.1941490
- Pavlov A.V., Porokhovina E.A., Novikova L.Yu., Kutuzova S.N., Brutch N.B. Linseed for dual (seed and fiber) utilization New linseed accessions in the VIR collection, suitable for dual utilization (seed and fiber) in the North-Western Region of the Russian Federation. *Journal of Natural Fibers*. 2021. DOI: 10.1080/15440478.2021.1952137
- Razgonova M., Zakharenko A., Pikula K., Manakov Yu., Ercisli S., Derbush I., Kislin E., Seryodkin I., Sabitov A., Kalenik T., Golokhvast K. LC-MS/MS Screening of Phenolic Compounds in Wild and Cultivated Grapes *Vitis amurensis* Rupr. *Molecules*. 2021;26:3650. DOI: 10.3390/molecules26123650
- Razgonova M.P., Zakharenko A.M., Gordeeva E.I., Shoeva O.Yu., Antonova, E.V., Pikula K.S., Koval L.A., Khlestkina E.K., Golokhvast K.S. Phytochemical Analysis of Phenolics, Sterols, and Terpenes in Colored Wheat Grains by Liquid Chromatography with Tandem Mass Spectrometry. *Molecules*. 2021;26(18):5580. DOI: 10.3390/molecules26185580
- Shvachko N.A., Loskutov I.G., Semilet T.V., Popov V.S., Kovaleva O.N., Konarev A.V. Bioactive Components in Oat and Barley Grain as a Promising Breeding Trend for Functional Food Production. *Molecules*. 2021;26(8):2260. DOI: 10.3390/molecules26082260
- Yanshin N., Lemesheva V., Tarakhovskaya E., Kushnareva A., Birkemeyer C. Chemical Composition and Potential Practical Application of 15 Red Algal Species from the White Sea Coast (the Arctic Ocean). *Molecules*. 2021;26(9):2489. DOI: 10.3390/molecules26092489
- Vasyukova I.A., Zakharova O.V., Chaika V.V., Pikula K.S., Golokhvast K.S., Gusev A.A. Toxic Effect of Metal-Based Nanomaterials on Representatives of Marine Ecosystems: A Review. *Nanobiotechnology Reports*. 2021;16:138-154. DOI: 10.1134/S2635167621020178

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

Hunt H.V., Przelomska N.A.S., Campana M.G., Cockram, Bligh J.F.H., Kneale C.J., Romanova O.I., Malinovskaya E.V., Jones M.K. Population genomic structure of Eurasian and African foxtail millet landrace accessions inferred from genotyping by sequencing. *Plant Genome*. 2021;14(1):e20081. DOI: 10.1002/tpg2.20081

Bellucci E., Aguilar O.M., Alseekh S., Bett K., Brezeanu C., Cook D., De la Rosa L., Delledonne M., Dostatny D.F., Ferreira Ju.J., Geffroy V., Ghitarrini S., Kroc M., Kumar Agrawal Sh., Logozzo G., Marino M., Mary-Huard T., McClean Ph., Meglič V., Messer T., Muel F., Nanni L., Neumann K., Servalli F., Sträjeru S., Varshney R.K., Vasconcelos M.W., Zaccardelli M., Zavarzin A., Bitocchi E., Frontoni E., Fernie A.R., Gioia T., Graner A., Guasch L., Prochnow L., Opperman M., Susek K., Tenaillon M., Papa R. The INCREASE project: Intelligent Collections of Food-Legume Genetic Resources for European Agrofood Systems. *Plant Journal*. 2021;108(3):646-660. DOI: 10.1111/tbj.15472

Badaeva E.D., Chikida N.N., Belousova M.Kh., Ruban A.S., Surzhikov S.A., Zoshchuk S.A. A new insight on the evolution of polyploid *Aegilops* species from the complex Crassa: molecular-cytogenetic analysis. *Plant Systematics and Evolution*. 2021;307(1):3. DOI: 10.1007/s00606-020-01731-2

Badaeva E.D., Fisenko A.N., Dragovich A.Y., Surzhikov S.A., Chikida N.N., Belousova M.K., Özkan H., Kochieva E.Z. Chromosome and Molecular Analyses Reveal Significant Karyotype Diversity and Provide New Evidence on the Origin of *Aegilops columnaris*. *Plants*. 2021;10(5):956. DOI: 10.3390/plants10050956

Kurina A.B., Korniyukhin D.L., Solovyeva A.E., Artemyeva A.M. Genetic Diversity of Phenotypic and Biochemical Traits in VIR Radish (*Raphanus sativus* L.) Germplasm Collection. *Plants*. 2021;10(9):1799. DOI: 10.3390/plants10091799

Lebedeva M., Azarakhsh M., Sadikova D., Lutova L. At the Root of Nodule Organogenesis: Conserved Regulatory Pathways Recruited by Rhizobia. *Plants*. 2021;10(12):2654. DOI: 10.3390/plants10122654

Loskutov I.G. Advances in Cereal Crops Breeding. *Plants*. 2021;10(8):1705. DOI: 10.3390/plants10081705

Loskutov I.G., Khlestkina E.K. Wheat, Barley, and Oat Breeding for Health Benefit Components in Grain. *Plants*. 2021;10(1):86. DOI: 10.3390/plants10010086

Makarenko M.S., Omelchenko D.O., Usatov A.V., Gavrilova V.A. The Insights into Mitochondrial Genomes of Sunflowers. *Plants*. 2021;10(9):1774. DOI: 10.3390/plants10091774

Pishchik V.N., Filippova P.S., Mirskaya G.V., Khomyakov Y.V., Vertebny V.E., Dubovitskaya V.I., Ostankova Y.V., Semenov A.V., Zuev E.V., Chebotar V.K. Epiphytic PGPB *Bacillus megaterium* AFI1 and *Paenibacillus nicotianae* AFI2 Improve Wheat Growth and Antioxidant Status under Ni Stress. *Plants*. 2021;10(11):2334. DOI: 10.3390/plants10112334

Rodionov A.V., Gnutikov A.A., Nosov N.N., Machs E.M., Mikhaylova Yu.V., Shneyer V.S., Punina E.O. Correction: Intragenomic Polymorphism of the ITS 1 Region of 35S rRNA Gene in the Group of Grasses with Two-Chromosome Species: Different Genome Composition in Closely Related *Zingieria* Species. (*Plants*, (2020) 9, 12, 10.3390/plants9121647). *Plants*. 2021;10(3):463. DOI: 10.3390/plants10030463

Shcherban A.B., Kuvaeva D.D., Mitrofanova O.P., Khverenets S.E., Pryanishnikov A.I., Salina E.A. Targeting the *BI* Gene and Analysis of Its Polymorphism Associated with Awned/Awnless Trait in Russian Germplasm Collections of Common Wheat. *Plants*. 2021;10(11):2285. DOI: 10.3390/plants10112285

Smolikova G., Strygina K., Krylova E., Leonova T., Frolov A., Khlestkina E., Medvedev, S. Transition from Seeds to Seedlings: Hormonal and Epigenetic Aspects. *Plants*. 2021;10(9):1884. DOI: 10.3390/plants10091884

Tkachenko K., Kosareva I., Frontasyeva M. The Influence of Manganese on Growth Processes of *Hordeum* L. (Poaceae) Seedlings. *Plants*. 2021;10(5):1009. DOI: 10.3390/plants10051009

Dong H., Clark L.V., Jin X., Anzoua K., Bagmet L., Chebukin P., Dzyubenko E., Dzyubenko N., Ghimire B.K., Heo K., Johnson D.A., Nagano H., Sabitov A., Peng J., Yamada T., Yoo J.H., Yu C.Y., Zhao H., Long S.P., Sackset E.J. Managing flowering time in *Miscanthus* and sugarcane to facilitate intra- and intergeneric crosses. *PLoS ONE*. 2021;16(1):e0240390. DOI: 10.1371/journal.pone.0240390

Abdullaev R.A., Vishnyakova M.A., Egorova G.P., Radchenko E.E. Phytosanitary monitoring of the narrow-leaved lupine collection of VIR in the northwest of

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

- Russia. *Proceedings on applied botany, genetics and breeding*. 2021;182(3):167-173. DOI: 10.30901/2227-8834-2021-3-167-173
- Abugalieva A.I., Loskutov I.G., Savin T.V., Chudinov V.A. Evaluation of naked oat accessions from the VIR collection for their qualitative characteristics in Kazakhstan. *Proceedings on applied botany, genetics and breeding*. 2021;182(1):9-21. DOI: 10.30901/2227-8834-2021-1-9-21
- Agakhanov M.M., Grigoreva E.A., Potokina E.K., Ulianich P.S., Ukhatova Yu.V. Genome assembly of *Vitis rotundifolia* Michx. using third-generation sequencing (Oxford Nanopore Technologies). *Proceedings on applied botany, genetics and breeding*. 2021;182(2):63-71. DOI: 10.30901/2227-8834-2021-2-63-71
- Anokhina V.S., Ramanchuk I.Yu., Sauk I.B., Egorova G.P., Vishnyakova M.A. Complex assessment of narrow-leaved lupine (*Lupinus angustifolius* L.) accessions from the VIR collection in Belarus. *Proceedings on applied botany, genetics and breeding*. 2021;182(3):74-85. DOI: 10.30901/2227-8834-2021-3-74-85
- Bagmet L.V. Crop wild relatives of Karachay-Cherkessia: inventorying and conservation prospects. *Proceedings on applied botany, genetics and breeding*. 2021;182(2):9-17. (In Russ.). DOI: 10.30901/2227-8834-2021-2-9-17
- Barsukova O.N. North American apple-tree species: sources of useful agronomic traits for breeding. *Proceedings on applied botany, genetics and breeding*. 2021;182(3):86-90. DOI: 10.30901/2227-8834-2021-3-86-90
- Batasheva B.A., Abdullaev R.A., Kovaleva O.N., Zveinek I.A., Radchenko E.E. Powdery mildew resistance of barley in Southern Dagestan. *Proceedings on applied botany, genetics and breeding*. 2021;182(1):153-156. DOI: 10.30901/2227-8834-2021-1-153-156
- Besedina T.D., Boyko A.P., Tutberidze T.V., Kiseleva N.S. Specific nature of the integrative (complex) effect of environmental factors on hazelnut cultivars in the Russian humid subtropics. *Proceedings on applied botany, genetics and breeding*. 2021;182(1):22-32. DOI: 10.30901/2227-8834-2021-1-22-32
- Bespalova E.S., Ershova K.M., Ukhatova Yu.V. *In vitro* regeneration of soybean (a review). *Proceedings on applied botany, genetics and breeding*. 2021;182(4):148-155. DOI: 10.30901/2227-8834-2021-4-148-155
- Boyko V.N., Khatefov E.B. Source material from the VIR collection for hybrid breeding of multiple-ear maize. *Proceedings on applied botany, genetics and breeding*. 2021;182(4):27-35. DOI: 10.30901/2227-8834-2021-4-27-35
- Burlyaeva M.O., Gurkina M.V., Miroshnichenko E.V. Application of multivariate analysis to identify relationships among useful agronomic characters of cowpea and differentiation of cultivars for vegetable and grain uses. *Proceedings on applied botany, genetics and breeding*. 2021;182(4):36-47. DOI: 10.30901/2227-8834-2021-4-36-47
- Burlyaeva M.O., Gurkina M.V., Samsonova M.G., Vishnyakova M.A. Ecogeographic assessment of mung bean (*Vigna radiata* (L.) R. Wilczek) from the collection of the Vavilov Institute (VIR). *Proceedings on applied botany, genetics and breeding*. 2021;182(1):131-141. DOI: 10.30901/2227-8834-2021-1-131-141
- Gavrilova V.A., Stupnikova T.G., Makarova L.G., Alpatieva N.V., Karabitsina Yu.I., Kuznetsova E.B., Anisimova I.A. Lines resistant to downy mildew in the sunflower genetic collection at VIR. *Proceedings on applied botany, genetics and breeding*. 2021;182(3):101-110. DOI: 10.30901/2227-8834-2021-3-101-110
- Elatskova A.G. Identification and development of source material for breeding early bushy and short-vined cultivars of *Cucurbita moschata* Duch. ex Poir. *Proceedings on applied botany, genetics and breeding*. 2021;182(3):143-150. DOI: 10.30901/2227-8834-2021-3-143-150
- Eremin G.V., Eremin V.G., Chepinoga I.S., Gasanova T.A. Genetic diversity of wild stone fruit species: specific aspects of *ex situ* conservation. *Proceedings on applied botany, genetics and breeding*. 2021;182(3):12-19. DOI: 10.30901/2227-8834-2021-3-12-19
- Khakimova A.G., Gulyaeva E.I., Mitrofanova O.P. Resistance of synthetic hexaploid wheat to the leaf rust pathogen. *Proceedings on applied botany, genetics and breeding*. 2021;182(3):125-136. DOI: 10.30901/2227-8834-2021-3-125-136
- Khatefov E.B., Khoreva V.I., Kerv Yu.A., Shelenga T.V., Sidorova V.V., Demurin Ya.N., Goldstein V.G. Comparative analysis of the chemical composition and size of starch granules in grain between diploid and tetraploid sweetcorn cultivars. *Proceedings on applied botany, genetics and breeding*. 2021;182(2):53-62. DOI: 10.30901/2227-8834-2021-2-53-62
- Khlopyuk M.S., Chalaya N.A., Rogozina E.V. Stability of agronomic traits in interspecific hybrid potato clones in the Central Region of European Russia. *Proceedings on*

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

*applied botany, genetics and breeding*. 2021;182(4):79-89. DOI: 10.30901/2227-8834-2021-4-79-89

Khmelinskaya T.V., Smolenskaya A.E., Solovyeva A.E. Complex biochemical characteristics of *Coriandrum sativum* L. *Proceedings on applied botany, genetics and breeding*. 2021;182(1):80-90. DOI: 10.30901/2227-8834-2021-1-80-90

Kishlyan N.V., Asfandiyarova M.S., Yakusheva Y.V., Dubovskaya A.G. Biological features and cultivation of sesame (a review). *Proceedings on applied botany, genetics and breeding*. 2021;182(4):156-165. DOI: 10.30901/2227-8834-2021-4-156-165

Kobylyansky V.D., Solodukhina O.V., Nikonorova I.M. Morphological features of rye grain with low pentosan content. *Proceedings on applied botany, genetics and breeding*. 2021;182(2):123-130. DOI: 10.30901/2227-8834-2021-2-123-130

Kon'kova N.G., Safina G.F. Valuable agronomic traits of chufa (*Cyperus esculentus* L.) accessions from the VIR collection: methods of preparing nodules for long-term storage. *Proceedings on applied botany, genetics and breeding*. 2021;182(2):34-44. DOI: 10.30901/2227-8834-2021-2-34-44

Korshikova E.S., Ershova K.M., Moksheninova Yu.A., Ukhatova Yu.V. Efficiency of *in vitro* culture techniques applied to soybean (*Glycine max* (L.) Merr.) accessions from the VIR collection. *Proceedings on applied botany, genetics and breeding*. 2021;182(4):137-142. DOI: 10.30901/2227-8834-2021-4-137-142

Koryakina V.M., Kochegina A.A. Results of studying wheatgrass (*Agropyron* Gaertn.) accessions from the VIR global genetic resources collection in Yakutia. *Proceedings on applied botany, genetics and breeding*. 2021;182(1):59-71. DOI: 10.30901/2227-8834-2021-1-59-71

Kulemina T.V. Studying agronomic characters in new millet accessions from the VIR collection at Yekaterinino Experiment Station of VIR. *Proceedings on applied botany, genetics and breeding*. 2021;182(4):48-60. DOI: 10.30901/2227-8834-2021-4-48-60

Loskutov I.G. Wartime activities of the Vavilov Institute. *Proceedings on applied botany, genetics and breeding*. 2021;182(2):151-162. DOI: 10.30901/2227-8834-2021-2-151-162

Loskutova N.P., Ozerskaya T.M. Mobilization of plant genetic resources from South and Southeast Asia. *Proceedings on applied botany, genetics and breeding*. 2021;182(1):186-198. DOI: 10.30901/2227-8834-2021-1-186-198

Nikolaeva M.A., Varentsova E.Yu., Safina G.F. The impact of temperature patterns during storage of Scots pine and Norway spruce seeds on their germination and fungal infection rates. *Proceedings on applied botany, genetics and breeding*. 2021;182(1):157-167. DOI: 10.30901/2227-8834-2021-1-157-167

Popova G.A., Rogalskaya N.B., Knyazeva N.V., Trofimova V.M., Shelenga T.V., Porokhovinova E.A., Brutch N.B. The impact of weather conditions in different years on the biochemical composition of linseed oil. *Proceedings on applied botany, genetics and breeding*. 2021;182(3):91-100. DOI: 10.30901/2227-8834-2021-3-91-100

Radchenko E.E., Dyatlova K.D., Akimova D.E., Zveinek I.A. Greenbug resistance in barley landraces from Uzbekistan. *Proceedings on applied botany, genetics and breeding*. 2021;182(3):182-185. DOI: 10.30901/2227-8834-2021-3-182-185

Rigin B.V., Zuev E.V., Andreeva A.S., Matvienko I.I., Pyzhenkova Z.S. Comparative analysis of the inheritance of a high development rate in the Rimax and Rico lines of spring bread wheat (*Triticum aestivum* L.). *Proceedings on applied botany, genetics and breeding*. 2021;182(2):81-88. DOI: 10.30901/2227-8834-2021-2-81-88

Romanova O.I. Description of buckwheat cultivars from Belarus and Ukraine in the environments of Leningrad Province. *Proceedings on applied botany, genetics and breeding*. 2021;182(4):61-70. DOI: 10.30901/2227-8834-2021-4-61-70

Semenova A.G., Anisimova A.V., Kovaleva O.N. Resistance of modern spring barley cultivars to harmful organisms. *Proceedings on applied botany, genetics and breeding*. 2021;182(4):108-116. DOI: 10.30901/2227-8834-2021-4-108-116

Shaydayuk E.L., Yakovleva D.R., Abdullaev K.M., Pyukkenen V.P., Gulyaeva E.I. Population genetics studies of *Puccinia striiformis* f. sp. *tritici* in Dagestan and Northwestern Russia. *Proceedings on applied botany, genetics and breeding*. 2021;182(3):174-181. DOI: 10.30901/2227-8834-2021-3-174-181

Shlyavas A.V., Telezhinskiy D.D., Bagmet L.V. Nomenclatural standards of apple cultivars developed at Sverdlovsk Horticultural Breeding Station. Part I. *Proceedings on applied botany, genetics and breeding*. 2021;182(4):102-107. DOI: 10.30901/2227-8834-2021-4-102-107

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

- Shlyavas A.V., Trifonova A.A., Chepinoga I.S., Sidnin A.S., Boris K.V. Microsatellite loci variability in apple cultivars developed at VIR. *Proceedings on applied botany, genetics and breeding*. 2021;182(3):151-158. DOI: 10.30901/2227-8834-2021-3-151-158
- Slepneva T.N., Shlyavas A.V. Porfiry Afanasyevich Dibrova: at the origins of scientific pomiculture in the Urals. *Proceedings on applied botany, genetics and breeding*. 2021;182(2):163-172. DOI: 10.30901/2227-8834-2021-2-163-172
- Sukhanberdina E.Kh., Grushin A.A., Piskunova T.M. Study of cucumber accessions from the VIR collection for their agronomic traits in the Lower Volga Region. *Proceedings on applied botany, genetics and breeding*. 2021;182(2):45-52. DOI: 10.30901/2227-8834-2021-2-45-52
- Tikhonova O.A., Radchenko E.A., Pavlov A.V. Reproductive ability of black currant cultivars after pollen cryopreservation in liquid nitrogen. *Proceedings on applied botany, genetics and breeding*. 2021;182(4):71-78. DOI: 10.30901/2227-8834-2021-4-71-78
- Tulyakova M.V., Batalova G.A., Loskutov I.G., Permyakova S.V., Krotova N.V. Assessment of adaptability parameters in hulled oat germplasm accessions in terms of their yield in the environments of Kirov Province. *Proceedings on applied botany, genetics and breeding*. 2021;182(1):72-79. DOI: 10.30901/2227-8834-2021-1-72-79
- Vishnyakova M.A. The man standing on the globe. *Proceedings on applied botany, genetics and breeding*. 2021;182(3):186-190. DOI: 10.30901/2227-8834-2021-3-186-190
- Yakovleva O.V. Aluminum resistance of malting barley. *Proceedings on applied botany, genetics and breeding*. 2021;182(4):126-131. DOI: 10.30901/2227-8834-2021-4-126-131
- Zveinek I.A., Abdullaev R.A., Batasheva B.A., Radchenko E.E. The effect of responses to vernalization, photoperiodism, and earliness per se of barley accessions from Dagestan on the duration of the period from shooting to heading. *Proceedings on applied botany, genetics and breeding*. 2021;182(2):24-33. DOI: 10.30901/2227-8834-2021-2-24-33
- Mursalimov S., Glagoleva A., Khlestkina E., Shoeva O. Chlorophyll deficiency delays but does not prevent melanogenesis in barley seed melanoplasts. *Protoplasma*. 2021. DOI: 10.1007/s00709-021-01669-3
- Polivanova O.B., Sivolapova A.B., Goryunova S.V., Goryunov D.V., Fedorova A.V., Sotnikova E.A., Chebanova Y.V., Demurin Y.N., Karabitsina Y.I., Benko N.I. Structural diversity of sunflower (*Helianthus annuus* L.) candidate Rf1 loci based on gene-specific PCR. *Research on Crops*. 2021;22(1):40-46. DOI: 10.31830/2348-7542.2021.034
- Loskutov I.G., Gnutikov A.A., Blinova E.V., Rodionov A.V. The Origin and Resource Potential of Wild and Cultivated Species of the Genus of Oats (*Avena* L.). *Russian Journal of Genetics*. 2021;57(6):642-661. DOI: 10.1134/S1022795421060065
- Trifonova A.A., Shlyavas A.V., Dedova L.V., Boris K.V., Kudryavtsev A.M. Genetic Diversity of Old and Local Apple (*Malus × domestica* Borkh.) Cultivars of Volga Region from VIR Collection Inferred from NBS-Profilig. *Russian Journal of Genetics*. 2021;57(6):669-680. DOI: 10.1134/S1022795421060119
- Shilova O.A., Panova G.G., Mjakin S.V., Kovalenko A. S., Nikolaev A. M., Chelibanov V. P., Chelibanov I. V., Yassenko E. A., Korniyukhin D. L., Artem'eva A. M., Zhuravleva A. S., Udalova O. R., Baranchikov A. E., Khamova T. V. Structure, Properties, and Phytoprotective Functions of Titanium Dioxide Nanopowders and Their Aqueous Suspensions. *Russian Journal of Inorganic Chemistry*. 2021;66(5):765-772. DOI: 10.1134/S0036023621050181
- Kuznetsov Ya.P., Rasskazova E.V., Pitushkin D.A., Eshtukov A.V., Vasipov V.V., Burmistrov V.V., Butov G.M. Synthesis and Properties of *N,N'*-Disubstituted Ureas and Their Isosteric Analogs Containing Polycyclic Fragments: XI. 1-[(Adamantan-1 yl)alkyl]-3-arylselenoureas. *Russian Journal of Organic Chemistry*. 2021;57:1036-1046. DOI: 10.1134/S1070428021070022
- Wasserman L.A., Plashchina I.G., Filatova A.G., Khatefov E.B., Goldshtein V.G. Some Structural and Thermodynamic Parameters of Maize Starch from Different Maize Genotypes. *Russian Journal of Physical Chemistry B*. 2021;15(1):161-169. DOI: 10.1134/S1990793121010292
- Artemyeva A.M., Sinyavina N.G., Panova G.G., Chesnokov Yu.V. Biological features of *Brassica rapa* L. vegetable leafy crops when growing in an intensive light culture. *Sel'skokhozyaistvennaya Biologiya = [Agricultural Biology]*. 2021;56(1):103-120. DOI: 10.15389/agrobiology.2021.1.103eng



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

- Marhold K., Kučera J., Albach D.C., Aleksandrova T.G., Banaev E.V., Dyubenko T.V., Gnutikov A.A., Korolyuk E.A., Kotseruba V.V., Krivenko D.A., Krivobokov L.V., Lomonosova M.N., Machs E.M., Meller P., Myakoshina Y.A., Nosov N.N., Pankova T.V., Probatova N.S., Rodionov A.V., Shaulo D.N., Tomoshevich M.A., Zykova E.Y. IAPT chromosome data 34. *Taxon*. 2021;70(5):1148-1152. DOI: 10.1002/tax.12570
- Marhold K., Kučera J., Alencar J., <...>, Gnutikov A.A., <...>, Zolotov D.V. IAPT chromosome data 35. *Taxon*. 2021;70(6):1402-1411. DOI: 10.1002/tax.12638
- Gnutikov Alexander A., Nosov Nikolai N., Rodionov Alexander V. IAPT chromosome data 35/4. *Taxon*. 2021;70(6):1405-1416. DOI: 10.1002/tax.12638
- Pikula K., Golokhvast K. Chapter 41 - Aquatic nanotoxicology: reference species and omics technologies. In: Tsatsakis Aristidis M. (ed.). *Toxicological Risk Assessment and Multi-System Health Impacts from Exposure*. Academic Press; 2021. p.495-514. DOI: 10.1016/B978-0-323-85215-9.00046-5
- Pikula K., Gusev A., Sinitskii A., Egorova M., Santos-Oliveira R., Johari S.A., Golokhvast K. Ecotoxicological influence of single-walled carbon nanotubes, graphene nanoribbons, and graphene quantum dots on marine microalgae. *Toxicology Letters*. 2021;350:S180. DOI: 10.1016/S0378-4274(21)00667-6
- Markina Z.V., Orlova T.Y., Vasyanovich Y.A., Golokhvast K.S., Vardavas A.I., Stivaktakis P.D., Vardavas C.I., Kokkinakis M.N., Rezaee R., Ozcagli E. *Porphyridium purpureum* microalga physiological and ultrastructural changes under copper intoxication. *Toxicology Reports*. 2021;8:988-993. DOI: 10.1016/j.toxrep.2021.04.015
- Pikula K., Golokhvast K., Kirichenko K., Vakhniuk I., Kalantzi O.I., Kholodov A., Orlova T., Markina Z., Tsatsakis A. Aquatic toxicity of particulate matter emitted by five electroplating processes in two marine microalgae species. *Toxicology Reports*. 2021;8:880-887. DOI: 10.1016/j.toxrep.2021.04.004
- Talovina G.V. Lectotypification and authorship of the name of *Melilotus tauricus* (Fabaceae). *Turczaninowia*. 2021;24(3):171-174. DOI: 10.14258/turczaninowia.24.3.13
- Sokolova D., Shelenga T., Zvereva O., Solovieva A. Comparative characteristics of the amino acid composition in amaranth accessions from the VIR Collection. *Turkish Journal of Agriculture and Forestry*. 2021;45(1):68-78. DOI: 10.3906/tar-2007-7
- Solovyeva A.E., Shelenga T.V., Konarev A.V., Kurina A.B., Kornukhin D.L., Fateev D.A., Artemyeva A.M. Nutritional and biologically active compounds in Russian (VIR) Brassicaceae vegetable crops collection. *Turkish Journal of Agriculture and Forestry*. 2021;45(5):541-556. DOI: 10.3906/tar-2010-95
- Abdullaev R.A., Lebedeva T.V., Alpatieva N.V., Batasheva B.A., Anisimova I.N., Radchenko E.E. Powdery mildew resistance of barley accessions from Dagestan. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2021;25(5):528-533. DOI: 10.18699/VJ21.059
- Fotev Yu.V., Artemyeva A.M., Zvereva O.A. Genetic resources of vegetable crops: from breeding nontraditional crops to functional food. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2021;25(4):442-447. DOI: 10.18699/VJ21.049
- Gancheva M.S., Losev M.R., Gurina A.A., Poliushkevich L.O., Dodueva I.E., Lutova L.A. Polymorphism of CLE gene sequences in potato. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2021;25(7):746-753. DOI: 10.18699/VJ21.085
- Gavrilova O.P., Gagkaeva T.Yu., Orina A.S., Markova A.S., Kabashov A.D., Loskutov I.G. Resistance of oat breeding lines to grain contamination with *Fusarium langsethiae* and T-2/HT-2 toxins. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2021;25(7):732-739. DOI: 10.18699/VJ21.083
- Kochetov A.V., Gavrilenko T.A., Afanasenko O.S. New genetic tools for plant defense against parasitic nematodes. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2021;25(3):337-343. DOI: 10.18699/VJ21.037
- Kurina A.B., Solovieva A.E., Khrapalova I.A., Artemyeva A.M. Biochemical composition of tomato fruits of various colors. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2021;25(5):514-527. DOI: 10.18699/VJ21.058
- Lyapunova O.A. Intraspecific diversity of durum wheat (*Triticum durum* Desf.): a unified classification. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2021;25(3):260-268. DOI: 10.18699/VJ21.029
- Totsky I.V., Rozanova I.V., Safonova A.D., Batov A.S., Gureeva Yu.A., Khlestkina E.K., Kochetov A.V. Genotyping of potato samples from the GenAgro ICG SB RAS collection using DNA markers of genes conferring resistance to phytopathogens. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2021;25(6):677-686. DOI: 10.18699/VJ21.077

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

Yudina R.S., Gordeeva E.I., Shoeva O.Yu., Tikhonova M.A., Khlestkina E.K. Anthocyanins as functional food components. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2021;25(2):178-189. DOI: 10.18699/VJ21.022

Vishnyakova M.A., Vlasova E.V., Egorova G.P. Genetic resources of narrow-leaved lupine (*Lupinus angustifolius* L.) and their role in its domestication and breeding. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2021;25(6):620-630. DOI: 10.18699/VJ21.070

