

НАУЧНЫЕ ПУБЛИКАЦИИ СОТРУДНИКОВ ВИР В ЖУРНАЛАХ, ИНДЕКСИРУЕМЫХ В БАЗАХ ДАННЫХ
«СЕТЬ НАУКИ» (WEB OF SCIENCE) И SCOPUS. 2024 г. (на 31.12.2024)

Artemyeva A.M. VIR worldwide collection of vegetable and cucurbit crops: formation, status and modern research activities. *Acta Horticulturae*. 2024;1391:283-290. DOI: 10.17660/ActaHortic.2024.1391.39

Kurina A.B., Smirnova I.V., Solovieva A.E. Variability of sugar content of the VIR root chicory collection under different sites of cultivation. *Acta Horticulturae*. 2024;1391:291-296. DOI: 10.17660/ActaHortic.2024.1391.40

Kukoeva T.V., Molobekova C.A., Totsky I.V., Vasiliev G.V., Pronozin A.Y., Afonnikov D.A., Khlestkina E.K., Shoeva O.Y. Enrichment of Grain Anthocyanin Content through Marker-Assisted Breeding for *Ant1*, *Ant2* or *HvMyc2* Genes in Barley (*Hordeum vulgare* L.). *Agronomy*. 2024;14(6):1231. DOI: 10.3390/agronomy14061231

Sokolova D.V., Shvachko N.A., Mikhailova A.S., Popov V.S., Solovyeva A.E., Khlestkina E.K. Characterization of Betalain Content and Antioxidant Activity Variation Dynamics in Table Beets (*Beta vulgaris* L.) with Differently Colored Roots. *Agronomy*. 2024;14(5):999. DOI: 10.3390/agronomy14050999

Solovyeva A., Rogozina E., Chalaya N., Sitnikov M. Biochemical Composition of Tubers of New Russian Potato Cultivars. *Agronomy*. 2024;14(4):834. DOI: 10.3390/agronomy14040834

Stepanova N., Tarakhovskaya E., Soboleva A., Orlova A., Basnet A., Smolenskaya A., Frolova N., Bilova T., Kamionskaya A., Frolov A., Medvedev S., Smolikova G. Green Light Drives Embryonic Photosynthesis and Protein Accumulation in Cotyledons of Developing Pea (*Pisum sativum* L.) Seeds. *Agronomy*. 2024;14(10):2367. DOI: 10.3390/agronomy14102367

Novikova I.I., Kolesnikov L.E., Popova E.V., Hassan B.A., Priyatkin N.S., Radishevskiy D.Y., Krasnobaeva I.L., Higerovich L.A., Kolesnikova Yu.R. The Biological Efficiencies of Multifunctional Complexes Based on *Bacillus subtilis* Strains and Chitosan Salicylate in Wheat Cultivation. *Applied Biochemistry and Microbiology*. 2024;60(2):251-263. DOI: 10.1134/S0003683824020133

Bogomaz O.D., Bemova V.D., Mirgorodskii N.A., Matveeva T.V. Evolutionary Fate of the Opine Synthesis Genes in the *Arachis* L. Genomes. *Biology*. 2024;13(8):601. DOI: 10.3390/biology13080601

Krivenko D.A., Barsukova I.N., Chepinoga V.V., Gnutikov A.A., Gudkova P.D., Leonova T.V., Myakoshina Yu.A., Olonova M.V., Pavlichenko V.V., Protopopova M.V. Botanical Pacifica plant chromosome data 4. *Botanica Pacifica: a Journal of Plant Science and Conservation*. 2024. DOI: 10.17581/bp.2025.14101

Razgonova M.P., Sabitov A.S., Senotrusova T.A., Lee N.G., Vitomskova E.A., Golokhvast K.S. *Ribes fragrans* Pall.: Supercritical CO₂-extraction and complete plant metabolome *Botanica Pacifica: a Journal of Plant Science and Conservation*. 2024;13(2):61-72. DOI: 10.17581/bp.2024.13209

Lavrent'yeva S.I., Ivachenko L.E., Blinova A.A., Bondarenko O.N., Kuznetsova V.A. Chemical Composition of Seeds in Soybean *Glycine soja* (Fabaceae) of Amur Oblast. *Doklady Biological Sciences*. 2024;518(1):194-204 DOI: 10.1134/S0012496624701114

Khatefov E.B., Bogdan P.M., Grushin A.A., Fil I.V., Sherstobitov V.V., Boyko V.N. Sources and donors of the multi-row ear trait for hybrid breeding of corn in the VIR collection. *Ecological genetics*. 2024;22(2):151-160. DOI: 10.17816/ecogen625673

Lukina K.A., Abdullaev R.A., Alpatieva N.V., Loskutov I.G., Kovaleva O.N. Genetic diversity of naked barley accessions from the VIR collection for resistance to powdery mildew in the North-West Region of the Russian Federation. *Ecological genetics*. 2024;22(3):243-253. DOI: 10.17816/ecogen634379

Glagoleva A.Y., Kukoeva T.V., Khlestkina E.K., Shoeva O.Y. Polyphenol oxidase genes in barley (*Hordeum vulgare* L.): functional activity with respect to black grain pigmentation. *Frontiers in Plant Science*. 2024;14:1320770. DOI: 10.3389/fpls.2023.1320770

Widener S., Njuguna J.N., Clark L.V., Anzoua K.G., Bagmet L., Chebukin P., Dwiyanthi M.S., Dzyubenko E., Dzyubenko N., Ghimire B.K., Jin X., Jørgensen U., Kjeldsen J.B., Nagano H., Peng Ju., Petersen K.K., Sabitov A., Seong E.S., Yamada T., Yoo Ji.H., Yu C.Y., Zhao H., Jarquin D., Sacks E., Lipka A.E. Genotype by environment model predictive ability in *Miscanthus*. *GCB Bioenergy*. 2024;16(1):e13113. DOI: 10.1111/gcbb.13113

Samarina L., Malyukova L., Koninskaya N., Malyarovskaya V., Ryndin A., Tong W., Xia E., Khlestkina E. Efficient vegetation indices for phenotyping of abiotic stress

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tolerance in tea plant (*Camellia sinensis* (L.) Kuntze). *Heliyon*. 2024;10(15):e35522. DOI: 10.1016/j.heliyon.2024.e35522

Kolesnikov L.E., Hassan B.A., Belimov A.A., Orlova A.G., Minakov D.S., Kolesnikova Yu.R. Application of Associative Rhizobacteria for Increasing the Soft Wheat Productivity and Reducing the Diseases Harmfulness. *Indian Journal of Agricultural Research*. 2024;58(1):63-69. DOI: 10.18805/IJAr.AF-766

Amosova A.V., Gnutikov A.A., Rodionov A.V., Loskutov I.G., Nosov N.N., Yurkevich O.Y., Samatadze T.E., Zoshchuk S.A., Muravenko O.V. Genome Variability in Artificial Allopolyploid Hybrids of *Avena sativa* L. and *Avena macrostachya* Balansa. ex Coss. et Durieu Based on Marker Sequences of Satellite DNA and the ITS1–5.8S rDNA Region. *International Journal of Molecular Sciences*. 2024;25(10):5534. DOI: 10.3390/ijms25105534

Amosova A.V., Yurkevich O.Y., Semenov A.R., Samatadze T.E., Sokolova D.V., Artemyeva A.M., Zoshchuk S.A., Muravenko O.V. Genome Studies in *Amaranthus cruentus* L. and *A. hypochondriacus* L. Based on Repeatomic and Cytogenetic Data. *International Journal of Molecular Sciences*. 2024;25(24):13575. DOI: 10.3390/ijms252413575

Egorova A.A., Zykova T.E., Hertig C.W., Hoffie I., Morozov S.V., Chernyak E.I., Rogachev A.D., Korotkova A.M., Vikhorev A.V., Vasiliev G.V., Shoeva O.Y., Kumlehn J., Gerasimova S.V., Khlestkina, E.K. Accumulation of Anthocyanin in the Aleurone of Barley Grains by Targeted Restoration of the *MYC2* Gene. *International Journal of Molecular Sciences*. 2024;25(23):12705. DOI: 10.3390/ijms252312705

Gerasimova S.V., Korotkova A.M., Rodrigues T.d.S., Vikhorev A., Kolosovskaya E.V., Vasiliev G.V., Melzer M., Hertig C.W., Kumlehn J., Khlestkina E.K. Shedding New Light on the Hull-Pericarp Adhesion Mechanisms of Barley Grains by Transcriptomics Analysis of Isogenic *NUD1* and *nud1* Lines. *International Journal of Molecular Sciences*. 2024;25(23):13108. DOI: 10.3390/ijms252313108

Gnutikov A.A., Nosov N.N., Muravenko O.V., Amosova A.V., Shneyer V.S., Loskutov I.G., Punina E.O., Rodionov A.V. Genetic Diversity of the Species of the Genus *Deschampsia* P.Beauv. (Poaceae) Based on the Analysis of the ITS Region: Polymorphism Proves Distant Hybridization. *International Journal of Molecular Sciences*. 2024;25(21):11348. DOI: 10.3390/ijms252111348

Krylova E.A., Burlyaeva M.O., Tvorogova V.E., Khlestkina E.K. Contrast Relative Humidity Response of Diverse Cowpea (*Vigna unguiculata* (L.) Walp.) Genotypes: Deep Study Using RNAseq Approach. *International Journal of Molecular Sciences*. 2024;25(20):11056. DOI: 10.3390/ijms252011056

Punina E.O., Gnutikov A.A., Nosov N.N., Shneyer V.S., Rodionov A.V. Hybrid Origin of *×Leymotrigia bergrothii* (Poaceae) as Revealed by Analysis of the Internal Transcribed Spacer ITS1 and *trnL* Sequences. *International Journal of Molecular Sciences*. 2024;25(22):11966. DOI: 10.3390/ijms252211966

Razgonova M.P., Nawaz M.A., Sabitov A.S., Golokhvast K.S. Genus *Ribes*: *Ribes aureum*, *Ribes pauciflorum*, *Ribes triste*, and *Ribes dikuscha*-Comparative Mass Spectrometric Study of Polyphenolic Composition and Other Bioactive Constituents. *International Journal of Molecular Sciences*. 2024;25(18):10085. DOI: 10.3390/ijms251810085

Samarina L., Malyukova L., Wang S., Bobrovskikh A., Doroshkov A., Shkhalakhova R., Manakhova K., Koninskaya N., Matskiv A., Ryndin A., Khlestkina E., Orlov Yu. In Vitro vs. In Vivo Transcriptomic Approach Revealed Core Pathways of Nitrogen Deficiency Response in Tea Plant (*Camellia sinensis* (L.) Kuntze). *International Journal of Molecular Sciences*. 2024;25(21):11726. DOI: 10.3390/ijms252111726

Tikhonova M.A., Shoeva O.Y., Tenditnik M.V., Akopyan A.A., Litvinova E.A., Popova N.A., Amstislavskaya T.G., Khlestkina E.K. Antitumor Effects of an Anthocyanin-Rich Grain Diet in a Mouse Model of Lewis Lung Carcinoma. *International Journal of Molecular Sciences*. 2024;25(11):5727. DOI: 10.3390/ijms25115727

Gancheva M., Kon'kova N., Solovyeva A., Danilov L., Gusev K., Lutova L. Genome-Wide Identification and Expression Analysis of the *CLAVATA3/ESR*-Related Gene Family in Tiger Nut. *International Journal of Plant Biology*. 2024;15(4):1054-1062. DOI: 10.3390/ijpb15040074

Mikhailova A.S., Shvachko N.A., Podolnaya L.P., Brutch N.B., Khlestkina E.K. Candidate Genes for Brown Fiber in Cotton Revealed Among the *R2R3-Myb* and *bHLH-Myc* Gene Families. *Journal of Natural Fibers*. 2024;21(1):2399930. DOI: 10.1080/15440478.2024.2399930

Chizhik V., Kuznetsova M., Rogozina E., Martynov V. Polymorphism of *Avr* Genes in Russian Populations of *Phytophthora infestans*. *Journal of Phytopathology*. 2024;172(5):e13400. DOI: 10.1111/jph.13400

Lebedeva M.A., Dobyckina D.A., Bashtovenko K.A., Petrenko V.A., Rubtsova D.N., Kochetkova L.A., Azarakhsh M., Romanyuk D.A., Lutova L.A. MtCLE35 Mediates

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- Inhibition of Rhizobia-Induced Signaling Pathway and Upregulation of Defense-Related Genes in Rhizobia-Inoculated *Medicago truncatula* Roots. *Journal of Plant Growth Regulation*. 2024. DOI: <https://doi.org/10.1007/s00344-024-11448-y>
- 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*. 2024;43(2):652-658. DOI: [10.1007/s00344-023-11093-x](https://doi.org/10.1007/s00344-023-11093-x)
- Razgonova M.P., Sabitov A.S., Zinchenko Y.N., Senotrusova T.A., Li N.G., Vitomskova E.A., Golokhvast K.S. *Ribes fragrans* Pallas: supercritical CO₂ extraction and tandem mass spectrometry. *Khimiya Rastitel'nogo Syr'ya = Chemistry of plant raw material*. 2024;(1):260-275. DOI: [10.14258/jcprm.20240113178](https://doi.org/10.14258/jcprm.20240113178)
- Gordeev I.I., Tokarev Yu.S., Davydov E.A., Ekimova I.A., Drozdov K.A., Yatsenko I.O., Yatsenko O.V., Kochunova N.A., Bukharova N.V., Kondratyev M.S., Miroljubov A.A., Rozhkova-Timina I.O., Makeev S.S., Grishina D.Yu., Plaksin A.D., Semenov A.A. Combined Research Expedition “Crillon 2023”: First Findings and Preliminary Results. *Moscow University Biological Sciences Bulletin*. 2024;79(1):15-34. DOI: [10.3103/S0096392524600546](https://doi.org/10.3103/S0096392524600546)
- Samarina L., Malyukova L., Wang S., Li Y., Doroshkov A., Bobrovskikh A., Shkhalakhova R., Koninskaya N., Matskiv A., Velikiy A., Ryndin A., Khlestkina E. Nitrogen deficiency differentially affects lignin biosynthesis genes and flavanols accumulation in tolerant and susceptible tea genotypes (*Camellia sinensis* (L.) Kuntze). *Plant Stress*. 2024;14:100581. DOI: [10.1016/j.stress.2024.100581](https://doi.org/10.1016/j.stress.2024.100581)
- Antonova E.V., Shimalina N.S., Korotkova A.M., Kolosovskaya E.V., Gerasimova S.V., Khlestkina E.K. Germination and Growth Characteristics of *nud* Knockout and *win1* Knockout Barley Lines under Salt Stress. *Plants*. 2024;13(9):1169. DOI: [10.3390/plants13091169](https://doi.org/10.3390/plants13091169)
- Artemyeva A.M., Kurina A.B. Eco-Geographical and Botanical Patterns of Resistance to Lepidoptera Insects in *Brassica rapa* L. *Plants*. 2024;13(5):673. DOI: [10.3390/plants13050673](https://doi.org/10.3390/plants13050673)
- Duk M.A., Gursky V.V., Bankin M.P., Semenova E.A., Gurkina M.V., Golubkova E.V., Hirata D., Samsonova M.G., Surkova S.Y. Modeling Floral Induction in the Narrow-Leafed Lupin *Lupinus angustifolius* Under Different Environmental Conditions. *Plants*. 2024;13(24):3548. DOI: [10.3390/plants13243548](https://doi.org/10.3390/plants13243548)
- Fizikova A., Subcheva E., Kozlov N., Tvorogova V., Samarina L., Lutova L., Khlestkina E. *Agrobacterium* Transformation of Tea Plants (*Camellia sinensis* (L.) KUNTZE): A Small Experiment with Great Prospects. *Plants*. 2024;13(5):675. DOI: [10.3390/plants13050675](https://doi.org/10.3390/plants13050675)
- Gnutikov A.A., Nosov N.N., Punina E.O., Loskutov I.G., Shneyer V.S., Chekrygin S.A., Rodionov A.V. Hybridization in the Subtribe Alopecurinae Dumort. (Poaceae) According to Molecular Phylogenetic Analysis: Different Ploidy Level Tells Different Origin of the Groups. *Plants*. 2024;13(7):919. DOI: [10.3390/plants13070919](https://doi.org/10.3390/plants13070919)
- Kolesova M.A., Tyrshkin L.G. Genetic Control of Effective Seedling Leaf Rust Resistance in *Aegilops biuncialis* Vis. Accessions from the VIR Collection. *Plants*. 2024;13(16):2199. DOI: [10.3390/plants13162199](https://doi.org/10.3390/plants13162199)
- Kon'kova N.G., Khoreva V.I., Popov V.S., Yakusheva T.V., Malyshev L.L., Solovyeva A.E., Shelenga T.V. Variability of the Main Economically Valuable Characteristics of *Cyperus esculentus* L. in Various Ecological and Geographical Conditions. *Plants*. 2024;13(2):308. DOI: [10.3390/plants13020308](https://doi.org/10.3390/plants13020308)
- Krasnoperova E.Y., Tvorogova V.E., Smirnov K.V., Efremova E.P., Potsenkovskaia E.A., Artemiuk A.M., Konstantinov Z.S., Simonova V.Y., Brynchikova A.V., Yakovleva D.V., Pavlova D.B., Lutova L.A. *MtWOX2* and *MtWOX9-1* Effects on the Embryogenic Callus Transcriptome in *Medicago truncatula*. *Plants*. 2023;13(1):102. DOI: [10.3390/plants13010102](https://doi.org/10.3390/plants13010102)
- Lukina K.A., Porotnikov I.V., Antonova O.Y., Kovaleva O.N. Determination of the Allelic Composition of the *sdw1/denso* (*HvGA20ox2*), *uzul* (*HvBR11*) and *ari-e* (*HvDep1*) Genes in Spring Barley Accessions from the VIR Collection. *Plants*. 2024;13(3):376. DOI: [10.3390/plants13030376](https://doi.org/10.3390/plants13030376)
- Pavlov A.V., Porokhovina E.A., Slobodkina A.A., Matvienko I.I., Kishlyan N.V., Brutch N.B. Influence of Weather Conditions in the Northwestern Russian Federation on Flax Fiber Characters According to the Results of a 30-Year Study. *Plants*. 2024;13(6):762. DOI: [10.3390/plants13060762](https://doi.org/10.3390/plants13060762)
- Pishchik V.N., Chizhevskaya E.P., Kichko A.A., Aksenova T.S., Andronov E.E., Chebotar V.K., Filippova P.S., Shelenga T.V., Belousova M.H., Chikida N.N. Metabolome and Mycobiome of *Aegilops tauschii* Subspecies Differing in Susceptibility to Brown Rust and Powdery Mildew Are Diverse. *Plants*. 2024;13(17):2343. DOI: [10.3390/plants13172343](https://doi.org/10.3390/plants13172343)
- Potsenkovskaia E.A., Tvorogova V.E., Simonova V.Y., Konstantinov Z.S., Kiseleva A.S., Matveenko A.G., Brynchikova A.V., Lutova L.A. CRISPR-Based Editing of

Федеральный исследовательский центр Всероссийский институт генетических ресурсов растений имени Н.И. Вавилова
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the *Medicago truncatula* LEC1 Gene. *Plants*. 2024;13(22):3226. DOI: 10.3390/plants13223226

Radchenko E.E., Anisimova I.N., Ryazanova M.K., Kibkalo I.A., Alpatieva N.V. Newly Developed Restorer Lines of Sorghum [*Sorghum bicolor* (L.) Moench] Resistant to Greenbug. *Plants*. 2024;13(3):425. DOI: 10.3390/plants13030425

Shvachko N., Solovyeva M., Rozanova I., Kibkalo I., Kolesova M., Brykova A., Andreeva A., Zuev E., Börner A., Khlestkina E. Mining of QTLs for Spring Bread Wheat Spike Productivity by Comparing Spring Wheat Cultivars Released in Different Decades of the Last Century. *Plants*. 2024;13(8):1081. DOI: 10.3390/plants13081081

Smolikova G., Krylova E., Petřík I., Vilis P., Vikhorev A., Strygina K., Strnad M., Frolov A., Khlestkina E., Medvedev S. Involvement of Abscisic Acid in Transition of Pea (*Pisum sativum* L.) Seeds from Germination to Post-Germination Stages. *Plants*. 2024;13(2):206. DOI: 10.3390/plants13020206

Yakovleva D.V., Efremova E.P., Smirnov K.V., Simonova V.Y., Konstantinov Z.S., Tvorogova V.E., Lutova L.A. The *WOX* Genes from the Intermediate Clade: Influence on the Somatic Embryogenesis in *Medicago truncatula*. *Plants*. 2024;13(2):223. DOI: 10.3390/plants13020223

Zubairova U.S., Fomin I.N., Koloshina K.A., Barchuk A.I., Erst T.V., Chalaya N.A., Gerasimova S.V., Doroshkov A.V. Image-Based Quantitative Analysis of Epidermal Morphology in Wild Potato Leaves. *Plants*. 2024;13(21):3084. DOI: 10.3390/plants13213084

Zuev E.V., Lebedeva T.V., Yakovleva O.V., Kolesova M.A., Brykova A.N., Lysenko N.S., Tyryshkin L.G. Genetic Diversity for Effective Resistance in Wheat Landraces from Ethiopia and Eritrea to Fungal Diseases and Toxic Aluminum Ions. *Plants*. 2024;13(8):1166. DOI: 10.3390/plants13081166

Korzhikov-Vlakh V., Mikhailova A., Sinitsyna E., Korzhikova-Vlakh E., Tennikova T. Gradient Functionalization of Poly(lactic acid)-Based Materials with Polylysine for Spatially Controlled Cell Adhesion. *Polymers*. 2024;16(20):2888. DOI: 10.3390/polym16202888

Agakhanov M.M., Bagmet L.V., Tikhonova N.G., Erastenkova M.V., Kislin E.N., Ukhatova Yu.V., Khlestkina E.K. The plant germplasm and herbarium (WIR) collections maintained at VIR as contributors to grape genetic diversity conservation, expansion and utilization. *Proceedings on applied botany, genetics and breeding*. 2024;185(1):191-211. DOI: 10.30901/2227-8834-2024-1-191-211

Alpatieva N.V., Anisimova I.N., Ryazanova M.K., Vasipov V.V., Abdullaev R.A., Romanova O.I., Radchenko E.E. Genetic diversity of kaffir sorghum accessions from the VIR collection in kafirin-encoding loci. *Proceedings on applied botany, genetics and breeding*. 2024;185(4):118-129. DOI: 10.30901/2227-8834-2024-4-118-129

Anisimova I.N., Khafizova G.V., Makarova L.G., Alpatieva N.V., Ryazanova M.K., Borisenko O.M., GavriloVA V.A. The inheritance pattern for the dwarf phenotype in hybrids from crosses among sunflower lines differing in alleles of the *Rht1* locus. *Proceedings on applied botany, genetics and breeding*. 2024;185(3):135-146. DOI: 10.30901/2227-8834-2024-3-135-146

Arkhestova D.Kh., Yakhutlova A.A., Khaudov A.D., Sokurova L.Kh., Kulemina T.V. Effectiveness of ISSR markers for detecting genomic variability in *Panicum miliaceum* L. accessions. *Proceedings on applied botany, genetics and breeding*. 2024;185(1):161-171. DOI: 10.30901/2227-8834-2024-1-161-171

Bagmet L.V. Crop wild relatives in Adygea: inventorying and conservation. *Proceedings on applied botany, genetics and breeding*. 2024;185(4):9-19. DOI: 10.30901/2227-8834-2024-4-9-19

Bemova V.D., Shelenga T.V., Asfandiyarova M.Sh., Yakusheva T.V., Kishlyan N.V. Studying the biochemical composition of peanut accessions from the VIR collection. *Proceedings on applied botany, genetics and breeding*. 2024;185(3):94-104. DOI: 10.30901/2227-8834-2024-3-94-104

Bobkov S.V., Bashkirova K.A., Semenova E.V., Vishnyakova M.A. Comparative assessment of the photosynthetic pigment content among representatives of intraspecific taxa in *Pisum sativum* L. *Proceedings on applied botany, genetics and breeding*. 2024;185(4):32-46. DOI: 10.30901/2227-8834-2024-4-32-46

Butovets E.S., Lukyanchuk I.M., Kodirova G.A., Kubankova G.V., Efremova O.S. Studying regenerated soybean lines for their useful agronomic and biochemical characteristics. *Proceedings on applied botany, genetics and breeding*. 2024;185(2):38-49. DOI: 10.30901/2227-8834-2024-2-38-49

Fedina L.A., Polezhaeva M.A., Iunusova D.R., Koldaeva M.N., Sabitov A.Sh. The finding of black currants from sect. *Eucoreosma* (Grossulariaceae) in the central part of southern Primorsky Territory, Russia. *Proceedings on applied botany, genetics and breeding*. 2024;185(3):210-223. DOI: 10.30901/2227-8834-2024-3-210-223

Firsova M.R., Shomakhov B.R., Kushkhova R.S., Khashirova Z.T., Kudaev R.A., Gyaurgiev A.Kh., Appaev S.P., Kagermazov A.M., Khachidogov A.V., Buzurtanov A.I., Badurgova K.Sh., Bazgiev M.A., Goldstein V.G., Khoreva V.I., Khatefov E.B. Assessment of grain starch content and responses to CMS-S and CMS-C in high-starch maize

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- hybrids. *proceedings on applied botany, genetics and breeding*. 2024;185(3):166-179. DOI: 10.30901/2227-8834-2024-3-166-179
- Fomina M.N., Ivanova Yu.S., Bragina M.V., Kovaleva O.N. Evaluation of spring barley cultivars released in Belarus under the environmental conditions of the Northern Trans-Urals. *Proceedings on applied botany, genetics and breeding*. 2024;185(3):78-93. DOI: 10.30901/2227-8834-2024-3-78-93
- Fomina M.N., Ivanova Yu.S., Lebedeva N.V., Varganova I.V. Nomenclatural standards of oat (*Avena sativa* L.) cultivars released by the Research Institute of Agriculture for the Northern Trans-Ural Region. *Proceedings on applied botany, genetics and breeding*. 2024;185(4):233-245. DOI: 10.30901/2227-8834-2024-4-233-245
- Gavrilova V.A., Anisimova I.N., Alpatieva N.V., Porokhovinova E.A. Structuring the genetic collection of sunflower. *Proceedings on applied botany, genetics and breeding*. 2024;185(4):130-142. DOI: 10.30901/2227-8834-2024-4-130-142
- Ivashchenko A.D., Sherstyukova T.P., Khasbiullina O.I., Rogozina E.V. Breeding value of potato hybrid clones from the VIR collection revealed in the environments of Kamchatka Territory. *Proceedings on applied botany, genetics and breeding*. 2024;185(1):51-63. DOI: 10.30901/2227-8834-2024-1-51-63
- Kharchenko A.A., Belevtsova V.I., Chukhina I.G. Strawberry cultivars with *Fragaria orientalis* Losinsk. in their pedigrees. *Proceedings on applied botany, genetics and breeding*. 2024;185(2):189-200. DOI: 10.30901/2227-8834-2024-2-189-200
- Krylova E.A., Khlestkina E.K. *TFL1*-like genes in *Vigna unguiculata* (L.) Walp. with different growth habit types. *Proceedings on applied botany, genetics and breeding*. 2024;185(4):143-149. DOI: 10.30901/2227-8834-2024-4-143-149
- Kurkiev K.U., Gadjimagomedova M.Kh. Prospects for the development of white cabbage seed production in the Republic of Dagestan. *Proceedings on applied botany, genetics and breeding*. 2024;185(4):246-251. DOI: 10.30901/2227-8834-2024-4-246-251
- Lesik E.V., Kreshchenok I.A., Talovina G.V. The genus *Helianthus* L. in the Russian Far East and in East Asia. *Proceedings on applied botany, genetics and breeding*. 2024;185(3):224-238. DOI: 10.30901/2227-8834-2024-3-224-238
- Loskutov I.G., Blinova E.V., Novikova L.Yu. Evaluation of aluminum tolerance diversity in *Avena sativa* L. from the VIR collection. *Proceedings on applied botany, genetics and breeding*. 2024;185(1):129-138. DOI: 10.30901/2227-8834-2024-1-129-138
- Lukina K.A., Loskutov I.G., Khoreva V.I., Kovaleva O.N. Source material for naked barley breeding in the Northwest of the Russian Federation. *Proceedings on applied botany, genetics and breeding*. 2024;185(4):107-117. DOI: 10.30901/2227-8834-2024-4-107-117
- Lyapunova O.A. Landraces of durum wheat (*Triticum durum* Desf.) in the VIR collection. *Proceedings on applied botany, genetics and breeding*. 2024;185(2):9-24. DOI: 10.30901/2227-8834-2024-2-9-24
- Markova E.N., Berensen F.A., Gashkova I.V., Antonova O.Yu. Molecular screening of rare cucurbit accessions for the presence of markers for genes and QTIs controlling resistance to powdery mildew. *Proceedings on applied botany, genetics and breeding*. 2024;185(4):196-208. DOI: 10.30901/2227-8834-2024-4-196-208
- Menkov M.T., Rozanova I.V., Evlash A.Ya., Khlestkina E.K. Next-generation sequencing in soybean breeding and genetic research. *Proceedings on applied botany, genetics and breeding*. 2024;185(4):252-263. DOI: 10.30901/2227-8834-2024-4-252-263
- Mikhailova A.S., Sokolova D.V., Shvachko N.A., Popov V.S., Khlestkina E.K. Allelic differences in the key genes of betalain biosynthesis in table beet accessions with contrasting root color from the VIR collection. *Proceedings on applied botany, genetics and breeding*. 2024;185(1):139-151. DOI: 10.30901/2227-8834-2024-1-139-151
- Mironenko N.V., Kovalenko N.M., Baranova O.A., Khakimova A.G., Mitrofanova O.P. Seedling resistance of winter and spring bread wheat cultivars to *Pyrenophora tritici-repentis*. *Proceedings on applied botany, genetics and breeding*. 2024;185(2):95-105. DOI: 10.30901/2227-8834-2024-2-95-105
- Nesterova E.A., Shvachko N.A. The *OsGATA* gene family as a promising candidate for applying the CRISPR/Cas genome editing technology to improve the nutritional and yield qualities of rice (*Oryza sativa* L.). *Proceedings on applied botany, genetics and breeding*. 2024;185(4):264-280. DOI: 10.30901/2227-8834-2024-4-264-280
- Petrova L.V., Novikova L.Yu., Alekseeva A.V., Loskutov I.G. Climate change and crop yield of oats (*Avena sativa* L.) in Yakutia. *Proceedings on applied botany, genetics and breeding*. 2024;185(1):86-98. DOI: 10.30901/2227-8834-2024-1-86-98
- Popov V.S., Konkova N.G., Shelenga T.V., Khoreva V.I., Kibkalo I.A., Gadjimagomedova M.Kh., Suvaryan L.G. Rapid assessment of main agronomic indicators in the grain of winter and spring forms of triticale using infrared spectroscopy. *Proceedings on applied botany, genetics and breeding*. 2024;185(3):61-70. DOI: 10.30901/2227-8834-

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2024-3-61-70

Popov V.S., Salikova A.V., Perchuk I.N., Konkova N.G., Egorova G.P., Vishnyakova M.A., Shelenga T.V. Rapid assessment of the main economic value indicators in lupine flour samples using infrared spectroscopy. *Proceedings on applied botany, genetics and breeding*. 2024;185(1):99-108. DOI: 10.30901/2227-8834-2024-1-99-108

Popov V.S., Shelenga T.V., Kovaleva O.N., Khoreva V.I. Methodological aspects of using NIR spectroscopy to assess biochemical indicators in barley grain. *Proceedings on applied botany, genetics and breeding*. 2024;185(1):109-117. DOI: 10.30901/2227-8834-2024-1-109-117

Rigin B.V., Loskutov I.G., Matvienko I.I., Shchedrina Z.A., Abdullaev R.A., Zuev E.V., Radchenko E.E. Contribution of Dr. Vladimir A. Koshkin to the development of plant physiology at VIR. *Proceedings on applied botany, genetics and breeding*. 2024;185(2):219-228. DOI: 10.30901/2227-8834-2024-2-219-228

Semilet T.V., Smirnova N.V., Shvachko N.A., Kovaleva O.N., Khlestkina E.K. Restoration of the spike architectonics in ancient barley excavated at the twelfth-century settlement of Usvyaty. *Proceedings on applied botany, genetics and breeding*. 2024;185(3):199-209. DOI: 10.30901/2227-8834-2024-3-199-209

Shergina A.A., Kurina A.B. Androgenesis and gynogenesis in tomato (*Solanum lycopersicum* L.) *in vitro*. *Proceedings on applied botany, genetics and breeding*. 2024;185(1):224-232. DOI: 10.30901/2227-8834-2024-1-224-232

Sherstobitov V.V., Kolesova M.A. Resistance of European plum to fungal diseases in the foothill zone of Adygea. *Proceedings on applied botany, genetics and breeding*. 2024;185(2):210-218. DOI: 10.30901/2227-8834-2024-2-210-218

Shipilina L.Yu., Khmelinskaya T.V. Collections of the wild *Daucus carota* L. preserved at VIR. *Proceedings on applied botany, genetics and breeding*. 2024;185(1):16-26. DOI: 10.30901/2227-8834-2024-1-16-26

Silantyeva M.M., Mironenko O.N., Ovcharova N.V., Chukhina I.G., Poltaratskaya Yu.R., Nebylitsa A.V., Bychkova O.V., Myakisheva E.P. Phytocenotic arrangement of the common hop in the south of western Siberia. *Proceedings on applied botany, genetics and breeding*. 2024;185(4):20-31. DOI: 10.30901/2227-8834-2024-4-20-31

Sokolova D.V., Piskunova T.M., Valentin I. Burenin. The entire life was dedicated to science. *Proceedings on applied botany, genetics and breeding*. 2024;185(1):233-240. DOI: 10.30901/2227-8834-2024-1-233-240

Tikhonova O.A., Popov V.S. Black currant cultivars, developed at the Polli Horticultural Research Center (Estonia), in Northwest Russia. *Proceedings on applied botany, genetics and breeding*. 2024;185(3):120-134. DOI: 10.30901/2227-8834-2024-3-120-134

Varganova I.V., Kardashina V.E., Bessonova L.V., Vyatkina R.I., Lebedeva N.V. Nomenclatural standards for the spring oat cultivars (*Avena sativa* L.) developed in the Urals and Siberia. *Proceedings on applied botany, genetics and breeding*. 2024;185(4):221-232. DOI: 10.30901/2227-8834-2024-4-221-232

Volkova L.V., Amunova O.S., Kharina A.V., Zuev E.V. The results of a comprehensive study of spring wheat accessions from the VIR collection according to their breeding characteristics. *Proceedings on applied botany, genetics and breeding*. 2024;185(4):94-106. DOI: 10.30901/2227-8834-2024-4-94-106

Voytutskaya N.P., Loskutov I.G., Blinova E.V., Novikova L.Yu. Evaluation of oat accessions from different ecological groups in the steppe environments of Krasnodar Territory. *Proceedings on applied botany, genetics and breeding*. 2024;185(3):105-119. DOI: 10.30901/2227-8834-2024-3-105-119

Zagnukhina N.A., Kurina A.B. Interspecific hybridization and cell engineering of lettuce (*Lactuca* L.). *Proceedings on applied botany, genetics and breeding*. 2024;185(3):256-264. DOI: 10.30901/2227-8834-2024-3-256-264

Zoteyeva N.M., Kosareva O.S., Rogozina E.V., Chalaya N.A. Resistance of potato cultivars and hybrid clones from the VIR collection to the northwestern population of *Phytophthora infestans*. *Proceedings on applied botany, genetics and breeding*. 2024;185(2):201-209. DOI: 10.30901/2227-8834-2024-2-201-209

Zoteyeva N.M., Porokhvinova E.A., Fateev D.A., Chalaya N.A. Leaf and tuber resistance to *Phytophthora infestans* and relationship between these traits in wild potato species. *Proceedings on applied botany, genetics and breeding*. 2024;185(1):172-183. DOI: 10.30901/2227-8834-2024-1-172-183

Razgonova M.P., Nawaz M.A., Ivanova E.P., Cherevach E.I., Golokhvast K.S. Supercritical CO₂-Based Extraction and Detection of Phenolic Compounds and Saponins from the Leaves of Three *Medicago varia* Mart. Varieties by Tandem Mass Spectrometry. *Processes*. 2024,12(5),1041. DOI: 10.3390/pr12051041

Chernov V.E., Sokolova M.O., Kokorina A.A., Pendinen G.I. Immunophenotyping of a population of cultured human umbilical cord cells from Wharton's jelly. *Russian Military Medical Academy Reports*. 2024;43(2): 167-174. DOI: 10.17816/rmmar624871

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- Radchenko E.E., Anisimova I.N., Alpatieva N.V. Polymorphism of Russian Populations of *Rhopalosiphum padi* L. Based on DNA Markers. *Russian Journal of Genetics*. 2024;60(8):1056-1062. DOI: 10.1134/S1022795424700522
- Razgonova M.P., Cherevach E.I., Kirilenko N.S., Demidova E.N., Golokhvast K.S. Determining the Polyphenol Complex in *Reynoutria japonica* Houtt. by the Tandem Mass Spectrometry Method. *Russian Journal of Plant Physiology*. 2024;71(3):99. DOI: 10.1134/S1021443724606049
- Lagmetova N.A., Alieva Z.M., Kurkiev K.U., Gadjimagomedova M.Kh. Morphophysiological and biochemical changes in calli of various winter triticale (\times *Triticosecale* Wittmack) varieties under salinization. *Sel'skokhozyaistvennaya Biologiya [Agricultural Biology]*. 2024;59(3):525-536. DOI: 10.15389/agrobiology.2024.3.525eng
- Lysenko N.S., Malyshev L.L., Puzansky R.K., Shavarda A.L., Shelenga T.V. Biomarkers for alumotolerance of winter-hardy forms of *Triticum aestivum* L. from the VIR collection. *Sel'skokhozyaistvennaya Biologiya [Agricultural Biology]*. 2024;59(1):116-130. DOI: 10.15389/agrobiology.2024.1.116eng
- Gordeeva E.I., Shamanin V.P., Khlestkina E.K., Shoeva O.Yu. On peculiarities of breeding purple-grained wheat based on varieties with anthocyanin pigmentation of coleoptiles and stems. *Sel'skokhozyaistvennaya Biologiya [Agricultural Biology]*. 2024;59(3):507-524. DOI: 10.15389/agrobiology.2024.3.507eng
- Panova G.G., Levinskikh M.A., Novak A.B., Rodkin V.V., Teplyakov A.V., Balashova I.T., Artemyeva A.M., Shved D.M., Udalova O.R., Mirskaya G.V., Kuleshova T.E., Khomyakov Yu.V., Vertebny V.E., Chesnokov Yu.V. Do the geographic location and environmental conditions affect dwarf tomato plant culture grown in greenhouses and other protected structures of various types? *Sel'skokhozyaistvennaya Biologiya [Agricultural Biology]*. 2024;59(5):910-926. DOI: 10.15389/agrobiology.2024.5.910eng
- Shoeva O.Yu., Gordeeva E.I., Khlestkina E.K., Gashimov M.E., Kurkiev K.U. Study of rare species of wheat as donors for breeding for functional nutrition. *Sel'skokhozyaistvennaya Biologiya [Agricultural Biology]*. 2024;59(5):955-972. DOI: 10.15389/agrobiology.2024.5.955eng
- Marhold Karol, Kučera Jaromír, Aleksandrova Tatiana G., Badaeva Ekaterina D., Banaev Evgeny V., Burlyaeva Marina O., Chemeris Elena V., Dyubenko Tatyana V., Erst Anna A., Geltman Dmitry V., Gnutikov Alexander A., Grebenjuk Alexey V., Konotop Nikita K., Korobkov Aleksander A., Kotseruba Violetta V., Krivenko Denis A., Lomonosova Maria N., Myakoshina Yulia A., Nosov Nikolai N., Pankova Tatyana V., Poliakova Tatiana A., Pshenichkina Yuliya A., Punina Elizaveta O., Rodionov Alexander V., Shatokhina Anna V., Shauro Dmitry N., Shemetova Tatyana A., Tomoshevich Mariya A., Veklich Tatiana N., Vinogradova Yulia S., Zykova Elena Yu. IAPT chromosome data 44. *Taxon*. 2024;73. DOI: 10.1002/tax.13283
- Panova G.G., Semenov K.N., Artemieva A.M., Rogozhin E.A., Barashkova A.S., Kornukhin D.L., Khomyakov Yu.V., Balashov E.V., Galushko A.S., Vertebnyi V.E., Zhuravleva A.S., Volkova E.N., Shpanev A.M., Udalova O.R., Kanash E.V. Influence of Nanocompositions Based on Light Fullerene Derivatives on Cultural Plants under Favorable and Stress Conditions of Their Habitat. *Technical Physics*. 2024;69(4):996-1009. DOI: 10.1134/S1063784224030319
- Nawaz M.A., Razgonova M. P., Rusakova E.A., Petrusha E.N., Sabitov A.S., Chunikhina O.A., Ercişli S., Tikhonova N.G., Golokhvast K.S. Global metabolome profiles of *Lonicera caerulea* L. and *Lonicera caerulea* ssp. *kamtschatica* (Sevast.) Gladkova. *Turkish Journal of Agriculture and Forestry*. 2024;48(5):745-759. DOI: 10.55730/1300-011X.3216
- Gurina A.A., Gancheva M.S., Alpatieva N.V., Rogozina E.V. *In silico* search for and analysis of *R* gene variation in primitive cultivated potato species. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2024;28(2):175-184. DOI: 10.18699/vjgb-24-21
- Gordeeva E.I., Shoeva O.Y., Khlestkina E.K. A comparative study on germination of wheat grains with different anthocyanin pigmentation of the pericarp in natural or induced aging. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2024;28(5):495-505. DOI: 10.18699/vjgb-24-56
- Sokolova D.V., Solovieva A.E., Zaretsky A.M., Shelenga T.V. The potential of the amaranth collection maintained at VIR in the context of global plant breeding and utilization trends. *Vavilovskii Zhurnal Genetiki i Seleksii = Vavilov Journal of Genetics and Breeding*. 2024;28(7):731-743. DOI: 10.18699/vjgb-24-81

