

GRAIN LEGUMES WG REPORT FOR PHASE IX (2014-2018)

Submitted to the 15th Steering Committee Meeting, Thessaloniki, Greece, May 2018
by: Creola Brezeanu

Date of compilation: 6 March 2018

1. CONTRIBUTION TO ECPGR OBJECTIVES

1.1. Achievements and success stories

Outcome 1. AEGIS is operational. Accessions in AEGIS are characterized and evaluated (SMARTLEG).

- During the growing season, 2017, each partner of the SMARTLEG Activity evaluated morphological characteristics in open field condition of all selected accessions from different geographic origins (from participating and self-funded partner collections).
- In addition, the strategy to obtain self-derived progeny from *P. coccineus* and DNA extraction method suited for genotyping by sequencing was devised. For that purpose, 140 accessions were planted in the greenhouse at the Agricultural Institute of Slovenia (AIS), coordinator institute of SMARTLEG, and self-pollinated by hand. Since there are no SSRs specifically developed for *P. coccineus*, a set of 12 already proven and reliable cross-species amplified SSR markers were chosen.
- All selected accessions from different geographic origins (from participating and self-funded partner collections), were evaluated using SSR molecular marker analysis to assess genetic background and genetic/molecular diversity.
- The molecular marker analysis is being finalized, currently is in phase of data management and statistical analysis. Final results of the Activity (final report to be completed by the end of March 2018) are expected to contribute new data and new bean accessions to AEGIS.

Outcome 2. Quantity and quality of data in EURISCO, including in situ and on-farm data, have been increased. Functionality of EURISCO meets users' expectations (SMARTLEG).

- Further to the meeting held in Ljubljana (April 2017), reference/standard varieties were identified and distributed among partners. Before sowing, morpho-numerical seed characterization was performed according to the Community Plant Variety Office-Technical Protocol (CPVO-TP) and *Phaselieu* / AIS descriptors for seed morphology.
- During the growing season, each partner evaluated morphological characteristics in the field.
- A collection of 166 accessions (ACCs) including 17 composite ACCs was established with support of four participating and four self-funded countries.
- Altogether a total of 207 ACCs were assessed, from Austria (16), Bosnia and Herzegovina (18), Italy (7), Macedonia (32), Romania (12), Serbia (12), Slovakia (57) and Slovenia (53).
- Three commercial varieties from different geographic origins of *P. coccineus* ('Bonela' from Austria, 'Darko' from Serbia and 'Emergo' from Slovenia) were included as standards.
- Morpho-numeric characterization covered: seed length (L) [mm], width in longitudinal cross section (T) [mm], shape of median-cross section (W) [mm], L/W and W/T ratios,

seed colour, no. of colours, main colour, predominant secondary colour, distribution of secondary colour, veining, seed shape, average 10 seeds weight [g] and seed colour and coat pattern.

- Additionally, all selected accessions from different geographic origins were evaluated using SSR molecular marker analysis.
- Results of the Activity (final report to be completed by the end of March 2018) are expected to contribute new data to EURISCO.

Outcome 5. Relations with users of germplasm are strengthened (SMARTLEG).

Expected products/results

- SSR marker data on commonly agreed set of 90 European *Phaseolus coccineus* accessions: the molecular marker analysis is being finalized and will be followed by molecular and morphological data management and statistical analysis.
- Regarding the increased number of AEGIS *Phaseolus* sp. accessions and increased quality and quantity of data in EURISCO: based on their results, all SMARTLEG partners will publish changes (additions) through their uploads to EURISCO, after final report submission.
- Acquired information will be useful for end users (e.g. breeders)
 - acquired knowledge, experience and data that will enable better and more efficient genebank management in accordance with the principles of AEGIS, especially in relation to the results obtained for *Ph. coccineus*
 - provision of useful contributions to further *Phaseolus* research and production, to the development of sustainable agriculture; here we detect a possibility to link SMARTLEG project to other future submission in order to investigate factors limiting legume yield to obtain more consistent production and to fill the knowledge and development gap on strategies to improve grain legume production under stress conditions.
 - ensure the valuable use of *Phaseolus* resources for different purposes – all partners detect in their studies GR valuable for different purposes in accordance to GR features.

1.2. Gaps or constraints identified

Constraints

- Contributions for 2016: due to the lack of payment some countries were not eligible for ECPGR Funds, and the team project was drastically reduced.
- Members showed a low interest to be involved in so-called “short-term activities”.
- Country quota already used and the members were in the impossibility to be involved in projects.

2. GRANT SCHEME ACTIVITIES

- **Grant Scheme proposals (submitted: 2; approved: 1)**
 1. [Efficient management of resources for smart legumes utilization \(SMARTLEG\)](#)– Third Call (2016)
- **Total number of partners involved: 5 from 5 countries**
 - ECPGR-funded: 4 from 4 countries
 - Self-funded: 1 from 1 country.

- **Meetings held**

1. Project meeting, 25-26 April 2017, Ljubljana, Slovenia

- **Reports and related data**

Final report to be completed by coordinator of project, by the end of March 2018 according to accepted extension of the deadline.

- **Funds mobilized**

- ECPGR granted funds: € 15 000
- Inputs in-kind declared in Grant activities: € 1 000

3. OTHER ACTIVITIES (CROSS-WORKING GROUP ACTIVITIES, LINKS WITH OTHER NETWORKS, PROJECTS AND INITIATIVES)

- **Cross-Working Group activities:** none

- **Others**

Involvement in EC calls for proposals and initiatives:

- **H2020** (proposals submitted and accepted for funds)
 - “**Breeding for Resilient, Efficient and Sustainable Organic Vegetable production (BRESOV)**”. The overall aim of the project is to improve the competitiveness of three of the most economically important vegetable crop families (*Brassicaceae*, *Fabaceae*, *Solanaceae* species) when grown in an organic production system. This will be achieved through capturing the unadapted genetic diversity of *Brassica oleracea*, *Phaseolus vulgaris* and *Solanum lycopersicum*; quantifying the new breeding resource using new genetic marker panels, and applying these tools during marker-assisted-selection (MAS).
 - The project is coordinated by Mr. Ferdinando Branca, Chair of the *Brassica* Working Group and involves members from other groups (Creola Brezeanu from the Grain Legumes WG) – the participation in that project is at institutional level but links with ECPGR projects (ex. SMARTLEG) and expertise are established.
- **ERA_CAPS project BEAN_ADAPT** - developed by a consortium of five European and American research entities, links to SMARTLEG project, the coordinator of BEAN_ADAPT is a self-funded member of SMARTLEG project, an important material and expertise from BEAN_ADAPT project was valued (harnessed) in the SMARTLEG project.
- Preparatory action on GR and Focus Group on GR (EIP-AGRI) in accordance to **Romanian Sectorial Program** Regeneration, reproduction and characterization of vegetable species with unique character - The project accomplishes the creation of a national collection of plant genetic resources with unique biological material originating from Romania, from species with special importance in agriculture, especially leguminous and keeping under safety conditions. Synergic activities of the project with SMARTLEG activities:

- selection of genotypes that meet the criteria of origin and uniqueness;
- protection of multiplication and regeneration protocols;
- establishment and improvement of characterization descriptors;
- regeneration, multiplication and characterization of biological material in accordance with internationally agreed methodologies;
- conservation of the material resulting from the multiplication or regeneration process;
- highlighting those genotypes that have proven to be adaptive and resistant to environmental conditions and the action of different pathogens, and promotion of their use in specific breeding or farm conservation programmes.

4. WORKING GROUP DOCUMENTS AND PUBLICATIONS

(according to ECPGR website and lists delivered by members)

Bulgaria

- Petrova S.**, R. Chipilski, 2014. Study of the cold resistance of accessions of chickpea (*Cicer arietinum*) in a freeze chamber. Collection of Reports from Xth Anniversary National Scientific and Technical Conference with International Participation „Ecology and Health“. 169-172. **Петрова С.**, Р.Чипилски, 2014. Проучване студоустойчивостта на образци нахут (*Cicer arietinum*) в хладилна камера. Сборник на докладите от X юбилейна национална научно-техническа конференция с международно участие „Екология и здраве“, 169-172.
- Petrova S.**, G.Pasev, D.Kostova, 2014. BYMV on chickpea gerplasm in Bulgaria. Bulgarian Journal of Agricultural Science. 20 (1); 166-170. **Петрова С.**, Г. Пасев, Д. Костова, 2014. Жълт фасулев мозаечен вирус при генплазма от нахут в България. Българско списание по аграрни науки, 20 (1); 166-170.
- Petrova S.**, G. Desheva, 2016. Path-coefficient and correlation analysis of quantitative characters in chickpea (*Cicer arietinum* L.). International scientific forum “Plant diversity towards society”, Sofia, 23-25 October, Bulgaria, *Phytologia Balcanica* 22(2), 243-246. **Петрова С.**, Г. Дешева, 2016. Path-коефициентен и корелационен анализ на количествени признаци при нахут (*Cicer arietinum* L.). Международен научен форум "Растителното разнообразие в обществото", София, 23-25 октомври, България, Фитология Балканика, 22 (2), 243-246.
- Petrova S.**, G. Desheva, 2017. Reproduction and evaluation of accessions of *Glycine max* (L.) Merr from the National Genbank in Southern Bulgaria. Disk: "135 Years of Agricultural Science in Sadovo and 40 Years Institute of Plant Genetic Resources", www.ipgrbg.com, 158-168. **Петрова С.**, Г. Дешева, 2017. Репродуциране и оценка на образци от *Glycine max* (L.) Merr от Националната генбанка в условията на Южна България. Диск: „135 години земеделска наука в Садово и 40 години Институт по растителни генетични ресурси“, www.ipgrbg.com, 158-168.
- Petrova S.**, 2017. Assessment of the Syrian lines *Cicer arietinum* L. in winter conditions for the region of Sadovo. Disk: "135 years agricultural science in Sadovo and 40 years Institute for Plant Genetic Resources", www.ipgrbg.com, 169- 177. **Петрова С.**, 2017. Оценка на Сирийски линии *Cicer arietinum* L. при зимни условия за района на Садово, Сборник 135 години земеделска наука в Садово и 40 години Институт по растителни генетични ресурси“, диск, www.ipgrbg.com, 169-177.
- Statieva S., **S. Petrova**, G. Desheva, 2017. Reproduction in *in vitro* conditions of plant material from wild chickpea species – *Cicer montbretii* Jaub. & Spach and *Cicer echinosperum* P.H. Davis. Collection of "10 Years of Food Science in Consumer Service", 210-2014. Статиева С., **С. Петрова**, Г. Дешева, 2017. Размножаване при *in vitro* условия на растителен материал от диворастящи видове нахут *Cicer montbretii* Jaub. & Spach и *Cicer echinosperum* P.H.Davis. Сборник „10 години наука за храните в услуга на потребителите“, 210-2014.
- Petrova M., N. Velcheva, **S. Petrova**, 2017. Status of the National Collection of Fodder Cultures of IRGD Sadovo. Conference with International Participation in Karnobattown, Bulgaria (in press). Петрова М., Н. Велчева, С. Петрова, 2017. Статус на Националната колекция от фуражни култури на ИРГР Садово. Конференция с международно участие в гр. Карнобат, България (под печат).

- Petrova M., **S. Petrova**, N. Velcheva, 2017. Genetic diversity in local fodder species, preserved in the National Genbank. Conference with International Participation in Karnobattown, Bulgaria (in press).
Петрова М., **С. Петрова**, Н. Велчева, 2017. Генетично разнообразие при местни фуражни видове, съхранени в Националната генбанка. Конференция с международно участие в гр. Карнобат, България(под печат).
- Petrova S.**, M. Sabeva, S. Angelova, 2017. Biochemical and morphological evaluation of local accessions of chickpea (*Cicer arietinum* L.) from *ex situ* collection of IRGD - Sadovo, New Knowledge, 184-188. **Петрова С.**, М. Събева, С. Ангелова, 2017. Биохимична и морфологична оценка на местни образци нахут (*Cicerarietinum* L.) от *exsitu* колекция на ИРГР – Садово, Ново знание,184-188.
- Desheva G., **S. Petrova**, M. Deshev, 2017. Germinability of soybean seeds stored more than 30 years in Bulgarian national genebank. Available online at www.worldscientificnews.com, 69, 29-46. Дешева Г., **С. Петрова**, М. Дешев, 2017 г. Кълняемост на семена от соя, съхранявани повече от 30 години в Българската национална генбанка. Налична онлайн на адрес: www.worldscientificnews.com, 69, 29-46.
- Stateva S., **S. Petrova**, G. Desheva, 2018. Sterilization procedure and attempt to introduce the rare wild perennial chickpea (*Cicer montbretii* Jaub. & Spach) *in vitro* conditions. The proceedings of the international scientific-practical conference: „Horizon of Science and Education“, Kazakhstan, Electronic version of the site TOO "SmartDamu", 89-91. Ставава С., **Петрова С.**, Дешева Г., 2018. Стерилизационна процедура и опит за въвеждане на редкия див многогодишен нахут (*Cicer montbretii* Jaub. & Spach) в *invitro* условия. Сборникът на международната научно-практическа конференция "Хоризонт на науката и образованието", Казахстан, Електронна версия на сайта на TOO „СмартДаму“, 89-91.
- Petrova S.**, S. Stateva, 2018. Evaluation of the development and sterilization of seeds from different grain-legume crops (pea, chickpea and bitter vetch) under *in vitro* conditions. New knowledge (in press). **Петрова С.**, С. Статева, 2018. Оценка на развитие и стерилизация на семена от различни представители на зърнено-бобови култури (грах, нахут и бурчак) при *in vitro* условия. Ново знание (под печат).

Bosnia and Herzegovina

- Todorović Vida, **Antić Marina**, Đurić Gordana, **Meglic Vladimir**, **Vasić Mirjana**, Bosančić Borut (2017). The stability of productivity of local accessions of *Phaseolus vulgaris* L. ssp. *volubilis* depending on the climatic conditions of different regions of the Republic of Srpska (BiH). Agricultural Academy Sofia, Institute of plant genetic resources "Konstantin Malkov" Sadovo, Bulgaria. Published at: www.ipgrbg.com, pp: 41-50. ISBN 978-619-90842-0-5.

Greece

- Pavlos Karanikolas, Penelope J. **Bebeli** & Ricos Thanopoulos 2018. Farm economic sustainability and agrobiodiversity: identifying viable farming alternatives during the economic crisis in Greece. Journal of Environmental Economics and Policy (in press)
- Livanios, I., Lazaridi, E., **Bebeli**, P.J. 2018 Assessment of phenotypic diversity in bitter vetch (*Vicia ervilia* (L.) Willd.) populations Genetic Resources and Crop Evolution 65(1), pp. 355-371
- Marina Martos-Fuentes, Juan A. Fernández, Jesús Ochoa, Márcia Carvalho, Valdemar Carnide, Eduardo Rosa, Graca Pereira, Carina Barcelos, Penelope J. **Bebeli**, and Catalina Egea-Gilabert. 2017 Genotype by environment interactions in cowpea (*Vigna unguiculata* L. Walp.) grown in the Iberian Peninsula. Crop & Pasture Science <https://doi.org/10.1071/CP17071> 68(10-11), pp. 924-931
- Carvalho, M., **Bebeli**, P.J. , Pereira, G., Castro, I., Egea-Gilabert, C., Matos, M., Lazaridi, E, Duarte, I., Lino-Neto, T, Ntatsi, G, Rodrigues, M., Savvas, D., Rosa, E., Carnide, V. 2017 European cowpea landraces for a more sustainable agriculture system and novel foods. Journal of the Science of Food and Agriculture 97(13), pp. 4399-4407
- Karapanos, I., Papandreou, A., Skouloudi, M., (...), **Bebeli**, P.J., Savvas, D. 2017 Cowpea fresh pods - a new legume for the market: Assessment of their quality and dietary characteristics of 37 cowpea accessions grown in southern Europe 97(13), pp. 4343-4352
- Lazaridi, E., Ntatsi, G., Fernández J.A., Karapanos, I., Carnide, V.P., Savvas, D., **Bebeli**, P.J., 2017. Phenotypic diversity and evaluation of fresh pods of Southern European cowpea (*Vigna unguiculata* (L.) Walp.) landraces. Journal of the Science of Food and Agriculture (in press).
- Lazaridi, E., Ntatsi, G., Savvas, D., **Bebeli**, P.J. 2016. Diversity in cowpea (*Vigna unguiculata* (L.) Walp.) local populations from Greece. Genetic Resources and Crop Evolution 1-23.

- Douma, C., Koutis, K., Thanopoulos, R., Tsigou, R., Galanidis, A., **Bebeli** P. J. 2016 Diversity of agricultural plants on Lesbos Island (Northeast Aegean, Greece) with emphasis on fruit trees *Scientia Horticulturae*, 65-84
- Suso, M.J., **Bebeli**, P.J, Christmann, S., Mateus, C., Negri, V., Pinheiro de Carvalho, M. A. A., Torricelli, R., Veloso M. M. 2016. Enhancing Legume Ecosystem Services through an Understanding of Plant-Pollinator Interplay. *Front Plant Sci.* 2016; 7: 333. <http://dx.doi.org/10.3389/fpls.2016.00333>
- Pinheiro de Carvalho, M. A. A., **Bebeli**, P.J., Barata da Silva, A.M., Bettencourt, E., Slaski, J.J., Dias, S. (2015). Agro-biodiversity. The importance of inventories in the assessment of crop diversity and its time and spatial changes. pp: 130-147. In: M.R. Ahuja, S.M. Jain (Eds). *Sust. Devel. Biodivers., Genetic Diversity and Erosion in Plants*, Vol. 8, Springer. 978-3-319-25953-6
- Suso, M.J., **Bebeli**, P., Palmer, R. 2015 Reproductive Biology of Grain Legumes. In: Antonio M. De Ron (ed.) *Grain Legumes*, Series Handbook of Plant Breeding. Springer Science+Business Media, New York 365-399.

Poland

- Rybiński W, **W. Świącicki**, J. Bocianowski, A. Börner, E. Starzycka, M. Starzycki. 2018. "Variability of fat content and fatty acids profiles in seeds of white lupin (*Lupinus albus* L.) collection" *Gen. Res. Crop Evol.*65(2):417-431
- Gawłowska M.,**W.K. Świącicki**, L. Lahuta, Z. Kaczmarek.2017. "Raffinose family oligosaccharides in seeds of Pisum wild taxa, type lines for seed genes, domesticated and advanced breeding materials" *Gen. Res. Crop Evol.* 64(3):569-578
- Katarzyna A. Kamel, **Świącicki W.**, Zygmunt Kaczmarek, Paweł Barzyk. 2016. "Quantitative and qualitative content of alkaloids in seeds of a narrow-leafed lupin (*Lupinus angustifolius* L.) collection". *Gen. Res. Crop Evol.* 63(4):711-719
- Kroc M., W. Rybiński, P. Wilczura, K. Kamel, Z. Kaczmarek, P. Barzyk, **W. Świącicki**. 2016. "Quantitative and qualitative analysis of alkaloids composition in the seeds of white lupin (*Lupinus albus* L.) collection". *Gen. Res. Crop Evol.*64(8):1853-1860
- Gawłowska M., **Świącicki W.** 2016. "The fa2 gene and molecular markers mapping in the gp segment of the *Pisum* linkage group V", *Journal of Applied Genetics* 57(3): 317-322
- Kroc M., Koczyk G., **Świącicki W.**, A. Kilian, M.N. Nelson. 2014. „New evidence of ancestral polyploidy in the Genistoid legume *Lupinus angustifolius*L. (narrow-leafed lupin)" *Theor. Appl. Genet.*127:1237-1249
- Góryniewicz B., **W. Świącicki**, A. Osiecka, Z. Kaczmarek. 2014. "Terminal inflorescence and restricted branching genes in lupins (*L. albus* L., *L. angustifolius* L., *L. luteus* L.) and field bean (*Vicia faba* L.) breeding in Poland". *J. Agri. Sci. Technol.* 4(9B):702-711
- Świącicki W.**, M. Kroc, Kamel K. 2015. *Lupinus* (*Lupinus* spp.) In: Antonio M. De Ron (Ed.) *Grain Legumes*, Handbook of Plant Breeding. Springer Science+Business Media, New York: 179-218

Romania

- P.M. Brezeanu, **C. Brezeanu**, T. Robu, S. Ambarus Ambăruș Silvica, Investigation on mung bean yield and quality related to different cultivation systems VII South-Eastern Europe Symposium on Vegetables and Potatoes Maribor (Pivola) Slovenia – under evaluation for ActaHortic. publication
- P.M. Brezeanu, **C. Brezeanu**, S. Ambarus, S. Strajeru, T.O. Cristea, Maria Calin - Grain Legumes Sustainable Management and Utilization for Food, Nutrition and Environmental Security – submitted ISHS ISTANBUL 2018
- C. Brezeanu**, P.M. Brezeanu, S. Ambarus, T. Robu, A. Dobrescu **2016** Prioritization Ecological Cultivation of Less Cultivated Species with Multiple Potential Uses (Culinary, Medicinal, Honey, Decorative) *Acta Hortic.* 1125, 91-98 DOI: 10.17660/ActaHortic.2016.1125.11, <https://doi.org/10.17660/ActaHortic.2016.1125.11> ISSN 0567-7572
- Brezeanu Creola**, Robu T., Brezeanu P. M., Ambarus Silvica, **2015** Scientific Studies and Researches Series biology animal biology series Vol 23, no. 2, 2014, pp 79-84, Alma Mater ISSN: 1224-919 X *Journal of Horticulture, Forestry and Biotechnology*, vol 19 (1), 2015, pg 21-23 ISSN 2006-1797
- Teodor ROBU, **Creola Brezeanu**, Petre Marian Brezeanu, Silvica Ambarus **2014** Assessment of mung bean yield potential production in the north eastern region of Romania *Scientific Papers Series A. Agronomy*, Volume LVII, pg. 310 - 315 ISSN 2285-5785, ISSN-L 2285-5785

Creola Brezeanu, Petre Marian Brezeanu, Teodor Robu, Silvica Ambăruș, Maria Călin, Tina Cristea
2014 Preliminary study regarding the pest insects management at *Vigna* genus Promoting
Breeding of New Mung Bean Genotypes for Sustainable Agriculture and Food Security
Brezeanu Creola, Brezeanu Petre Marian, Călin Maria, Cristea Tina Oana, 2014 Soiuri de legume și
tehnicile recomandate pentru cultura ecologică *Vegetable varieties and recommended techniques for
ecological system cultivation* Ed Alma Mater, Bacau, 2014, ISBN 978-606-527-352-8

Serbia

- Červenski Janko, Gvozdanović Varga Jelica, **Vasić Mirjana**, Zekić Vladislav, Ferencz Árpád, Zsuzsanna Taskovics Tóthné, Szabó Tibor, Rita Kalmár (2014): New farming models in backyards as possible solutions for generating additional income and self-employment in the rural cross-border area, Institute of Field and vegetable crops, Maxima graf, p.1-96, ISBN 978-8680417-49-3, COBISS.SR-ID 282296071, (Project ID: HUSRB/1203/213/122; Project acronym: FARMADDINC)
- Vasić M.**, 2014: Očuvanje i povećanje agrobiodiverziteta u organskoj poljoprivredi (Preservation and increase of agro-biodiversity in organic agriculture). In Lazić B. (Ed), Čudesan svet organske poljoprivrede (Miraculous world of organic agriculture), izdavač Zelena mreža Vojvodine, Novi Sad, Serbia, 200 p. 81-93.
- Savić A.**, **Vasić M.**, Dimitrijević M., Brdar-Jokanović M., Danojević D., Petrović S., Zdravković M. (2017): Phenotypic evaluation of variability among dry bean landraces from breeding collections of Institute of Field and Vegetable Crops Novi Sad. Book of abstracts, COSTWG1/EPPN2020 workshop, 29-30 September, Novi Sad, Serbia, 37.
- Červenski J., Danojević D., **Savić A.** (2017): Chemical composition of selected winter green pea (*Pisum sativum* L.) genotypes. Journal of Serbian Chemical Society, 28(11): 1237-1246.
- Župunski V., **Vasić M.**, Šuštar-Vozlić J. Maras M., **Savić A.**, Petrović G., Živanov D. (2017): Uncertainty of tripsin inhibitor activity measurement of legume crops using microtiter plate method. Food Analytical Methods,
- Ječmenica M., Kravić N., **Vasić M.**, Živanović T., Mandić V., Damjanović J., Dragičević V. (2016): Genetic variability of free energy in a function of drought tolerance in common bean accessions. Genetika, 48(3), 1003-1015
- Mihajlović V., Mikić A., Čeran M., Čupina B., Đorđević V., Marjanović-Jeromela A., Mikić S., Perić V., **Savić A.**, Srebrić M., Terzić S., **Vasić M.**, Vasiljević S., Vujić S. (2016): Some aspects of biodiversity, applied genetics and agronomy in hyacinth bean (*Lablab purpureus*) research. Legume Perspective, 13, 9-15.
- Ignjatov M., Popović T., Milošević D., **Vasić M.**, Nikolić Z., Tamindžić G., Ivanović Ž. (2016): Occurrence, identification and phylogenetic analysis of *Fusarium proliferatum* on bean seed (*Phaseolus vulgaris* L.) in Serbia. Ratarstvo i povrtarstvo, 53 (2), 42-45
- Šibul F., Orčić D., **Vasić M.**, Načkov G., Nađpal J., **Savić A.**, Mimica-Dukić N. (2016): Phenolic profiles, antioxidant and anti-inflammatory potential of herb and root extracts of seven selected legumes. Industrial Crops and Products, 83, 641-653
- Cvijanović M., Dozet G., Cvijanović G., Đukić V., **Vasić M.**, Popović V., Jakšić S. (2016): Yield of bean (*Phaseolus vulgaris*) in ecological production according to environment conservation. Acta Horticulturae, 1142 (1), 25-30.
- Vlajić S., Maširević S., Cuca S., **Vasić M.**, **Savić A.**, Gvozdanović-Varga J., Ječmenica M. (2016): The reaction of different common bean genotypes as stubble crop, to the presence of causal agent of rust, *Uromyces appendiculatus* (Pers.) unger during 2015. Book of abstracts, 5. International Symposium on Agricultural Sciences "AgroRes", 29 February – 03 March, Banja Luka, BiH, 143.
- Vasić M.**, Todorović V., Petrović G., Nikolić Z., Đurić G., **Savić A.**, Dimitrijević M. (2016): Characterization of Common Bean (*Phaseolus vulgaris* L.) landraces through basic morphological characteristics and protein markers. Book of abstracts, 5. International Symposium on Agricultural Sciences "AgroRes", 29 February – 03 March, Banja Luka, BiH.
- Marinković J., Šušnica I., Bjelić D., Tintor B., Vasić M. (2016): Soil microbial activity under conventional and organic production of bean and maize. Zbornik Matice srpske za prirodne nauke, 130, 35-43.
- Živanov D., Karagić Đ., Milošević B., Vasiljević S., Đorđević V., **Savić A.**, Mikić A. (2016): Intercropping legumes with legumes and its effects on yield components. Book of abstracts, Second Legume Society Conference, 11-14 October, Troia, Portugal, 143.
- Medić-Pap S., Takač A., Maširević S., Danojević D., Takač A., Dukić J., **Savić A.** (2016): Evaluation of tomato genotypes to late blight (*Phytophthora infestans* (Montagne) De Bary). Proceedings of 20th International Eco-Conference, 28-30 September, Novi Sad, Serbia, 95-100.

- Župunski V., Spasić-Jokić V., **Vasić M.**, **Savić A.**, Mitrović Z., Župunski I. (2016): Estimation of uncertainty of trypsin inhibitor activity measurement in legume crops. Proceedings of 4th International Conference on Radiation and Application in Various Fields of Research, 23-27 May, Niš, Serbia, 160-164.
- Červenski J., Gvozdanić-Varga J., **Vasić M.**, Stojanović A., Medić-Pap S., Danojević D., **Savić A.** (2016): Home gardens and backyards - suitable area for vegetable production. Acta Horticulturae, 1142 (1), 179-186.
- Kukić D., Šćiban M., Prodanović J., Tepić Horecki A., **Vasić M.** (2015): Extracts of fava bean (*Vicia faba* L.) seeds as natural coagulants. Ecological Engineering, 84, 229-232
- Dozet G., Cvijanović G., **Vasić M.**, Đurić N., Jakšić S., Đukić V. (2015) : Effect of microbial fertilizer application on yield of bean (*Phaseolus vulgaris* L.) in organic production systems. Proceedings of 23. International Conference „Ecological Truth“, Eco-Ist, 17-20 June, Kopaonik, Serbia, 508-513
- Brdar-Jokanović M., Girek Z., Zdravković M., Vasić M., **Savić A.**, Zdravković J. (2015): Karakteristike od agronomskog značaja kod populacija pasulja zelenkaste semenjače. Zbornik abstrakata sa VIII naučno-stručnog skupa iz selekcije i semenarstva "Genetički resursi, oplemenjivanje i semenarstvo u poljoprivredi Srbije-stanje i perspektive, 28-29 maj, Beograd, Srbija, 62.
- Vasić M.**, Gvozdanić-Varga J., Milošević M., Ilić Z., Moravčević Đ., Červenski J., Savić A., Stojanović A. (2015): Organizacija kolekcionisanja i očuvanja genetskih resursa. Zbornik abstrakata sa VIII naučno-stručnog skupa iz selekcije i semenarstva "Genetički resursi, oplemenjivanje i semenarstvo u poljoprivredi Srbije-stanje i perspektive“, 28-29.maj, Beograd, Srbija, 7.
- Vasić M.**, Šeremešić S., Dozet G., Marinković J., Đurić S., Cvijanović G., Ugrenović V., Manojlović M. (2015): Pasulj u sistemima organske i konvencionalne poljoprivrede (Dry bean in organic and conventional farming). Book of Abstracts, 4. International Symposium and XX Scientific-Professional Conference of Agronomists of Republic of Srpska, 2-6 March, Bijeljina, BiH, 98-99
- Maras M., Pipan B., Šuštar-Vozlić J., Todorović V., Đurić G., **Vasić M.**, Kratovačieva S., Ibusoska A., Agić R., Matotić Z., Čupić T., Meglič V. (2015): Examination of genetic diversity of common bean from the Western Balkan. Journal of the American Society for Horticultural Science, 6 (140), 308-316
- Savić A.**, Petrović G., Milošević M., Nikolić Z., Stojanović A., Gvozdanić-Varga J., Todorović V., **Vasić M.** (2014): Morpho-chemical characterization of dry and snap bean (*Phaseolus vulgaris* L.) landraces collected on Fruška gora Mt.. Gentika, 46(1), 303-313
- Brdar-Jokanović M., Zdravković M., **Vasić M.**, **Savić A.**, Girek Z., Zdravković J. (2014): Yield-related traits in a collection of "trešnjevec" beans (*Phaseolus vulgaris* L. forma *versicolor*). Proceedings of the Fifth Congress of the Serbian Genetic Society, 28 September-02 October, Belgrade, Serbia, 15-20.
- Cvijanović M., Dozet G., Cvijanović G., Đukić V., **Vasić M.**, Popović V., Jakšić S. (2014): Yield of bean (*Phaseolus vulgaris* L.) in ecological production according to environment conservation. Book of Abstracts, 6th Balkan Symposium on Vegetables and Potatoes. 29 September- 2 October, Zagreb, Croatia, 22.
- Brdar-Jokanović M., Zdravković M., **Vasić M.**, Savić A., Girek Z., Zdravković J. (2014): Yield-related traits in a collection of "trešnjevec" beans (*Phaseolus vulgaris* L. forma *versicolor*). Book of Abstracts, V Congress of Serbian Genetic Society, 28 September-02 October, Belgrade, Serbia, 255.
- Gvozdanić-Varga J., Stojanović A., **Savić A.**, **Vasić M.**, Červenski J., Vasić R. (2014): Selection for quality components in the winter garlic. Book of Abstracts, V Congress of Serbian Genetic Society, 28 September-02 October, Belgrade, Serbia, 259.
- Vasić M.**, **Savić A.**, Zdravković M., Brdar-Jokanović M., Đolić N., Gvozdanić-Varga J., Stojanović A. (2014): Market classes of determinate dry bean. Book of Abstracts, V Congress of Serbian Genetic Society, 28 September-02 October, Belgrade, Serbia, 268.
- Gvozdanić-Varga J., **Vasić M.**, Červenski J., Takač A., Bugarski D., Stojanović A., **Savić A.**, Glogovac S., Danojević D., Medić-Pap S. (2014): Nutritional quality- central objective of vegetable breeding. Book of Abstracts, V Congress of Serbian Genetic Society, 28 September-02 October, Belgrade, Serbia, 288.
- Vasić M.**, Crnobarac J., Gvozdanić-Varga J., Červenski J., Savić A., Stojanović A., Danojević D. (2014): Direct and indirect effect of dry bean yield components on yield per plant. Book of Abstracts, V Congress of Serbian Genetic Society, 28 September-02 October, Belgrade, Serbia, 319.
- Červenski J., Gvozdanić-Varga J., Vasić M., Stojanović A., Medić-Pap S., Danojević D., **Savić A.** (2014): Home gardens and backyards - the prospect of self employment and profit. Book of

Abstracts, the 6th Balkan Symposium on Vegetables and Potatoes, 29 September-02 October, Zagreb, Croatia, 74.

Živanov D. Jevtić R., Mikić A., Franeta F., Medić-Pap S., Maširević S., **Savić A.** (2014): Istorijat, oplemenjivanje, tehnologija gajenja i najvažnije štetočine i bolesti u usevu stočnog graška. *Biljni lekar*, 42(4), 273-285.

Slovenia

MARAS, Marko, IBUSOSKA, Afrodita, KRATOVALJEVA, Suzana, AGIĆ, Rukie, ŠUŠTAR VOZLIČ, Jelka, **MEGLIČ, Vladimir.** Genetic diversity of common bean accessions from former Yugoslav republic of Macedonia as revealed by molecular and morphological markers = Ispitivanje genetske raznolikosti običnog graha s područja bivše Jugoslavenske Republike Makedonije pomoću molekularnih i morfoloških markera. *Genetika : časopis Saveza društava genetičara Jugoslavije*, ISSN 0534-0012, (Acta biologica iugoslavica), 2016, vol. 48, no. 2, str. [729] - 742, ilustr. [COBISS.SI-ID 5112680], [JCR, SNIP, WoS do 15. 1. 2017: št. citatov (TC): 0, čistih citatov (CI): 0, Scopus do 29. 11. 2016: št. citatov (TC): 0, čistih citatov (CI): 0] Scientific article

MARAS, Marko, PIPAN, Barbara, ŠUŠTAR VOZLIČ, Jelka, **MEGLIČ, Vladimir,** et al. Examination of genetic diversity of Common bean from the Western Balkans. *Journal of the American Society for Horticultural Science*, ISSN 0003-1062. [Print ed.], 2015, letn. 140, iss. 4, str. 308-316. [COBISS.SI-ID 4823400], [JCR, SNIP, WoS do 28. 5. 2017: št. citatov (TC): 4, čistih citatov (CI): 2, Scopus do 29. 12. 2017: št. citatov (TC): 7, čistih citatov (CI): 2] Scientific articles

MEGLIČ, Vladimir, ŠUŠTAR VOZLIČ, Jelka, MARAS, Marko. South East European (SEE) autochthonous Phaseolus bean germplasm genetic diversity and reintroduction of traditional landraces. *Legume perspectives*, ISSN 2340-1559, Oct. 2014, iss. 5, str. 28-29. <http://ils.nsseme.com/assets/LegumPerspect5.pdf>. [COBISS.SI-ID 4697448] Scientific article

PIPAN, Barbara, ŠUŠTAR VOZLIČ, Jelka, **MEGLIČ, Vladimir,** GERMŠEK, Blaž, MAVRIČ PLEŠKO, Irena, DOLNIČAR, Peter. Križanja navadnega fižola (*Phaseolus vulgaris* L.) v programu žlahtnjenja novih sort na Kmetijskem inštitutu Slovenije = Cross pollination of common bean (*Phaseolus vulgaris* L.) in the breeding at the Agricultural Institute of Slovenia. In: ČEH, Barbara (ed.), et al. *Novi izzivi v agronomiji 2017: zbornik simpozija, Laško, 2017 = New challenges in agronomy 2017 proceedings of symposium*. Ljubljana: Slovensko agronomsko društvo. 2017, str. 33-39, tabeli. [COBISS.SI-ID 5189736] Conference full articles

ŠUŠTAR VOZLIČ, Jelka, UGRINOVIĆ, Kristina, MUNDA, Alenka, **MEGLIČ, Vladimir.** 'Češnjevec pisani visoki' in 'Lišček rdeči marmorirani': novi ohranjevalni sorti fižola vpisani v Sortno listo Republike Slovenije = 'Češnjevec pisani visoki' and 'Lišček rdeči marmorirani': New conservation varieties inscribed in the National List of Varieties. In: ČEH, Barbara (ed.), et al. *Novi izzivi v agronomiji 2017 : zbornik simpozija, Laško, 2017 = New challenges in agronomy 2017 : proceedings of symposium*. Ljubljana: Slovensko agronomsko društvo. 2017, str. 52-57, tabeli, fotogr. [COBISS.SI-ID 5189992] Conference full articles

PIPAN, Barbara, SINKOVIČ, Lovro, SEDLAR, Aleš, ŠUŠTAR VOZLIČ, Jelka, **MEGLIČ, Vladimir.** Common bean core collection development using Central and South Eastern European germplasm. In: ROZMAN, Vlatka (ed.), ANTUNOVIĆ, Zvonko (ed.). *Zbornik sažetaka = Book of abstracts*, 53. Hrvatski i 13. Međunarodni simpozij agronoma, 18. - 23. veljače 2018, Vodice, (Zbornik sažetaka (Hrvatski i ... međunarodni simpozij agronoma), ISSN 2459-5551, 53, 13). Osijek: Poljoprivredni fakultet Sveučilišta Josipa Jurja Strossmayera u Osijeku. 2018, str. 107. [COBISS.SI-ID 5454440] **Conference abstracts**

MEGLIČ, Vladimir, BAVEC, Martina, MARAS, Marko, BAVEC, Franc. Genetic diversity assessment of *Vicia faba* accessions taken from the Slovenian plant gene bank. In: *COBRA : Coordinating Organic plant Breeding Activities - for diversity : [Program and abstracts]*, The COBRA Final Conference, Denmark, 24th and 25th November 2015. [Vejle]: [s. n.]. 2015, str. [58-59]. [COBISS.SI-ID 4049964] **Conference abstracts**

MEGLIČ, Vladimir. Plant breeding for climatic changes. In: IVETIĆ, Vladan (ed.), MLADENOVIĆ DRINIĆ, Snežana (ed.). *Knjiga apstrakata = Book of abstracts*, V simpozijum Sekcije za oplemenjivanje organizama Društva Genetičara Srbije. Beograd: Društvo genetičara Srbije. 2016, str. 1. [COBISS.SI-ID 5035880] **Conference abstracts**

ŠUŠTAR VOZLIČ, Jelka, MARAS, Marko, ZADRAŽNIK, Tanja, KIDRIČ, Marjetka, ZUPIN, Mateja, RAZINGER, Jaka, VODNIK, Dominik, **MEGLIČ, Vladimir.** Abiotic stress in agricultural plants: *Phaseolus* sp. and drought. In: DOLENC KOCE, Jasna (ed.), URBANEK KRAJNC, Andreja (ed.), GREBENC, Tine (ed.). *Knjiga povzetkov = Book of abstracts*. Ljubljana: Slovensko društvo za biologijo rastlin: = Slovenian Society of Plant Biology. 2014, str. 16. [COBISS.SI-ID 4522856] Conference abstracts

- MEGLIČ, Vladimir**, MARAS, Marko, PIPAN, Barbara, ŠUŠTAR VOZLIČ, Jelka, ZADRAŽNIK, Tanja, TODOROVIĆ, Vida, ĐURIĆ, Gordana, VASIĆ, Mirjana, KRATOVALJEVA, Suzana. Genetic diversity and dissemination pathways of common bean (*Phaseolus vulgaris* L.) in Central and South East Europe. In: PHAM, J. L. (ed.), KELL, S. P. (ed.). *Book of abstracts : crop diversification in a changing world : mobilizing the green gold of plant genetic resources*, EUCARPIA Genetic Resources, 8-11 May 2017, Montpellier, France. Paris: INRA. 2017, str. 98. [COBISS.SI-ID 5428584]
- PIPAN, Barbara, SEDLAR, Aleš, ŠUŠTAR VOZLIČ, Jelka, **MEGLIČ, Vladimir**. Development of the common bean core collection referring to teh Central and South Eastern European germplasm. In: *Book of abstracts : ICLGG 2017*. [s. l.: s. n. 20017], str. [104]. <http://iclgg2017.hu/wp-content/uploads/2017/03/ICLGG2017-Book-of-abstracts.pdf>. [COBISS.SI-ID 5363304] Conference abstracts
- PIPAN, Barbara, DOLNIČAR, Peter, ŠUŠTAR VOZLIČ, Jelka, **MEGLIČ, Vladimir**. Breeding prospective of common bean (*Phaseolus vulgaris* L.) for Central and South-Eastern European production area. In: BAVEC, Martina (ed.), BAVEC, Franc (ed.), GROBELNIK MLAKAR, Silva (ed.). *Book of abstracts*, VII South-Eastern Europe Symposium on Vegetables & Potatoes, June 20 - 23, 2017, Maribor, Slovenia. Maribor: University of Maribor Press; Pivola: Faculty of Agriculture and Life Sciences. 2017, str. 81. [COBISS.SI-ID 5300072] Conference abstracts
- MARAS, Marko, PIPAN, Barbara, ŠUŠTAR VOZLIČ, Jelka, TODOROVIĆ, Vida, ĐURIĆ, Gordana, VASIĆ, Mirjana, KRATOVALJEVA, Suzana, IBUSOSKA, Afrodita, AGIĆ, Rukie, MATOTAN, Zdravko, ČUPIĆ, Tihomir, **MEGLIČ, Vladimir**. Genetic diversity of common bean from south east European region. In: ĐURIĆ, Gordana (ed.). *Book of abstracts : AgroRes 2016*, 5th International Symposium on Agricultural Sciences, Banja Luka, Bosnia and Herzegovina February 29 - March 3, 2016. Banja Luka: University of Banja Luka, Faculty of Agriculture. 2016, str. 101. [COBISS.SI-ID 4977256] Conference abstracts
- ZUPIN, Mateja, MARAS, Marko, SEDLAR, Aleš, ŠUŠTAR VOZLIČ, Jelka, RAZINGER, Jaka, VODNIK, Dominik, KIDRIČ, Marjetka, **MEGLIČ, Vladimir**. Identification of quantitative trait loci for drought tolerance in common bean (*Phaseolus vulgaris* L.). In: JAKŠE, Jernej (ed.), et al. *Genetika 2015 : book of abstracts*, 7th Congress of the Genetic Society of Slovenia and 7th Meeting of the Slovenian Society of Human Genetics, 20-23 September 2015, Rogaška Slatina, Slovenia. Ljubljana: Genetic Society of Slovenia: The Slovenian Society of Human Genetics. 2015, str. 30. [COBISS.SI-ID 4962152] Conference abstracts
- MARAS, Marko, PIPAN, Barbara, ŠUŠTAR VOZLIČ, Jelka, **MEGLIČ, Vladimir**. Microsatellite analysis revealed extensive genetic diversity of common bean from Balkan region. In: JAKŠE, Jernej (ed.), et al. *Genetika 2015 : book of abstracts*, 7th Congress of the Genetic Society of Slovenia and 7th Meeting of the Slovenian Society of Human Genetics, 20-23 September 2015, Rogaška Slatina, Slovenia. Ljubljana: Genetic Society of Slovenia: The Slovenian Society of Human Genetics. 2015, str. 80. [COBISS.SI-ID 4962408] **Conference abstracts**
- MEGLIČ, Vladimir**, DOLNIČAR, Peter, ŠUŠTAR VOZLIČ, Jelka. Od genskega vira do nove sorte = From genetic diversity to a new variety. V: VIRŠČEK MARN, Mojca (ed.), et al. *Znanost in praksa v kmetijstvu : knjiga povzetkov = Science and practice in agriculture : book of abstracts*. Ljubljana: Kmetijski inštitut Slovenije. 2015, str. 17-18. [COBISS.SI-ID 4832616] **Conference abstracts**
- ŠUŠTAR VOZLIČ, Jelka, MARAS, Marko, UGRINOVIĆ, Kristina, VELIKONJA BOLTA, Špela, ŽNIDARŠIČ PONGRAC, Vida, ZADRAŽNIK, Tanja, **MEGLIČ, Vladimir**. Reintroduction of traditional Slovenian common bean landraces to facilitate their conservation and use. In: DIAS, Sónia (ed.). *International Conference on Enhanced GenePool Utilization : capturing wild relative and landrace diversity for crop improvement : book of abstracts*, Cambridge, United Kingdom, 16-20 June 2014. Rome: Bioversity International. 2014, str. 126. http://www.pgrsecure.bham.ac.uk/sites/default/files/documents/public/PGR_Secure_conference_abstracts.pdf. [COBISS.SI-ID 4553576], [SNIP] **Conference abstracts**
- MEGLIČ, Vladimir**, ŠUŠTAR VOZLIČ, Jelka, LUTHAR, Zlata, FERANT, Nataša, ČERENAK, Andreja, ŠIŠKO, Metka, CVELBAR, Joži. Slovene plant gene bank and genetic resources programme. In: **MEGLIČ, Vladimir** (ed.). *Seednet the way ahead : knjiga povzetkov = book of abstracts*. Ljubljana: Kmetijski inštitut Slovenije. 2014, str. 14. [COBISS.SI-ID 4572008] Conference abstracts
- MEGLIČ, Vladimir**, PIPAN, Barbara, ŠUŠTAR VOZLIČ, Jelka, MARAS, Marko, TODOROVIĆ, Vida, VASIĆ, Mirjana, KRATOVALJEVA, Suzana, IBUSOSKA, Afrodita, MATOTAN, Zdravko, ČUPIĆ, Tihomir. Genetic diversity of autochthonous common bean germplasm from Western Balkans. In: **MEGLIČ, Vladimir** (ed.). *Seednet the way ahead : knjiga povzetkov = book of abstracts*. Ljubljana: Kmetijski inštitut Slovenije. 2014, str. 17. [COBISS.SI-ID 4572264] Conference abstracts

ŠUŠTAR VOZLIČ, Jelka, UGRINOVIĆ, Kristina, MARAS, Marko, VELIKONJA BOLTA, Špela, ŽNIDARŠIČ PONGRAC, Vida, **MEGLIČ, Vladimir**. Reintroduction of traditional Slovenian common bean landraces. In: MEGLIČ, Vladimir (ed.). *Seednet the way ahead : knjiga povzetkov = book of abstracts*. Ljubljana: Kmetijski inštitut Slovenije. 2014, str. 38. [COBISS.SI-ID 4571752] Conference abstracts

MEGLIČ, Vladimir. *Collection of Slovenian vegetable landraces and their re-introduction into cultivation : predavanje na Annual Meeting of the European SAVE Network, and the 10th European Agrobiodiversity Seminar, Metlika, National Park, Slovenia, 15th -17th September 2016*. [COBISS.SI-ID 5087336] Conference abstracts

Spain

De Ron AM (editor). 2015. Grain Legumes. Handbook on Plant Breeding no.10. Springer-Verlag New York.

Ukraine

Kobyzeva L. N., Bezugla O. M., Riabchun V.K., Tertyshnyi O.V., Potiomkina L.M., Bozhko T.M., Honcharova O.V., Bohuslavskiy R. L. // Wild and related species of grain legumes (pea, soybean, bean, chickpea, lentil) - РЕ "STYL-IZDAT", Kharkiv, 2014. - 49 p. **Кобизьева Л. Н.**, Безугла О. М., Рябчун В.К., Тertiшний О.В., Потьомкина Л.М., Божко Т. М., Гончарова О.В., Богуславський Р. Л. //Дикі та споріднені види зернобобових культур (горох, соя, квасоля, нут, сочевиця) -ПП «СТИЛЬ-ИЗДАТ», Харьков, 2014р.– 49 с.

Kurychenko V.V., Posylaieva O.O, **Kobyzeva L. N.**, Goptsi T. I., Riabukha S.S. Soybean breeding for resistance to heat and drought (manual) - Kharkiv, 2016. – 91 p. Кириченко В. В., Посилаєва О.О., **Кобизьева Л. Н.**, Гопцій Т. І., Рябуха С. С. Селекція сої на стійкість до спеки та посухи (навчальний посібник) - Харків, 2016р. – 91с.

Kurychenko V.V., Riabukha S. S., Posylaieva O.O, **Kobyzeva L. N.**, Chernyshenko P. V. Soybean (Glycine max L.) - Individual entrepreneur Tsukareva N. M., Kharkiv, 2016 – 400 p. Кириченко В. В., Рябуха С. С., Посилаєва О. О., **Кобизьева Л. Н.**, Чернищенко П. В. Соя (Glycinemax. L.) - ФООП Цукарева Н.М., Харків, 2016 р.– 400с.

Kurychenko V.V., **Kobyzeva L. N.**, Bezuhla O. M., Riabchun V. K., Sokol T. V., Bozhko T. M. The gene pool of lentils in Ukraine РЕ "STYL-IZDAT", Kharkiv, 2016. – 202 p. Кириченко В. В., **Кобизьева Л. Н.**, Безугла О. М., Рябчун В. К., Сокол Т. В., Божко Т. М. Генофонд сочевиці в Україні ПП «СТИЛЬ-ИЗДАТ», Харьков, 2016р. - 202с.

Kobyzeva L. N. Formation of a pedigree soybean variety database in the NCPGRU and its practical value Seleksiia i Nasinnytstvo. Issue 105.-Kharkiv-2014. - P. 32-39 **Кобизьева Л. Н.** Формування бази родоводів сортів сої в НЦГРРУ та її практичне значення Селекція і насінництво. Вип. 105.-Харків-2014р.- С.32-39

Kobyzeva L. N. Bezuhla O. M., Vasylenko A.O., Bezuhlyi I. M. Pea (*Pisumsativum* L.) genetic collection Seleksiia i Nasinnytstvo. Issue 105.-Kharkiv-2014 - P.104-123 **Кобизьева Л. Н.** Безугла О. М., Василенко А.О., Безуглий І. М. Генетична колекція гороху (*Pisum sativum*L.) Селекція і насінництво. Вип. 105.-Харків-2014 р.- С.104-123

Kobyzeva L. N. Screening of a soybean collection of the NCPGRU for protein and fat contents in seeds // Seleksiia i Nasinnytstvo. Issue 108.-Kharkiv-2015 - P. 53-60 **Кобизьева Л. Н.** Скринінг колекції сої НЦГРРУ за вмістом в насінні білка та жиру //Селекція і насінництво. Вип. 108.- Харків-2015 р.- С.53-60

Bogomolov A.V., Mezentsev V.A., **Kobyzeva L.N.**, Bezuglaya O.N. A technique for determination of chickpea seed damage during mechanized dehulling. // Khraneniye i Pererabotka Zerna - 2015. – No 10. Богомоллов А. В., Мезенцев В. А., **Кобизьева Л. Н.**, Безуглая О. Н. Методика определения повреждения семян нута при механизированной очистке. // Хранение и переработка зерна – 2015р. - №10.

Bezuhla O.M., **Kobyzeva L.N.** Plant genetic resources in solving problems of bean breeding. Collection of scientific works of the Plant Breeding and Genetics Institute – National Center of Seed and Cultivar Investigation. Issue 26 (66). - Odesa - 2015 - P. 74-86. Безугла О. М., **Кобизьева Л. Н.** Генетичні ресурси рослин у вирішенні проблем селекції квасолі Збірник наукових праць Селекційно-генетичного інституту – Національного центру насінництва та сортівивчення. Вип. 26 (66). – Одеса – 2015р. – С. 74-86

Kobyzeva L.N., Tertyshnyi O.V. Starting material for creation of early-ripening soybean varieties. Collection of scientific works of the Plant Breeding and Genetics Institute – National Center of Seed and Cultivar Investigation. Issue 26 (66). - Odesa - 2015 - P. 86-94 **Кобизьева Л. Н.**, Тertiшний

- О.В.Вихідний матеріал для створення ранньостиглих сортів сої Збірник наукових праць Селекційно-генетичного інституту – Національного центру насіннєзнавства та сортівивчення. Вип. 26 (66). – Одеса – 2015р. – С. 86-94
- Kobyzeva L.N.**, Vus N.O., Bezuhla O.M. Variability of protein content in collection chickpea accessions in the eastern forest-steppe of Ukraine. *Kormy i Kormovyrobnytstvo: Interdepartmental thematic scientific collection.* - Vinnytsia, 2016 - Issue 82. - P. 34-39. **Кобизєва Л. Н.**, Вус Н. О., Безугла О. М. Мінливість вмісту білка у колекційних зразків нуту в умовах Східного Лісостепу України. *Корми і кормовиробництво: Міжвідомчий темат. наук. збірник.* – Вінниця, 2016р. – Вип. 82. – С. 34-39.
- Kobyzeva L.N.**, Vus N.O., Bezuhla O.M. Breeding value of chickpea accessions in terms of drought tolerance in the eastern forest-steppe of Ukraine. *Naukovi Dopovidi NUBiP.* 2017 Issue 4 (68). 17 p. ISSN 2223-1609 **Кобизєва Л. Н.**, Вус Н.О., Безугла О. М. Селекційна цінність зразків нуту за посухостійкістю в умовах східного Лісостепу України. *Наукові доповіді НУБіП.* 2017р. Вип. 4 (68). 17 с. ISSN 2223-1609
- Kobyzeva L.N.**, Bezuhla O.M., Vus N.O., Tertysnyi O.V. Expression specifics of morphological traits in grain-mowing soybean accessions. *Kormy i Kormovyrobnytstvo.* 2017 Issue 83. P. 18 – 23 **Кобизєва Л.Н.**, Безугла О. М., Вус Н.О., Тертишний О.В.Особливості прояву морфологічних ознак у зразків сої зерноукісного напрямку використання. *Корми і кормовиробництво.* 2017р. Вип. 83. с. 18 – 23
- Bogomolov A.V., Mezentsev V.A., Bezuglaya O.N., **Kobyzeva L.N.** Effect of dimensional characteristics of chickpea seeds on mechanical damage. *Khraneni i Pererabotka Zerna.* Scientific and practical journal. - 2017. - No. 6 (214), June. - P. 21-26 Богомоллов А.В., Мезенцев В.А., Безуглая О.Н., **Кобизєва Л.Н.**, Влияние размерных характеристик семян нута на механическое травмирование. *Хранение и переработка зерна.* Научно-практический журнал. – 2017р. - № 6 (214), июнь. – С. 21–26
- Bezuhla O.M., **Kobyzeva L.N.** A trait collection of common bean (*Phaseolus vulgaris* L.). Breeding and genetics of legumes: modern aspects and prospects. Collection of abstracts of the International Scientific Conference (June 23-26, 2014), Odesa, 2014. - P.99-101 Безугла О. М., **Кобизєва Л.Н.**, Ознакова колекція квасолі звичайної (*Phaseolus vulgaris* L.) Селекція та генетика бобових культур:сучасні аспекти та перспективи. *Збірник тез доповідей Міжнародної наукової конференції (23-26 червня, 2014 р.), Одеса, 2014р.* - С.99-101
- Kobyzeva L.N.**, Honcharova O.O. Valuable accessions of vegetable pea for breeding in Ukraine. // Breeding and genetics of legumes: modern aspects and prospects. Collection of abstracts of the International Scientific Conference (June 23-26, 2014), Odesa, 2014. - P.111-113 **Кобизєва Л.Н.**, Гончарова О.О.Цінні зразки гороху овочевого для селекції в Україні. //Селекція та генетика бобових культур:сучасні аспекти та перспективи. *Збірник тез доповідей Міжнародної наукової конференції (23-26 червня, 2014 р.), Одеса, 2014р.*- С.111-113
- Tertysnyi O.V., Riabukha S.S., **Kobyzeva L.N.**, Sources to create universal soybean varieties. Expansion of the genetic diversity of plants. Collection of abstracts of the International Scientific-Practical Meeting (October 8-9, 2014), Kharkiv-P.44-46 Тертишний О.В., Рябуха С.С., **Кобизєва Л.Н.**, Джерела для створення сортів сої універсального напрямку використання Збагачення генетичного різноманіття рослин. *Збірник тез Міжнародної наукової наради (8-9 жовтня 2014 р.), Харків-С.44-46*
- Bezuhla O.M., Vasylenko A.O., **Kobyzeva L.N.**, Bezuhlyi I.M. Scientific basics of formation of a pea (*Pisum sativum* L.) genetic collection. Enrichment of genetic diversity of plants. Expansion of the genetic diversity of plants. Collection of abstracts of the International Scientific-Practical Meeting (October 8-9, 2014), Kharkiv-P.58-61 Безугла О. М., Василенко А.О., **Кобизєва Л.Н.**, Безуглий І. М. Наукові основи формування генетичної колекції гороху (*Pisum sativum*L.) Збагачення генетичного різноманіття рослин. *Збірник тез Міжн. Н.-п. наради (8-9 жовтня 2014 р.), Харків-С.58-61*
- Vus N.O., **Kobyzeva L.N.**, Bezuhla O.M. Variability of protein content in collection chickpea accessions in the eastern forest-steppe Ukraine 2016: Grain legumes and soybean for sustainable development of the agrarian production in Ukraine. Collection of abstracts of the International Scientific Conference devoted to the 80th anniversary of NAAS Academician A.O. Babych's birth (September11-12, 2016), Vinnytsia - P. 100 Вус Н.О., **Кобизєва Л.Н.**, Безугла О. М.Мінливість вмісту білка у колекційних зразків нуту в умовах східного Лісостепу України 2016:Зернобобові культури і соя для сталого розвитку аграрного виробництва України. *Збірник тез міжнародної наукової конференції, присвяченої 80-річчю з дня народження академіка НААН А. О. Бабича (11-12 се5рпня 2016 р.), Вінниця – С. 100*

- Vus N.O., **Kobyzeva L.N.**, Bezuhla O.M. Species diversity of chickpea accessions in the collection of the National Center for Plant Genetic Resources of Ukraine // Materials of the All-Ukrainian Scientific and Practical Conference "Biodiversity: Theory, Practice and Methodological Aspects of Studies in General Academic School" (devoted to the 80th anniversary of the foundation of the Chair of Botany, Ecology and Methods of Teaching Biology of Poltava National Pedagogical University named after V.H. Korolenko, November 2-3, 2017, Poltava, 2017 - P.83-85. Вус Н.О., **Кобизцева Л.Н.**, Безугла О. М. Видове різноманіття зразків нуту колекції Національного центру генетичних ресурсів рослин України // Матеріали Всеукраїнської науково-практичної конференції «Біорізноманіття: теорія, практика та методичні аспекти вивчення у загальноосвітній школі» (присвячена 80-річчю з дня заснування кафедри ботаніки, екології та методики навчання біології Полтавського національного педагогічного університету ім. В. Г. Короленка, 2-3 листопада 2017р., Полтава, 2017 р.– С.83-85
- Vus N.O., **Kobyzeva L.N.**, Bezuhla O.M. Modern approaches to classification of chickpea by morphotype. Materials of the International Scientific-Practical Conference "Current Status and Harmonization of Domestic Plant Names in the UPOV system (November 13, 2017)", Kyiv - P.13-15. Вус Н.О., **Кобизцева Л.Н.**, Безугла О. М. Сучасні підходи до класифікації нуту за морфотипами Матеріали міжнародної науково-практичної конференції «Сучасний стан та гармонізація назв культурних рослин у системі UPOV (13; листопада 2017 р.)», Київ - С.13-15
- Kobyzeva L.N.**, Bezuhla O.M., Sylenko S.I., Kolotilov V.V., Sokol T.V., Dokukina K.I., Vasylenko A.O., Bezuhlyi I.M., Vus N.O. Methodical recommendations for studying genetic resources of grain legumes. Guidelines. - Kharkiv - Styl-Izdat. - 2016 – 84 p. **Кобизцева Л.Н.**, Безугла О. М., Силенко С. І., Колотілов В.В., Сокол Т. В., Докукіна К. І., Василенко А.О., Безуглий І. М., Вус Н. О. Методичні рекомендації з вивчення генетичних ресурсів зернобобових культур Методичні рекомендації. – Харків. – Стиль – Издат. – 2016р. – 84с.
- Sylenko S.I., Kolotilov V.V., **Kobyzeva L.N.**, Mirosnichenko I.I., Riabchun V.K., Kharchenko Yu.V. Catalogue of accessions of the chuckling vetch (*Lathyrus sativus* L.) gene pool from the basic collection of Ukraine. Joint venture LLC Publishing House "Khrystyianska Zoria" - Kremenchuk, 2014. - 93 p. Силенко С. І., Колотілов В.В., **Кобизцева Л.Н.**, Мірошніченко І. І., Рябчун В.К., Харченко Ю.В. Каталог зразків генофонду чини посівної (*Lathyrus sativus* L.) базової колекції України СП ТОВ Видавництва «Християнська Зоря» - м. Кременчук, 2014р. - 93 с.
- Petrenkova V.P., Borovska I.Yu., Luchcha I. S., **Kobyzeva L.N.**, Bezuhla O.M., Vus N.O. Catalogue of starting material of cereals, grain legumes and sunflower for breeding for resistance to major diseases and pests in the eastern the forest-steppe of Ukraine. Individual entrepreneur Tarasenko V.P. - Issue 3, ed. by Petrenkova V.P., Riabchun V.K., Kharkiv. 2016 – 55 p. Петренкова В. П., Боровська І.Ю., Лучна І. С., **Кобизцева Л.Н.**, Безугла О.М., Вус Н.О. Каталог вихідного матеріалу зернових, зернобобових культур і соняшнику для селекції на стійкість до основних хвороб і шкідників в умовах східної частини Лісостепу України ФОП «Тарасенко В.П.», -Вип.3, за ред. Петренкова В. П., Рябчуна В.К., Харків. 2016р. - 55с.

5. EXPECTED ADDITIONAL ACHIEVEMENTS AND FUTURE ACTIVITIES

Better work strategy inside the Working Group in order to stimulate members' involvement in different common actions, in order to use the benefits of members' expertise.

Improvement of Grain Legumes WG structure based on each member's interest on species and activities related to species. In the Grain Legumes WG a large number of species are managed and it is proper to reanalyse Crop-specific interest groups and related activity to the species (as it was done at the last extended Working Group meeting) – this is already an ongoing procedure.

- Members' motivation – based on results – publications, implication in projects at national and international level, etc.
- Stimulation of bilateral cooperation inside the Grain Legumes Working Group based on group structure.
- Development of a strategy in order to establish links between ongoing projects of Grain Legumes WG members and ECPGR activities.