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Academic qualifications**2007. – Ph.D.**

UKIM Faculty of Agricultural Sciences and Food Skopje

Effects of gamma radiation on some cherry cultivars

1998. – M. Sc.

UKIM Faculty of Agriculture Skopje

Biological and productive properties of some cherry and sour cherry varieties and their relationship during mutual pollination

1990. – B.Sc.

UKIM Faculty of Agriculture Skopje

Training and research experience

2011. Cherry pruning practice. Ataturk Central Horticultural Research Institute – Yalova, Turkey.

2014. Fruit varieties regulations, DUS testing of stone fruit varieties, INRA/GEVES, CPVO, Avignon, July, France.

2019. Production of prebasic, basic and certified virus free planting material. DLR Oppenheim, LTZ Augustenberg, LTZ Karlsruhe, Rheinstetten, August 2019, Germany.

2010. Workshop on Marketing of vegetative propagating material of vine, fruit plants, ornamental plants and forestry, European Commission (TAIEX), January, Skopje

2010. National agro- ecological program – traditional pear varieties , MAWE of RM, June, Skopje

2011. Workshop on Vocational training, European Commission (TAIEX), February, Skopje

2013. Fruit expert workshop of the Multi- beneficiary program on the participation of EU Candidates Country in the CPVO (Community Plant Variety Office), October, Angers, France.

2013. Workshop on Seeds, Propagation Material and Plant Variety Rights Competence Centre Human Capacity Development (HCD) Europe, GIZ, November, Skopje

2013. Organic agriculture production and quality protection of agriculture products: "Training on Organization of PDO, PGI, TSG system and development trends", EU – Funded Twinning Project, MAFE of RM

2014. Expert Mission on developing a list of seed varieties towards the establishment of gene bank, European Commission (TAIEX), May, Skopje

2016. Multi – country Workshop on national registration systems in the Balkan countries for fruit and grape varieties and on EU marketing requirements, European Commission (TAIEX), June, Skopje.

Research interests

Fruit species breeding and Genetics

Pomology

Fruit genetic resources

Organic production of fruit crops

Teaching

Program Organic and biodynamic plant production

- Organic and biodynamic production of fruit crops

Other professional activities

Chief of the Department for Fruit production in Institute of Agriculture Skopje, from 2009-2017; 2022 – now.

Assistant Director of Department of Fruit Growing in Institute of Agriculture Skopje, 2001 - 2002, and 2008.

Chief of the Master study Program of plant production at Institute of Agriculture, Subprogram: Nursery production, 2012 – 2017.

Responsible official person for inspection the production of fruit plant propagating material and fruit plants, from 1998 – now.

President of the Commission for descriptive list of recommended fruit and viticulture varieties, Ministry of Agriculture, Forestry and Water economy in the R. Macedonia (MAFWE of RM), 2012 ,2014.

President of the Commission for Rulebook for marketing of fruit plant propagating material and fruit plants intended for fruit production, MAFWE of RM, 2010-2011.

Member of the Commission for Low for seed and planting material of agricultural plants, MAFWE of RM, 2009, 2012,2015.

Member of the Commission for acknowledging and approving of fruit and viticulture varieties down the MAFWE of R. Macedonia, from 2007 – 2015.

Member of the Key Group for adjustment of the Macedonian agricultural and nutrition sector with the CAP program of the European Union down the MAFWE of RM, 2004.

Member of the Working Group for defining of priority agricultural and alimentary products for PDO, PGI, TSG system and development trends, MAFWE of RM, from 2013 – 2017.

Member of the Technical Working Group for Seeds and Planting Material for preparation of the National Strategy for Agriculture and Rural Development 2014-2020, MAFWE.

Member of the Sub-Sector Permanent Group for Arranging Agricultural Markets with Seeds and Planting Material for Agricultural Plants 2018 - 2022, MAFWE.

Member of the University Senate at UKIM, 2023-2026.

Scientific and applicative projects

1993. - 1995. Creating a new varieties of some stone - fruit species. Ministry of Education and Science of RM, participant.

1997.- 1998. Spreading of new fruit species in R. Macedonia. World bank, associate.

1998. – 2000. New biotechnological methods of tree- reproduction. Ministry of Education and Science of RM, participant.

1999. - 2001; 2001. – 2003. Creating a new genotypes of some fruit species. Ministry of Education and Science of RM, participant.

2001 – 2002. Improvement of stone fruit species. Bilateral project, Ministry of Education and Science of RM and TUBITAK – Turkey, participant.

2000. – 2002. Modernization of assortments in some economically important fruit species and production of healthy planting material. Ministry of Science and Education, participant.

2004. – 2006. Vegetative propagation of fruits and vine rootstocks and selection of varieties. Ministry of Science and Education, participant.

2005. – 2007. Micro-propagation of pome and stone fruits rootstocks, strawberry varieties for production of certificate planting material. Ministry of Science and Education, bilateral project with R of Bulgaria, participant.

2006. – 2010. South – East European Development Network on Plant Genetic Resources – SEEDNet , participant.

2009 - 2010. Pilot project for plum organic production. Ministry for Agriculture and Water economy of R Macedonia, participant.

2012. Characterization of autochthonous agriculturae germplasm in R. Macedonia. UKIM, participant.

2014. Influence of the climatic changes to the agriculture production in R Macedonia. UKIM, participant.

2013 – 2016. Sustainable Production of high – quality cherries for the European Market - COST Action FA 1104, participant.

2017. Characterization of autochthonous pomegranate varieties in R.Macedonia, UKIM, participant.

2019/2020. Viability testing of gene bank accessions from different species conserved under long-term conditions. Project funded by the Ss. Cyril and Methodius University in Skopje, participant.

2022/2023. Genetic potential of Balkan's autochthonous cherry genotypes for temperature-adaptable reproductive behavior and nutraceutical value. Fund for science of the Republic of Serbia. Participant, national coordinator.

Scientific publications

[1] Arsov, T., Popovska, M., Spirovska, R., Characteristics of apricot cultivars in Skopje region, *Fourth scientific practical conference with international participation for the young scientists (Proceedings)*, Kyustendil, Bulgaria, 15-20 (1998).

[2] Arsov, T., Rusevski, R., Gjamovski, V., Popovska, M., Investigation of type of media for micropropagation and rooting of Gizela 5 rootstock, *ISHS Acta Horticulturae* 273-275 (2009).

[3] Arsov, T., Selamovska, A., Markovski, A., Popovska, M., Gjamovski, V., Stevkova, S., Štete od poznih prolećnih mrazeva kod nekih voćnih vrsta u R. Makedoniji, *Zbornik naučnih radova, Institut PKB Agroekonomik*, **8**, 207-212 (2002).

- [4] Bandzo, K., Popovska, M., Bandzo, S., Influence of ripening time, fruit firmness and fruit's skin colour of cherry varieties on the infestation percentage by *Rhagoletis cerasi* (Book of proceedings), *XVI Conference of biotechnology with international participation*, Čačak, Serbia, 435-440 (2011).
- [5] Bandzo, K., Popovska, M., Bandzo, S., Influence of the time of first fruit color change and the duration of fruit ripening of cherry varieties on the infestation by *R. cerasi*, *Agro-knowledge Journal*, **13**, 39-46 (2012/2013).
- [6] Bandzo, K., Popovska, M., Bandzo, S., Flight dynamics of *Rhagoletis cerasi* L. and influence of adult abundance on the infestation of the cherry varieties, *Journal of Mountain Agriculture on the Balkans*, **16**, 1049-1060 (2013).
- [7] Christov, N., Krumov, S., Popovska, M., Sensitivity of cherry cultivars and elites to low winter temperatures (Book of proceedings), *International scientific conference „Challenges in modern agricultural production“*, Skopje, Macedonia, 113-116 (2015).
- [8] Gjamovski, V., Kiprijanovski, M., Markovski, A., Popovska, M., Arsov, T., Conservation and characterization of apple and plum autochthonous cultivars in Macedonia (Book of proceedings), *International scientific conference „Challenges in modern agricultural production“*, Skopje, Macedonia, 235-240 (2015).
- [9] Gjamovski, V., Kiprijanovski, M., Popovska, M., Arsov, T., Nursery characteristics of some bitter almond ecotypes as a peach rootstock, *5th International Symposium on Agricultural Sciences (Book of abstracts)*, Banja Luka, Bosnia and Herzegovina, 122 (2016).
- [10] Gjamovski, V., Rusevski, R., Popovska, M., Arsov, T., Evaluation of different type of media for multiplication and rooting on apple rootstock M 26, *ISHS Acta Horticulturae*, 269-272 (2009).
- [11] Glisic, I., Radicevic, S., Popovska, M., Maric, S., Milosevic, N., Djordjevic, M., Gjamovski, V., Popovski, B., The effect of genotype-temperature interaction on pollen performance in the pistils of autochthonous 'Dolga Šiška' sweet cherry, *XVI Eucarpia Symposium on Fruit Breeding and Genetics 'Eucarpia 2023' (Book of abstracts)* Dresden-Pillnitz, Germany, 123 (2023).
- [12] Gjamovski, V., Popovska, M., Pollen germination of some sour cherry cultivars in "in vitro" conditions, *Fifth scientific practical conference with international participation for the young scientists (Proceedings)* Kyustendil, Bulgaria, 19-23 (2002).
- [13] Marić, S., Radičević, S., Milošević, N., Popovska, M., Malchev, S., Glišić, I., Đorđević, M., An overview of self-incompatibility (S) genotypes of autochthonous sweet cherries grown in Balkan region, *Journal of Mountain Agriculture on the Balkans*, **23**, 168-181 (2020).
- [14] Marić, S., S., R., Milošević, N., Popovska, M., Gjamovski, V., Milošević, N., Identification of S-alleles in some indigenous sweet cherry genotypes grown in Ohrid region (Book of proceedings) *X International Scientific Agriculture Symposium „AgroSym 2019“*, Jahorina, Bosnia and Herzegovina, 493-499 (2019).
- [15] Markovski, A., Gjamovski, V., Popovska, M., Investigation of aril characteristics of some autochthonous pomegranate (*Punica granatum* L) varieties in Macedonia, *Agro-knowledge Journal*, **18**, 109-119 (2017).
- [16] Markovski, A., Popovska, M., Investigation of some peach varieties in Skopje region, Kyustendil, Bulgaria, 20-24 (1998).
- [17] Markovski, A., Popovska, M., Influence of CuSO₄ 5H₂O to soil germination of the buckthorn (*Hippophae rhamnoides* L.) seeds, *Journal of Mountain Agriculture on the Balkans*, **18**, 591-602 (2015).
- [18] Markovski, A., Popovska, M., Gjamovski, V., Plant material development of some plum and apricot varieties grafted on Prunus Marianna GF

8/1 rootstock, *Journal of Mountain Agriculture on the Balkans*, **14**, 907-920 (2011).

[19] Markovski, A., Popovska, M., Gjamovski, V., Investigation of the possibility for production of some stone fruit rootstocks by rooting cuttings, *Acta Agriculturae Serbica*, **XX**, 75-83 (2015).

[20] Markovski, A., Popovska, M., Gjamovski, V., Taseska-Gjorgjijevski, M., Nedelkovski, D., Investigation of organoleptic characteristics of pomegranate (*Punica granatum* L.) varieties, *Journal of Agricultural, Food and Environmental Sciences*, **76**, 1-9 (2023).

[21] Milosevic, N., Radicevic, S., Popovska, M., Djordjevic, M., Cerovic, R., Maric, S., Gjamovski, V., Ovule senescence in the ovary of autochthonous sweet cherry Balkan's genotypes as affected by pistilar genotype and temperature, *International symposium on conservation and sustainable use of horticultural genetic resources*, Angers, France, (2022).

[22] Mratinić, E., Popovski, B., Milošević, T., Popovska, M., Analysis of morphological and pomological characteristics of apricot germplasm in Macedonia, *Journal of Agricultural Science and Tehnology*, **13**, 1121-1134 (2011).

[23] Mratinić, E., Popovski, B., Milošević, T., Popovska, M., Evaluation of apricot fruit quality and correlations between physical and chemical attributes, *Czech Journal of Food Sciences*, **29**, 161-170 (2011).

[24] Mratinić, E., Popovski, B., Milošević, T., Popovska, M., Postharvest chemical, sensorial and physical - mechanical properties of wild apricot (*Prunus armeniaca* L.), *Notulae Scientia Biologicae*, **3**, 105-112 (2011).

[25] Mratinić, E., Popovski, B., Milošević, T., Popovska, M., Impact of harvest time on the main agronomic and fruit quality traits of three apricot cultivars, *International Journal of Fruit Science*, **12**, 427-436 (2012).

[26] Mratinić, E., Popovski, B., Milošević, T., Popovska, M., Chemical and physical properties of early, mid-time and late ripening apricot cultivars, *Bodenkultur: Journal of Land Management, Food & Environment*, **64**, 49-54 (2013).

[27] Mratinić, E., Popovski, B., Milošević, T., Popovska, M., Main physical properties of wild apricot selected in Macedonia, *Comptes rendus de l'Académie bulgare des Sciences*, **68**, 115-126 (2015).

[28] Popovska, M., Arsov, T., Markovski, A., The economic effects of sour cherry and raspberry growing in the mountain region of R. Macedonia, *Journal of Mountain Agriculture on Balkans*, **2**, 93-100 (1999).

[29] Popovska, M., Cvetkovic, J., Popovski, B., Primary effects of gamma radiation (Cs-137) on the content of some nutritive and bioactive matters in the leaves of selected cherry plants (Book of abstracts), *XII International Symposium of agriculture sciences*, Trebinje, Bosnia and Hercegovina, 139 (2023).

[30] Popovska, M., Markovski, A., Gjamovski, V., Influence of some stone fruit rootstocks on the vegetative characteristics of plum cv. Stanley and apricot cv. Krupna skopjanka plant material (Book of proceedings), *XVI Conference of biotechnology with international participation*, Čačak, Serbia, 329-333 (2011).

[31] Popovska, M., Popovski, B., Microsporogenesis of sweet cherry in the region of Skopje, *Fifth scientific practical conference with international participation for young scientists (Proceedings)*, Kyustendil, Bulgaria, 15-18 (2002).

[32] Popovska, M., Popovski, B., Morphometric characteristics on selected cherry plants, a primary effect product of gamma radiation (Cs-137), *Journal of Agricultural, Food and Environmental Sciences*, **69**, 14-20 (2016).

- [33] Popovska, M., Popovski, B., Angelova, E., Microsporogenesis of sour cherries in the region of Skopje, *ISHS Acta Horticulturae*, **667**, 111-116 (2005).
- [34] Popovska, M., Popovski, B., Christov, N., Vegetative characteristics of decreased vigorousness cherry plants, a primary effect product of gamma radiation (Cz137) (Book of proceedings), *International scientific conference „Challenges in modern agricultural production“*, Skopje, Macedonia, 40-46 (2015).
- [35] Popovska, M., Popovski, B., Gjamovski, V., Criteria for early diagnostics of primary effects of the treatment with gamma rays (Cz137) at some cherry varieties, *Plant Science*, **48**, 47-52 (2011).
- [36] Popovska, M., Popovski, B., Gjamovski, V., Primary effects of gamma radiation (Cs-137) on the morphology of leaves at some sweet cherry varieties, *Journal of Agricultural, Food and Environmental Sciences*, **71**, 148-155 (2017).
- [37] Popovska, M., Stojanov, D., Dimitrov, L., Nedelkovski, D., Popovska, M., Gjosheva Kovachevikj, M., Determination of the production price of brandy made from goji berry (Book of abstracts), *XI International Symposium of agriculture sciences*, Trebinje, Bosnia and Hercegovina, 206 (2022).
- [38] Popovska, M., B, P., Differentiation of flower germs in some sweet cherry varieties in the Skopje region, *Journal of Mountain Agriculture on the Balkans*, **15**, 657-664 (2012).
- [39] Popovska, M., Popovski, B., The influence of the treatment with different gamma-rays (Cs-137) doses on bud sprouting at some sweet cherry varieties, *Journal of Mountain Agriculture on the Balkans*, **15**, 634-642 (2012).
- [40] Popovska, M., Popovski, B., Differentiation of flower germs in some sour cherry varieties in the Skopje region, *ISHS Acta Horticulturae*, **795**, 655-660 (2008).
- [41] Popovski, B., Popovska, M., Ranking strawberry varieties according to the most biological and economical features, *Journal of Mountain Agriculture on the Balkans*, **14**, 881-893 (2011).
- [42] Popovski, B., Popovska, M., More important characteristics of the reproductive organs of some strawberry variety breded in the Skopje region, *Plant Science* **48**, 76-82 (2011).
- [43] Popovski, B., Popovska, M., Phenological and Production Characteristics of Some Strawberry Varieties in the Region of Skopje, *Agro-knowledge Journal*, **13**, 517-525 (2012/2013).
- [44] Popovski, B., Popovska, M., Strawberry crop and fruit classes within the Skopje Region, *Journal of Mountain Agriculture on the Balkans*, **16**, 1020-1034 (2013).
- [45] Popovski, B., Popovska, M., More important characteristics of the vegetative organs of some strawberry varieties in the Skopje Region (Book of proceedings), *International scientific conference „Challenges in modern agricultural production“*, Skopje, Macedonia, 47-55 (2015).
- [46] Popovski, B., Popovska, M., Chemical content of fruits of some perspective strawberry varieties cultivated on open field, *Journal of Agricultural, Food and Environmental Sciences*, **69**, 1-7 (2016).
- [47] Popovski, B., Popovska, M., Productivity per leaf area in some introduced strawberry varieties in the Skopje region, *Journal of Agricultural, Food and Environmental Sciences*, **71**, 165-172 (2017).
- [48] Popovski, B., Popovska, M., Organoleptic characteristics in some strawberry varieties in the Skopje region (Book of abstracts), *IV*

International Symposium for agriculture and food, ISAF 2022, Ohrid, North Macedonia, 160 (2022).

[49] Марковски, А., Селамовска, А., Поповска, М., Арсов, Т., Односи во опрашувањето и оплодувањето кај некои сорти сливи во скопскиот реон, *Годишен зборник на Земјоделски институт - Скопје*, **XX**, 137-143 (2000).

[50] Марковски, А., Спиrowsка, Р., Поповска, М., Селамовска, А., Арсов, Т., Можности за одгледување на перспективни овошни видови во Р. Македонија, *Годишен зборник за заштита на растенијата*, **XI**, 109-119 (2000).

[51] Марковски, А., Спиrowsка, Р., Поповски, Х., Поповска, М., Георгиев, Н., Резултати од междусортовата хибридизација при сливите, *Зборник на трета национална научно-практическа конференција на младите научни работници и специјалисти од овоштарството со меѓународно учество*, Кюстендил, 53-56 (1994).

[52] Поповска, М., Ефекти од гама зрачењето кај некои сорти цреши, докторска дисертација, УКИМ - Факултет за земјоделски науки и храна - Скопје, (2007).

[53] Поповска, М., Поповски, Б., Односи во опрашување и оплодување меѓу некои сорти цреши и вишни, *Годишен зборник за Земјоделскиот институт - Скопје*, **XXVIII/XXIX**, 118-129 (2012).

[54] Поповска, М., Биолошки и производни карактеристики на некои сорти цреши и вишни и односите при меѓусебното опрашување, Магистерски труд, УКИМ Земјоделски факултет - Скопје, (1997).

[55] Поповска, М., Ѓамовски, В., Поповски, Б., Биолошки и производни карактеристики кај некои сорти вишни, *Јубилеен годишен зборник на Земјоделски институт - Скопје*, **XXVI/XXVII**, 209-222 (2008/2009).

[56] Поповска, М., Марковски, А., Ѓамовски, В., Осврт на селекциската работа на одделението за овоштарство при Земјоделскиот институт - Скопје, *Јубилеен годишен зборник на Земјоделскиот институт - Скопје*, **XXVI/XXVII**, 59-74 (2009).

[57] Поповска, М., Поповски, Б., 'Ртливост на поленот кај некои сорти цреши и вишни во *in vitro* услови, *Годишен зборник на Земјоделскиот институт - Скопје*, **XVIII-XIX**, 45-53 (1999).

[58] Поповска, М., Поповски, Б., Фенолошки, помолошки и хемиски својства на некои сорти вишни во скопско, *Годишен зборник на Земјоделскиот институт - Скопје*, **XX**, 115-127 (2000).

[59] Поповска, М., Поповски, Х., Спиrowsка, Р., Марковски, А., Цветковиќ, Ј., Проучување на понови интродуцирани сорти цреши, *Годишен зборник на Земјоделскиот институт - Скопје*, **XVI** 125-134 (1996).

[60] Поповски, Б., Поповска, М., Метод за рангирање на генотипи кајсии според поважни биолошки и стопански карактеристики, *Јубилеен годишен зборник за Земјоделски институт - Скопје* **XXVI/XXVII**, 231-239 (2008/2009).

[61] Поповски, Б., Поповски, Х., Цветковиќ, Ј., Поповска, М., Клонска селекција на облачинската вишна, *Зборник на втора национална научно-практическа конференција на младите научни работници и специјалисти од овоштарството со меѓународно учество*, Кюстендил, 15-20 (1992).

[62] Русевски, Р., Арсов, Т., Поповска, М., Селамовска, А., Марковски, А., Ѓамовски, В., Микропропагација на подлоги од некои овошни видови како дел од процесот на сертификација, *Заштита на растенијата*, **XVIII** 9-11 (2007).

[63] Селамовска, А., Ангелова, Е., Марковски, А., Поповска, М., Арсов, Т., Односи во опрашувањето и оплодувањето кај некои сорти

праски во скопскиот реон, *XXVI средба Факултет - Стопанство (Зборник на трудови)*, **9**, 87-93 (2002).

[64] Сотиров, Д., Ангелова, Е., Поповска, М., Арсов, Т., Ембриокултура на хибриден материјал од рани сорти цреши (Зборник на трудови) *Прв симпозиум за хортикултура*, Охрид, 276-280 (2002).

[65] Спиловска, Р., Ангелова, Е., Марковски, А., Поповска, М., Арсов, Т., Селамовска, А., Цветковиќ, Ј., Природни услови и економска оправданост од одгледувањето на актинидијата во Струмичко, *Македонска земјоделска ревија*, **47**, 31-38 (2000).

[66] Спиловска, Р., Марковски, А., Поповска, М., Проучување на интродуцирани сорти јаболка во скопско, *Годишен зборник на Земјоделскиот институт - Скопје*, **XVII**, 69-83 (1997).

[67] Спиловска, Р., Поповска, М., Марковски, А., Облагородувањето во служба на овоштарството во Република Македонија, *XXII средба Факултет - Стопанство (Зборник на трудови)* Скопје, 149-156 (1997).

[68] Спиловска, Р., Поповски, Х., Поповска, М., Марковски, А., Испитување на фертилноста кај сортите кајсии, *Годишен зборник на Земјоделскиот институт - Скопје*, **XV**, 117-124 (1995).

[69] Спиловска, Р., Селамовска, А., Поповска, М., Марковски, А., Арсов, Т., Испитување на сортата малина Виламет во Битолскиот реон, *Годишен зборник на Земјоделски институт - Скопје*, **XX**, 129-135 (2000).

[70] Христов, Н., Поповска, М., Поповски, Б., Поповски, Х., Ѓамовски, В., Пројавување на вегетативните својства на некои сорти и елитни хибриди цреши во текот на јувенилниот период, *Годишен зборник на Земјоделскиот факултет - Скопје*, **48**, 103-110 (2003).

[71] Христов, Н., Поповска, М., Русевски, Р., Ангелова, Е., Борисова, А., Вирусен статус на сортите цреши за целите на половата хибридизација, *Годишен зборник за заштита на растенијата*, **XIII**, 99-106 (2002).