

Dr. Sonia Bouhachem

Senior Researcher at National Institute of Agronomic Research of Tunisia in Entomology

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Education

- Engineer (1990), INAT, University of Carthage, Tunis, Tunisia,(Plant Production)
- Specialized Engineer (1994), INAT, University of Carthage, Tunis, Tunisia (Plant Protection)
- Doctorate in Biology (2009), Ecole Nationale Supérieure d'Agriculture de Rennes/Agrocampus Ouest, France
- Habilitation to Supervise Research in Entomology (2011)

Research interest

- Morphological and molecular characterization of aphid and leafhopper species
- Genetic diversity of aphids
- Biology and ecology of aphid vectors of potato viruses
- Detection and molecular characterization of potato viruses
- Epidemiology and control of potato leafroll virus and potato virus Y in seed potato production
- Entomophthoralean pathogens of potato-peach aphid and cereal aphids
- Management of insect vectors of plant pathogens

Last 5 Year Publications**Book Chapter**

1. Boukhris-Bouhachem S., Sellami H., Chaieb I., Souissi R., El Fahem M., 2015. Can mineral oil protect potato seeds against aphid transmission of PVY?. Chapter 36 of Potato and Sweetpotato in Africa: Transforming the Value Chains for Food and Nutrition Security (Low et al.), CABI, 375-381. DOI :10.1079/9781780644202.0207.
2. Khamassy, N., Riadh, I., Boukhris-Bouhachem, S., 2015. Potato yield variation as affected by virus seed degeneration and growth conditions in Tunisia. Chapter 16 of Potato and Sweetpotato in Africa: Transforming the Value Chains for Food and Nutrition Security (Low et al.), CABI, 207-211.

Review Articles

3. Boukhris-Bouhachem S., 2016. Insectes émergeants : échange non contrôlé ou changement climatique et moyens de détection. Annales de l'INRAT, 90:1-20.

Scientific Articles

1. Hlaoui A., Mazzoni E., Souissi R., Boukhris-Bouhachem, S. 2020. Diversity and abundance of landing aphids in two areas of seed potato production in Tunisia relative to the incidence of potato viruses. Redia, 103/ 75-85. doi: 10.19263/REDIA-10.
1. Khaled-Gasmi, W., Souissi, R., and Boukhris-Bouhachem, S. 2020. Temporal distribution of three pepper viruses and molecular characterization of two *Cucumber mosaic virus* isolates in Tunisia. Tunisian Journal of Plant Protection 15 (1): 1-17.
2. Nahdi S., Boukhris- BouhachemS., Mahfoudhi N., Paltrinieri S. and Bertaccini A., 2020. Identification of phytoplasmas and Auchenorrhyncha in Tunisian vineyards. Phytopathogenic Mollicutes, 10 (1), 25-35. doi: 10.5958/2249-4677.2020.00003.1

3. Hlaoui A., Boukhris-Bouhachem S., Sepúlveda D.A., Correa M.C.G., Briones L.M., Souissi R. and Figueroa C.C., 2019. Spatial and Temporal Genetic Diversity of the Peach Potato Aphid *Myzus persicae* (Sulzer) in Tunisia. *Insects*, 10, 330; doi:10.3390/insects10100330.
4. Gnezdilov V. M., Bouhachem S. & Konstantinov F.V., 2019. New records for the genus *Issus* Fabricius (Hemiptera: Auchenorrhyncha: Fulgoroidea: Issidae) from northern Africa and Spain. *Zootaxa* 4613 (3) : 546–556. <https://doi.org/10.11646/zootaxa.4613.3.7>.
5. Behi F., Souissi R. and Boukhris-Bouhachem S., 2019. Temporal changes in the aphid-parasitoïds complex over two decades in Tunisian citrus orchards. *Journal of Entomological Science*, 54(4):357. <https://doi.org/10.18474/JES18-97>
6. Behi F., Bachrouch O. and Boukhris-Bouhachem S., 2019. Insecticidal activities of *Mentha pulegium* L., and *Pistacia lentiscus* L., essential oils against two citrus aphids *Aphis spiraecola* Patch and *Aphis gossypii* Glover. *Journal of Essential Oil Bearing Plants*, 22 (2).
7. Ben Fekih I., Bruun Jensen A., Boukhris-Bouhachem S., Pozsgai G., Rezgui S., Rensing C. and Eilenberg J., 2019. Virulence of Two Entomophthoralean Fungi, *Pandora neoaphidis* and *Entomophthora planchoniana*, to Their Conspecific (*Sitobion avenae*) and Heterospecific (*Rhopalosiphum padi*) Aphid Hosts. *Insects*, 10: 54. doi:10.3390/insects10020054.
8. Allala-Messaoudi, L., Glais, L., Kerkoud, M., Boukhris-Bouhachem S. et Bouzned Z., 2019. Preliminary characterization of potato virus Y (PVY) populations in Algerian potato fields. *J. Plant Pathol.*, 101(1): 1-14. <https://doi.org/10.1007/s42161-018-0103-1>.
9. Albouchi F., Ghazouani N., Souissi R., Abderrabba M., Boukhris-Bouhachem S., 2018. Aphidicidal activities of *Melaleuca styphelioides* Sm. essential oils on three citrus aphids: *Aphis gossypii* Glover; *Aphis spiraecola* Patch and *Myzus persicae* (Sulzer). *South African Journal of Botany*, 117:149–154.
10. Khaled W., Ben Fekih I., Nahdi S., Souissi R. and Boukhris-Bouhachem S., 2018. Transmission efficiency of Potato leafroll virus by four potato colonizing aphid species in Tunisian potato fields. *Potato Research*, 61:89–96. <https://doi.org/10.1007/s11540-018-9360-9>.
11. Charabi Kamel, Boukhris-Bouhachem Sonia, Makni Mohamed and Denholm Ian, 2018. Occurrence of target-site resistance to neonicotinoids in the aphid *Myzus persicae* in Tunisia, and its status on different host plants. *Pest Management Science*, 74(6) : 1297-1301. doi:10.1002/ps.4833.
12. Chaieb I., Zarrad K., Sellam R., Tayeb W., Ben Hamouda A., Laarif A., Bouhachem S., 2018. Chemical composition and aphicidal potential of Citrus aurantium peel essential oils. *Entomologia Generalis*, 37 (1) : 63-75, 063–075. DOI. 10.1127/Entomologia/2017/0317.
13. Boukhris-Bouhachem S., Ben Fekih I., Nahdi S., Souissi R., 2017. Capacity assessment of *Myzus persicae*, *Aphis gossypii* and *Aphis spiraecola* (Hemiptera: Aphididae) to acquire and retain PVYNTN in Tunisia. *Arthropod-Plant Interactions*, Volume 27. DOI 10.1007/s11829-017-9518-4.
14. Khaled, W., Ben Fekih, I., Chaieb, I., Souissi, R., Harbaoui, I., and Boukhris-Bouhachem, S., 2017. Insecticidal activity assessment of *Thymus capitatus* essential oils in combination with natural abrasives against *Myzus persicae*. *Tunisian Journal of Plant Protection*, Vol. 12, Special Issue, 49-59.
15. Boukhris-Bouhachem, S., Ben Fekih, I., Rouzé-Jouan, J., Souissi, R., and Hullé, M., 2017. Impact of aphids and host weeds interaction on the dissemination of Potato Virus YN strains. *Tunisian Journal of Plant Protection*, Vol. 12, Special Issue, 41-48.
16. Charabi K., Boukhris-Bouhachem S., Makni M., Fenton B. Denholm I., 2016. Genetic variation in target-site resistance to pyrethroids and pirimicarb in Tunisian populations of the peach potato aphid, *Myzus persicae* (Sulzer) (Hemiptera: Aphididae). *Pest Manag Sci*. 2016 Mar 16. doi: 10.1002/ps.4276.
17. Beji B., Boukhris-Bouhachem S., Bouktila D., Mezghani-Khemakhem M., Rezgui S., Kharrat M., Makni M. & Makni H., 2015. Identification of sources of resistance to the black bean aphid, *Aphis fabae* Scopoli, in Faba bean, *Vicia faba* L., *J. Crop. Prot.*, 4(2):217-224.
18. Béji B., Bouktila D., Mezghani-Khemakhem M., Bouhachem-Boukhris S., Makni M., and Makni H., 2015. Structure of the Black Bean Aphid *faba* (Hemiptera: Aphididae) Complex, Inferred from DNA Barcoding. *African Entomology*, 23(2):321-328 doi: 10.4001/003.023.0206.

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