CURRICULUM VITAE

PERSONAL & PROFESSIONAL INFORMATION

Family Name: LACHKAR

Name: AMEL

Date of Birth: 19/09/1971-Sousse, Tunisia

Marital status: Married Nationality: Tunisian

Home Address: 10, Street Bechir Tarmiz, Jawhara City, Sousse 4000, Tunisia.

Professional Address: Regional Research Centre on Horticulture and Organic

Agriculture (CRRHAB: Centre Régional des Recherches en Horticulture et Agriculture

Biologique). P.O.Box 57 Chott-Mariem 4042 Sousse, Tunisia.

Speciality: Tree crops

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<u>amelchet00@gmail.com</u> **Orcid :** 0000-0001-6707-2242



- April 2014: PhD « Agronomic Sciences, Specialty: Sustainable Agriculture»

University: Higher Agronomic Institute of Chott-Mariem (Institut Supérieur Agronomique ISA), IRESA-

University of Sousse. **Mention:** Very honorable

- November 1998: Diploma of Advanced Studies in plant Physiology (Option: plant Eco-physiology).

University: Faculty of Sciences of Tunis, University of Tunis-El Manar.

Mention: Very good with the congratulations of the jury

- June 1995: Diploma of Horticulture Engineer

University: Higher Agronomic Institute of Chott-Mariem (Institut Supérieur Agronomique ISA), IRESA-

University of Sousse.

LANGUAGES

Arabic: Read, written and spoken. **French:** Read, written and spoken. **English:** Read, written and spoken.

Spanich: Read and spoken.

TECHNICAL SKILLS

- -Morphology and Pomology: Leaves, flowers and fruit characterization of fruit trees (UPOV descriptors)
- **-Flower biology**: chilling and heat requirements; Pollen description; Floral anomalies; Floral self-(in)compatibility
- **-Ecophysiology:** Chlorophyl content; Relative water content (RWC); Membrane permeability; Leaf area; Stomatal density.
- **-Molecular biology:** Nucleic acids's extraction; cDNA library screening; PCR analysis; S-genotypes of self-(in)compatibility trait.
- **-Biotechnology:** Embryo rescue of stones apricot by "in vitro" culture.
- -Biochemistry: Fruit Brix; Titratable acidity; Total acidity; Total sugars; Contents of carotenoids (β-carotene and lycopene), anthocyanes, flavonoids, polyphenols and vitamin C, in fruit tissues.

RESEARCH & EDUCATION EMPLOYEMENT

- -14 September 2015: Assistant Professor of Higher Agricultural Education, Specialty: Arboriculture (Genetic Diversity and Breeding), Regional Research Centre on Horticulture and Organic Agriculture (CRRHAB: Centre Régional des Recherches en Horticulture et Agriculture Biologique), Chott-Mariem, Sousse, Tunisia.
- -Since 01/02/2007: Research Assistant, Specialty: Arboriculture (Genetic Diversity and Breeding), Regional Research Centre on Horticulture and Organic Agriculture (CRRHAB: Centre Régional des Recherches en Horticulture et Agriculture Biologique), Chott-Mariem, Sousse, Tunisia.
- -31/05/2002 31/01/2007: Research Assistant, Specialty: Arboriculture (Genetic Diversity and Breeding of Apricot and Pistachio), National Institute of Agronomic Research of Tunisia (INRAT: Institut National de la Recherche Agronomique de Tunisie), Tunis, Tunisia.
- -1/04/2000 31/03/2001: Associate Researcher, National Institute of Research in Rural Engineering, Water and Forest (INRGREF: Institut National de Recherches en Génie Rural, Eau et Forêt), Tunis, Tunisia.
- -16/01/2006 15/07/2006: Head of Agricultural Experimentation Unit of INRAT (At Mornag region), Tunis, Tunisia.
- -1/01/2002 30/05/2002: Associate Assistant, Practical work of biological sciences, Higher Institute of Biotechnology of Monastir, Tunisia (ISBM: Institut Supérieur de Biotechnologie de Monastir).

PUBLICATIONS

I/ PAPERS PUBLISHED IN JOURNALS

- Lachkar, A., Amari, K., and Ben Atia, I., 2022. Phytochemical properties of local and introduced apricot cultivars grown under organic cultivation system in Tunisia. Journal of Horticulture and Postharvest Research (JHPR), Vol. 5(4), p: 349-362.
- Lachkar, A., Amari, K., and Ben Atia, I., 2021. Assessment of the organic fruit quality of local and introduced apricot cultivars grown in Tunisia: morphological and physicochemical attributes. **Journal of Horticulture and Postharvest Research (JHPR),** Vol. 4(4), p: 399-412.
- Lachkar, A., Amari, K., Chouchen, N., Marz, U. and Mars, M., 2021. Identification of promising apricot cultivars for fruit drying in Tunisia. Journal of Materials and Environmental Science (JMES), Vol. 12 (01), p: 161-168.
- Lachkar, A., Ben Attia, I. and Amor Y., **2020.** Morphological and chemical analysis of peach fruits in three different farming systems. DOI 10.1007/s13165-019-00250-w. Organic Agriculture Journal (Org. Agr.), 10:49–61. Published online: http://link.springer.com/article/10.007/s 13165-019-00250-w (04 April **2019**).
- Lachkar, A., Chaar, H. and Mars, M., 2014. Reproductive Behavior of Tunisian Apricot Cultivars as Related to Floral Morphometric Characteristics and Pollen Quality. International Journal of Fruit Science, Vol. 14, p: 188–204.
- **Lachkar, A.,** Fattouch, S., Ghazouani, T., Halasz, J., Pedryc, A., Hegedus, A. and Mars, M., **2013**. Identification of self-(in)compatibility S-alleles and new cross-incompatibility groups in Tunisian apricot (*Prunus armeniaca* L.) cultivars. **Journal of Horticulture Science and Biotechnology**, Vol. 88, N° 4, p: 497–501 (**Impact Factor: 0.64**).
- Harbi Ben Slimane, M., Snoussi Trifa, H., Askri F., Ben Abdelaali, N., Ben Mohamed, H., Bouhlal, R., Chelli Chaabouni, A., Elloumi, N., Jedidi, E., Lachkar, A. et Msalmi Taoueb, S., 2013. Ressources arboricoles en Tunisie: Potentialités, acquis et innovations. Annales de l'INRAT, Numéro Spécial Centenaire, 86, p: 149-167.
- Lachkar, A. and Mars, M., 2012. Assessment of Tunisian apricot local and hybrids cultivars for new breeding program. Annals of Biological Research, Vol. 3, Issue 8, p: 4108-4118.
- **Lachkar A.**, Brini, W. and Mars, M., **2010**. Floral Morphometric Diversity of Tunisian Apricot cultivars. Proceedings of the 14th International Symposium on Apricot Breeding and Culture, Matera, Italy. **Acta Horticulturae**, N° 862, p: 237 243 (Poster presentation).
- **-Lachkar, A.** and Milka, M., **2006.** New Apricot Varieties selected From Tunisian Breeding Programme. Proceedings of the 13th International Symposium on Apricot Breeding and Culture, Murcia, Espagne. **Acta Horticulturae**, N°717, p: 189 -192 (Poster presentation).

II/ ORAL PRESENTATION

-Lachkar, A., Amari, K., and Ben Atia, I., 2023. Organic Fruit Quality of Apricot Genetic Resources in Tunisia Related to the Human Health. 2èmes Journées Scientifiques Internationales «Biodiversité,

- **Environnement & Santé».** 05-07 Mai, **Hôtel Skanes Sérail, Monastir, Tunisie.** Organized by AT-PNEI (Association Tunisienne de Psycho-Neuro-Endocrino-Immunologie).
- -Lachkar, A., Ammeri, K., Chouchen N., Marz, U. et Mars, M., 2019. Identification des cultivars d'abricotier aptes au séchage en Tunisie. 7th Maghrebean Seminary of Sciences and Technologies for drying. 14-16 November, Marrakech, Maroc. Organized by Cadi Ayad University.
- **-Lachkar, A., 2019.** Caractérisation et analyse physico-chimique des abricots en Tunisie. **Atelier technique : Chaines de valeur abricot séché : Aspects commerciaux et marketing.** PADII/Composante 2 : Promotion des chaines de valeur agricoles orientées vers l'exportation. 07 January, **Hôtel El Mouradi-Gammarth, Tunis, Tunisia.** Organized by GIZ and AFC
- Lachkar, A., Gouta, H., Ayadi, M. and Ayachi, M., 2018. Valorization de la diversité génétique de l'abricotier local au sahel Tunisien: Identification des cultivars performants. 9èmes Journées Scientifiques Internationales sur la valorisation des Bioressources. 03-06 May, Monastir, Tunisia. Organised by Biolival and ATVAB.
- Lachkar, A., Ben Hamda, H., Chourabi, B., Ben Maachia, S., Fattouch S. et Bayoudh C., 2015. Amélioration variétale de l'abricotier : Résultats et acquis de recherche 2001-2014. Journées scientifiques de l'INRAT : Production scientifique, acquis et programmes futurs. 28 April, INRAT, Tunis, Tunisia. Organised by INRAT.
- Lachkar, A., Ben Maachiaa, S., Jraidi, B., Ben Hamda, H., 2008. Amélioration variétale et conservation des ressources génétiques de l'abricotier. Journée thématique et pomologique tunisienne sur l'abricot. 09 June, Gammarth, Tunis, Tunisia. (Projet Tuniso-Italien: Actions d'appui à la production des fruits et des légumes en Tunisie). Organised by DGPA, DGPCQP, GOVPF et CIHEAM-IAM Bari.
- -Lachkar, A. et Ben Maachiaa, S., 2005. مستجدات البحث العلمي في قطاع المشمش. Journée sur la culture de l'abricotier en Tunisie. 01 December, Kairouan, Tunisia. Organised by Gi-Fruits.

III/ POSTER PRESENTATION

- Lachkar, A., Afkir, K., Amari, K. and Ben Atia, I., 2023. Nutritional fruit quality of a Tunisian apricot cultivar under different farming systems. 32ème Congrés International des Sciences Biologiques et de Biotechnologie de l'ATSB. 18-20 Mars. Hôtel El Mouradi Palace-Kantaoui, Sousse, Tunisie.
- Lachkar, A., Ayadi, M., Gouta, H. and Ayachi, M., 2018. Propriétés biochimiques de l'huile des amandes d'abricots des écotypes de la région du sahel Tunisien. 6^{ème} Journées Scientifiques de l'Agro-Alimentaire-Association Méditerranéenne des Industries Agro-Alimentaires (JSAA-AMIAA).18-21 Mars, Sousse, Tunisie.
- -Al Mohandes Dridi, B., Ben Abda, J., Lakhal, S., EL Baz, M., Ben Attia, I. and Lachkar, A., 2016. Quality of organic vs. conventional lettuce (*Latuca Sativa* L.). VII International Scientific Agriculture Symposium "Agrosym 2016". 06-09 October, Jahorina mountain, Bosnia and Herzegovina.
- -Lachkar, A., Elbaz, M., Badreddine, A. Ben Atia, I. and Dridi, B., 2015. Organic and conventional fruit quality of Tunisian apricot varieties. 3ème Journées Scientifiques de l'Agro-Alimentaire-Association Méditerranéenne des Industries Agro-Alimentaires (JSAA-AMIAA).15-18 Mars, Hammamet, Tunisie.
- Elbaz, M., Lachkar, A., Ammar L. and Dridi, B., 2015. Does organic farming improve fruit quality of tomato (*Lycopersicon esculentum* Mill.) in Tunisia? 3ème Journées Scientifiques de l'Agro-Alimentaire-

Association Méditerranéenne des Industries Agro-Alimentaires (JSAA-AMIAA). 15-18 Mars, Hammamet, Tunisie.

- Lachakr, A., Bayoudh, Ch., Majdoub, A. et Jraidi, B., 2011. Sauvetage in vitro d'embryons des variétés précoces d'abricotier (*Prunus armeniaca* L.) en Tunisie. JIB-ATBT. 19-22 December, Sousse, Tunisia.
- Lachkar, A. and Mars, M., 2011. Influence of canopy fruit position and climatic conditions on apricot quality of Tunisian varieties. TJASST 11. 13 November, Hammamet, Tunis, Tunisia.
- -Lachkar, A., Ben Maachiaa, S., Jraidi, B., Ben Hamda, H., Chourabi, B. et Mars, M., 2008. Ressources génétiques de l'abricotier (*Prunus armeniaca* L.) en Tunisie. **Première Rencontre Annuelle de la Banque Nationale de Gènes**. 04-05 November, **Tunis, Tunisia.** Organized by NGB (National Genetic Bank).
- Lachkar, A., Jraidi, B., Ben Maachia, S., Mars, M., Hajlaoui, M.R. et Ben Naceur, M., 2006. Abricots plus précoces. Journée Nationale Sur la Valorisation des Nouvelles Obtentions dans le Domaine Agricole. Tunis, INRAT, 16 November. Organized by INRAT.
- Lachkar, A. Nahdi, H., Elloumi, N., Ben Hamda, H. et Dridi, M., 2004. Caractérisation morphologique de huit variétés locales et sept variétés introduites de pistachier. Actes des 11èmes journées scientifiques sur les résultats de la recherche agricole, p: 392-407. 09 -10 December, Hammamet, Tunisia.

STUDENTS SUPERVISION

Professional Master

- **-Kawther Afkir, 2015.** Analyse de la qualité des abricots biologiques comparée à ceux conventionnels. Mastère professionnel en Horticulture, ISA-Chott-Mariem.
- -Amira Badreddine, 2014. Etude comparative de la qualité des abricots produits en modes conventionnel et biologique. Mastère professionnel en Contrôle Qualité des aliments et hygiène, Institut Supérieur de Biotechnologie de Monastir (ISBM).

PFE

- **-Khaoula Knaz, 2014.** Etude de l'efficacité de la pollinisation chez l'abricotier (*Prunus armeniaca* L.) selon la variété et les conditions climatiques « Température ». Cycle Ingénieur, Institut Supérieur Agronomique de Chott-Mariem (ISA).
- **-Wadhah Lahmadi**, **2014.** Comportement variétal de l'abricotier local en zones côtières. Cycle Ingénieur, Institut Supérieur Agronomique de Chott-Mariem (ISA).

PPFE

- -Ghassen Knani, 2012. Contribution à l'étude du comportement végétatif et reproductif de quelques variétés locales d'abricotier dans la zone de Chott-Mariem. Cycle Licence Appliquée (Horticulture), Institut Supérieur Agronomique de Chott-Mariem (ISA).
- **Ibtihel Smii, 2024.** Identification des variétés de cerisier cultivées dans la région de Makthar-Siliana. Cycle Licence Appliquée (Horticulture), Institut Supérieur Agronomique de Chott-Mariem (ISA).

- **Ibtissem Khchini, 2024.** Etude du comportement variétal des jeunes abricotiers cultivés en mode biologique. Cycle Licence Appliquée (Horticulture), Institut Supérieur Agronomique de Chott-Mariem (ISA).

RESEARCH PROJECTS

- -Creation of new early apricot varieties, self-fertile, performing and resistant to diseases (National project/ Laboratory of Horticulture-INRAT, Tunis, Tunisia; Coordinator: Dr Amel LACHKAR) (Since 2004).
- Prospecting, improvement and enhancement of fruit genetic resources in the Tunisian center for sustainability in front of climate change (National project/Olive Tree Institute, Sfax, Tunisia; Coordinator: Dr Hassouna GOUTA) (2016-2018).
- PAD II/Component II: Promotion of Export Oriented Value Chains: such as apricot Tree (GIZ Project: PAD II/Component 2; Coordinators: Ulrich MÄRZ and Nizar CHOUCHEN)
- -Quality of organic products compared to conventional ones (AR N°30) (National project/ISA-Chott-Mariem, Sousse, Tunisia; Coordinator: Dr Bouthaina AL MOHANDES DRIDI) (2013-2015).

RESEARCH AND DEVELOPMENT COURSES AND WORKSHOPS

- **-08-10 November 2023:** Creation and development of skills for strengthening biodynamic agriculture in Tunisia. **CTAB-Chott-Mariem.** Organized by GIZ, AFC and Invest for Jobs.
- **-16 January 2023:** Horizon Europe-Cluster 6: "Food Bioeconomy, Natural Resources, Agriculture and Environment". **ISA-Chott-Mariem.** Organized by Ministry of Higher Education and Scientific Research, IRESA and ISA.
- 23-24 May 2019: Training Marie Sktodowska-Curie Training: How to write good IF proposal. **Faculty of Medecine of Sousse.** Collaboration between UGPE, Tunisia and FFG, Australia.
- 02-04 April 2019: Faster (Farmers's Adaptation and Sustainaibility in Tunisia through Excellence in Research): Basic and cross cutting multidisciplinary trainings. Lac Léman Hotel-Tunis, Tunisia.
- 13 February 2019: Springer: How to get published: How to write, submit and publish scientific articles. Faculty of Economics and Management of Sousse, Tunisia. Organized by CNUDST. Training schedule/Scientific editors.
- 07 February 2019: The valuable tools contributing to your research cycle "Discover, Read, Cite, Publish 1 Get Cited". **High Commercial Studies Institute of Sousse.** Organized by CNUDST. Training schedule/Scientific editors.
- **-24-28 June 2018 :** Study trip mission : Projet PAD II/Composante 2 : Promotion des chaines de valeur orientées vers l'exportation : Cas de l'abricotier. **Turkey (Ankara and Malatya).** Organized by GIZ and AFC.
- **05 December 2017:** Big Data in Research Impact full papers Vs Impact Factor (Clarivate Analytics: ex-Thomson Reuters). **Faculty of Medicine of Tunis, Tunisia.** Organized by CNUDST.

- 30 May 2016 01 June 2016: Bioinformatics: Basics and application in biology-agronomy, supervised by Dr Sami FATTOUCH-INSAT, Tunis. Royal Salem Hotel-Sousse, Tunisia.
- 26-27 April 2016: Project cycle concept, supervised by Béchir BOURAOUI, Senior consultant, European Partnership of Democracy (EPD). Agricultural Training Center-Chott-Mariem, Sousse, Tunisia. Organized by IRESA.
- 20 May 2015 : La première session du salon régional des abricots à Kairouan (Projet : Promotion d'une agriculture durable et du développement rural en Tunisie « PAD »). Complexe culturel de Kairouan, Tunisia. Organized by CRDA-Kairouan, Chambre de commerce et d'industrie du centre, société mutuelle de services agricoles « El Wafa » et GIZ-PAD.
- 17 October 2014: Initiation to software bibliographic "Endnote", supervised by Dr Ahmed CHABCHOUB, University of Tunis. Orient Palace Hotel-Sousse, Tunisia. Organized by Seondo consulting (www.seondo-consulting.com).
- 28-29 August 2014: Write a scientific article and succeed a presentation, supervised by Dr Rabiaa Haouala, ISA-Chott-Mariem, University of Sousse, Tunisia. El Mouradi Club Kantaoui Hotel-Sousse, Tunisia. Organized by Seondo consulting (www.seondo-consulting.com).
- 19-20 May 2014: "Bio-statistics Applied in Agriculture", supervised by Dr Ahmed REBAII, CBS, Sfax, Tunisia. Regional Center of Horticulture and Organic Agriculture-Chott-Mariem, Sousse, Tunisia. Organized by CRRHAB.
- 27-28 November 2013 : International Symposium : « Sécurité alimentaire et développement durable : les défis de la recherche agronomique ». Centenaire de l'INRAT 1913-2013. **Gammarth-Tunis.** Organized by INRAT, FAO et ICARDA.
- 11 October 2013 : Conférence sur la Valorisation de la fève : Recherche de génotypes résistants aux pucerons, Supervised by Dr Laamari Malik-Algérie. ISA-Chott-Mariem, Sousse, Tunisia. Organized by ISA-Chott-Mariem
- 10-12 October 2011 : Annual Seminar : Détection, Gestion et Analyse du Polymorphisme des Génomes Végétaux. Monastir, Tunisia. Organized by INRA-EPGV et ISB-Monastir.
- 18 April 2009 : Séminaire scientifique technique et régional sur : « La biodiversité horticole et son impact sur l'agriculture durable ». Sousse, Tunisia. Organized by CRRHAB, CTAB, CSFPA et ISA.
- **-27 February 2008 :** Colloque National sur l'Etat Actuel des Ressources Génétiques et le travail futur pour leur conservation et développement. **NGB, Tunis, Tunisia.** Organized by NGB (National Genetic Bank).
- --13-14 May 2006: Day of Ali Mamouri: « Biodiversity for a Sustainable Agriculture ». INRAT, Tunis, Tunisia. Organized by INRAT.
- **-14 October 2004:** World Food Day "Biodiversity in service of development. **National Center of Environmental Technology, Tunis, Tunisia.** Organized by Ministry of Agriculture, Environment and Hydric Resources.
- **-10-20 December 2002:** Advanced Short Course on "Drought and its mitigation in the Mediterranea: System approach to supplemental irrigation". **INRAT, Tunis, Tunisia.** Organized by INRAT, CIHEAM-IAMB (Coordinator: Dr Netij Ben Mechlia).

TRAINING COURSES

- 11-23 April 2014: Determining self-fertility in Tunisian apricot cultivars by using molecular markers. Department of Genetic and Plant Breeding, Corvinus University of Budapest-Hungry.
- -07 June 2007 15 July 2007: Characterization methods of apricot fruit quality. UMR A 408: Sécurité et qualité des produits d'origine végétale (Safety and quality of plant products), INRA-Avignon, University of Avignon, France.

ANIMATION OF TRAINING COURSES

- Lachkar, A., 2019. Qualité des fruits biologiques comparée à celle des fruits conventionnels. 02 May. Commissary for Agricultural Development of Sousse (Commissariat Régional de Dévelopment Agricole, CRDA Sousse). For technicians and agronomists from the Regional Commissary for Agricultural Development of Sousse. Organized by CRDA of Sousse and CRRHAB.
- Lachkar, A., 2018. Diversité génétique de l'abricotier au sahel Tunisien et moyens de conservation. 15 February, Commissary for Agricultural Development of Sousse (Commissariat Régional de Dévelopment Agricole, CRDA Sousse). For technicians and agronomists from the Regional Commissary for Agricultural Development of Sousse. Organized by CRDA of Sousse and CRRHAB.

DEVELOPMENT AGREEMENT

-2006-2008 : INRAT & UTAP: Transfert et facilitation de la recherche scientifique aux agriculteurs. Participation : Dans les Journées ouvertes au Cap-bon, au Centre-Est, à Gabès et à Kebili.

- 2004 : INRAT & G.I.Fruits : Choix, Suivi et Mise à jour de matériel végétal arboricole.

Participation: Pour l'inscription de 6 obtentions d'abricotier de l'INRAT dans le Catalogue Officiel

-2015-2020: CRRHAB & CRDA-Monastir: Physico-chemical analysis of organic and conventional fruits & Mineral analysis of: water, soil, fruits and leaves (fruit trees and vegetables)

Coordinator for fruit trees: Amel Lachkar

-2015-2020: CRRHAB & DGPQA: Physico-chemical analysis of conventional fruits & Analysis of pesticide residue in fruits and vegetables

Coordinator for fruit trees: Amel Lachkar

-2019-2023: INRAT & Mabrouka Nursery: Selection of performing new apricot hybrids varieties & grafted apricot fruit plants

Extension: 2024-2028

Coordinator: Amel Lachkar

OTHER ACTIVITIES

- Since 2008: Member of the working group "Fruit Arboriculture" of the National Gene Bank (NGB) of Tunisia
- Since 2005: Member of International Society of Horticultural Sciences (ISHS)
- Since 2004: Member of Horticulture Laboratory of INRAT
- Since 2016: Reviewer in Journal of Food Science and Technology (JFST)
- Since 2023: Reviewer in Scientia Horticulturae

Amel Lachkar Chetioui Assistant Professor