

Abderrahim BOUHENACHE

29 years old, born May 26, 1995 in Mila (Algeria)

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Agronomy Engineer

PhD student at the university of Reims and at CIRAD

for a more detailed *CURRICULUM VITAE*, click [here](#)



My skills focus on sustainable plant production and agroecology. I am trained in experimentation and agricultural surveys, passionate about the field and I have a strong interest in crop modeling. Able to deal with different themes at scales ranging from the plant to the territory with a "cropping system" focus. I am also interested in issues of resilience and adaptation to climate change.

PROFESSIONAL EXPERIENCE

The university of Reims Champagne-Ardenne (URCA)

Sep. 2022 - Today
(Temporary contract as
PhD student)

Mixed Research Unit FARE – Reims (51) and **Research Unit AIDA** - Montpellier (34)

Subject: Impact of climate change on production and recycling of crop biomass and soil nitrogen use: a case study with maize under extreme rainfall events

- Preparation and implementation of a field rainfall manipulation experiment in Zimbabwe
- Monitoring, sampling and analyzing of soil and plants
- Statistical analysis and modeling using the STICS soil-crop model

L'Institut Polytechnique UniLaSalle - Research Unit AGHYLE - Beauvais (60)

Feb. 2022 - Aug. 2022
(Temporary contract as
studies engineer)

Subject: Agronomic, economic and environmental assessment of cropping systems designed to supply the methanization sector

- Analysis of the results of cropping system trials
- Drafting of synthesis documents
- Participation in project meetings and in organization of technical days

L'institut agro AGROCAMPUS OUEST - Mixed Research Unit SAS 1069 - Rennes (35)

Nov. 2020 - Nov. 2021
(12 month temporary
contract)

Subject: Design and *ex ante* assessment of diversified cropping systems to increase the provision of ecosystem services of interest in a crop-livestock region.

- Bibliography and conceptual modeling of the effects of diversified cropping systems on ecosystem services
- Co-design of diversified cropping systems with local actors

Institut national de recherche pour l'agriculture, l'alimentation et l'environnement (INRAE) - Mixed Research Unit AGIR 1248 - Toulouse (31)

Apr. 2020 - Sep. 2020
(6 month internship)

Subject: Multi-criteria assessment of climate change adaptation scenarios for the sunflower crop

- Development of simple epidemiological models for sunflower diseases
- Simulation of risk trends according to adaptation strategies under future climate
- Multi-criteria assessment (production, environment and health risk) of strategies

Technical Institute of Field Crops / The Higher National Agronomic School - Algiers

Feb. 2019 - Jul. 2019
(6 month internship)

Subject: Effects of the chickpea-durum wheat intercropping on water and nitrogen use efficiency

- Design, installation and monitoring of a multi-site experiment
- Sampling and laboratory analyzes (nitrogen in the soil and plants, protein dosage, etc.)
- Statistical analysis of data and preliminary simulations of the water balance

EDUCATIONAL BACKGROUND

2020	Master 2 CIHEAM-IAM / Paul-Valéry University Montpellier III - Montpellier (France) Mention « Territorial management and local development », course « Agricultural management and Territories » Ranking: 1/15 students
2019	Master 2 of the Higher National Agronomic School (ENSA) - Algiers (Algeria) Speciality « Genetic resources and improvement of plant production » Ranking: 1/19 students
2019	Agronomy engineer of the Higher National Agronomic School (ENSA) - Algiers (Algeria) Speciality « Plant production and improvement » Ranking: 2/19 students

KNOWLEDGE AND SKILLS



Programming languages

- R ●●●●● (in progress)
- C# ●●●●●
- GAMS ●●●●●



Crop modeling

- APSIM ●●●●●
 - STICS ●●●●● (in progress)
 - CropSyst ●●●●●
- ModelBuilder (platform)



Statistics

- Statistica
- Tanagra
- R



Cartography

- QGIS
- ArcGIS
- R packages: sf, raster et Whitebox



Languages

- English (B2.3 CEFR)
- French (bilingual)
- Arabic (native language)



Soft skills

- Autonomous, serious and responsible
- Scientific rigor, team spirit
- Learning and synthesis skills

PUBLICATIONS

1. Kherif O, Seghouani M, Justes E, Plaza-Bonilla D, **Bouhenache A**, Zemmouri B, Dokukin P, Latati M. The first calibration and evaluation of the STICS soil-crop model on chickpea-based intercropping system under Mediterranean conditions. *Eur. J. Agron.* 2022; 133. <https://doi.org/10.1016/j.eja.2021.126449>
2. Kherif O, Seghouani M, Zemmouri B, **Bouhenache A**, Keskes MI, Yacer-Nazih R, Ouaret W, Latati M. Understanding the Response of Wheat-Chickpea Intercropping to Nitrogen Fertilization Using Agro-Ecological Competitive Indices under Contrasting Pedoclimatic Conditions. *Agronomy*. 2021; 11(6):1225. <https://doi.org/10.3390/agronomy11061225>

OTHERS

- Representative of non-titular staff at the UPR AIDA
- Representative of non-titular staff at the UMR SAS
- Grant for the Master GAT of CIHEAM-IAMM in 2019

CENTERS OF INTEREST

- Football, North African and Mediterranean cuisine, travel and long journeys.