

Abdi Neila
PhD, Crop Physiology (Rhizobiology)
Field Crop Laboratory
National Institute of Agricultural Research of Tunisia (INRAT),
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Curriculum Vitae

CURRENT WORK/ RESEARCH INTERESTS:

- Legume-rhizobia symbiosis: soil NPK fertilization and crop yield improvement
- Phenotyping and genotyping rhizobia strain
- Effect of salt stress and phosphorus deficiency on legume-rhizobia symbiosis
- Use of rhizobia as bio-fertilizer against soils pathogens
- Rhizobia strain-Rhizoctonia and fusarium interaction (synergy and/or antagonism)

RESEARCH EXPERIENCE

- **Research contractual Fellow** in Field Crop Laboratory “**Legume-rhizobium symbiosis and plant physiology**” under supervision of Prof. Mohamed Kharrat, Director, National Institute of Agricultural Research (INRAT), Tunisia, North Africa. (From 01/07/2018 to present).
- **Senior Research Fellow** in Field Crop Laboratory “**Genetic Improvement of Cereals and Legumes in Tunisia**” under supervision of Prof. Mohamed Kharrat, Director, National Institute of Agricultural Research (INRAT), Tunisia, North Africa. (02/01/2016 to 30/06/2018).
- **Senior Research Fellow** in ICARDA funded EU-IFAD Project “**Enhanced small-holder wheat vegetable cropping systems to improve Food Security under Changing climate in the dry lands of west Asia and North Africa**” under supervision of Prof. Hamadi Ben Salah, Professor, Field Crop Laboratory, (INRAT), Tunisia, North Africa. (28/10/2014 to 31/12/2015)
- **Internships in Molecular Biology** in Laboratory of Active Micro-organisms and Bimolecular in Faculty of Sciences of Tunis, Tunisia, North Africa (January 02nd to May 30th, 2013 - 5 months)
- **Internships in Chemical analysis** on Physical and chemical analysis of different part of plant, water and soil in Laboratory of the chemical analysis in INRAT, Tunisia, North Africa (February 01st to April 30th, 2012 - 3 months)
- **Internships on the Biochemical Analysis** on Phenotypical and biochemical characterization of some rhizobial strains isolated from different soil from Tunisian regions in Faculty of Sciences and Techniques (FST)-Guéliz, University Cadi Ayyad, Marrakesh, Morocco, North Africa (June, 2009 and June, 2010 - 2 months)

FELLOWSHIPS/ SCHOLARSHIPS:

- **C.V. Raman International Fellowship for African Researches-2018** for Postdoctoral Fellowship Program from Department of Science and Technology (DST) and Ministry of External Affairs (MEA), Government of India (GoI), through the Federation of Indian Chambers of Commerce and Industry (FICCI) under the India-Africa Forum Summit.

THESIS/ ACADEMIC RESEARCH:

Doctoral Thesis:

- Thesis title: “**Optimization of *P. vulgaris* - rhizobia symbiosis under phosphorus deficiency**” under supervision of Professor Bouaziz Sifi, Head of laboratory of Sciences and Agronomics technics, National Institute of Agricultural Research of Tunisia (INRAT), Tunisia, North Africa

Master’s Thesis:

- Thesis title: “**Study of abiotic factors affecting Symbiotic Nitrogen Fixation on Common bean**” under supervision of Professor Bouaziz Sifi, Head of laboratory of Sciences and Agronomics technics, National Institute of Agricultural Research of Tunisia (INRAT), Tunisia, North Africa

PROFESSIONAL TRAINING/ WORKSHOP:

- Training days CAB Direct Online Platform Training: **How to search on CABI platform in** National Institute of Agricultural Research of Tunisia (INRAT), North Africa, (April 12th, 2018)
- Training days on **Sustainability of Field Crops and Climate Change** organized by Field Crop Laboratory National Institute of Agricultural Research of Tunisia (INRAT), Tunisia, North Africa (April 18-20th, 2017- 2 days)
- Training days on **New Irrigation Schemes, organized by African Union-Semi-Arid Food Grain Research and Development (AU-SAFGRAD)** in Cairo, Egypt, North Africa (22-30th April, 2017 - 9 days)
- Training days on the occasion of “**2016 International year of pulse**” organized by Field Crop Laboratory National Institute of Agricultural Research of Tunisia (INRAT), Tunisia, North Africa (April 26th, 5-10- 11th 2016- 4 days).
- Training days on **Acknowledgment and diagnostics of fungal diseases of cereals and legumes** organized by Field Crop Laboratory National Institute of Agricultural Research of Tunisia (INRAT), Tunisia, North Africa (April 13-14th, 2015 - 2 days)
- Training days on **Production and Conservation of Cereal and Legume Seeds** organized by Field Crop Laboratory National Institute of Agricultural Research of Tunisia (INRAT), Tunisia, North Africa (October 28-30th, 2014 - 3 days)
- Training days on **Complementary Irrigation of Cereals and Legume plant** organized by Field Crop Laboratory National Institute of Agricultural Research of Tunisia (INRAT), Tunisia, North Africa (November 18-19th, 2014 - 2 days)
- Training days on **Research project support and innovation system (PASRI)** organized and financed by European Union in Tunisia, North Africa (September 11-12th, 2014 - 2 days)
- Training days on “**Use of the molecular tools in the improvement of legume plant and cereals production**” organized by EU-IFAD Project” Enhanced small-holder wheat vegetable cropping systems to improve food security under changing climate in the dry lands of west Asia and North Africa “financed by the International Funds of Agricultural Research Center in the Arid Regions (ICARDA) in Field Crop Laboratory National Institute of Agricultural Research of Tunisia (INRAT), Tunisia, North Africa (June 24-27th, 2013- 4 days)

RESEARCH SUPERVISOR / TEACHING EXPERIENCE:

- **Bachelor's degree Trainer** for Mr. Iheb Ouerghi for project entitled with “**Valorization of the biological characteristics of rhizobia nodulating pea (*Pisum sativum* L.)**” at Laboratory of agricultural Sciences and Technology, INRAT, Tunisia, North Africa (2015-16).
- **Master's degree Co-Advisor** for Ms. Saoussen Kouki for Thesis entitled with “**Use of rhizobia strain on nitrogen fixation and phosphorus solubilization**” at Laboratory of agricultural Sciences and Technology, INRAT, Tunisia, North Africa (2011-12).
- **Bachelor's degree Trainer** for Ms. Saoussen Kouki for Project entitled with “**Effect of rhizobia inoculation and the fertilization on *Phaseolus vulgaris* L. rhizobia symbiosis**” at Laboratory of agricultural Sciences and Technology, INRAT, Tunisia, North Africa (2009-10).

EDUCATIONAL BACKGROUND:

- **Ph.D. in Biology**, Faculty of Sciences of Bizerte (FSB), National Institute of Agricultural Research of Tunisia (INRAT), North Africa, 2014, (75%) 1st Division / Excellent
- **M.Sc. in Active and Natural substances**, Department of Biochemistry, Faculty of Sciences of Bizerte (FSB), National Institute of Agricultural Research of Tunisia (INRAT), Tunisia, North Africa, 2009, (75%) 1st Division/ Excellent
- **B.Sc. in Sciences of Life and Earth**, Faculty of Sciences of Bizerte (FSB), National Institute of Agricultural Research of Tunisia (INRAT), Tunisia, North Africa, 2005, (65%) 1st Division/ Excellent
- **English Proficiency Certificate**, General English Course with Level **B2** from Management Assistance Formation (MAF) (June 08, 2016 to July 22, 2016).
- **English, French and Arabic Language Certificate**: Recommendation letter from Director of National Institute of Agricultural Research of Tunisia (INRAT) for language proficiency (Read, write and Speak) for English, French and Arabic.

RESEARCH EXTENSION ACTIVITIES:

- **Member in Tunisian Association for scientific Innovation and Technology** for project entitled with “Agrochemical Dosage minimization through wireless monitorin”, PIRD Program- Ministry of Industry in Tunisia, North Africa (January 2th, 2018).
- **Organizing committee Member of Scientific days in Field Crop Laboratory**, National Institute of Agricultural Research of Tunisia (INRAT), Tunisia, North Africa (April, 18-20th, 2017)
- **Ambassador of AU-SAFGRAD** in Tunisia, North Africa for the theme “**Efficient on-farm water use and management of irrigation facilities for agricultural transformation in Africa**” (March 09th, 2017)
- **Project member in ICARDA /EU-IFAD** Project entitled “Enhanced small-holder wheat-legume cropping systems to improve food security under changing climate in the dry lands of West Asia and North Africa” (October 28th, 2015)
- **Participant Member in Biotechnology Research Applied to Agriculture as part of a Moroccan Tunisian cooperation for Project** entitled “Agro-physiological characterization of (*Phaseolus vulgaris* L.)/ rhizobia symbiosis adaptation to phosphorus deficiency: analysis of phosphatases and carboxylases” at National Institute of Agricultural Research of Tunisia (INRAT), Tunisia, North Africa (April 10th, 2010).

RESEARCH PUBLICATIONS:

Book Chapter:

2018:

- Amira Hachana, Imen Hemissi, Hanene Cherif, Dorsaf Hlel, Manel Bouraoui, **Neila Abdi**, Houda Maazaoui, Ameer Cherif, Bouaziz Sifi (2018). Diagnosis of Biodiversity of Rhizobium Leguminosarum Nodulating Pea (*Pisum Sativum* L.) in Different Soils of Tunisia. In: Kallel A., Ksibi M., Ben Dhia H., Khélifi N. (eds) Recent Advances in Environmental Science from the Euro-Mediterranean and Surrounding Regions. EMCEI 2017. Advances in Science, Technology & Innovation (IEREK Interdisciplinary Series for Sustainable Development). Springer, Cham. pp 1255-1256 <https://doi.org/10.1007/978-3-319-70548-4_365>

Research papers:

2018:

- Hemissi, I., Gargouri, S., Hlel, D., Hachana, A., **Abdi, N.**, Sifi, B. Impact of nitrogen fertilization on Fusarium foot and root rot and yield of durum wheat. *Tunisian Journal of Plant Protection*. **(13)** 31-38.

2017:

- **Abdi Neila**, Bargaz Adnane, Faghire Mustapha, Bouraoui Manel, Hmissi Imen, L'taief Boulbaba, Sifi Bouaziz (2017) Rhizobial efficiency increases in Common bean supplied with sparingly soluble calcium-phosphorus. *Journal of Plant Nutrition*, **40** (13) 1829–1841

2016:

- Manel Bouraoui, Zouhaier Abbes, Mostapha Rouissi, **Neila Abdi**, Imen Hemissi, Sawssen Kouki Bouaziz Sifi. 2016. Effect of rhizobia inoculation, N and P supply on *Orobanche foetida* Poiret parasitizing faba bean under field conditions. *Journal of Biocontrol Sciences and Technologies*. **26** (6) 776-791.
- KOUKI Saoussen, **ABDI Neila**, BOURAOUI Manel, SIFI Bouaziz. 2016 Phosphorus fertilization effect on common bean (*Phaseolus vulgaris* L.)-rhizobia symbiosis. *Journal of New Sciences*, **25** (1) 1130-37
- Khadija Ouerghi, **Neila Abdi**, Houda Maazaoui, Imen Hemissi, Manel Bouraoui, Bouaziz Sifi. 2016. Physiological and morphological characteristics of pea (*Pisum sativum* L.) seeds under salt stress. *Journal of New Sciences*, **28** (1) 1559-65.
- Imen Hemissi Zaghdoudi, **Neila Abdi**, Manel Bouraoui, Bouaziz Sifi. 2016. Effet de l'inoculation par des rhizobia sur la croissance du pois chiche en plein champ. *Annales de l'INRAT. Numéro Spécial Innovations*, **89**, 65-67.
- HEMISSI Imen, **ABDI Neila**, BOURAOUI Manel, Sifi Bouaziz. 2016. Rôle des isoflavonoïdes dans les mécanismes de défense du pois chiche infecté par *Rhizoctonia solani* AG3 et prétraité par des isolats de Rhizobium. *Journal of New Sciences*, **31**(1)1195-1201
- Bouaziz SIFI, Imen Hemissi, **Neila Abdi**, Houda Maazaoui, Manel Bouraoui, Khadija Ouerghi, Saoussen Kouki, Hachana Amira, Boulbaba L'Taief. 2016. Valorisation de la biodiversité symbiotique locale et production de biofertilisant pour la substitution des engrais chimiques et la préservation de l'environnement. *Annales de l'INRAT. Numéro Spécial Innovations*, **89**, 60-64.

2015:

- **Neila Abdi**, Imen Hmissi, Manel Bouraoui , Boulbaba L'taief , Bouaziz Sifi. 2015. Effect of salinity on Common bean (*Phaseolus vulgaris* L.)- *Sinorhizobium* strain symbiosis. *Journal of New Sciences*, 16(3), 559-566
- HMISSI Imen, **ABDI Neila**, BARGAZ Adnane, BOURAOUI Manel, Yassine Mabrouk, Mouldi Saidi ,SIFI Bouaziz. 2015. Inoculation with phosphate solubilizing mesorhizobium strains improves the performance of chickpea (*Cicer aritenium* L.) under phosphorus deficiency. *Journal of Plant Nutrition*, 38:1656-1671.
- Bouaziz Sifi; Boulbaba L'Taief; Houda Maazaoui; Imen Hemissi; **Neila Abdi**; Adnane Bargaz; Fatma Tajini; Mainassara Zaman Allah and Jean Jacques Drevon . 2015. Rhizobia-legumes symbiosis and nitrogen fixation under phosphorus deficiency in salinized soils of Tunisia. *Annales de l'INRAT*, 2ème Numéro Spécial Centenaire, **88**, 33-48.

2014:

- **ABDI Neila**, LTAIF Bolbaba, BARGAZ Adnane, SIFI bouaziz. 2014. Effect of NP fertilization on *Phaseolus vulgaris*-rhizobia symbiosis under controlled and north Tunisian field conditions. *Annales de l'INRAT*, 87, 22-34.
- **ABDI Neila**, BARGAZ Adnane, FAGHIRE Mustapha, BOURAOUI Manel, HMISSI Imen, L'TAIEF Boulbaba, GHOUAM Cherki, SIFI Bouaziz. 2014. *Phaseolus vulgaris*-rhizobia symbiosis increases the phosphorus uptake and symbiotic N₂ fixation under insoluble phosphorus. *Journal of Plant Nutrition*, 37:643–657.

2012:

- M. Bouraoui, Z. Abbes, **N. Abdi**, I. Hemissi and B. Sifi. 2012. Evaluation of Efficient *Rhizobium* Isolates as Biological Control Agents of *Orobanche foetida* Poir. Parasitizing *Vicia faba* L. Minor in Tunisia. *Bulgarian Journal of Agricultural Sciences*, 18(4), 557-564.
- Imen HEMISSI, Yassine MABROUK, **Neila ABDI**, Manel BOURAOUI, Mouldi SAIDI and Bouaziz SIFI. 2012. Growth promotion and protection against *Orobanche foetida* of chickpea by two *Rhizobium* under greenhouse conditions. *African Journal of Biotechnology*, 12(12), 1371-1377.
- Adnane Bargaz , Mustapha Faghire , **Neila Abdi** , Mohamed Farissi , Bouaziz Sifi , Jean-Jacques Drevon , Mohamed Cherkaoui Ikbali and Cherki Ghoulam. 2012. Low Soil Phosphorus Availability Increases Acid Phosphatases Activities and Affects P Partitioning in Nodules, Seeds and Rhizosphere of *Phaseolus vulgaris*. *Agriculture*, 2, 139-153.
- **Abdi Neila**, Bargaz Adnane, Bouraoui Manel, L'taief Boulbaba, Ghoulam Cherki and Sifi Bouaziz. 2012. Symbiotic responses to insoluble phosphorus supply in common bean (*Phaseolus vulgaris* L.): Rhizobia symbiosis. *African Journal of Biotechnology*, 11(19), 4360-4367.

2011:

- Imen HEMISSI, Yassine MABROUK, **Neila ABDI**, Manel BOURAOUI, Mouldi SAIDI and Bouaziz SIFI. 2011. Effects of some *Rhizobium* strains on chickpea growth and biological control of *Rhizoctonia solani*. *African Journal of Microbiology Research*, 5(24), 4080-4090.

CONFERENCE / SEMINAR PRESENTATION :

2017:

- Imen Hemissi, Dorsaf Hlel, **Neila Abdi**, Amira Hachana, Bouaziz Sifi, 2017. Fertilizer-dependent efficiency of *Mesorhizobium* for improving growth, potassium uptake and yield of wheat (*Triticum aestivum* L.). **Poster to the Frontiers of Potassium Science conferences**, Rome, Italie. (25 January 2017)

- Hachana Amira, Hémissi Imen, Cherif Hanen., Hlel Dorsaf, Bouraoui Manel, Abdi Neila, Maazaoui Houda, Cherif Amira, Sifi Bouaziz. 2017. Diagnosis of biodiversity of *Rhizobium leguminosarum* nodulating pea (*Pisum sativum*) indifferent soil of Tunisia. 1stEuro-Mediterranean Conference for Environmental Integration (EMCEI-1), Tunisia, North Africa (22-27 November 2017).
- Hemissi Imen, **Abdi Neila**, Hachana Amira, Sifi Bouaziz. 2017. Bioprotection du blé par des souches de *Rhizobium* contre *Fusarium culmorum* agent de la pourriture racinaire du blé. **Poster** dans le V^{ème} Congrès International de Biotechnologie et Valorisation des Bio-Ressources. Tabarka, Tunisie, Afrique du Nord (22-25 Mars 2017).
- Hachana Amira, Hémissi Imen, Bouraoui Manel, **Abdi Neila**, Kouki Saoussen et Sifi Bouaziz. 2017. Isolement et caractérisation phénotypique, Biochimique et physiologique des souches de *Rhizobium* nodulant le pois (*Pisum sativum*), isolées de différentes zones bioclimatiques de la Tunisie. Poster dans le V^{ème} Congrès International de Biotechnologie et Valorisation des Bio-Ressources. Tabarka, Tunisie, Afrique du Nord (22-25 Mars 2017).
- Hachana Amira, Ouerghi Iheb, Hémissi Imen., **Neila Abdi**, Bouraoui Manel, Hanen Arfaoui et Sifi Bouaziz. 2017. Sélection de souches de rhizobium spécifiques au pois (*Pisum sativum*) efficaces et solubilisatrices de phosphore inorganique. Communication orale, Séminaire : Durabilité des Grandes Cultures et Changements Climatiques. INRAT, Tunisie, Afrique du Nord (18-20 Avril 2017).

2016:

- Hemissi Imen, Hachana Amira, **Abdi Neila**, Sifi Bouaziz. 2016. Bioprotection du pois chiche par des souches de *Mesorhizobium* contre *Rhizoctonia solani* (AG3). 1st Mediterranean Forum for PhD Students and Young Researchers Designing Sustainable Agricultural and Food Production Systems under Global Changes in the Mediterranean, Montpellier, France. (18-19 July 2016)
- Hemissi Imen, **Abdi Neila**, Sifi Bouaziz. 2016. Effet de la fertilisation azotée et de l'inoculation par des rhizobia sur la culture du pois chiche en condition de culture pluviale. Poster au 27^{ème} forum international des sciences biologiques. Tunisie, Afrique du Nord (28-31 Mars 2016).

2015:

- Kouki Saoussen, Bouraoui Manel, **Abdi Neila**, Sifi Bouaziz, 2015. Effet de la matière organique sur la symbiose *Rhizobia-Phaseolus vulgaris* L. Communication orale au 26^{ème} forum International des Sciences Biologiques et de Biotechnologie de ATSB. (23-26 Mars 2015)
- Hemissi Imen, **Abdi Neila**, Sifi Bouaziz. 2015 .Symbiotic responses to insoluble phosphorus supply in chickpea (*Cicerarietinum* L.)-rhizobia symbiosis. 1^{ère} conférence internationale des sols Afro-Méditerranéens : Contraintes et potentialités pour une agriculture durable. Marrakech, Maroc (18 et 19 Décembre 2015).
- Sifi B, Hmissi I, Ouerghi K, **Abdi Neila**, Bouroui M, Maazaoui H, Kouki S, 2015. Rationalisation de l'utilisation des fertilisants et relation entre la productivité agricole et la dégradation des sols en Afrique du nord en conditions de cultures pluviales. Communication au premier atelier Nord Africain sur la fertilisation des cultures, congrès, Marrakech Maroc (20-21 janvier 2015).
- Hemissi Imen, **Abdi Neila**, Bouroui Manel et Sifi Bouaziz. 2015. Effet de la fertilisation azotée et de l'inoculation par des rhizobia sur la culture du pois chiche en condition de culture pluviale. Forum International sur les Bio-intrants. Algérie, (12-13 Mai 2015).

- Sifi Bouaziz, Hemissi Imen, **Abdi Neila**, Bouroui Manel et. **2015**. La biotechnologie Microbienne au Service de l'Amélioration de la Production Agricole et la Préservation de l'environnement. Forum International sur les Bio-intrants. Algérie (12-13 Mai 2015).
- Hemissi Imen, **Abdi Neila**, Bouroui Manel et Sifi Bouaziz. **2015**. Rôles des isoflavonoïdes dans les mécanismes de défense du pois chiche infecté par *Rhizoctonia solani* AG3 et prétraité par des isolats de *Rhizobium*. Conférence Internationale sur l'Agriculture et la Biotechnologie, Bizerte, Tunisie, Afrique du Nord (2-3 Novembre 2015). **Prix et distinction : Prix du meilleur poster présenté au cours de la conférence Internationale sur l'Agriculture et la Biotechnologie, Tunisie 2015 à Bizerte, le 2 et 3 Novembre 2015.**

2014:

- Sifi B, Hmissi I, Ouerghi K, **Abdi N**, Bouraoui M, Maazaoui H, Kouki S, 2014. Rationalisation de l'utilisation des fertilisants et relation entre la productivité agricole et la dégradation des sols en Afrique du Nord en conditions de cultures pluviales. Communication au 1er atelier Nord-Africain sur la fertilisation des cultures, Congrès, Marrakech, Marocco (20-21 Janvier 2015)
- Kouki Saoussen, **Abdi Neila**, Bouraoui Manel, Sifi Bouaziz, 2014. Etude de la symbiose *Rhizobium-Phaseolus vulgaris* L. Sous contrainte saline. Communication orale au Dixième journées scientifiques de la Société Tunisienne de Microbiologie (STM) Hammamet, Tunisie (14-16 Novembre 2014).
- BOURAOUI Manel, **ABDI Neila**, SIFI Bouaziz, 2014. Caractérisation symbiotiques, physiologique et biochimique (phénotypiques) des souches de rhizobia nodulant la féverole (*Vicia fabae* L. minor). Communication orale au 25ième forum International des Sciences Biologiques et de Biotechnologie de ATSB, Hammamet - Tunisie (24-27 Mars 2014).

2013:

- **Abdi Neila**, L'taief Boulbaba, Rouaissi Mustapha, SIFI bouaziz. Caractérisation biochimique des rhizobia nodulant diverses légumineuses dans différentes régions de la Tunisie. Poster au Congrès Internationale de Sciences Biologiques et biotechnologiques. Hammamet, (25- 28 March 2013).

2011:

- BOURAOUI Manel, **ABDI Neila**, SIFI Bouaziz, 2011. Effet de la salinité et de la variation du pH sur la croissance des rhizobia (*Rhizobium leguminosarum*) nodulant la feverole (*Vicia faba* L. minor). Communication orale au 7ieme journée scientifique de la Société Tunisienne de Microbiologie (STM) Hammamet, (25-27 Nov 2011).
- **ABDI Neila**, Bouraoui Manel, SIFI Bouaziz, 2011. Tolérance de trois variétés de haricot inoculées par des souches de rhizobium à la déficience en phosphore. Poster au 7ième journée scientifique de la société Tunisienne de Microbiologie (STM) Hammamet, (25-27 Nov 2011).

2010:

- Hmissi Imen, Gargouri Samia, Bouraoui Manel, **Abdi Neila**, Sifi Bouaziz, 2010. Sélection de rhizobiums antagonistes vis-à-vis de l'agent de la pourriture racinaire du blé *fusarium culmorum*. Communication au 17ième Journées Scientifiques sur les Résultats de la Recherche Agricole (16-17 Décembre 2010).
- BOURAOUI Manel, **ABDI Neila**, HMISSI Imen, SIFI Bouaziz, 2010. Effet des mycorhizes sur la symbiose rhizobium féverole et la fertilisation phosphatée sur le parasitisme de

l'orobanche (*Orobanche foetida* poiret). Communication orale au 17ièmes Journées Scientifique sur les résultats de la recherche agricole (16-17 Décembre 2010).

- Bargaz A, **Abdi N**, Drevon J.J, Sifi B, Oufdou K, Cherkaoui Ikbil M., Ghoulam C., 2010 Phosphorus and nitrogen use efficiency of common bean (*Phaseolus vulgaris*) genotypes grown under different soil phosphorus levels in the Haouz area of Morocco. Communication au Agro2010 the XIth ESA Congress, Montpellier, France. (August 29th- September 3rd, 2010)
- **Abdi Neila**, Bouraoui Manel, Hmissi Imen et SIFI Bouaziz. 2010. Effet de la variation du pH et de la salinité sur la croissance des rhizobia. Poster au 17^{ième} Journées Scientifiques sur les Résultats de la Recherche Agricole (16-17 Décembre 2010).

- **ABDI Neila**, FAGHIRE Mustapha, BARGAZ Adnane, BOURAOUI Manel, GHOULAM Cherki, SIFI bouaziz, 2010. Effet de l'inoculation par des rhizobiums sur la fixation de l'azote atmosphérique et l'assimilation des éléments nutritifs en condition de déficience en phosphore chez le haricot (*Phaseolus vulgaris* L.) Communication au 6ieme journée scientifique de la société Tunisienne de Microbiologie (STM) Hammamet, (22-24 Octobre 2010)

2009:

- HMISSI Imen, **ABDI Neila**, SIFI Bouaziz, 2009. Improvement of chickpea growth by an inorganic phosphate solubilizing Rhizobium strains under glass house conditions. Poster au Congrès International de Biotechnologie Microbienne au service du Développement (MICROBIOD), Marrakech- Maroc, (02-05 Novembre 2009).
- BOURAOUI Manel, **ABDI Neila**, HMISSI Imen, SIFI Bouaziz, 2009. Evaluation agronomique de l'antagonisme Rhizobium au parasitisme de l'orobanche (*Orobanche foetida* Poiret) chez la fève (*Vicia faba L.minor*) » Poster au 5^{ieme} journée scientifique de la société Tunisienne de Microbiologie (STM) Hammamet, (30/10 - 01/11/2009)
- **ABDI Neila**, HMISSI Imen, SIFI Bouaziz, 2009. Effet de l'apport de la matière organique et de l'inoculation par des rhizobia sur la nodulation et la production de biomasse chez le haricot (*Phaseolus vulgaris*). Communication au Congrès International de Biotechnologie Microbienne au service du Développement (MICROBIOD). Marrakech- Maroc (du 02 au 05 Novembre 2009).
- **ABDI Neila**, BOURAOUI Manel, SIFI Bouaziz, 2009. Rôle des rhizobiums dans la solubilisation du phosphate inorganique et l'amélioration de la croissance du haricot (*Phaseolus vulgaris* L.) Communication au 5ieme journée scientifique de la société Tunisienne de Microbiologie (STM) Hammamet (du 30 Octobre au 01 Novembre 2009).

2008:

- **ABDI Neila**, SIFI Bouaziz, 2008. Effet de la déficience en bore et en manganèse sur la nodulation chez le haricot (*Phaseolus vulgaris* L.) Communication au 15ieme Journées Scientifiques sur les Résultats de la Recherche Agricole» (17- 18, Decembre 2009).

TECHNICAL EXPERIENCE:

- **Microbiology skills:** Laboratory research techniques including plant (legumes)-micro-organism's interaction, legumes-rhizobia-pathogens exploration and evaluation, fertilization, biocontrol, biochemical reaction/ Tolerance and sensibility of legumes plant against soil pathogens /Greenhouse culture, NPK effect on symbiosis mechanisms.

- **Biochemical reaction of legume-rhizobia against abiotic stress:** morphological characterization, nodulation evaluation, nitrogen content, Chlorophyll Content measurement, ionic conductivity of leaves, membrane stability, oxidative enzyme, etc.
- **Crop Quality skills:** Protein content, Carbohydrate content, Chlorophyll content, Carotene content, Phenol content, Oil content,
- **Molecular and Genetics skills:** Genomic DNA isolation (CTAB and Quick method), RNA isolation, ELISA for microbes detection, PCR, Gel Electrophoresis (Agarose and Acrylamide), Population mapping, QTL analysis, Marker Assisted Back crossing (MABC), Marker Assisted Recurrent Selection (MARS).
- **Computer skills:** Microsoft Office, Statistical software, Statistica, SPSS 13, SAS, BIOLOG databases.

ACADEMIC/ RESEARCH REFERENCES:

Research Advisor:

- **Mohamed Kharrat**, Director
National Institute of Agricultural Research of Tunisia (INRAT), 2049 street Hedi Karray Ariana, Tunisia, North Africa
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Phone: kharrat.mohamed@iresa.agrinet.tn; moha_kharrat60@yahoo.fr
- **Moez Amri**, Scientist
Department of Biodiversity and Integrated Gene Management Program (BIGM), International Center for Agricultural Research in the Dry Areas (ICARDA), PO Box 6299, Postal code: 10112 Rabat, Morocco, North Africa
Phone: (+212) 5 37 682909, Fax: (+212) 5 37 675496
Phone: amrmoez@gmail.com; M.Amri@cgiar.org
- **Cherki Ghoulam**, Professor
Laboratory of Plant Biotechnology and Agro-physiology of Symbiosis, Faculty of Sciences and Techniques, PO. Box 549, Gueliz 40000 Marrakesh, Morocco, North Africa
(+212) 6 68 730172, Fax: (+212) 5 24 43370
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- **Bargaz Adnane**, Scientist
OCP Group, Casablanca, Morocco- Direction R&D, 2-4, Rue Al Abtal, Hay Erraha, 20200 Casablanca, BP Maarif 5196, Morocco, North Africa
Phone: (+212) 5 22 230025; Email: bioadnane@yahoo.fr

Doctoral and Master's Thesis Advisor:

- **Bouaziz Sifi**, Professor and Head
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PERSONAL DETAILS:

- | | |
|---|---|
| • Father's Name:
Late Mr. Ali Ben Fannouch Abdi
(Farmer) | • Date of birth: 30 th March 1981 |
| • Mother's Name:
Mrs. Halima Abdi (housewife) | • Languages known:
English, French and Arabic |
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- **Native:** Ousseltia- Kairouan
- **Marital status:** Single
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I hereby declare that the information given here is correct and no relevant information has been concealed. I am confident to perform all the task assigned to me related to crop/ seed research and can efficiently work in team.

(Abdi Neila)