

Curriculum Vitae

Vahid Rahjoo (Ph.D.)

Personal Information

First Name: Vahid

Surname: Rahjoo

ID Card No. : 1242

Date of Birth: 6th Jan, 1972

Place of Birth: Qazvin (Iran)

Gender: Male

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Occupation: Researcher (Plant Pathologist)

Address: Maize & Forage Crops Research Department, Seed & Plant Improvement Institute (SPII), Mahdasht Avenue, P.O.Box 4119, Karaj 31585, IRAN.



Education

A. Degrees

- **Feb 2015- July 2015, Postdoc.**, Fungal genetic, Department of Genetics, University of Córdoba, Spain,
Postdoctoral Research subject: molecular analysis of the fusaric acid biosynthesis gene cluster in the plant pathogenic fungus *Fusarium oxysporum*.
- **Sep. 2002- Feb. 2008, Ph.D.**, Plant Pathology, University of Tehran, Karaj, Iran.
Ph.D. Dissertation Title: "Investigation on Fusarium Ear Rot of corn and determination of genetic variation in common causal agent populations".
- **Sep. 1995- Oct. 1998, M.Sc.**, Plant Pathology, Research and Science Branch- Islamic Azad University, Tehran, Iran.
M.Sc. Thesis Title: "Study on geographical distribution of Dutch Elm Disease in Tehran and Karaj regions and in vitro assessment of effect of several fungicides on *Ophiostoma ulmi*, the causal agent of Dutch Elm Disease".
- **Sep. 1990- Feb. 1995, B.Sc.**, Plant Protection, University of Tehran, Karaj, Iran.
- **1993, Diploma**, Mathematics & Physics (High school), Karaj, Iran.
- **1989, Diploma**, Experimental Science, Dr. Beheshti High school, Abyek, Iran.
- **Language Ability**
 - Farsi (Persian) language: Native language
 - English language: Good as working level.

B. Scholarships

- MSc. Scholarship (Sept. 1997 - Oct. 1998) from Agriculture Ministry of I.R.IRAN.
- Ph.D. Scholarship (Sept. 2002 - Feb. 2008) from Agriculture Ministry of I.R.IRAN.
- Scholarship for Iranian Ph.D. students (July 2006 – Jan. 2007) from Science, Research and Technology Ministry of I.R.IRAN in order to complete the molecular experiments of my Ph.D study at Norwegian Institute for Agricultural and Environmental Research (**Bioforsk**), Aas, **Norway**.
- Scholarship for sabbatical leave from Agriculture Ministry of I.R.IRAN (Sep. 2018 – March 2019) to implement a research as a visiting researcher at Department of Sustainable Crop Production, **Universita Cattolica S. Cuore (UCSC)**, Piacenza, **Italy**.

Work Experiences

- Member of Scientific Board, Seed and Plant Improvement Institute (SPII), Iran. (2003–Now)
- Researcher, Responsible of Forage Crops Diseases, SPII, Iran. (1999-Now).
- Working knowledge of statistical analysis on MSTATC and SPSS packages.
- Working knowledge of molecular analysis on NTYSSp and GenAEx packages.
- General Knowledge in Molecular Biology Techniques (especially AFLP & PCR)
- Advisor in Plant Pathology and Green Space Designer, Municipality of Nazarabad, Karaj, Iran. (1992-1994)
- Scientific Committee Member of Seed and Plant Improvement Institute (for the period Sep. 2009 to May 2010 and Feb. 2016 to March 2018)
- Head of Maize and Forage Crops Research Department, SPII. (October 2015 – March 2018)

Research Projects

Terminated Research projects

- Principal scientist of local project entitled: “Study of sorghum leaf diseases and relative resistance of some sorghum varieties to dominance pathogen”.
- Principal scientist of national project entitled: “Study on relative resistance of different cultivars of alfalfa to Downy Mildew Disease”.
- Principal scientist of national project entitled: “Study on relative resistance of local cultivars of alfalfa to the Alfalfa Rust Disease”.
- Research assistant of national project entitled: “Evaluation of maize promising genotypes to Fusarium ear rot disease”.
- Principal scientist of national project entitled: “Study on relative resistance of cold Iranian alfalfa ecotypes to Downy Mildew Disease”.
- Principal scientist of national project entitled: “Study on Fumonisin accumulation due to *Fusarium verticillioides* in different maize and sorghum genotypes”.
- Principal scientist of national project entitled: “Evaluation of Response of Different Red Clover Cultivars to Powdery Mildew Disease”.
- Principal scientist of national project entitled: “Response of different Persian clover germplasms to rust disease”.
- Principal scientist of national project entitled: “Response of cold and semi cold region alfalfa ecotypes to downy mildew disease”.
- Principal scientist of national project entitled: “Evaluation of pre-harvest aflatoxin and fumonisin production on different sorghum genotypes kernel”.
- Principal scientist of national project entitled: "Preliminary evaluation of fusarium ear rot resistance in sweet corn hybrids".

Research Interest

- Mycology, population genetic and molecular genetic of plant pathogenic fungi, resistance of plants to fungal diseases, QTL mapping of resistant genes to plant diseases, mycotoxins.

Workshops & Training Courses

A. Conferences / Workshops

- First Joint Iran-ICRISAT Workshop on Cereals and Legumes, 16th -21st August 1998, Seed and Plant Improvement Institute, Karaj, Iran.
- First Regional Yellow Rust Conference for Central & West Asia and North Africa. 8th-14th May 2001. Seed and Plant Improvement Institute (SPII), Karaj, Iran.
- The 7th Iranian Crop Plant Breeding Science Congress, 24th-26th August 2002, Seed and Plant Improvement Institute, Karaj, Iran.
- The 15th Iranian Plant Protection Congress, 7th-12th Sept. 2002, Kermanshah, Iran.
- Workshop on Molecular Plant Virology, 3rd-12th May 2003, Held in cooperation with DSMZ Institute of Germany & Plant Protection Dept., College of Agriculture, University of Tehran, Karaj, Iran.
- The 16th Iranian Plant Protection Congress, 28th August -1st September 2004, University of Tabriz, Tabriz, Iran.
- Workshop on Application of Bioinformatics in Plant Pathology , 14th-16th June 2005, Held in cooperation with DSMZ Institute of Germany & Plant Protection Dept., College of Agriculture, University of Tehran, Karaj, Iran.
- The 2nd Asian Conference on Plant Pathology 2005. 25th -28th June 2005. National University of Singapore. Singapore.
- The 18th Iranian Plant Protection Congress, 24th -27th August 2008, Bu-Ali Sina University, Hamedan, Iran.
- The 4th International Scientific Meeting on "Mycology. Mycotoxicology and Mycoses", 20th - 22nd April 2011, Matica Srpska, Novi Sad, Serbia.
- The International Mycotoxin Conference, 19-23 May 2014, Beijing. China.

B. Training Courses

Course	Date	Time	Place of Training
ICDL	2005	130 hours	SPII, Karaj
Disease Identification & Inspection Methodology	2003	4 days	SPII, Karaj (FAO TCP project)
SPSS software Training	2002	36 hours	Agricultural Training Center, Karaj
Plant Pathology	2000	36 days	Agricultural Training Center, Karaj

Publications

A. Papers

- **Rahjoo, V.**, Mojdehi, H., Zamanizadeh, H. and Mosahabi-Mohammadi, Gh. 2000. Geographical distribution of the Dutch Elm Disease in Tehran and Karaj regions and *in vitro* assessment of several fungicides on its causal agent, *Ophiostoma ulmi*. *Journal of Agricultural Sciences* Vol.5, No. 20: 15-36.
- Mirzadi Gohari, A., Javan-Nikkhah, M., Hedjaroude, G.A., Abbasi, M., **Rahjoo, V.** and Sedaghat, N. 2008. Genetic diversity of *Fusarium verticillioides* isolates from maize in Iran based on vegetative compatibility grouping. *Journal of Plant Pathology*. 90 (1): 113-116.
- **Rahjoo, V.**, Zad, J., Javan-Nikkhah, M., Mirzadi Gohari, A., Okhovvat, S.M., Bihamta, M.R., Razzaghian, J. and Klemsdal, S.S. 2008. Morphological and molecular identification of *Fusarium* isolated from Maize ears in Iran. *Journal of Plant Pathology*. 90 (3): 463-468.
- **Rahjoo, V.**, Zad, J., Javan-Nikkhah, M., Bihamta, M.R., Okhovvat, S.M., Mirzadi Gohari, A., Elameen, A.H. and Klemsdal, S.S. 2008. Study of genetic variation in *Fusarium verticillioides* isolates, the causal agent of Fusarium ear rot of corn using AFLP markers. *Seed and Plant*. 24 (3): 457-474.
- Alizadeh, A., Javan-Nikkhah, M., Fotouhifar, K. B., Rabiee Motlagh, E. and **Rahjoo, V.** 2010. Genetic Diversity of *Fusarium proliferatum* Populations from Maize, Onion, Rice and Sugarcane in Iran Based on Vegetative Compatibility Grouping. *The Plant Pathology Journal*. 26(3): 216-222.
- Zamani, M. Estakhr, A. and **Rahjoo, V.** 2012. Response of Late Maturity Maize Hybrids to *Ustilago maydis* (DC.) Corda. *Seed and Plant Improvement Journal*. 28 (2): 173-186.
- **Rahjoo, V.**, Feizbakhsh, M.T., Zamani, M. and Ghotbi, V. 2012. Response of Cold Region Alfalfa Ecotypes to *Peronospora trifoliorum* de Bary, the Causal Fungus of Downy Mildew. *Seed and Plant Improvement Journal*. 28 (3): 429-444.
- Karimi Dehkordi, M., Javan-Nikkhah, M. Morid, B. **Rahjoo, V.** and Shahab Hajmansoor, S. 2013. Analysis of the association between *Fusarium verticillioides* strains isolated from rice and corn in Iran by molecular methods. *European Journal of Experimental Biology*, 3(1): 90-96.
- Zad, J., **Rahjoo, V.**, Jafarpour, S., Mirzaei, M. and Khalai Azar, R. 2014. Study on seed mycoflora and sorghum leaf spots in Iran. *Agronomy and Plant Breeding Journal*. 10(2), 35-46.
- Karimi Zanjani Asl, S., **Rahjoo, V.** and Zamani, M. 2014. Study of pathogenicity and determination of mating type of *Fusarium proliferatum* isolates. *Applied Plant Protection*. 3 (1), 41-52.
- Hosseinkhani, S., **Rahjoo, V.** and Zamani, M. 2014. Response of some early maturing maize genotypes to southern corn leaf blight (*Bipolaris maydis*). *Applied Plant Protection*. 3 (3), 175-184.
- Zad, J., Rahmanpour, S., **Rahjoo, V.**, Jafarpour, S. and Hemmati, P. 2016. Study of Fungal Populations in Winter Type Canola Seeds. *Iranian Journal of Seed Science and Technology*. 5 (1), 51-62.
- López-Díaz, C., **Rahjoo, V.**, Ghionna, V., Sulyok, M., Martín-Vicente, A., Capilla, J., Di Pietro, A. and López-Berges, M., S. 2017. Fusaric acid contributes to virulence of *Fusarium oxysporum* on plant and mammalian hosts. *Molecular Plant Pathology*. (In Press) DOI: 10.1111/mpp.12536.
- Alizadeh, A., Javan-Nikkhah, M., Salehi Jouzani, G. R., Fotouhifar, Kh.-B., Roodbar Shojaei, T. **Rahjoo, V.** and Taherkhani, K. 2017. A FLP, pathogenicity and mating type analysis of Iranian *Fusarium proliferatum* isolates recovered from maize, rice, sugarcane and onion. *Mycologia Iranica* 4(1): 13 – 28. DOI: 10.22043/mi.2017.115180

- Shiri, M.R., **Rahjoo, V.** and Ebrahimi, L. 2017. Reaction of Some Sorghum Varieties Against Grain Mold and Fumonisin Accumulation. *Journal of Plant Physiology and Breeding*, 7(2): 91-97.
- Ataei, R., Moghaddam, A., Azari- Nasrabad, A., Chabok, Kh., Saberi, A., Zand, B., Tabatabaee, S. A., Miri, Kh., **Rahjoo, V.** and Razmi- Charmkhoran, M. 2019. Forage yield stability of foxtail millet (*Setaria italica* L.) promising lines. *Iranian Journal of Field Crop Science*, 49, (4), 161-173, DOI: 10.22059/ijfcs.2018.248607.654426.
- Atabaki, N., Rahjoo, V., Hanafi, M. M., Abiri, R., Zamanizadeh, H.R., Zamani, M., Sahebi, M., and Valdiani A. 2018. Morpho-molecular identification, pathogenicity variation, mating biology, and Fumonisin production of *Fusarium* species in *Zea mays* L.. *International Journal of Phytopathology*, 07 (01) 2018. 31-50.
- M., Mirabolfathy, M., Karami-Osboo, R. and **Rahjoo, V.** Important Mycotoxins, Iran Status. *Annals of Reviews and Research*. 2019; 5(1): 555651. DOI: 10.19080/ARR.2019.05.555651002.

B. Conference Proceedings

- Fouman, A. and **Rahjoo, V.**, 2002. Study of yield trials of Iranian forage Sorghum varieties. *The 7th Iranian Crop Plant Breeding Sciences Congress* (Abstract). Seed & Plant Improvement Institute (SPII). Karaj. Iran. 24th -26th Aug. p245.
- **Rahjoo, V.** and Abbasi, M. 2004. The first report of occurrence of *Uromyces striatus* Schroet fungus, causal agent of alfalfa rust disease in Golestan province. *The 16th Iranian Plant Protection Congress* (Abstract). University of Tabriz, Tabriz, Iran. , 28th Aug. -1st Sep. p125.
- Mehrian, F. and **Rahjoo, V.** 2004. Introduction of causal agents of sorghum leaf blight. *The 16th Iranian Plant Protection Congress* (Abstract). University of Tabriz, Tabriz, Iran. , 28th Aug. -1st Sep. p135.
- **Rahjoo, V.** Moghaddam, A., Arjmandian, A. Shahrokhi, A.R. and Saberi- Riseh, R. 2005. Evaluation of the reaction of several alfalfa cultivars to Downy Mildew disease in Iran. *The 2nd Asian Conference on Plant Pathology* (Abstract). National University of Singapore. Singapore. 25th -28th June. p113.
- **Rahjoo, V.**, Mojdehi, H., Mosahabi-Mohammadi, Gh., Zamanizadeh, H. and Shokoohi, E. 2005. Geographical distribution of Dutch Elm Disease in Iran (Tehran Province) and *in vitro* assessment of the effect of several fungicides on its causal agents, *Ophiostoma ulmi* and *O. novo-ulmi*. *The 2nd Asian Conference on Plant Pathology* (Abstract). National University of Singapore. Singapore. 25th -28th June. p113.
- Saberi-Riseh, R., Sharifi-Tehrani, A., Hedjaroude, G.A. and **Rahjoo, V.** 2005. The agonistic effect of antibiotic producing *Pseudomonas fluorescens* isolates on mycelial growth of *Phytophthora citrophthora*, the causal agent of Pistachio gummosis. *IV International Symposium on Pistachio and Almond* (Abstract). University of Tehran, Tehran, Iran. 22nd - 25th May. p197.
- **Rahjoo, V.**, Moghaddam, A. and Mosavat, S.A. 2005. Evaluation of the reaction of different cultivars of alfalfa to Alfalfa Rust Disease in Iran. *57th International Symposium on Crop Protection* (Abstract). Faculty of Bioscience Engineering, Ghent University, Belgium. 10th May. p191.
- Zamani, M., **Rahjoo, V.** and Choukan, R. 2006. Comparison of resistance and susceptibility of maize advanced genotypes to *Fusarium moniliforme* in Iran. *58th International Symposium on Crop Protection* (Abstract). Faculty of Bioscience Engineering, Ghent University, Belgium. 23rd May. p339.
- **Rahjoo, V.**, Javan-Nikkhah, M., Zamani, M., Ghannadha, M.R., Okhovvat, S.M. and Mirzadi, A. 2006. Pathogenicity variation of some *Fusarium* isolates, the causal agents of fusarium ear rot of corn in Iran. *12th Congress of the Mediterranean Phytopathological Union* (Abstract). Agricultural University of Athens, Athens, Greece. 15th -11th June.

- Mehrian, F. and **Rahjoo, V.** 2006. Investigation of Sorghum Target leaf spot and resistance of some cultivars to causal agents. *The 17th Iranian Plant Protection Congress* (Abstract). University of Tehran, Karaj, Iran. 2nd – 5th Sep. p98.
- Mirzadi Gohari, A., Javan-Nikkhah, M., **Rahjoo, V.**, and Sedaghat, N. 2006. The first report of ear rot of corn in Kerman province, Iran. *12th Congress of the Mediterranean Phytopathological Union* (Abstract). Agricultural University of Athens, Athens, Greece. 15th -11th June.
- Mirzadi Gohari, A., Javan-Nikkhah, M., Hedjaroude, G.A., Abbasi, M. and **Rahjoo, V.** 2007. Sexual fertility and vegetative compatibility status of *Fusarium verticillioides* from maize in Iran. *XVI International Plant Protection Congress* (Abstract). Scottish Exhibition and Conference Centre, Glasgow, Scotland, UK. 15th -18th October. 338-9.
- Mirzadi Gohari, A., Javan-Nikkhah, M., Hedjaroude, G.A., Abbasi, M., **Rahjoo, V.**, and Sedaghat, N. 2007. Study on sexual fertility status and maturing type distribution in an Iranian population of *Fusarium verticillioides*. *The Third Asian Conference on Plant Pathology* (Abstract). Yogyakarta, Indonesia. 20th-24th August. p57.
- Mirzadi Gohari, A., Javan-Nikkhah, M., Hedjaroude, G.A., Abbasi, M. and **Rahjoo, V.** 2007. Vegetative compatibility groups in *Fusarium verticillioides* from corn in Iran. *The Third Asian Conference on Plant Pathology* (Abstract). Yogyakarta, Indonesia. 20th-24th August. p56.
- Javan-Nikkhah, M., **Rahjoo, V.**, Mirzadi, A., Alian, A., Abbaszadeh, M. and Lotfi, F. 2007. Current status of *Gibberella fujikuroi* Species Complex Isolated from rice and maize in Iran. *Asian Mycology Congress* (Abstract). Park Royal Hotel, Penang, Malaysia. 2nd-6th December. p266.
- **Rahjoo, V.**, Javan-Nikkhah, M., Mirzadi Gohari, A. Mohammadian, E. and Klemsdal, S.S. 2008. The first report of occurrence of *Gibberella thapsina* on maize ear in Iran. *The 18th Iranian Plant Protection Congress* (Abstract). Bu-Ali Sina University, Hamedan, Iran. , 24th-27th Aug. p635.
- **Rahjoo, V.**, Zamani, M. and Bihamta, M.R. 2008. Evaluation of some corn promising genotypes response to Fusarium ear rot of corn. *The 18th Iranian Plant Protection Congress* (Abstract). Bu-Ali Sina University, Hamedan, Iran. , 24th-27th Aug. p97.
- **Rahjoo, V.**, Zad, J., Javan-Nikkhah, M., Zad, J., Bihamta, M.R., Okhovvat, S.M. and Klemsdal, S.S. 2008. Identification of *Fusarium verticillioides* and *Fusarium proliferatum* isolates, the causal agents of Fusarium ear rot of corn in Iran using species-specific primers. *The 18th Iranian Plant Protection Congress* (Abstract). Bu-Ali Sina University, Hamedan, Iran. , 24th-27th Aug. p641.
- **Rahjoo, V.**, Zad, J., Javan-Nikkhah, M., Bihamta, M.R., Okhovvat, S.M., Mirzadi Gohari, A., Elameen, A. and Klemsdal, S.S. 2008. Genetic variation of *Fusarium verticillioides* isolates recovered from corn ears. *60th International Symposium on Crop Protection* (Abstract). Faculty of Bioscience Engineering, Ghent University, Belgium. 20th May. p191.
- **Rahjoo, V.**, Shephard, G.S., Klemsdal, S.S., Zad, J., Javan-Nikkhah, M., Okhovvat, S.M. and Bihamta, M.R. 2008. Evaluation of fumonisin production for some *Fusarium* isolates recovered from corn ears in Iran. *12th International Congress of Mycology* (Abstract). Istanbul, Turkey. 5th-9th August. p51.
- **Rahjoo, V.** Parchamian, M., Feizbakhsh, M. T. and Zamani, M. 2011, Quantization of total fumonisins producing *Fusarium verticillioides* in some Maize and Sorghum genotypes by ELISA. *The 4th International Scientific Meeting on" Mycology. Mycotoxicology and Mycoses"*. (Invited lecturer).Novi Sad, Serbia. 20th-22nd April 2011.
- **Rahjoo, V.** and Zamani, M. 2014. Assessment of maize lines susceptibility to Fusarium ear rot and Fumonisin accumulation. *The International Mycotoxin Conference*, (Oral Presentation). 19th -23th May 2014, Beijing. China.

- **Rahjoo, V.**, Ghionna, V., Sulyok, M., Martín-Vicente, A., Capilla, J., Di Pietro, A. and López-Berges, M., S. 2015. Role of fusaric acid in the pathogenicity of *Fusarium oxysporum*. Genetic Society of Spain Conference, Cordoba, Spain. 16th -18th September.
- **Rahjoo, V.** and Feizbakhsh, M. T. 2016. Determination of total fumonisins and aflatoxins levels in some grain sorghum lines in Iran. *The 38th Mycotoxin workshop*. Novi Sad, Serbia. 2nd-4th May 2016.p 122.
- **Rahjoo, V.** Feizbakhsh, M. T., Shiri, M. R., Haddadi, M. H., and Zamani, M. 2016. Study on fumonisin accumulation in different grain sorghum and maize genotypes in Iran. ISER, *The 31st International Conference*. Rome, Italy. 1st June 2016. p1.

C. Books

- Torabi, M. and **Rahjoo, V.** 2018. World Cultivated Millets. Karaj: Seed and Plant Improvement Institute, 117 p.

Teaching & Thesis Supervising

- **Date:** September 2004 to January 2005
Place: Islamic Azad University, Saveh, Iran.
Course: Mycology and Plant Diseases
- **Date:** February 2006 to July 2006
Place: Islamic Azad University, Karaj, Iran.
Course: General Plant Diseases
- **Date:** September 2009 to February 2014
Place: Islamic Azad University, Karaj, Iran.
Course: Mycology
- **Date:** February 2014 to June 2018.
- **Supervisor of:** 9 M.Sc. thesis in plant pathology
- **Advisor of:** 6 M.Sc. thesis in plant pathology

Association Memberships

- Membership of Iranian Plant Pathology Society.
- Membership of Iranian Mycological Society.

References

- **Professor Mohammad Javan-Nikkhah**, Full Professor of Plant Pathology, Dept. of Plant Protection. University of Tehran, Karaj, Iran. (E-mail: jnikkhah@ut.ac.ir)
- **Professor Hamid Reza Zamanizadeh**, Full Professor of Plant Pathology, Dept. of Plant Protection, Research and Science Branch- Islamic Azad University, Tehran, Iran. (E-mail: hزامانی2006@gmail.com)
- **Dr. Sonja Sletner Klemsdal**, Researcher and Head of Genetic and Biotechnology Dept., Bioforsk-Norwegian Institute for Agricultural and Environmental Research. Aas, Norway. (E-mail: sonja.klemsdal@bioforsk.no).
- **Professor Antonio Di Pietro**, Professor of Genetics, University of Córdoba, Spain.(Email: ge2dipia@uco.es)
- **Professor Adriano Marocco** , Professor of Plant Genetics, Università Cattolica S. Cuore, Piacenza, Italy (E-mail: adriano.marocco@unicatt.it)