

CURRICULUM VITAE

Laleh Naraghi (Ph.D.)

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Academic qualifications

PhD: Ph.D in Plant Pathology in Islamic Azad University (IAU), Science and Research Branch, Tehran, Iran (2005-2010)

MSc: M.Sc. in Botany from Tarbiat Modarres University, Tehran, Iran (1996-1999)

BSc: B.Sc. in Botany from Shahid Beheshti University, Tehran, Iran (1992-1995)

Research interests

Cotton and sugar beet diseases and biological control on them using antagonistic fungi

Selected research projects

-A comprision between two methods of cotton seed treatment with *Talaromyces flavus* in order to decrease *Verticillium* wilt and seedling diseases in greenhouse and field conditions.

-Investigation of the effect of antagonistic fungi and weed control on the incidence of cotton Verticillium wilt and seedling damping-off diseases.

- Investigation of the effect of different seed treatments contained *Talaromyces flavus* on sugar beet seedling damping-off disease.

-Investigation of the efficacy of different seed treatments containing fungal antagonists on sugar beet seedling damping-off disease in the field condition. -Development and production of antibiotic resistant mutants of antagonistic bacteria for using in the field studies.

-Study on the effect of some inorganic and organic compounds in survival of bacterial antagonists and their efficacy in controlling cotton seedling damping-off disease.

The investigation of the possibility of biological control of greenhouse cucumber
Fusarium wilt disease by *Talaromyces flavus* and *Trichoderma harzianum* in
Varamin cucumber greenhouses

- The investigation of the possibility of biological control of tomato Fusarium wilt disease by *Talaromyces flavus* and *Trichoderma harzianum* in greenhouse and field conditions

- Investigation of the efficacy of several common herbicides on sugar beet seedling damping-off disease in greenhouse and field conditions

- Investigation of the possibility producing the most suitable biological control agents for using in vegetables greenhouses

- Investigation of stability increasing of *Talaromyces flavus* different isolates using different stabilizers

- Evaluation of the efficacy of the biological compound of *Talaromyces flavus* in controlling potato Verticillium and Fusarium wilt diseases in Hamedan

Selected publications

Journals papers

- Atfannejad Dezfooli, R., **Naraghi, L.**, and Niazmand, A. 2014. A comparative study on different antagonistic mechanisms of Talaromyces flavus and Trichoderma harzianum in terms of growth inhibition on Fusarium oxysporum f.sp. lycopersici, causal agent of tomato wilt disease in laboratory conditions. International Journal of Agricultural Research and Review, 2:9: 115-127.

- Bahramian, D., **Naraghi, L.**, and Heydari, A. 2016. Effectiveness of the chemical stabilizers of *Talaromyces flavus* in biological control of tomato and greenhouse cucumber vascular wilt disease. Journal of Plant Protection Research, 56: 3: 291-297.

- Farhang Niya, S., Naraghi, L., Ommati, F., and Pirnia, M. 2015. Evaluation of the efficacy of the biological compound affected by *Talaromyces flavus* in controlling

tomato Fusarium wilt disease in the field conditions. International Journal of Agricultural Science and Research, 5:2: 153-164.

- Heydari, A. Fatahi, H. Zamanizadeh, H. Hasanzadeh, N. and **Naraghi**, L. 2004. Investigation on the possibility of using bacterial antagonists for biological control of cotton seedling damping-off in green house. Applied Entomology and Phyto pathology, 72 :1: 51-68.

-Heydari, A., and **Naraghi**, L. 2011. Controlling sugar beet mortality disease by application of new bioformulations . **journal of plant protection research**.

- Jorjani, M., Heydari, A., Zamanizadeh, H. R., Rezaee, S., and **Naraghi, L.** 2011. Development of *Pseudomonas fluorescens* and *Bacillus coagulans* based bioformulations using organic and inorganic carriers and evaluation of their influence on growth parameters of sugar beet. Journal of Biopesticides, 4: 2: 180-185.

- Jorjani, M., Heydari, A., Zamanizadeh, H. R., Rezaee, S., **Naraghi, L.**, and Zamzami, P. 2012. Controlling sugar beet mortality disease by application of new biofomulations. Journal of Plant Protection Research, 52: 3: 303-307.

- Jahanifar, H., Heydari, A., Hasanzadeh, N., Zamanizadeh, H. R., Rezaee, S., and **Naraghi, L.** 2008. A comparison between antibiotic- resistance mutants of antagonistic bacteria and their wild types in biological control of cotton seedling damping-off disease. Journal of Biological Sciences, 8: 5: 914-919.

- Kakvan, N., Heydari, A., Zamanizadeh, H. R., Rezaee, S., and **Naraghi, L.** 2013. Development of new bioformulations using Trichoderma and Talaromyces fungal antagonists for biological control of sugar beet damping-off disease. Crop Protection, 53: 1: 80-84.

- Mansoori, M., Heydari, A., Hassanzadeh, N., Rezaee, S., and **Naraghi, L.** 2013. Evaluation of Pseudomonas and Bacillus bacterial antagonists for biological control of cotton Verticillium wilt disease. Journal of Plant Protection Research, 53: 2: 154-157.

- Mirzaee, M. R., Heydari, A., Zare, R., **Naraghi, L.**, Sabzali, F., and Hasheminasab, M. 2013. Fungi associated with boll and lint rot of cotton in Southern Khorasan province of Iran. Archives of Phytopathology and Plant Protection, 46: 11: 1285-1294.

- Moradi, B., **Naraghi, L.**, and Niazmand, A. 2015. Investigation of the efficacy of several common herbicides on sugar beet seedling damping-off disease in greenhouse. International Journal of Agricultural Science and Research, 5:1: 43-54.

 Naraghi, L. 2011. Combined use of antagonist fungi and herbicides for integrated control of wilting diseases Verticillium wilt and seedling death in Moghan and Neishabour cotton fields. Research Archivements For Field and Horticulture Crops. -Naraghi, L. 2018. Evaluation of the efficacy of *Talaromyces flavus* biological product in controlling potato wilt diseases in Hamadan province. Applied science of potatoes.

-Naraghi, L. 2018. Growth inhibition of fusarium oxysporum f. Sp. lycopercisi, the causal agent of tomato fusarium wilt disease by nanoformulations containing *Talaromyces flavus*. Ekologi.

-Naraghi, L. 2019. Introduction of Talaromin Biological Fungicide. aac: augmentative and alternative communication.

-Naraghi, L. 2019. Biological control of cotton verticillium wilt by nanoformulations containing *Talaromyces flavus*. Eurasian Journal of BioSciences.

-Naraghi, L. 2020. Efficacy of redoxil and ridomex GR 5% (METALAXYL) and mancolaxyl wp 72% (metalaxyl mancozeb) fungicides in controlling cucumber seedling damping-off disease caused by *Pythium aphanidermatum*. Plant Archives.

- Naraghi, L., Ahmadi, A., Sarkari, S., Heydari, A., and Maleki, N. 2011. Investigation of the effect of antagonistic fungi on the incidence of cotton Verticillium wilt and seedling damping-off diseases. Applied Entomology and Phytopathology, 79: 2: 251-272.

- Naraghi, L., Ahmadi, A., Sarkari, S., Heydari, A., and Maleki, N. 2012. Simultaneous Use of Antagonistic Fungus and Herbicide for Integrated Control of Verticillium Wilt and Seedling Damping-off Diseases in Moghan and Neishaboor Cotton Fields. Research Achievements for Field and Horticulture Crops, 1: 1: 61-73.

- Naraghi, L., Arjmandian, A., Heydari, A., Sharifi, K., and Afshari Azad, H. 2014. A comparison between carbendazim fungicide and *Talaromyces flavus* in controlling Verticillium wilt of potato under field conditions. International Journal of Agricultural Science and Research, 4: 1: 89-100.

- Naraghi, L., Heydari, A., Askari, H., Pourrahim, R., Marzban, R. 2014. Biological control of *Polymyxa betae*, fungal vector of rhizomania disease of sugar beets in greenhouse conditions. Journal of Plant Protection Research, 54: 2: 109-114.

- Naraghi, L. Heydari, A., and Azaddisfani, F. 2006. Investigation of the possibility of biological control of cotton verticillium wilt using *Talaromyces flavus*. Emerging Trends in Plant- Microbe Interactions: 264-267.

- Naraghi, L., Heydari, A., and Azaddisfani, F. 2008. Study on antagonistic effects of non-volatile extracts of *Talaromyces flavus* on cotton Verticillium wilt disease. Asian Journal of Plant Sciences, 7: 4: 389-393.

- Naraghi, L., Heydari, A., and Ershad, D., 2007. Study on the growth ability of *Talaromyces flavus* on different plant material residues for biological control of cotton wilt caused by *Verticillium dahlae*. Iranian J. of Plant Pathology, 42: 3,4: 381-398.

- Naraghi, L., Heydari, H., Hesan, A., and Sharifi, K. 2014. Evaluation of *Talaromyces flavus* and *Trichoderma harzianum* in biological control of sugar beet damping-off disease in the greenhouse and field conditions. International Journal of Agricultural Science and Research, 4: 1: 65-74.

- Naraghi, L. Heydari, A. Karimi Roozbehani, A. and Ershad, D. .2003. Isolation of *Talaromyces flavus* from cotton fields in Gorgan and its antagonistic effects on *Verticillium dahliae* the causal agent of cotton wilt. Iranian Journal of Plant Pathology, 39:3,4: 109-121.

- Naraghi, L., Heydari, A., Rezaee, S., and Razavi, M. 2012. Biocontrol agent *Talaromyces flavus* stimulates the growth of cotton and potato. Journal of Plant Growth Regulation, 31: 471-477.

- Naraghi, L., Heydari, A., Rezaee, S., and Razavi, M. 2013. Study on some antagonistic mechanisms of *Talaromyces flavus* against *Verticillium dahliae* and *Verticillium albo-atrum*, the causal agents of wilt disease in several important crops. Biocontrol in Plant Protection, 1: 1: 13-28.

- Naraghi, L., Heydari, A., Rezaee, S., and Razavi, M. 2014. Assessment of genetic diversity in different isolates of *Talaromyces flavus* by RAPD molecular marker. International Journal of Agricultural Science and Research, 4:6: 53-60.

- Naraghi, L., Heydari, A., Rezaee, S., Razavi, M., and Afshari-Azad, H. 2010. Biological control of greenhouse cucumber Verticillium wilt disease by *Talaromyces flavus*. Phytopathologia Mediterranea, 49: 3: 321-329.

- Naraghi, L., Heydari, A., Rezaee, S., Razavi, M., and Afshari-Azad, H. 2012. Promtion of growth charasteristics in greenhouse cucumber and tomato by *Talaromyces flavus*. International Journal of Agricultural Science and Research, 2:3: 129-141.

- Naraghi, L., Heydari, A., Rezaee, S., Razavi, M., and Jahanifar, H. 2010. Study on antagonistic effects of *Talaromyces flavus* on *Verticillium albo-atrum*, the causal agent of potato wilt disease. Crop Protection, 29: 7: 658-662.

- Naraghi, L., Heydari, A., Rezaee, S., Razavi, M., Jahanifar, H., and Mahmoodi Khaledi, E. 2010. Biological control of tomato Verticillium wilt disease by *Talaromyces flavus*. Journal of Plant Protection Research, 50: 3: 360-365.

- Naraghi, L, Zareh-Maivan, H., Heydari, A., and Afshari-Azad, H. 2007. Investigation of the effect of heating, vesicular arbuscular mycorrhiza and thermophillic fungus on cotton wilt disease. Pakistan Journal of Biological Sciences 10: 1596-1603.

-Nikan, J., Heydari, A., and Naraghi, L. 2017. Application of some fungal biological formulations for controlling garlic white rot disease in the conditions field. **Biological Control in Plant Protection.**

Conference papers

- Atfannejad Dezfooli, R., **Naraghi, L.**, Niazmand, A. R. and Heydari, A. 2012. A comparative study on different antagonistic mechanisms of *Talaromyces flavus* and *Trichoderma harzianum* in terms of growth inhibition on *Fusarium oxysporum* f. sp. *lycopersici*, causal agent of tomato wilt disease. Proceedings of 20th Iranian Plant protection Congress, 285p.

- Azad-Disfani, F. and **Naraghi.L.** 2004. Combined effects of seed treatment with carboxin- thiram and insecticide on germination and seedling damping-off disease in cotton. Proceeding of 27th ISTA Congress Seed Symposium, Budapest, Hungary, 103p.

- Azad-Disfani, F. and **Naraghi.L.** 2004. Greenhouse and field evaluation of seed treatment chemical in relation to root characters in cotton. Proceeding of 27th ISTA Congress Seed Symposium, Budapest, Hungary, 103p.

- Dilmaghani, A. Heydari, A., and **Naraghi, L.** 2005. A comparison between cotton seed delinting by acid and cotton seed treatment with fungicides in their efficacy against cotton seed decay and cotton seedling damping-off diseases. Proceeding of the 4th National scientific/research conference of agriculture and natural resources for young researchers club (Tabriz-Iran): p210.

- Gholi Niakan, M., Roustaee, A., **Naraghi, L.** and Heydari, A. 2012. A comparative study on different antagonistic mechanisms of *Talaromyces flavus* and *Trichoderma harzianum* in terms of growth inhibition on *Fusarium oxysporum* f. sp. *cucumerinum*, causal agent of greenhouse cucumber wilt disease. Proceedings of 20th Iranian Plant protection Congress, 284p.

- Heydari, A. **Naraghi, L.** Abdollahi, G. A. and Yazdani, N. 2004. Cotton IPM Project in Iran. Proceeding of the 63rd plenary meeting of ICAC (Mnmbai), pp: 65-66.

- Jahanifar, H. Heydari, A. Hassanzadeh, N. Zamanizadeh, H. R. Rezaee, S. and **Naraghi, L.** 2008. A comparison between antibiotic resistant mutants of antagonistic bacteria and their wild types in biological control of cotton seedling damping-off disease. Proceedings of 18th Iranian Plant protection Congress, 317p.

- Janlou, H. M. Heydari, A. Zamanizadeh, H. R. Arabsalmani, M. and **Naraghi, L.** 2004. Investigation of growth promoting activity of antagonistic bacteria in cotton fields. Proceedings of 16th Iranian Plant protection Congress, 308p.

- Naraghi, L. Ahmadi, A. Sarkari, S. Heydari, A. and Maleki, N. 2008. Investigation of the effect of antagonistic fungi and weed control on the incidence of cotton

Verticillium wilt and seedling damping-off diseases. Proceeding of 18th Iranian Plant Protection Congress, 269p.

- **Naraghi, L.**, Arjmandian, A., Heydari, A., Sharifi, K., and Shahabi, A. A comparison between carbendazim fungicide and *Talaromyces flavus* in wilt of potato under field conditions. Proceedings of 21th Iranian Plant protection Congress, 171p. IPPC-1037.

- Naraghi, L. Azad-Disfani, F. and Heydari, A. .2004. The probability of using *Talaromyces flavus* for biological control of Verticillium wilt of cotton. Proceedings of 3 rd National Conference on the Development in the Application of Biological Products & Optimum Utilization of Chemical Fertilizers & Pesticides in Agriculture, 411p.

- Naraghi, L. Azad-Disfani, F. and Heydari, A. 2005. Investigation of the possibility of biological control of cotton Verticillium wilt using *Talaromyces flavus*. Proceedings of 75th Asian Conference on " Emerging Trends in Plant-Microbe Interactions", University of Madras, India, pp: 264-267.

- Naraghi, L. Hesan, A. Ravanlou, A. Heydari, A. and Karaminejad, M. R. 2008. Investigation of the effect of different seed treatments contained *Talaromyces flavus* on sugar beet seedling damping-off disease. Proceeding of 18th Iranian Plant Protection Congrss, 366p.

- Naraghi, L. and Heydari, A. 2001. Isolation of fungal antagonists of *Vericillium dahliae* causal agent of cotton wilt. Proceedings of 1th Asian International Micological Congress, 72p.

- Naraghi, L. and Heydari, A. 2006. Study on the growth ability of *Talaromyces flavus* on different plant material residues for biological control of cotton wilt caused by *Verticillium dahliae*. Proceeding of 17th Iranian Plant Protection Congress, 268p.

- Naraghi, L. Heydari, A. Afshari-Azad, H. and Kazemi, M. 2004. Occurance of sunflower brown spot disease in Semnan. . Proceedings of 16th Iranian Plant protection Congress, 298p.

- Naraghi, L. Heydari, A. Afshari-Azad, H. and Sharifi, K. 2012. Antagonistic effects of Talaromyces flavus on some soil-borne pathogens of potato, tomato and greenhouse cucumber. Proceedings of 20th Iranian Plant protection Congress, 278p.

- Naraghi, L. Heydari, A. Arabsalmani, M. and Ershad, D. 2004. More investigation on antagonistic effects of fungal isolates from cotton fields on *Verticillium dahliae*. Proceedings of 16th Iranian Plant protection Congress, 312p.

- Naraghi, L., Heydari, A., Askari, H., Pourrahim, R., and Marzban, R. Biological control against *Polymyxa betae*, vector of the causal *agent* of *rhizomania disease* of *sugar beet* in greenhouse conditions. Proceedings of 21th Iranian Plant protection Congress, 166p. IPPC-1054.

- Naraghi, L. Heydari, A. Hamdollahzadeh, A. Azzizova, Z. and Gorkortseva, E. 2000. Classification of *Verticillium dahliae* isolates the causal agent of cotton wilt in Gorgan

and Varamin based on heterokaryosis.Proceedings of 14th Iranian Plant protection Congress, 271p.

- Naraghi, L. Heydari, A. Karimi Roozbehani, A. and Ershad, D. 2000. Isolation of *Talaromyces flavus* from cotton fields in Gorgan area and investigation of its antagonistic effects on *Verticillium dahliae* agent of cotton wilt .Proceedings of 14th Iranian Plant protection Congress, 275p.

- Naraghi, L. Heydari, A. Rezaee, S. and Razavi, M. 2012. Biological control of wilt disease caused by *Verticillium albo-atrum* in potato, tomato and greenhouse cucumber by *Talaromyces flavus*. Proceedings of 20th Iranian Plant protection Congress, 297p.

- Naraghi, L. Heydari, A. Rezaee, S. Razavi, M. and Afshari Azad, H. 2012. Isolation of *Talaromyces flavus* from major cultivation area of potato, tomato and greenhouse cucumber and determination of suitable substrates for its mass production. Proceedings of 20th Iranian Plant protection Congress, 96p.

- Naraghi, L. Heydari, A. Rezaee, S. Razavi, M. and Jahanifar, H. 2010. Biological control of tomato Verticillium wilt disease by of 19th Iranian Plant protection Congress, 920p.

- Naraghi, L., Karaminejad, M. R., Heydari, A., Montazeri, M., Najafi, H., and Razavi, M. Investigation of the efficacy of several common herbicides on sugar beet seedling damping-off disease in greenhouse and field conditions. Proceedings of 6th Iranian Weed Sciences Congress, 958p.

- Shahraeen, N., Heydari, A., **Naraghi**, L., Farzadfar, Sh. and Ghotbi, T. 2000. First report of the occurance of Rhizomonia disease of sugarbeet in Semnan province. Proceedings of 14th Iranian Plant protection Congress, 261p.

- Zare Maivan, H., **Naraghi, L**., Heydari, A., and Afshari- Azad, A. 2000. Investigation of the effects of heating, thermofillic fungus and endomycorrhiza on the microsclerotia of *Verticillium dahliae*. Proceedings of 14th Iranian Plant protection Congress, 274p. **Books**

- Heydari, A., and **Naraghi, L.** 2012. Biological control of Verticillium wilt disease: Concept, Methods and Mechanisms. Lambert Academic Publishing (LAP), 111 pages.

Software and E-publications

- Gholi-Nyakan, M., Roostaee, A., **Naraghi, L.**, and Heydari, A. 2014. Investigating biological control of Fusarium wilt disease of cucumber caused by *Fusarium oxysporum* f. sp. cucumerinum by *Talaromyces flavus* and trichoderma harzianum. International Journal of Agriculture and Crop Sciences, 7: 3: 154-160.

- Heydari, A., and **Naraghi, L.** 2014. Application of antagonistic bacteria for the promotion of cotton seedlings growth characteristics. International Journal of Agriculture and Crop Sciences, 7:13:1267-1273.

Thesis supervised

- Comparison of Efficacy of Different Stabilizers of *Talaromyces flavus* Isolates in Biological Control of Sugar beet Seedling-Damping-off Disease Caused by *Rhizoctonia solani* and *Fusarium proliferatum* (MSc Student in Islamic Azad University, Varamin-Pyshva Branch, Tehran, Iran)

- Investigation of the efficacy of several common herbicides on sugar beet seedling damping-off disease in greenhouse. (MSc Student in Islamic Azad University, Jahrom Branch, Jahrom, Iran)

- Investigation of the efficacy of the most effective tratments of *Talaromyces flavus* in biological control of tomato Fusarium will disease in the field conditions. (MSc Student in Islamic Azad University, Damghan Branch, Damghan, Iran)

- Study of biological control of cucumber wilt disease (*F.oxysporum* f. sp. *cucumerinum*) by *Talaromyces flavus* and *Trichoderma harzianum* isolates. (MSc Student in Tehran University, Abureihan Campus, Tehran, Iran)

- Study of biological control of tomato wilt disease (*F.oxysporum* f. sp. *lycopersici*) by *Talaromyces flavus* and *Trichoderma harzianum* isolates. (MSc Student in Islamic Azad University, Jahrom Branch, Jahrom, Iran)

Other achievements

Membership in Scientific Association

- Membership in Iranian Phytopathological Society
- Membership in Council of Agriculture and Natural Resources

Scientific Awards

- Scientific award from 2th fair of Research and Development Awards of Iran, 2 September 2012.