Host plant resistance of tomato plants to western flower thrips

Mirnezhad, M.

Acknowledgements

I would like to sincerely thank to many institutions and people for their financial, practical and moral support and encouragement that I received during the last five years of pursuing my PhD research resulting in this thesis. Firstly, I would like to thank the Ministry of Science, Research and Technology in Iran for financially supporting my stay in the Netherlands. I like to also thank the Netherlands Organization for Scientific Research (NWO) for its ERA Net Plant Genomics grant that supported my research.

During the period of my research, I enjoyed the academic ambience that my colleagues created at the Plant Ecology and Phytochemistry department at the Institute of Biology of Leiden University and benefited from their feedback and comments. I am especially grateful to my supervisors, Dr. Kirsten Leiss and Prof. Dr. Peter Klinkhamer for their valuable guidance, support and encouragement throughout the period of my research. I also immensely benefitted from the expertise of Prof. Eddy van der Meijden, Dr. Tom de Jong, and Dr. Klaas Vrieling and I thank them for their valuable comments and suggestions at various stages of my research. Thanks to Jun, Martina, Andreas, Maaike, Lotte, Leonie, Dandan, Dinar, Nuning, Else and Suzanne for discussions I have had with them related to issues and themes relevant to my research. Thanks also to Natasha Schidlo, Henk Nell, Karin van Veen, Cilke Herman who provided invaluable technical support for the experiments carried out for the completion of this thesis. I would like to thank the research group of Prof. Dr. Robert Verpoorte, including Young Choi, and Roman Romero González, who helped me to describe the NMR spectroscopy work in the metabolomics chapter of this thesis. I also take this opportunity to thank the anonymous reviewers of my chapters and published papers for their useful comments and suggestions. Also, a thank you to Suzanne for preparing the Dutch summary and to René for creating the graphical design for the thesis.

I acknowledge the warmth and friendship of Mahmoud Moshgani, Majeed Asgari, Jalal Soltani, Gholam Hasnain, Omid Karami, Omid Tofighian, Ghulam Nadri, Karuna Sharma, Hosein Rahmani, Behrouz Noubakht, Mahmoud Botshekan, Ramin Sarrami and other Iranian friends in the Netherlands. I enjoyed the friendship of my friends, who always cheered me up in times when I looked gloomy due to the pressure of meeting deadlines while writing research papers and thesis chapters. Also many thanks to our families in Iran for their love and support.

There are no words in which I can express my appreciation and thankfulness to my loving wife, Soghra Akbari- Chermahini, who despite her own academic engagements, stood by me and offered her unfailing support in all my endeavors. Our daughter, Anis, created a cheerful environment and provided much needed pleasant diversions.

Curriculum vitae

Mohammad Mirnezhad was born on April 9, 1969, in Damghan (Iran). After graduating from the Montazer-Ghaem agricultural high school at Amirie, Damghan (Iran) in 1985, he studied agronomy and plant breeding at the University of Ferdowsi (Mashhad, Iran). From there he obtained his BSc degree in 1991. For his undergraduate research project he worked on the microphenology of pear (*Pyrus communis*) flowers. He continued his studies at the University of Tarbiat Modares (Tehran, Iran) were he obtained his MSc degree. For his master project, he studied the effect of plant density on seed production of the two plant species *Medicago polymorpha* and *M. truncatula*. He became a full time faculty member of the teaching and research staff of Azad University in Damghan (Iran) for 10 years. In this position he taught subjects such as crop ecology, crop physiology as well as crop and medicinal plant production. He studied the production systems of different crops such as canola (*Brassica napus*) and sunflower (*Helianthus annus*), the effect of irrigation on production of cumin seed (*Cuminum cyminum*), and the adaptation of some medicinal plants under local conditions. In January 2007, he started his PhD studies in the Department of Plant Ecology and Phytochemistry of Leiden University, The Netherlands.

List of publications

1- Mirnezhad, M., Romero-Gonzalez, R.R., Leiss, K.A., Choi, Y.H., Verpoorte, R., & Klinkhamer, P.G.L. (2010) Metabolomic analysis of host plant resistance to thrips in wild and cultivated tomatoes. Phytochemical Analysis, 21, 110-117.

2- Mirnezhad, M., Schidlo N., Klinkhamer P.G.L. & Leiss, K.A. Variation in genetics and performance of Dutch western flower thrips populations (Submitted).

3- Romero-Gonzalez, R.R., Mohammad, M., Leiss, K.A. & Verpoorte, R. Tomato´s best thrips shield: acylsugars, sesquiterpenes, methylketones or phenolics? (Submitted).