YONA CHEN

List of Ph.D. and M.Sc. Students – November 2010
(supervised individually or in cooperation)

Ph.D. students – Completed

1. Barak, P. 1987. The interaction of anions with humic substances. Present Position: Associate Prof. – Soil Science, College of Agricultural & Life Sciences, University of Wisconsin, Madison, USA. e-mail : pwbarak@facstaff.wisc.edu

2. Avidan, A. 1988. Nutritional interaction between phosphate, iron, zinc and manganese in Banksia (Protea) plants. Present Position: Head, Soil and Water Field Services, Ministry of Agricultural and Rural Development, Israel.

3. Inbar, Y. 1989. Formation of humic substances during composting of agricultural wastes and characterization of their physico-chemical properties. Present position: Deputy Director General Infrastructure, Ministry of the Environment, Israel. e-mail: yossi@environment.gov.il

4. Mandelbaum, R. 1991. Mechanism of suppression of the fungus *Pythium aphanidermatum* in compost amended container media. Present Position: Manager, L.D.D. Technologies, Israel. e-mail: rm.ldd@neopharm-Ltd.co.il

5. Silber, A. 1991. Chemical properties and surface reactions of pyroclastic materials from Mount Peres, The Golan Heights. : Senior Researcher - Institute of Soil, Water and Environmental Sciences, Agricultural Research Organization (ARO), Israel.

6. Jurkevitch, E. 1992. Regulation and physiology of siderophore excretion by fluorescence Pseudomonads and their ecological significance in the iron nutrition of plants. Present position: Associate Professor, Department of Plant Pathology and Microbiology, Robert H. Smith Faculty of Agriculture, Food and Environment, The Hebrew University of Jerusalem, Israel. e-mail: jurkevi @agri.huji.ac.il

7. Tarchitzky, J. 1995. Models of organic matter effects on soil structure. Present position: Research Associate, Department of Soil and Water Sciences, Robert H. Smith Faculty of Agriculture, Food and Environment, The Hebrew University of Jerusalem, Israel. e mail: tarchitz@agri.huji.ac.il

8. Shenker, M. 1996. Chemical characterization of the siderophore produced by *Rhizopus arrhizus* and its properties as an iron carrier to plants. Present position: Senior Lecturer, Department of Soil and Water Sciences, Robert H. Smith Faculty of Agriculture, Food and Environment, The Hebrew University of Jerusalem, Israel. e-mail: shenker @agri.huji.ac.il

9. Chefetz, B. 1998.Transformation of organic matter during composting of municipal solid waste. Present position: Associate Professor, Department of Soil and Water Sciences, Robert H. Smith Faculty of Agriculture, Food and Environment, The Hebrew University of Jerusalem, Israel. e-mail: chefetz @agri.huji.ac.il

10. Heilig, A. 1998. Chemical transport in aggregated media. Moshav Tal Shachar, Israel. Researcher, Research and Development Unit, The Arava, The Ministry of Science and Technology.

11. Kaschl, A. 2001. Trace metal binding by organic matter from municipal solid waste compost and consequences for mobility in compost-amended soils under semi-arid conditions. Present position: Research Coordinator, The European Union, Brussels.

12. Keshtacher-Leibson. E. 2001. Mechanisms of iron uptake in alga from microbial siderophores. Present position: Application Engineer, Thermawave, Israel. e-mail: etymiki@bezeq.int.net.il.

13. Yehuda, Z. 2002. Immobilization of siderophores on solid phase and their properties as iron carriers to plants. Present position: Research Associate, Dept. of Soil and Water Sciences, Robert H. Smith Faculty of Agriculture, Food and Environment, The Hebrew University of Jerusalem. e-mail: yehuda@agri.huji.ac.il.

14. Siebner, H. 2004. Interaction of iron chelating agents with clay minerals: Sorption and availability to plants. Present position: Post-doc researcher, The Ben-Gurion University, Sede Boker, Israel. E-mail: siebner@walla.com

15. Yaron-Marcovich, D. 2005. Mechanisms of fluridone adsorption and photodegradation on surfaces of organo-clay complexes. Present position: Post-doc researcher, Weizmann Institute of Science. e-mail: danay@wisemail.weizmann.ac.il

16. Xiaolan, H. 2005. Phosphorus reactions and availability in soil amended with organic wastes. Present position: Post-doc researcher, Marine Science Department, University of Florida, Miami, Florida, U.S.A. E-mail: Xiaolan.Huang@noaa.gov

17. Arye, G. 2007. Effects of humic substances on water retention and transport in soils. Present position: Post-doc fellow, Weizmann Institute of Science.

18. Zmora-Nahum, S. 2008. Physico-chemical properties of disease suppressive composts.

19. Danon, M. 2008. Suppression of *Sclerotium rolfsii* by antagonistic organisms in compost: microbial population characterization in relation to compost maturity.

20. Frenkel, C. 2010. The role of *Rhizopus arrhizus* in the iron nutrition of plants grown on calcareous soil.

21. Carmel, N. 2010. The bloom of the alga *Dinobryon* in the Eshkol reservoir: characterization, control and effects on water quality.

Ph.D. students – currently conducting research

1. Granit, T. Transformations of organic matter in composts by thermophillic fungi.

2. Reichman, O. Formation, release and transport of DOM in peat soils of the upper Jordan River watershed

3. Rosen, V. Distribution of Pb, Cd and Cu between soil components in soils amended with biosolids.

4. Nadav, I. Hydrophobicity impedes water infiltration in the ground water enrichment pong of the Shafdan – the Tel Aviv regional wastewater purification plant.

5. Ashkenazi, E. Survival of old fruit tree plantations in wadis of the Central Negev desert.

M.Sc. students - completed

1. Barak, P. 1979. The use of peat and humic acids enriched with ions as fertilizers. Present Position: Associate Prof. – Soil Science, College of Agricultural & Life Sciences, University of Wisconsin, Madison, USA. e-mail : pwbarak@facstaff.wisc.edu

2. Zahavi, E. 1979. Developing tolerance of tobacco plants to saline water by tissue culture techniques.

3. Bar (Borochovitch), A. 1982. Changes in the physical properties of greenhouse soils due to potassium adsorption. Present position: Haifa Chemicals, fertilizer marketing department.

4. Bar-Tal, A. 1982. The effect of various carriers and pH on zinc movement in porous and adsorbing media. Present position: Senior Researcher - Institute of Soil, Water and Environment, The Agricultural Research Organization (ARO), Bet Dagan, Israel. e-mail: abartal@agri.gov.il

5. Solovitch (Aviad), T. 1982. Effect of solar heating of soils by transparent polyethelene mulching on their chemical properties. Present position: Senior Engineer, Department of Soil and Water Sciences, Faculty of Agricultural, Food and Environmental Quality Sciences, The Hebrew University of Jerusalem, Israel. e-mail: aviad@agri.huji.ac.il

6. Teiblum, A. 1982 .Impediment of water reservoirs by treated clay layers. Present position: Soil Presentation Unit, Ministry of Agriculture, Israel.

7. Inbar, Y. 1984. Characterization of methanogenically digested cattle manure as a growth media. Present position: Deputy Director General Infrastructure, Ministry of the Environment, Israel. e-mail: yossi@environment.gov.il

8. Lev, R. 1985. Significance and effects of solar heating on the recycling ability of tuff as a container medium for plant growth. Present position: Teacher, Kibbutz Metzer, Israel.

9. Barness, E. 1986. Enrichment of cattle and poultry manure with microelements (Fe, Mn, Zn) and their use as fertilizers. Present position: Head and owner of “Spectrolab”, Integrated Laboratory, Element Analyses and Environmental Services, Rehovot, Israel

10. Dayan, R. 1986. Improved weed control by plug-mix seeding and composts as peat substitutes. Present position: Private Consultant.

11. Jurkevitch, E. 1986. Biosynthesis iron binding chelates and their effect as fertilizers. Present position: Senior Lecturer, Department of Plant Pathology and Microbiology, Faculty of Agricultural, Food and Environmental Quality Sciences, The Hebrew University of Jerusalem, Israel. e-mail: jurkevi @agri.huji.ac.il

12. Amir, S. 1986. Effects of pelleted manure on the physical properties of soils. Present position: Granot Greenhouses, Israel

13. Nitzani, Y. 1987. Short-term influence of processed manure on plant nutrition and yield. Present position: Consultant, North-Hydro, Spain

14. Heler, H. 1988. The enrichment of the water fern Azola with iron and its use as fertilizer. Present position: Ph.D. student. The Volcani Institute, Beit-Dagan

15. Shenker, M. 1988. Uptake mechanisms and problems of iron nutrition of Mango trees and testing of new approaches for iron fertilization. Present position: Senior Lecturer, Department of Soil and Water Sciences, Faculty of Agricultural, Food and Enviromental Quality Sciences, The Hebrew University of Jerusalem, Israel. e-mail: shenker @agri.huji.ac.il

16. Yermiyahu, U. 1988. Boron sorption on soil organic matter and its effect on plant growth. Present position: Senior Researcher - Soil and Water Unit, Gilat-Besor Agricultural Research Organization, Israel. e-mail: uri4@netvision.net.il

17. Dornai, D. 1989. Behavior of dinitroanaline herbicides in arid zone soils and their effect on cotton yields. Present position: Private Consultant.

18. Gotesman, A. 1989. Effects of organic matter on the growth of vegetables under cover in container media. Present position: VP Marketing for TRI-Pro Inc.USA

19. Levingart, A. 1989. The interactions between nitrogen and carbon in effluent reservoirs. Present position: Extension Service, Ministry of Agricultural and Rural Development, Israel. e-mail: anatlw@netvision.net.il

20. Da-Silva, F. 1991. Static and dynamic characteristics of water in soilless culture. Present position: Ph.D Student, Faculty of Agricultural, Food and Environmental Quality Sciences, The Hebrew University.

21. Preiss, I. 1991. Physiological parameters affecting siderophores excretion in *Pseudomonas putida*. Present position: Research Scientist, Biotechnology General, Rehovot, Israel

22. Oliver, I. 1992. Production, purification and role in iron nutrition of rihzofferin, a siderophore produced by *Rhizopus arrhizus*. Present position: Farm manager, Porto-Rico.

23. Tsuk, A. 1992. Selection of iron deficiency Kiwi fruit (*Actinidia deliciosa*) cultivars and improved iron fertilization techniques. Present position: Efal Fertilizers, Israel

24. Fibonia, S. 1994. Detoxification of water by photochemical degradation of pollutants adsorbed on clays. Present position: Research Associate. The Yair Farm, Arava, Israel

25. Keshtacher-Leibson, E. 1994. Iron uptake mechanisms in algae. Present position: Application Engineer, Thermawave, Israel. e-mail: etymiki@bezeq.int.net.il.

26. Yehuda, Z. 1995. Reactions of microbial siderophores with soil components and their role in the iron nutrition of plants. Present position: Ph.D Student, Faculty of Agricultural, Food and Environmental Quality Sciences, The Hebrew University of Jerusalem. e-mail: yehuda @agri.huji.ac.il

27. Ardon, E. 1996. Microbial effects on manganese availability in peat soils. Present position: M.B.A. Student, Utah State University, USA.

28. Barlev, N. 1996. Suppression of *Pythium* in composted municipal solid waste. Present position: Head of Water and Sewage Department, Raanana Municipality, Israel

29. Magen, H. 1996. Effects of humic substances on nutrient uptake and plant growth. Present position: Director, International Potash Institute, Zurich, Switzerland.

30. Goloveti, Y. 1997. Effects of secondary effluents on soils aggregates. Present position: Private consultant, the United Kingdom

31. Samueloff, L. 1997. Using super absorbent with soil substitutes in greenhouses. Present position: Irrigation systems planner, Netafim, Hatzerim, Israel

32. Shalit, M. 1997. Availability to plants of heavy metals mediated by municipal solid waste compost. Present position: Environmental Quality Regional Office, The Northern Galilee, Israel

33. Chefetz, B. 1998.Transformation of organic matter during composting of municipal solid waste. Present position: Senior Lecturer, Department of Soil and Water Sciences, Faculty of Agricultural, Food and Environmental Quality Sciences, The Hebrew University of Jerusalem, Israel. e-mail: chefetz @agri.huji.ac.il

34. Reshef, G. 1998. Fly ash impact on soil and water contamination by minor elements. Present position: Hydrological Service, Israel

35. Rosenthal, A. 1998. Effects of organic matter load in reclaimed wastewater on the hydraulic conductivity of agricultural soils. Present position: Environmental Manager TCS – Three Continent Corp. Services, Intel Electronics, Kiryat-Gat, Israel. e-mail: ariel.rosental@intel.com

36. Siebner, H. 1999. Siderophores interaction with soil components. Present position: Ph.D. student, Faculty of Agricultural, Food and Enviromental Quality Sciences, The Hebrew University of Jerusalem, Israel. e-mail: siebner@agri.huji.ac.il

37. Ziv C. 2000. Characterization of structure-function relationship of iron uptake by microorganisms: The use of biomimetic synthetic analogos of ferrioxamine B. Currently Ph.D. student, Faculty of Agricultural, Food and Environmental Quality Sciences, The Hebrew University of Jerusalem.

38. Grimberg, A.O. 2001. Movement of polymers in soil and their effects on the hydraulic conductivity of Vertisol. Present position: Environmental Protection Agency, Stuttgart, Germany.

39. Benny, N. 2001. The fate of boron in reclaimed wastewater and its effects on pepper plants. Present position: Teacher, Rishon Lezion, Israel

40. Shwartzberg, G. 2001. Prediction of heavy metal uptake in plants grown in composted municipal solid waste amended soils. Present position: Engineer, Spectrolab, Rehovot, Israel

41. Amichai, E. 2001. The effect of dissolved organic matter extracted from municipal solid waste compost on plant growth. Present position: Solid Waste Management, Ministry of the Environment, Israel

42. Lerner, O. 2003. Effects of irrigation with reclaimed wastewater on soil water transport. Moshav Gibton, Israel. Present position: Regional Engineer, Mekorot – National Water Supply Company.

43. Halevi, K. 2004. The role of microbial and fungal siderophores in iron nutrition of fungi. Present position: High School teacher.

44. Markovitch, O. 2004. Physico-chemical and structural characterization of humic substances originating from sewage sludge compost. Present position: Regional Engineer, Mekorot – National Water Supply Company.

45. Migdal, O. 2005. Chemical and physical properties of coal cinder and its utilization as a container medium in green house agriculture.

46. Yaffe, T. 2006. Static composters for home operations.

47. Katz, O. 2006. Composting of mixtures of sewage sludge with agricultural plant residues.

48. Gat, P. 2006. Trace metal binding by organic matter derived from composted biosolids.

49. Bernstein, R. 2006. Electro flocculation of humic substances.

50. Toar, A. 2007. Novel composters for backyard and home operations.

51. Oren, S. 2007. Composting of swine slurry and its utilization in agriculture.

52. Tweig, D. 2007. Offensive odor resulting from wastewater treatment plants, biosolids and manure: chemical characterization of sources and prevention options.

53. Kan, M. 2008. The impact of compost application on the structure and functioning of microorganism populations and on the efficiency of compost in suppression of plant diseases.

54. Gutman, I. 2009. Effects of wastewater on aggregate stability in soils.

55. Manor, A. 2010. Clogging of drippers by iron, manganese and biofilm.

56. Isack, Y. 2010. Interactions between fungal populations of biosolids compost and *Sclerotium rolfsii* sclerotia.

M.Sc. students currently conducting research

1. Einhorn, C. Soil related processes and bio-availability of biosolids-P.

2. Ben-Meir, Y. Iron nutrition of peanuts in loess and sandy soils of the Northern Negev.

3. Goldstein, M. Construction and demolition waste leachates – composition and interactions with soils.

4. Eichenvald, R. Prevention of iron and manganese precipitation in drip irrigation systems using chelates.

5. Lerman, I. Environmental behaviors of engineered nanoparticles in water.

6. Katz, S. Formation and prevention of biofilms in drip irrigation pipelines.