Prof. YONA CHEN

List of Ph.D. and M.Sc. Students – January, 2018

(supervised individually or in cooperation)

Summation numbers of graduate students (MSc. And Ph.D.)

Ph.D. – 30; M.Sc. - 66

Ph.D Students - completed

1. Barak, P. 1987. The interaction of anions with humic substances.
2. Avidan, A. 1988. Nutritional interaction between phosphate, iron, zinc and manganese in Banksia (Protea) plants.
3. Inbar, Y. 1989. Formation of humic substances during composting of agricultural wastes and characterization of their physico-chemical properties.
4. Mandelbaum, R. 1991. Mechanisms of suppression of the fungus *Pythium aphanidermatum* in compost amended container media.
5. Silber, A. 1991. Chemical properties and surface reactions of pyroclastic materials from Mount Peres, the Golan Heights.
6. Jurkevitch, E. 1992. Regulation and physiology of siderophore excretion by *Pseudomonas fluorescence* and their ecological significance in iron nutrition of plants.
7. Tarchitzky, J. 1995. Models of organic matter effects on soil structure.
8. Shenker, M. 1996. Chemical characterization of the siderophore produced by *Rhizopus arrhizus and* its properties as an iron carrier to plants.
9. Chefetz, B. 1998. Transformations of organic matter during composting of municipal solid waste.
10. Heilig, A. 1998. Chemical transport in aggregated media.
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.
12. Keshtacher-Leibson, E. 2001. Mechanisms of iron uptake in alga from microbial siderophores.
13. Yehuda, Z. 2002. Immobilization of siderophores on solid phase and their properties as iron carriers to plants.
14. Siebner, H. 2004. Interaction of iron chelating agents with clay minerals: sorption and availability to plants.
15. Yaron-Markovitch, D. 2005. Mechanisms of flouridone adsorption and photo degradation on surfaces of organo-clay complexes.
16. Xiaolan, H. 2005. Phosphorus reactions and availability in soil amended with organic wastes.

17. Arye, G. 2007. Effects of humic substances on water retention and transport in soils.
18. Zmora-Nahum, S. 2008. Physico-chemical properties of disease suppressive composts.
19. Danon, M. 2008. Suppression of *Scleritium rolfsi* 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.
22. Jueshke, E. 2011. Organic matter transformations and transport in soils irrigated with treated wastewater.
23. Grinhut, T. 2012. Transformations of organic matter in composts by thermophilic fungi.
24. Nadav, I. 2013. Hydrophobicity impedes water infiltration in the groundwater enrichment ponds of the Shafdan - The Tel Aviv Regional Wastewater Purification Plant.
25. Reichman, O. 2014. Formation, release and transport of dissolved organic matter in peat soils of the upper Jordan River watershed.
26. Sacht, K. 2015. Treated wastewater irrigation in the Middle East: Soil suitability and impact on soils' physical properties.
27. Rosen, V. 2016. Distribution of Pb, Cd, and Cu between soil components in soils amended with biosolids.
28. Ashkenazi, E. 2017. Environmental and anthropogenic factors influencing the survival of fruit trees in abandoned Bedouin groves in the Negev highlands.

Ph.D. students currently working on their thesis

29. Katz, S. Applicability of physico-chemical parameters in determining biofouling prevention treatments in wastewater irrigation systems.
30. Avidov, R. Prevention of the distribution of microbial diseases common in poultry production facilities using composting and soil treatments.

M.Sc. students – completed

1. Barak, P. 1979. The use of peat and humic acids enriched with ions as fertilizers.

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.

4. Bar-Tal, A. 1982. The effect of various carriers and pH on zinc movement in porous and adsorbing media.

5. Solovitch (Aviad), T. 1982. Effect of solar heating of soils by transparent polyethylene mulching on their chemical properties.

6. Teiblum, A. 1982. Impediment of water reservoirs by treated clay layers.

7. Inbar, Y. 1984. Characterization methanogenically (unaerobically) digested cattle manure as a growth medium.

8. Lev, R. 1985. Significance and effects of solar heating on the recycling ability of tuff as a container medium for plant growth.

9. Barness, E. 1986. Enrichment of cattle and poultry manure with microelements (Fe, Mn, Zn) and their use as fertilizers.

10. Dayan, R. 1986. Improved weed control by plug-mix seeding and composts as peat substitute.

11. Jurkevitch, E. 1986. Biosynthesis of iron binding chelates and their effect as fertilizers.

12. Amir, S. Effects of pelleted manure on the physical properties of soils.

13. Nitzani, Y. 1987. Short-term influence of processed manure on plant nutrition and yield.

14. Heler, H. 1988. The enrichment of the water fern Azola with iron and its use as fertilizer.

15. Shenker, M. 1988. Uptake mechanisms and problems of iron nutrition of mango trees and testing new approaches for iron fertilization.

16. Yermiyahu, U. 1988. Boron sorption on soil organic matter and its effect on plant growth.

17. Dornai, D. 1989. Behavior of dinitroalanine herbicides in arid zone soils and their effect on cotton yield.

18. Gotesman, A. 1989. Effects of organic matter on the growth of vegetables under cover in container media.

19. Levengart, A. 1989. The interactions between nitrogen and carbon in effluent reservoirs.

20. Da-Silva, F. 1991. Static and dynamic characteristics of water in soilless culture.

21. Preiss, I. 1991. Physiological parameters affecting siderophores excretion in *Pseudomonas putida.*

22. Oliver, I. 1992. Production, purification and role in iron nutrition of rhizoferrin, a siderophore produced by *Rhizopus arrhizus.*

23. Tsuk, A. 1992. Selection of iron deficiency Kiwi fruit *(Actinidia deliciosa)* cultivars and improved iron fertilization techniques.

24. Fibonia, S. 1994. Detoxification of water by photochemical degradation of pollutants adsorbed on clays.

25. Keshtacher-Leibson, E. 1994. Iron uptake mechanisms in algae.

26. Yehuda, Z. 1995. Reactions of microbial siderophores with soil components and their role in the iron nutrition of plants.

27. Ardon, E. 1996. Microbial effects on manganese availability in peat soils.

28. Barlev, N. 1996. Suppression of Phythium by composted municipal solid waste.

29. Magen, H. 1996. Effects of humic substances on nutrient uptake and plant growth.

30. Golovati, Y. 1997. Effects of secondary effluents on soils' aggregation.

31. Samueloff, L. 1997. Using super absorbent with soil substitutes in greenhouses.

32. Shalit, M. 1997. Availability to plants of heavy metals mediated by municipal solid waste compost.

33. Chefetz, B. 1998. Transformations of organic matter during composting of municipal solid waste.

34. Reshef, G. 1998. Fly ash impact on soil and water contamination by minor elements.

35. Rosental, A. 1998. Effects of organic matter load in reclaimed wastewater on the hydraulic conductivity agricultural soils.

36. Siebner, H. 1999. Siderophores interactions with soil components.

37. Ziv, C. 2000. Characterization of structure-function relationship of iron uptake by microorganisms.

38. Grimberg, A. O. 2001. Movement of polymers in soil and their effect on the hydraulic conductivity of vertisols.

39. Benny, N. 2001. The fate of boron in reclaimed wastewater and its effects on pepper plants.

40. Schwarzberg, G. 2001. Prediction of heavy metals uptake in plants grown in composted municipal solid waste amended soils.

41. Amichai, E. 2001. The effect of dissolved organic matter extracted from municipal solid waste compost on plant growth.

42. Lerner, O. 2003. Effects of irrigation with reclaimed wastewater on soil water transport.

43. Halevi, K. 2004. The role of microbial and fungal siderophores in the iron nutrition of fungi.

44. Markovitch, O. 2004. Physico-chemical and structural characterization of humic substances originating from sewage sludge compost.

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

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

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

48. Gat, P. 2006. Trace metal binding by organic matter 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 function of microorganism populations and on the efficiency of compost in suppression of plant diseases.

54. Gutman, E. 2009. Effect 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.

57. Ben-Meir, Y. 2011. Iron nutrition of peanuts in loess and sandy soils of the northern Negev.

58. Goldstein, M. 2012. Construction and demolition waste leachates: Composition and interactions with soils.

59. Eichenvald-Rishti, R. 2013. Prevention of iron and manganese precipitation in drip irrigation systems using chelates.

60. Lerman, I. 2013. Environmental behavior of engineered nanoparticles in water.

61. Rosen, V. 2014. Dynamics of associations of organic matter and minerals with heavy metals in soils.

62. Katz, S. 2015. Control and properties of biofilm and chemical precipitate formation in treated wastewater irrigation systems.

63. Ronen, N. 2016. Effect of irrigation with treated wastewater from different origin on soil chemical properties.

64. Green, O. 2017. Characterization of clogging prevention treatments in drip irrigation systems utilizing treated wastewater.

M.Sc. students currently conducting their thesis research

65. Solomon, O. 2016 to-date. Heavy metals sequential extraction from soils and their uptake by plants: The availability-extraction concept.

66. Jafeth, N. 2017- to-date. Optimization of chemical treatments employed in drip irrigation systems clogged by biofilm formation.