SDI Review Form 1.6

PART 1:

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	**2013_AJEA_4696**
Title of the Manuscript:	**Impacts of Pesticides and Fertilizers on Soil, Tail Water and Groundwater in Three Vegetable Producing Areas in the Cordillera Region, Northern Philippines**
Type of the Article	**Research paper**

General guideline for Peer Review process is available in this link:
(http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline)

- This form has total 7 parts. Kindly note that you should use all the parts of this review form.

SDI Review Form 1.6

PART 2: Review Comments

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Compulsory REVISION comments		
Minor REVISION comments	The subject of the paper is very interesting. The article is generally well written and will serve as a valuable resource for increasing our knowledge on the impacts of pesticides and fertilizers on soil, tail water and groundwater in vegetable producing areas. The study let to know that there was a high level of awareness on the negative impacts of commercial pesticides and fertilizers on soil, water and human health but awareness did not influence the way farmers utilize pesticides and dispose of empty bottles/containers of pesticides after use. The authors are quite right when insisting on the need for such a kind of studies, especially regarding the most toxic pollutants. I suggest going ahead in a future in such a research line focusing on other residual pollutants. Anyway, I feel the authors should include some related papers such as: 1. "Solid phase microextraction – gas chromatographic – mass spectrometric method for the determination of the fungicides cyprodinil and fludioxonil in white wines.	The articles mentioned are very helpful and informative. However, I would like to reserve these materials for any future work related to any of them. I would like to include them for citation in this current paper submitted for publication but I found out that some of the full text of cannot be access free on line. Please be rest assured that these papers and journals referred to will be read as time permits which can be cited in any future submissions.

	Journal of Chromatography A, 2002, 942, 41-52”. 2. “Comparison of solid phase extraction and solid phase microextraction for carbofuran analysis in water analyzed by high performance liquid chromatography – photodiode array detection. Journal of Chromatography A, 2002, 963(1), 117-123”. 3. “Optimization of solid phase extraction (SPE) and solid phase microextraction (SPME) for the determination of α- and β-endosulfan in waters by GC/ECD. Journal of Chromatography A, 2002, 976(1-2), 293-299”. 4. “Application of solvent drop microextraction (SDME) and comparison with solid phase microextraction (SPME) and solid phase extraction (SPE) for the determination of α- and β-endosulfan in waters by GC/ECD. Journal of Chromatography A, 2003, 984(2), 245-252”. 5. “Multiresidue method for fourteen fungicides in white grapes by LLE-SPE / HPLC-DAD. Journal of Chromatography A, 2003, 992, 121-131”. 6. “Determination of fungicide residues in white grapes for winemaking by gas chromatography with mass spectrometric detection and assessment of matrix effects. Journal of AOAC International, 2003, 86(5), 1008-1014”. 7. “Procedure for the measurement of soil inputs of plant-protection agents washed off through vineyard canopy by rainfalls. Journal of Agricultural and Food Chemistry, 2003, 51(17), 5041-5046”. 8. “Parameters affecting extraction of selected fungicides from vineyard soils. Journal of Agricultural and Food Chemistry, 2004, 52(24), 7227-7234”. 9. “Influence of micelles on the basic degradation of carbofuran. Journal of Agricultural and Food Chemistry, 2005, 53(18), 7172-7178”. 10. "Occurrence of organochlorine pesticides in stream	

	sediments from an industrial area. Archives of Environmental Contamination and Toxicology, 2005, 48(3), 296-302". 11. "Transport of commercial endosulfan through a column of aggregated vineyard soil by a water flux simulating field conditions. Journal of Agricultural and Food Chemistry, 2005, 53(17), 6738-6743". 12. “Influence of micelles on the basic degradation of carbofuran. Journal of Agricultural and Food Chemistry, 2005, 53(18), 7172-7178”. 13. “Atrazine sorption dynamics in organic matter rich-soils. Bulletin of Environmental Contamination and Toxicology, 2005, 75, 264–271”. 14. “Determination of Carbamates and Organophosphorus Pesticides by SDME-GC in Natural Water. Analytical and Bioanalytical Chemistry, 2005, 383(4), 557-561”. 15. “The dissipation rates of cyprodinil, fludioxonil, procymidone and vinclozoline during storage of grape juice. Food Control, 2006, 17, 1012-1017”. 16. “Determination of Pesticides by Solid-Phase Extraction followed by Gas Chromatography with Nitrogen-Phosphorous Detection in Natural Water and Comparison with Solvent Drop Microextraction. Analytical and Bioanalytical Chemistry, 2006, 384(4), 1002-1006”. 17. “Simultaneous determination of the herbicides diquat and paraquat in water. Journal of Chromatographic Science, 2006, 44, 539-542”. 18. “Influence of methanol on the dynamics of the retention and release of cyprodinil by an agricultural soil. Journal of Agricultural and Food Chemistry, 2006, 54(13), 4751-4757”. 19. “Carbofuran sorption kinetics by corn crop soils. Bulletin of Environmental Contamination and Toxicology, 2006, 77, 267-273”.	

	20. "Dynamics of pesticides in potato crops. Journal of Agricultural and Food Chemistry, 2006, 54(5), 1797-1803". 21. “Influence of methanol on the dynamics of the retention and release of cyprodinil by an agricultural soil. Journal of Agricultural and Food Chemistry, 2006, 54(13), 4751-4757”. 22. “Seasonal distributions of fungicides in soils and sediments of a small river basin partially devoted to vineyards. Water Research, 2007, 41, 4515-4525”. 23. “Influence of copper on the adsorption and desorption of paraquat, diquat and difenzoquat in vineyard acid soils. Journal of Agricultural and Food Chemistry, 2007, 55, 6219-6226”. 24. “Copper content of soils and river sediments in a winegrowing area, and its distribution among soil or sediment components. Geoderma, 2008, 145, 91-97”. 25. “Occurrence and downslope mobilization of quaternary herbicide residues in vineyard-devoted soils. Bulletin of Environmental Contamination and Toxicology, 2008, 80(5), 407-411”. 26. “Determination of quaternary ammonium herbicides in soils. Comparison of digestion, shaking and microwave-assisted extractions. Journal of Chromatography A, 2008, 1196-1197, 110-116”. 27. “Occurrence of fungicide and insecticide residues in trade samples of leafy vegetables. Food Chemistry, 2008, 107, 1342-1347”. 28. “Occurrence and downslope mobilization of quaternary herbicide residues in vineyard-devoted soils. Bulletin of Environmental Contamination and Toxicology, 2008, 80(5), 407-411”. 29. “Determination of quaternary ammonium herbicides in soils. Comparison of digestion, shaking and microwave-assisted extractions. Journal of Chromatography A, 2008, 1196-1197, 110-116”.	

	30. “Effect of organic matter and iron oxides on quaternary herbicide sorption-desorption in vineyard-devoted soils. Journal of Colloid and Interface Science, 2009, 333(2), 431-438”. 31. “Evolution of tebuconazole residues through the winemaking process of Mencía grapes. Food Chemistry, 2009, 117(3), 529-537”. 32. “Determination of metalaxyl and identification of adjuvants in wettable powder pesticide technical formulas. Analytical and Bioanalytical Chemistry, 2009, 394, 1535-1544”. 33. “Efficacy of new commercial formulations to control downy mildew and dissipation of their active fungicides in wine after good agricultural practices. Journal of the Science of Food and Agriculture, 2009, 89, 2625-2635”. 34. “Detachment of sprayed colloidal copper oxychloride – metalaxyl fungicides by a shallow water flow. Pest Management Science, 2009, 65, 615-623”. 35. “Quaternary herbicides retention by the amendment of acid soils with a bentonite-based waste from wineries. Journal of Hazardous Materials, 2009, 164(2-3), 769-775”. 36. “Behaviour of metalaxyl as copper oxychloride-metalaxyl commercial formulation vs. technical grade-metalaxyl in vineyards-devoted soils. Journal of Hazardous Materials, 2010, 174, 181-187”. 37. “Paraquat and diquat sorption on iron-oxides-coated quartz particles and the effect of phosphates. Journal of Chemical and Engineering Data, 2010, 55 (8), 2668-2672”. 38. “Competitive and non-competitive adsorption/desorption of paraquat, diquat and difenzoquat in vineyard-devoted soils. Journal of Hazardous Materials, 2010, 178(1-3), 194-201”. 39. “A review on the fate of pesticides during the	

	processes within the food production chain. Critical Reviews in Food Science and Nutrition, 2011, 51(2), 99-114”. 40. “Adsorption and desorption kinetics of carbofuran in acid soils. Journal of Hazardous Materials, 2011, 190, 159-167”. 41. “Application of new fungicides under good agricultural practices and their effects on the volatile profile of white wines. Food Research International, 2011, 44, 397-403”. 42. “Influence of tebuconazole residues on the aroma composition of Mencía red wines Food Chemistry, 2011, 124(1), 1525–1532”. 43. “Decay of fungicide residues during vinification of white grapes harvested after the application of some new active substances against downy mildew. Food Chemistry, 2011, 125(2), 549-560”. 44. “Distribution of polychlorinated biphenyls in both products and by-products of a mussel shell incinerator facility. Environmental Science and Pollution Research, 2011, 18(7), 1139-1146.”. 45. “Impact of phytosanitary treatments with new fungicides (cyazofamid, famoxadone, mandipropamid and valifenalate) to control downy mildew on the volatile profile of Godello white wines. Food Chemistry, 2012, 131, 826–836”. 46. “Changes of the sensorial attributes of white wines with the application of new anti-mildew fungicides under critical agricultural practices. Food Chemistry, 2012, 130(1), 139-146”. 47. “Surveillance of fungicidal dithiocarbamate residues in fruits and vegetables. Food Chemistry, 2012, 134, 366-374”. The science presented is of a high quality with plenty of detail. This is a substantial manuscript that occupies	

	the bounds between agricultural and environmental chemistry. I do express my positive opinion on the acceptance of the article to be published by “AJEA” after minor revision updating the cited references.	
Optional/General comments		