



SDI Review Form 1.6

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	2014_AJEA_11955
Title of the Manuscript:	Distribution of imidacloprid residues in two sandy soils of portneuf (Quebec) under potatoes (<i>solanum tuberosum</i>) culture
Type of the Article	

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: 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	General comments Title: Abstract: in the form, please follow exactly the form as it is indicated in "Instruction for authors" At the end of the abstract add which information provides these results on other words, what is the conclusion? Key words: add: dissipation, leaching, soil columns Presentation of references: please follow the presentation as it is indicated in "Instruction for authors" that means, the references in the text to be in ordinal numbers (1, 2, 3 ...) So L10: ref 16 should be 4. L13: [4,6] to be changed to [5,6] L15: ...of Canada (add a ref). L18: ref 17 => 7 (please follow ordinaly the number of	Conclusion has been added in the abstract References have been rewritten as indicated in instruction of author



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	references in the text) L31: What was the link/relationship between this work and detection of other pesticides in wells in potato farms? It will be of great interest to choice a molecule among ones detected in wells such carbofuran, or..., according to its heavy used in potato farms. L40: ref 18 the number to be changed of course ...in this reference, the soil type is it the same in these 2 studies? In the introduction, is missing the toxic aspect of imidacloprid (toward humain health and to beneficial predatory): I will be better to add that imidacloprid has neurotoxicity to human And as consequence of its high toxicity mainly to bees, and beneficial predatory, its use was restricted or banned in many countries, such USA, EU, ...etc. In mine time, in many other countries, however imidacloprid is still being largely used as insecticide on several/many crops without any restriction. Imidaclopridhas neurotoxic and endocrine disruption effect	Imidacloprid has a high gustafon index as well as atrazine, metribuzine and more others molecules found in the whole potato farms Yes, the soil type is the same We are agree with, and we add imidacloprid has neurotoxicity to human
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	Endocrine disruption activity: it was reported that thyroid is part sensitive to exposure of imidacloprid. EPA placed imidacloprid in category I as having the highest leaching potential (volner and Klotz, 1997) T1/2: up to 730 days 2-chloropyridine (metabolite) is the most toxic and most persistent. See the book: a disaster in the making ..2010.http://www.boerenlandvogels.nl/sites/default/files/Tennakes_Presentation_Annual%20Meeting_Swiss%20Toxicology%20Society_%2022112012_1.pdf Restricted use of imidacloprid: On December, 17th, 2013, based on the available data, the EFSA Plant Protection Products and their Residues Panel concludes that imidacloprid shows some indications of developmental neurotoxic effects potential. (Scientific Opinion on the developmental neurotoxicity potential of acetamiprid and imidacloprid. EFSA Journal 2013;11(12):3471,47 pp. doi:10.2903/j.efsa.2013.3471. History treatment of soil used must be given Physic-chemical characteristics and Microbial mass of soil	Ok Ok, this reference has been added
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	should also be given L:40-43: the aims should be clear mentioned at the beginning of the abstract In Material and methods, the physic-chemical characteristics of the used soils should be given mainly the factors that influence on leaching and mobility (pH, OM, clay content, CEC, ...) L57: table 1: the last column is not clear, whatmeans g/ha??? L67: figure number and title to be added L69: ~~The~~imidacloprid was ... L74: -chemicals characteristics.... L79: ~~The~~Soilswere sampled ... L85: ...~~preserved~~kept in a portable refrigerator ... L95: at 70°C to dryness. The residues was~~included~~dissolved in 1 ml ... L96-99: and filtration through 0.45um Nylon filter syringe (Acrodisc, 0.45 um) before injection in Waters HPLC apparatus equipped with a system of control Millennium 996. A Spherisorb column for identification and quantification of imidacloprid using a gradient of elution of mobile phase	physic-chemical characteristics of the used soils have been added we gave it in t/ha Ok This part has been rewritten accordind to reviewer, with all ionformations of material used
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	constituted from.....phase.) Please indicate the sequence of the gradient used with the mobile phase. and also the Rt of imidacloprid in such HPLC analysis conditions. L106: as organic solvent of the mobile phase Soil characteristics are missing in this part !!!please include them 3.RESULTS AND DISCUSSION L110: ...after application, while at 113 days ... L135 and L159: soil layers at different ...;; L142 and L 166: 48 g each application or for the two applications? Comment on the two tables 1/2: For a better comparison, the DAA should be the same for the 2 farms !! Figures: L170-L176	Ok Ok Ok 48g for each application It was not possible, because the applications were done by the industrials firms we were called after, for sampling;. BECAUSE OF hihg risk of manipulation . and the sampling was also enough. This explain the differences of DAA in
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	Please for a better view, change the orientation of the graphics to better viewing the differences between different soil profiles and different positions L181: ...index (add a ref). The residual ... L184: detected ... L187:[21] during the study of L195: the harvest time correspond to which time DAA? L197: They obtained L200: ref 11 to be verified. Remember!! You should to change all the number of references and follow with ordinal numbers as cited in the text: start with 1,2,3,4,... L205: add a reference number..... L205: in a sandy loam soil ... L206: ...detected until at 75 to 90 cm depth (in which time? Application dose?)Plasespecify each condition study. L207: et al. (add a reference number) L209: ..but also on soil type (OM contents, clay content, pH,...) microbial activity, application doses, soil water content, soil	two farms Ok Ok Ok
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	temperature, history of use, ...etc. L210: please add ref number after each author!! During discussion of literature results, please indicate the condition study (soil type, application rate,) ... L217: application, in soil, are.... REFERENCES: All the bibliographic references in “REFERENCES” section, should have the same form and presentation according to the “Instruction for authors” and the International abbreviation should be applied for the journal names. You should enhance introduction part with toxic aspect of imidacloprid, some literature findings about the distribution of residual deposit in soils The manuscript should be accepted for publication after taking into account all corrections, remarks and suggestions	Ok Ok Ok
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		