



## **SDI Review Form 1.6**

### **PART 1:**

|                          |                                                                                         |
|--------------------------|-----------------------------------------------------------------------------------------|
| Journal Name:            | <a href="#">American Journal of Experimental Agriculture</a>                            |
| Manuscript Number:       | 2013 AJEA 3297                                                                          |
| Title of the Manuscript: | The Efficiency of Nitrogen Fertilization of Spring Wheat Depending on Seasonal Rainfall |

**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 9 parts. Kindly note that you should use all the parts of this review form.



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### 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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Compulsory</b> REVISION comments | <p><b>I think the manuscript has a good objective and it is in general well written. However there are some points in materials and methods and the results that need to be clarified and better discussed before publication</b></p> <p><b>Materials and methods</b><br/> <b>Were soil analysis carried out only in the first growing season?, how the N in the soil varied between 2006 and 2008?</b></p> <p><b>How was the number of spikes per m<sup>2</sup> determined, on how many rows, how long?, how was the number of grains determined? On how many spikes?, how was the yield determined?, how were the experiments harvested?</b></p> <p><b>Results of spikes per m<sup>2</sup> , grains per spike and thousand kernel weight are presented, however the yield in each year and each N fertilization rate is not shown. In addition how the ratio kg grain per kg N applied increased at 120-160 kg N in 2007 and 2008?</b></p> | <p>Soil analyses were carried out in each year of the study. However, in each year the experiment was set up in another part of the field. Thus, the results presented in the manuscript concerning the concentration of nutrients in the soil are means from three years of the study (from three parts of the experimental field).</p> <p>This information has been added.</p> <p>In fact the yield of grains in individual years and N fertilization rate is not shown. The cause of such presentation of results is showing the regression equations for each year and each catch crop treatment. I cannot duplicate presentation of any results.</p> <p>I agree. Increasing nitrogen fertilization from</p> |



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|  | <p><b>Data showed indicated that number of spikes decreased at 120-160 kg N and grains spike and thousand kernel weight do not increased, how could the efficiency in kg of grains increased?, and why. It should be discussed why after a decrease at 80-120 kg N, there is an increase at 120-160?, is that normal?, why it happens in a dry year as 2007</b></p> <p><b>In addition in my opinion the discussion should be based on the total N available, that is N in the soil plus N added with the fertilizers, as the obtained results depended on the N in the soil. In different conditions, with a different amount of N in the soil, that results could be completely different</b></p> | <p>120 to 160 kg·ha<sup>-1</sup> did not result in a significant increase in the number of spikes, the number of grains per spike and thousand kernel weight. However, increasing the N rate by as much as 120 kg·ha<sup>-1</sup> did not affect the thousand kernel weight, whereas after the application of 160 kg it was significantly higher than in the control. This resulted from the way of splitting the highest nitrogen rate. This part of discussion has been supplemented in subsection 4.2.</p> <p>I do not agree with the statement that the year 2007 was dry. In this year rainfall distribution was favourable for needs of spring wheat.</p> <p>Soil analyses made before this experiment indicate that N abundance in the soil was rather low. Unfortunately, there were no analyses concerning the N available in soil. I agree that N available in soil may differentiate the influence of fertilizer applied. Of course the results presented in my manuscript concern only soil conditions similar to these on which my study has been carried out.</p> |
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| <b>Minor</b> REVISION comments   |  |  |
| <b>Optional/General</b> comments |  |  |