



SDI Review Form 1.6

PART 1:

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	MS: 2012_AJEA_2886
Title of the Manuscript:	Statistical models of some important factors affecting seed yield, seed quality and yield components of safflower

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)
<u>Compulsory</u> REVISION comments	Manuscript Number: MS: 2012_AJEA_2886 Title: Statistical models of some important factors affecting seed yield, seed quality and yield components of safflower <u>General comments</u> This paper reports some interesting data related to the influence of nitrogen application rate and plant population density on seed yield, yield components and seed quality of safflower. The topic is not new, as indicated by the similarity of the results reported in the cited articles. However, the paper contains a lot of interesting results that could have a practical importance for safflower growers and researches in Egypt and elsewhere. Overall, the paper is generally well written and organized, but to my opinion, some crucial points should be clarified or revised before it is accepted for publication. I suggest accepting the paper after major revision. <u>Specific comments</u>	



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	Title The title needs to be revised. The nitrogen rate and plant density as a factor causing variation in studied traits need to be included in the title. I suggest: “(Modeling the) influence of nitrogen rate and plant density on seed yield, yield components and seed quality of safflower”. Introduction This section starts with the sentence “Safflower (<i>Carthamus tinctorius</i> L.) is considered one of the most important oil crops in the world”. I am not sure about this, in terms of total world oil production by safflower. I would say that “safflower is considered an important oilseed crop that is cultivated for a variety of uses”. Materials and methods If data regarding initial soil N content are available, they should be given for explaining the response of the crop to N application rates. Six irrigations were applied: Is it a common practice in the area for safflower? It should be clarified, because in many parts of the world safflower is cultivated as rain-fed crop. How much was the total amount of irrigation water applied? The crop was kept (free) from weeds: The word	Titel: Title has been modified for the research paper. Modeling the Influence of Nitrogen Rate and Plant Density on Seed Yield, Yield Components Seed Quality of Safflower Introduction: The amendment provided for a research paper and adds references. Table 1 has been added soil analysis and Egyptian agriculture depends on the surface irrigation method. *And duration of safflower crop stayed 6 months. *6 irrigations were used *Not estimate the amount of water used for irrigation Crop was kept from weeds by hand hoeing before stem elongation.
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	free should be added. Results and Discussion Table 1. It is better for the readers to have the values (numbers) of mean squares for each parameter of the first column (source of variation) including Error (a) and Error (b)). This will give the whole figure of the ANOVA results, such as CV, and also provide the possibility to compute the contribution of the variability of each component to the total variation. Table 3 and Figure 3 give the same data. I suggest keeping only the Table. No data or comments for the YxNxP interaction for seed yield are given. Is this interaction of qualitative or quantitative nature? It should be clarified. Meteorological data of the area in which the experiments were carried out should be given to support the whole results. Table 2 and Figure 7 give the same data. Keep only one of them. If you keep the Figure, please indicate with letters the significant differences among treatments. In the sub-section “Performance of yield	Table has been modified pooled analysis of variance, also was added to the sum of squares for each trait and coefficient of variation. Figure 3 has been deleted Suspension was added Table 2 for climate measurements was added Figure 7 has been deleted
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	component of safflower” (after Fig. 7) data for days to 50% flowering and plant height are given. Since the previous traits are not considered as yield components by the classical point of view, I suggest changing the title of the sub-section to “Performance of agronomic traits and yield components of safflower”. The data for the time (days) to maturity should be given. Table 4: Grain yield calculated by the yield components of this table has a large difference with that given in Table 2. For example, seed yield in kg/ha = seed yield per plant x number of plants/ha = 0.01779 kg x 200000 plants/ha = 3558 kg/ha, which is quite higher than that of 1613.8 kg/ha given in Table 2. How do you explain this large difference? Table 6. A validation of the model described in the table should be done. To do this, you can found the R^2 value for the actual seed yield and the predicted by the model seed yield. References Please check again the list of references and the corresponding citations in the text for errors. The	Amendment was conducted This trait has not measured Material error had been corrected when preparing a paper amendment was conducted statistical analysis were revised Correction was conducted. Correction was conducted.
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	reference Christos AD, Sioulas C (2008) is the same with Dordas CA, Sioulas C (2008). The physiological basis of the response of safflower to nitrogen application rates and plant density should be better explained using the literature. In the following papers (as well as in the citations reported in those papers) you can find useful information about the physiological determinants of safflower yield: Yau, S.K., 2007. Winter versus spring sowing of rain-ded safflower in a semi-arid, High-elevation Mediterranean environment. Eur. J. Agron. 26, 249–256. Koutroubas S.D. and D.K. Papakosta 2010. Seed filling patterns of safflower: Genotypic and seasonal variations and association with other agronomic traits. Industrial Crops and Products 31(1): 71-76.	We attach some references in the results and discussion I express my sincere thanks to you for review valuable and useful for the research paper.
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		