



SDI Review Form 1.6

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	2013_AJEA_8670
Title of the Manuscript:	Long-Term Fertilization Effect On Agronomic Yield And Soil Organic Carbon Under Semi-Arid Mediterranean Region
Type of the Article	Original Research 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>)



SDI Review Form 1.6

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	Please fix citation format for consistency. Provide some justification or explanation for the treatments of the experiment conducted. Why each fertilizer treatment was used at that particular amount? If the amount of fertilizers were different, maybe that is the cause of the difference in yield rather than the type of the fertilizer. Results in the paper states only the SOC concentration at the beginning and at the end of the experiment, but Fig. 1 shows SOC concentration was quite dynamic. Although this is mentioned in conclusion, it is not touched in either results or discussion. For example, why was the SOC concentration in year 2000 lower than the year before? Although the paper concludes that SOC generally increased crop yields, the relationship was quite variable by crop and by treatments. Please discuss why this may be. The conclusion states that SOC concentration increased with organic and inorganic fertilizers because of the increased NPP. While that is a reasonable guess, I did not see any conclusive evidence to make such statements in the conclusion. If there was evidence that indicated the increased NPP as the exact cause of increase in SOC, please describe it.	-We use EndNote, so citation is automatically organised. -It is a quite wright question. Since we started with fix amount of fertilizer application we conducted like that. That time the carbon content of manure and compost was similar. At present we are aware of the problem. -Thank you very much for your kind question which is very important. Since soils were analysed separately some time depend on crop waste remind in the field, and sampling strategy SOC content can be change. There is nothing to know from this time to past. That time we did not compared the results. So we cannot make any speculation. - In the discussion section this point was re organised and indicated the relationship between SOC and yield variability. We added following sentences "In generally there is a quite variable relationship in between SOC concentration and agronomic yield of crops. In general, the relationship between SOC concentration and agronomic yield were positive for organic fertilizer treatments and negative for unfertilized control, but for 3 crops there is a positive relationship with inorganic fertilizer treatments. This may be related with yield variability from year to years". Depending on soil, crop and climate, there exists a large variability in empirical relationship between



SDI Review Form 1.6

		SOC concentration and agronomic yield. This confusion may be caused by the expression of SOC data in % rather than in Mg/ha. Most literature is in Mg/ha. In present experiment we used % of SOC.
<u>Minor</u> REVISION comments	I could not tell from method section whether the same plot was given the same treatments or same crops throughout the experiments. Please clarify. Although the paper discusses the SOC influence on crop yields by different crops, how about the crop's influence on the SOC? Perhaps that may explain the dynamics of the SOC concentration shown in Fig.1. What does author mean by "threshold level of SOC pool?"	We added following sentences to make clear the influence of crops on SOC. "As can be from Fig. 1 it seems that SOC amount differs from year to year. The SOC concentration in year 2000 lower than the year before and also in year 2005 there is less defenses in between treatments. This may be related with crop's influence on the SOC. Some years for example 1996-1998, 2001, 2005 vegetables were used. After the year 2005 only wheat and maize rotations (Table 1) were used and there was a quite defense in between treatments. This may be explaining with the effect of crop residue on dynamics of the SOC concentration. The crop's influence on the SOC needs to be searched". - threshold level of SOC pool, is mean what is the minimum level of SOC requirement for optimums agronomic yield
<u>Optional/General</u> comments	Please proof read. I noticed several grammatical errors. In addition, the paper can be better organized, especially in discussion section. For example, in the section 4.1, first 3 paragraphs have little to do with the subsection title "SOC influence on yield." Better organization would make the conclusion more convincing.	I do agree with reviewer. SOC influence on yield was done on related subsection in section 4.1