



SDI Review Form 1.6

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_42785
Title of the Manuscript:	Treated Domestic Effluents: an Option for Cultivation of Ornamental Sunflower in Hydroponic System
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:

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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	Economics of cultivation of ornamental sunflower in T1 and TDE (T2,T3 and T4) need to be worked out in relation to saving fertilizer with use of TDE. Correlation between CDM and ID/ED of sunflower need to be included so as say CDM is important or not important for influencing diameter of capitulum.	1. The reduction of fertilizer concentration in the nutrient solution (50 or 75%) did not negatively affect the growth and production of the sunflower plants, attaining characteristics compatible with the commercialization standards, which allows to infer about the possibility of its cultivation in solution prepared with quantity of nutrients reduced by 50 (T4) or 75% (T3) without prejudice to the quality of flower and stem. This way economy will correspond to 25 or 50% of cost of fertilizers necessary to prepare nutrient solution. Since experiment was conducted in greenhouse on a small scale, it is not possible to inform/calculate real costs/economy. According to literature, cost of nutrient solution corresponds to approximately 5 to 6% of variable costs depending on purity of fertilizers. Based on this information, it can be mentioned that economy will be of the order of 2 to 3% of variable costs besides the cost of water which will depend on source of water to be used and pumping system. But principal advantage of using effluents lies in the control of contamination and pollution of water bodies. These points have been explained in text; 2. Regarding the suggestion to establish correlation between capitulum dry weight (CDM) and internal (ID) and external diameter of capitulum (ED), attempt was made and correlation coefficients were of the order of 0.53 i.e. only 28% of variation in diameter may be explained by dry weight of capitulum, value considered very low and hence it was not cited in the paper.
Minor REVISION comments	- In abstract, Methodology: words like height and stem diameters were repeated in two sentences and hence they should be rewritten. - Line no.83 and 84, dSm-1 should be changed dSm⁻¹ - Line no 111,cm day-1 changed to cm day⁻¹. - Line 113-T1 and T2 should be mentined - Is it possible to simulate same response of sunflower when number of plants per plot is more than seven? Table-2. Is character of TDE remained same or deviated with time?	1-4. Authors thank anonymous reviser and suggestions 1 to 4 were accepted and incorporated in the revised text; 5. Yes, as a matter of fact 14 plants (2 repetitions) of a given treatment were grown in hydroponic profile and statistical analysis indicated relatively low value of coefficient of variation, therefore it can be said if more plants are grown there will not be appreciable change in values. Table 2 Regarding characteristics of TDE our experience indicate that it varies with time and even during the same day. For this reason as mentioned in Material and Methods sufficient volume of TDE was collected before the start of experiment so as not to have changes in quality of TDE during the experimental period.
Optional/General comments	Character of sewage is dynamic and hence wuantity of TDE added to make required concentration need to be mentined.	In the present study we used available TDE and analysed it, therefore treatments were based on nutrients added through the fertilizers, but the reverse is also possible depending upon quality and results of analysis of TDE.