



SDI Review Form 1.6

| | |
|--------------------------|--|
| Journal Name: | Journal of Engineering Research and Reports |
| Manuscript Number: | Ms_JERR_45548 |
| Title of the Manuscript: | Development of an Energy Storage Chamber to Enhance Solar Drying of Grain at Night |
| 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 | <p>This paper tackles the issue of drying during the night period and proposes a thermal storage. I think this work which is very useful. A very interesting work has already been done by the authors. However, it remains a lot of work to make the paper clear, pedagogic, complete, and free of English mistakes.</p> <p>I encourage the authors to do this work to make their paper suitable for a publication.</p> <ol style="list-style-type: none"> 1. The climatic conditions is not stated (solar radiation, temperature, relative humidity). Because all these factors play crucial role in the drying process. 2. there are no dimensions for the system. An engineering draw should be provided including dimensions, materials, etc... 3. There are no operating data (mass flow rate, mass of the grains, initial moisture, etc...) Physical quantities 4. The behavior of the dryer should be reported during 24 hours 5. There are no Interpretation of the figures 6. The bibliography is very old 7. The location of the place where the experiment has been done is not announced. 8. "The thermal storage chamber (Figure ii) basically comprises of a parabolic-shaped black plate, two end plates, a transparent cover and a receiver (absorber plate) on which incidented heat is collected. These parts are coupled together and the arrangement is supported by four angle irons that serve as the equipment stand." <p>Who could parabolic shaped collector with a black plate? I know the parabolic collectors have reflectors. And what are the two end plates? I don't understand where is the thermal storage here that will provide the dryer with hot air for 6 hours????</p> <p>I wish you good luck in the re-writing.</p> | <ol style="list-style-type: none"> 1. I agreed with this fact and it has been stated in the manuscript 2. The engineering drawings have been drawn and included in the manuscript 3. Agreed and effected 4. The behaviour was reported for 21 hours 5. Agreed and effected 6. Agreed 7. Agreed and effected 8. The thermal storage is the black painted gravel under the absorber plate in the parabolic shaped collected. The stone is enclosed under the plate, thereby ensuring that the heat is adequately conserved until the valve is open at night to release the stored heat into the drying chamber. |
| Minor REVISION comments | | |
| Optional/General comments | | |

PART 2:

| | 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) |
|---|--|---|
| Are there ethical issues in this manuscript? | <i>(If yes, Kindly please write down the ethical issues here in details)</i> | |