



SDI Review Form 1.6

Journal Name:	Asian Research Journal of Agriculture
Manuscript Number:	Ms_ARJA_46481
Title of the Manuscript:	THE STUDY OF AREN SUGAR PALM (Arenga pinnata MERR.) AS LIQUID ORGANIC FERTILIZER ON THE GROWTH AND RICE PRODUCTION
Type of the 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	The Nitrogen loss that is associated with low utilization efficiency identified as limiting factor in efforts to increase rice production. This study aims to determine the correct dosage to the provision of LOF (Liquid Organic Fertilizer) of Nira Aren to the growth and yield while reducing the use of inorganic fertilizers in the rice field crop. To achieve results LOF, shrimp shell flour, and biological pesticides (Bio insect) materials used at small experimental plots with 10 treatments and 3 replications with variable doses 1300 ml ha⁻¹, 2525 ml ha⁻¹ that found best treatment of plant height in the field is the provision of LOF. It has been concluded that the use Nira Aren as a liquid organic fertilizer gives a good influence on the growth and yield of rice crops. However, this publication is missing important elements for organic cultivation principles, which must have been considered especially in the organic rice production, such as: a) Input material analytics: total missing. LOF composition is not determined, shrimp shell flour composition (most importantly heavy metals and pH impacting alkaline elements) not determined, no any ecotox evaluation made to determine if the materials used are applicable for organic rice farming at all. The character of the biological pesticides (Bio insect) is not determined. The composition of the control materials not determined, so it is unknown what is compared with what. In this context this is totally unknown what is in it and why any results achieved at all, where the 3,60 m x 2,40 m plot sizes are certainly not representative and not suitable to make justified conclusions. b) No any pH conditions considered, that is so much important for all rice cultivations, which are characterized by lower pH ranges (6-7 but rice can also do well in a pH ranging from 4 to 8.). The lower pH having heavy metal mobilizing effects, therefore the ecotox analysis should have been done. c) Comprehensive nutrient strategy (NPK-micronutrients) is missing, that would have been needed to get true value results. d) Description of irrigation conditions missing (that is so much important for the rice) e) Doses 1300 ml ha⁻¹, 2525 ml ha⁻¹ indicated but also 5.25 L ha⁻¹ to 25,75 L ha⁻¹, that are different measures with no explanation. f) 7.99 ton ha⁻¹ highest yield of harvested dry grain indicated versus control 4.29 tons ha⁻¹ that is stated as good influence on the growth and yield of rice crops. However, there is no proper explanation about the mechanism and what exactly influenced the yield difference, which can be other elements as well other than to use the unknown composition LOF. (in general case the yields range from less than 1 t/ha under very poor rainfed conditions to more than 10 t/ha in intensive temperate irrigated systems, so the yield impacting factors can be wide range).	
Minor REVISION comments	Recommended publication to study: Assessment of heavy metals contamination and human health risk in shrimp collected from different farms and rivers at Khulna-Satkhira region, Bangladesh (Elsevier Toxicology Report 2016; 3: 346–350., 2016 Mar 6. doi: 10.1016/j.toxrep.2016.03.003, PMID: 28959555). The results showed that the Pb concentrations (0.52–1.16 mg/kg) in all shrimp samples of farms were higher than the recommended limit. The Cd levels (0.05–0.13 mg/kg) in all samples and Cr levels in all farms except tissue content at Satkhira farm were higher than the permissible limits.	
Optional General comments	All in order to get true value conclusions and results, the tests are recommended to be repeated under proper and better designed conditions, incl. all materials used must be specified.	

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>	



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