



SDI Review Form 1.6

Journal Name:	Asian Journal of Advances in Agricultural Research
Manuscript Number:	Ms_AJAAR_35860
Title of the Manuscript:	Irrigation water management of some salt tolerant rice cultivars for higher yield
Type of the Article	Original Research Paper

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>)



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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	Rice is a salt-sensitive monocot. Salinity is a limiting environmental factor for rice production. Around 100 million ha and 5% of arable land affected by high salt concentrations, which reduce crop growth and yield. Salt and drought stresses have toxic effects on plants and lead to metabolic changes, like loss of chloroplast activity, decreased photosynthetic rate and increased photorespiration rate, which then lead to an increased reactive oxygen species production. Salinity affected about 53 % of net cultivable land of coastal region of Bangladesh and salinity affect water for crop production. Salt like NaCl, dissolves in water to yield the toxic ions, sodium ion Na⁺ and chloride ion Cl⁻. Required to avoid toxic levels of NaCl in the cytoplasm. Crop yield responses to salinity depends on crop sensitivity/resistivity, soil-water regime (modified by amounts of irrigation and frequency) and irrigation with water-salts. The aim of this study will be to investigate the effect of different irrigation regimes and ameliorative on the yield performance of some rice lines/cultivars in salt affected area of Bangladesh. Plant adaptations to salinity include sequestration of salt ions in vacuoles and accumulation of 'compatible compounds'; i.e. sugars, proline and glycinebetaine in the cytoplasm. In addition, application of gypsum, plantation of leguminous crops, selection of more salt-tolerant crops, harvesting rainwater or exploring suitable locations for tube-wells, crop planting on raised-bed and mulching is used to decrease salinity. Finally, required a proper irrigation and management technique. The authors used different irrigation treatments and cultivars and showed significant effect on Binadhan-8 (V3) (5.55 t ha¹) and Binadhan-10132 (V4) (5.20 t ha¹) with the highest grain yield. Optimal cultivation are under continuous saturation condition coupled with gypsum application at flowering stage. Therefore, the authors demonstrated experimentally their aim;	Agreed.



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	I recommend publishing the Ms in the Journal.The research is excellent, original	
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		