

Review Form 1.6

Journal Name:	International Journal of Environment and Climate Change
Manuscript Number:	Ms_IJECC_86375
Title of the Manuscript:	Effect of herbicide on physiology and biochemical properties of purple nutsedge (Cyperus rotundus L.)
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:

(<https://www.journalijecc.com/index.php/IJECC/editorial-policy>)

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		
Minor REVISION comments	Provide some scientific reasons Application of herbicide at higher concentration reduced the starch content in tubers than their corresponding lower doses. The mean starch content at different sampling duration over different treatments showed significant differences. Starch content decreased progressively with increased soaking period. The similar trend was also noticed with all the herbicide doses for starch content except untreated control, which significantly increased throughout the experimental period.	
Optional/General comments	. Purple nutsedge (<i>Cyperus rotundus</i> L.) is considered as one of the world's worst weeds which disseminated throughout the tropics and subtropics in 52 distinct crops and 92 countries [1]. It devastates farmlands rapidly and cause severe yield losses, even up to 100 per cent in some cases. The purple nutsedge compete with crop for resources and reduces the cotton yield by 23 to 89 per cent, when compared to no purple nutsedge infestation. Perennial habit of purple nutsedge adds advantage to persist in fields for many years and become difficult to control. The management of <i>Cyperus</i> spp., were attempted using different cultural and chemical methods, however the results have been not promising. Accumulation of phenolic compounds during stress or unfavourable condition hinders tubers germination from soil and survival. Moreover, foliar applied herbicides kill only primary tubers and leave the rest of the chain intact. Weed seed propagules which unaffected act as reserve and establish as the season progresses. As a result, nutsedge management measures must entail a long-term commitment to prevent the fresh tuber formation, as well as breaking the dormancy and eliminating viable tubers. Well formulation of study with scientific background. Article is recommended for publication.	

[Review Form 1.6](#)

PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
Are there ethical issues in this manuscript?	<u><i>(If yes, Kindly please write down the ethical issues here in details)</i></u>	

Reviewer Details:

Name:	Shyamrao Kulkarni
Department, University & Country	University of Agricultural Sciences, India