



SDI Review Form 1.6

Journal Name:	International Journal of Plant & Soil Science
Manuscript Number:	2014_IJPSS_9075
Title of the Manuscript:	Water-use efficiency and transpiration rate of wheat under irrigated and desiccated conditions
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>)



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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	<p>The paper is well written, but the language used is not of good standard need to check all grammatical and constructional mistakes</p> <p>Purpose and objectives should be clearly stated introduction and conclusion must focused on main point</p>	<p>Pot experiment laid out in randomized complete design was conducted to study the effects of watering, nitrogen fertilization, and their interactions on the growth, dry matter production and water use efficiency of two cultivars (Egyptian Sakha94 cultivated in 2009/2010 season and Turkish Adana99 cultivated in 2010/2011 season) of wheat. Cultivars were grown in pots at the greenhouse of the Faculty of Life and Environmental Science, Shimane University during 2009/2010 and 2010/2011 growing seasons. Two watering levels started after booting stage (well-watered and desiccated) and five nitrogen fertilization levels (0.0, 0.24, 0.48, 0.72 and 0.96 g pot⁻¹ (0.0, 75, 150, 225, 300 kg N h⁻¹) respectively, were designed. Our objective was to determine the effect of nitrogen (N) from ammonium sulfate split-applied at different rates before anthesis on water use efficiency under well-watered and desiccated conditions in recent Egyptian cultivar Sakha94 and Turkish Adana99 grown in pots. The results showed that the leaf area, shoot dry matter production at anthesis, total dry matter production, number of spikelets spike⁻¹, number of spikelets pot⁻¹, number of spikes pot⁻¹, SPAD value after sowing to anthesis, stomatal conductance, transpiration rate, and water use efficiency of wheat increased with increasing level of nitrogen under well-watered conditions for both cultivars, but the stomatal conductance and transpiration rate decreased under desiccated conditions. No significant difference among N levels under desiccated conditions. It was considered that under our experimental condition applied 0.96 g N pot⁻¹ (300 kg N ha⁻¹) led to significantly increase in WUE in both cultivars under well-watered and desiccated conditions. However, WUE was</p>



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		<p>nificantly higher in desiccated conditions than irrigated conditions in both cultivars. May the primary cause of increased WUE, decreasing leaf chlorophyll concentration, photosynthesis rate and stomatal conductance (gs). corrected the manuscript gramatically</p>
<u>Minor</u> REVISION comments	The topic and level of formality has to be appropriate	I edit it
<u>Optional/General</u> comments	The study is well planned and performed. Therefore the paper merits publication subject to effecting all the minor correction therein	