Review Form 1.6

Journal Name:	**International Journal of Environment and Climate Change**
Manuscript Number:	**Ms_IJECC_91577**
Title of the Manuscript:	**Root phenotyping and root traits for drought tolerance.**
Type of the Article	**Review 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	Root have special features such as root length, number of roots, cortical cell file number and cell size, which help in determining water uptake ability among various root types as an adaptation strategy under dry conditions. Identification and selection for root traits can be obtained using a combination of root phenotyping strategies that encompass laboratory, greenhouse and field evaluations. Prior knowledge of the RSA of different genotypes or breeding lines can be used to compare the productivity of a particular genotype in relation to root size when the plant is exposed to water deficits. Roots form indispensable biological plant structures that largely contribute to the plant's ability to recover from drought stress. Root traits are controlled by polygenes and are difficult to quantify under field conditions and are prone to environmental effects. QTLs for different root traits such as root number, root length, root angle and root surface area have been identified. Genetic improvement of root system architecture under drought conditions could enhance productivity, nutrient and water use efficiency of crops. To ensure crop productivity under a stressful environment, different alleles may be incorporated into elite cultivars to produce desired root phenotypes through molecular breeding	
Minor REVISION comments	The article is of a review nature. Despite this, the article is of great theoretical and practical importance.	
Optional/General comments	The article may be published in the journal.	

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?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

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