



SDI Review Form 1.6

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	2014_AJEA_15139
Title of the Manuscript:	Variability of fruit and seed characters and oil content of 35 accessions of <i>Jatropha curcas</i> L. grown in a semi-aride site in Senegal
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.

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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)
<u>Compulsory</u> REVISION comments	- different age of the plantations - different period (month) of harvest .	On 35 accessions studied only 6 (1, 17, 21, 32, 33 and 35) have 4-year-old trees. In the dendrogram we note that these accessions are dispersed between groups 1 (1, 21), 3 (35) 4 (17, 32) and 5 (33) In Senegal, the fruiting period of Jatropha is spread over three months and varies between accessions; that's why harvesting has been done over a three-month period (September-December)
<u>Minor</u> REVISION comments	-Table 1 needs standard deviations for each trait and line; - In Table 1 is suggested to mention the origin of the line (the 3 eco-geographic areas cited in line 262) - wrong formula (h2b)[line 109] - was the "drying period for fruit and seed sufficient? Could the differences observed be due to changes in fruit/seed water content? Please comment on these points. - results have been obtained on a very small part of plants an on very limited number of fruits and seeds. Can we extrapolate this results to a potential yield of oil per hectare, where we should consider also the number of seed/plant and number of plant/ha ? Please comment. The main doubt about the results is the fact that the	We compared the averages of accessories for the various parameters with Turkey test at the 5% 3 eco-geographic areas cited in line 262 have been added The drying time has been previously determined and is sufficient to reach a constant weight; it is similar for all accessions The results only provide an indication of the seed oil content of the accessions but cannot in no way be used to determine the oil yield of the accessions. The yield depends on many factors including the number of seeds produced per tree, density of trees per hectare and the



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	35 lines comes from plantations that have different ages (from 1 to 4 year old plants) from which cuttings were made from and grown for the experiment. It is known that flower development and fruit/seed characteristic changes from the juvenile (first 2 to 3 years in jatropha) to the adult developmental phases. In the manuscript there is no mention of the age of the 35 plantations and if the results (phenotypic variability of fruit and seed traits) are a consequence of these differences. Reanalysis (i.e. covariance analysis) of the results considering this differences should be performed. - A second point that can by itself generates the phenotypic differences observed is the fact that harvesting has been done over a three-month period (September-December), with different climatic conditions (rain, temperature, irradiation, ...) and plant developmental stage that could have induced the differences observed. Reanalysis (i.e. covariance analysis) of the results also considering this differences should be performed.	efficiency of oil extraction method The number of fruits sampled is similar to that of Shabanimofrad et al. (2013) In Senegal, the fruiting period of Jatropha is spread over three months and varies between accessions; that's why harvesting has been done over a three-month period (September-December)
<u>Optional/General</u> comments		