



SDI Review Form 1.6

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_43464
Title of the Manuscript:	Computer vision as a complementary method to vigor analysis in maize seeds
Type of the Article	Short 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>)

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	1. The author used the 7th day seedlings data to verify the efficiency of the SAPL software on maize seed vigor test, this could improve seedlings measurement speed and reduce human error, but the germination test still last 7 days. The researchers from Ohio State University had ever suggested that the data of the third day seedlings can be used to predict seed vigor, on this basis, I suggested the author should verify the 3rd\4th\5th\6th day seedlings data on maize seed vigor test? 2. In this manuscript, just only 4 seed lots of maize varieties were used, the sample size and representativeness are not strong enough.	1. Most software developed for this type of evaluation, such as the SVIS (created by researchers at Ohio State University) are limited to evaluating from 3th to 5th day seedlings, after that they do not allow an accurate assessment, once that the scanner is spatially limited and the secondary roots interfere in the analysis. The purpose of this work was to present a software that besides being able to measure small seedlings on 3th, 4th and 5th day (data will be published in another scientific article) can also measure accurately more developed seedlings with 7 days after sowing. 2. Four lots were used, as the objective is to publish a short research paper, using a potential preliminary data. This manuscript will serve as a reference for future studies using SAPL® software with a larger lots number.
Minor REVISION comments	1. Please introduce SAPL software in detail, including its accuracy and speed compared to regular methods. 2. Please add why choose 4 seed lots of maize varieties?	1. The software has 97% accuracy and takes an average of 0.19 seconds to analyze each seedling, while the traditional method that depends on the analyst, takes 12 seconds on average. The software reduces by approximately 98% of the time spent evaluating each seedling individually. 2. Four lots were used, as the objective is to publish a short research paper, using a potential preliminary data. This manuscript will serve as a reference for future studies using SAPL® software with a larger lots number.
Optional/General comments	The test design is rough, However, it is still of reference significance to promote the application of computer vision technology in seed vigor rapid test.	