Reviewer Report

Title: Label3DMaize: toolkit for 3D point cloud data annotation of maize shoots

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Reviewer name: Chris Armit

Reviewer Comments to Author:

This very interesting Research Article describes Label3DMaize, which is a toolkit that utilises a top-to-down segmentation algorithm to deliver fine point cloud segmentation of maize shoots. Multi-view images of maize cultivars were captured using the MVS-Pheno platform, which has been described previously (Wu et al., 2020, doi:10.34133/2020/1848437). The top-to-down coarse segmentation ensures topological accuracy. Additional morphological operations then improve the segmentation of maize plants, with the resultant 3D points being structured on connectivity and morphological features. A detailed workflow is described in the article.
Label3DMaize is publicly available on GitHub and has been ascribed an OSI-approved GPL-3.0 License. The software is easy to run, simply requiring MATLAB Runtime 9.2. Label3DMaize is straightforward and easy-to-use, and the interface enables users to rotate, zoom, translate, select points, and improve the segmentation. A pop-up window allows users to select points and to generate segmentations. Test data of individual maize plants are available from the GitHub archive.
This is a very easy-to-use toolkit and I recommend this paper for publication in GigaScience.

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