

Highlights

- In recent, many researchers use deep learning methods to classify plants directly using plant images.
- Image processing is one of the most challenging, and crucial steps in feature-extraction.
- The main image processing steps of our algorithm involves: i) Convert original image to RGB (Red-Green-Blue) image, ii) Gray scaling, iii) Gaussian smoothing, iv) Binary thresholding, v) Remove stalk, vi) Closing holes, and vii) Resize image.
- The results show that the features are sufficient to discriminate the classes of interest under both supervised and unsupervised learning settings.