Abstract

Early detection of plant diseases helps to prevent loss of productivity and overcomes the shortcomings of continuous human monitoring. To solve these problems, many researchers have already completed their work to identify the diseases automatically, rapidly, and with greater accuracy using deep learning methods. This research combines deep learning with agriculture by developing a system for identifying cotton boll rot. We used two states of art pre-trained models SSD with MobileNet-V2 and Faster R-CNN with Inception -V2, which can locate boll rot attacks in cotton crops. It will be determined how much damage our crops have sustained. The trained model achieved 65% and 89% accuracy, respectively. The accuracy results for disease identification demonstrated that the deep network model is prospective and can significantly influence effective disease identification. It may also have the potential for disease detection in real-world agricultural systems of interest, region proposal networks, convolutional neural networks; deep neural networks; bounding boxes; support vector machines.