ABSTRACT

The selection of defects in green coffee beans is generally made manually using human labor. Overcoming this problem, technological advances in computer vision and machine learning provide an opportunity to improve the selection of defects in green coffee beans by the standards of the Specialty Coffee Association of America (SCAA). In previous studies, the classification of defects in green coffee beans was only carried out for several types of defects in green coffee beans. Therefore, this research developed a green coffee bean defect classification using MobileNetV3 on image data acquired under three different lighting conditions, namely low, medium, and high. The results showed that architectures such as MobileNetV3Large provided the best performance with an accuracy rate of 95.68%, and MobileNetV3Small recorded an accuracy of 91.37%.

Keywords: *MobileNetV3, Specialty Coffee Association of America (SCAA), Green Coffee Bean Defects*