

## **Abstract**

**Apple leaf disease could cause a failure of potential crop and affected the quantity and quality of production in agriculture. Most of plants disease could diagnosed from leaf disease. Therefore, to reduce the failure of potential crop, it is needed to identification the disease of apple leaves. This research identifications 5 type of diseases in apple tree, there are Glomerella, Herbicida, Magnesium Deficiency, Potassium Deficiency and Scab. The method was used were Local Binary Pattern (LBP) and Color Histogram. Random forest was used as a classification. Based on the test result of apple tree that used 2.154 datasets of leaf image obtained an accuracy of 91,41%.**