Abstract – Identification of corp diseases is needed by farmers for decreasing the potential of crop failure. The diseases in corn plants can be identified through unique pattern on the leaves. Therefore, in this study, a system was created for identify diseases in maize by recognizing the pattern on the leaf image. Identification was carried out on three types of diseases (Common Rust,Northern Leaf Blight, and Gray Leaf Spot) as well as a type of healthy leaf. Images were extracted using the Gray Level Co-occurrence Matrix (GLCM) and Color Histogram methods. In addition, for the class identification process of corn leaves, Random Forest method was used. Based on the experimental results using 3,852 images and 10-fold cross validation, accuracy of 93.25% was obtained.

Keywords: Plant diseases identification, Corn, GLCM, Color Histogram, Random Forest