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CGAN-IRB: A Novel Data Augmentation Method for Apple Leaf Diseases

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***Abstract*—At present, the identification of apple leaf diseases plays an important role in controlling apple leaf diseases and improving apple yield. CNNs(Convolutional Neural Networks) have been widely used in apple leaf diseases identification, but the training of the CNNs requires a large number of images. The lack of images would make the CNNs hard to generalize.**

I. Introduction

Apple leaf diseases can greatly affect the growth and yield of apples. Therefore, a method is urgently needed to identify apple leaf diseases quickly and timely. In recent years, CNN-based image classification models have shown good results