**CONCLUSION**

Plants make up more than 80 percent of the human diet. As a result, they are critical for food security and ensuring that we all have access to enough, cheap, clean, and nutritional food to lead healthy and active living. This research focuses on plant diseases as they create a major threat to food security. Plant protection in organic agriculture is not a simple matter. It depends on a thorough knowledge of the plants grown and their likely pests, pathogens and weeds. In our system InceptionV3 Architecture was used for the detection of plant diseases through leaves images of healthy or diseased plants. Our experimental results are able to successfully recognize different categories of diseases in various plants. Pests/diseases are generally not a significant problem in organic systems, since healthy plants living in good soil with balanced nutrition are better able to resist pest/disease attack. We hope our proposed system will make a suggestive contribution to the agriculture research.

Furthermore, future work will involve increasing the performance of DL in the detection of plant diseases having a multiclass subcategory. As the severity of the disease is supposed to be changing with time, so the DL should be improved to enhance detection and classification of the diseases throughout the whole development cycle of plant leaves.