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An Overview of the Detection and Grading of Grape Leaf Disease using Artificial Neural Network (ANN) and Fuzzy Logic

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Abstract: *In agriculture research of automatic grape leaf disease detection is essential research topic as it may prove benefits in monitoring large fields of grape crops, and thus automatically detect symptoms of disease as soon as they appear on plant leaves.*
In Agriculture sector plants or crop are damaged due to disease. If we diagnose the disease in early stage then we can protect the crop from disease by using the different medicine.
In Agriculture sector grape plants or crop cultivation have seen fast development in both the quality and quantity of grape production, however, the presence of pests and diseases on crops especially on leaves has hindered the quality of agricultural goods. If the presence of pests on crops and leaves is not checked properly and the timely solution is not provided then the quality and quantity of grape farming will be reduced, which results in upsurge in poverty, food insecurity and the mortality rate. This severe effect can disturb any nation's economy especially of those where 70% of the inhabitants rely on the products from the agricultural sector for their livelihood and endurance. One of the major problems for agriculturists is to lessen or eradicate the growth of pests affecting crop yields. A pest is an organism that spreads disease, causes damage or is a nuisance. The most frequent pests that affect plants are aphids, fungus, gnats, flies, thrips, slugs, snails, mites and caterpillars. Pests lead to sporadic outbreaks of diseases, which lead to famine and food shortage.

Keywords: Agriculture, leaf, disease, detection, yields, farming