**Title of the Project: PESTICIDE SUGGESTION AND CROP DISEASE CLASSIFICATION USING MACHINE LEARNING**

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**Abstract:**

Crop cultivation plays an essential role in the agricultural field. Presently, the loss of food is mainly due to infected crops, which reflexively reduces the production rate. To identify the plant diseases at an untimely phase is not yet explored. The main challenge is to reduce the usage of pesticides in the agricultural field and to increase the quality and quantity of the production rate. Proposed system explores the leaf disease prediction at an untimely action. We propose an enhanced Machine Learning to predict the infected area of the leaves. A color-based segmentation model is defined to segment the infected region and placing it to its relevant classes. Experimental analyses were done on samples images in terms of time complexity and the area of infected region. Plant diseases can be detected by image processing technique. Disease detection involves steps like image acquisition, image pre-processing, image segmentation feature extraction and classification.