**PROJECT**

**FERTILIZERS RECOMMENDATION SYSTEM FOR DISEASE PREDICITION**

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**LITERATURE SURVEY-1**

**TITLE :** Prediction of crop fertilizers and disease detection for precision agriculture

**AUTHOR :** Bharathi. C, Yadhunaik BH.

**YEAR OF PUBLISHED :** 2021

I profoundly analyses the foundation of the farming with pinpoint accuracy Author sans explaining the precision farming from rudiments and proceeds in the direction of developing a model which provides foundation for it. The paper clearly explains the software model which was Precision agenture to individual farmers who operate on a small farmland which hips at the crop levd and it also has a bold to commal the variability. The overall goal of the developed model is in provide guidance for every farmer irrespective of the crops they are growing whether the muy grow in small or large farmland by using the most reachable e-services like SMS email. The author has developed the model which is restricted to the state of Kerala in India. In paper emphasis on the importances of the selection of the crops initially to be grown and also the elements determining plant like the rate of the product, fare in the market and the policies of the government are explained

**LITERATURE SURVEY-2**

**TITLE :** Farmer’s Assistant: A Machine Learning Based Application for Agricultural Solutions.

**AUTHOR :** Shloka Gupta ,Nishit Jain , Akshay Chopade

**YEAR OF PUBLISHED :** 2022

In this paper, we propose a user-friendly web application system based on machine learning and web-scraping called the ‘Farmer’s Assistant’. With our system, we are successfully able to provide several features - crop recommendation using Random Forest algorithm, fertilizer recommendation using a rule based classification system, and crop disease detection using Efficient Net model on leaf images. The user can provide the input using forms on our user interface and quickly get their results. In addition, we also use the LIME interpretability method to explain our predictions on the disease detection image, which can potentially help understand why our model predicts what it predicts, and improve the datasets and models using this information.

**Advantages** : For crop recommendation and fertilizer recommendation, we can provide the availability of the same on the popular shopping websites, and possibly allow users to buy the crops and fertilizers directly from our application.

**Disadvantages** : To provide fine-grained segmentations of the diseased portion of the dataset. this is not possible due to lack of such data. However, in our application,we can integrate a segmentation annotation tool where theusers might be able to help us with the lack. Also, we can usesome unsupervised algorithms to pin-point the diseased areas in the image. We intend to add these features and fix thesegaps in our upcoming work.