A Web-Based Application for the Classification and Detection of Local Vegetable Crops' Pests and Diseases Integrating the Optimized Process of the Convolutional Neural Networks (CNN) for Sustainable Administration and Crop Production

This Web-Based Application aims to transform the management of pests and diseases in local vegetable crops. By integrating the optimized process of Convolutional Neural Networks (CNN), we offer a powerful tool for sustainable administration and enhanced crop production. Through this innovative technology, farmers and agronomists can now swiftly and accurately classify and detect a myriad of pests and diseases, enabling proactive measures to safeguard crop health. The user-friendly interface of our application empowers stakeholders to effortlessly upload images of affected crops, receive instant analysis, and access tailored recommendations for mitigation strategies. By providing real-time updates and customizable solutions, our platform ensures that users stay informed about emerging threats and implement effective interventions, ultimately promoting resilient agricultural practices and bolstering food security.

By harnessing the potential of CNN algorithms, our web-based application represents a paradigm shift in agricultural management. Our comprehensive database, enriched with extensive information on common pests and diseases, equips users with the knowledge needed to combat threats efficiently. Through continual machine learning advancements, our platform evolves alongside agricultural landscapes, offering increasingly accurate detection and personalized solutions. This pioneering approach not only minimizes crop losses but also fosters sustainable crop production practices, thus laying the foundation for resilient and thriving agricultural communities. With our project, we envision a future where technology and agriculture converge to ensure a bountiful harvest and a sustainable future for generations to come.

STRING BEANS

Bacterial Blight

91.1325420%

SEND TO DATABASE

Description

Halo blight and common blight reduce dry bean yields by reducing the ability of leaves to photosynthesize.

Symptoms of Damage

Common blight and halo blight cause water-soaked, greasy looking spots on pods and dead spots surrounded by a chlorotic halo on leaves. The dead areas enlarge rapidly under favorable conditions until they cover most of the leaf, giving the plants a burned appearance. Pod lesions may appear as small, brown, scabby spots.

Control Tips

- Plant disease-free seed. This is important because all outbreaks of the disease have resulted from planting infected seed.
- Use a two- to three-year crop rotation to avoid the chance of contaminating the newly planted crop.
- Turn under plant debris as soon as possible after harvest to allow enough time for the debris to disintegrate over the winter. Avoid over-irrigation.
- Do not work in infested fields that are wet with rain or irrigation water. Seed treatment helps prevent seed rot and damping off but will not control blight because the blight organism is often within the seed. Copper based fungicides slow down the spread of halo blight but they are only moderately effective. They must be applied early in the season and repeatedly to provide control.

Websites

https://www.gov.mb.ca/agriculture/crops/plant-diseases/bacterial-blight-dry-beans.html
https://agriculture.vic.gov.au/biosecurity/plant-diseases/vegetable-diseases/common-blight-of-beans

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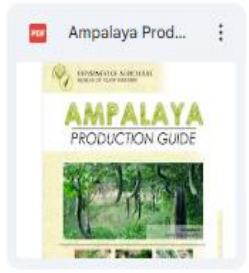
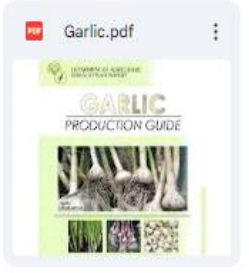
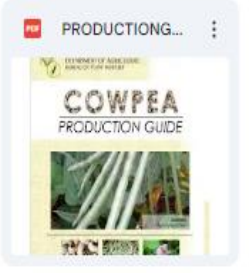
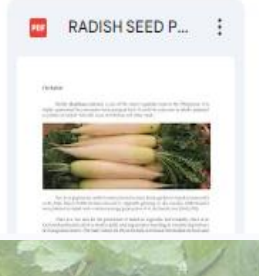
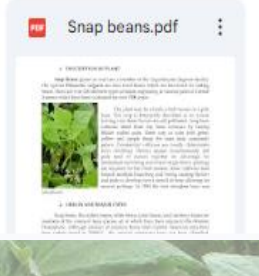
SEARCH











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