COMMUNITY SERVICE PROJECT

PLANT DISEASES

GEETHANJALI INSTITUTE OF SCIENCE AND TECHNOLOGY

PLANT DISEASES

A Community Service Project Report Submitted to

Department of Computer Science & Engineering (Cyber Security)

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TABLE OF CONTENTS

01 **ABSTRACT**

.clear summary of the information

02 **INTRODUCTION**

the action of introducing something.

03 **EXISTING SYSTEM**

Used to identify current deficiencies and establishing new goals

04 **PROPOSED SYSTEM**

explaining what you are going to do this project.

05

ADVANTAGES

Superiority of position or condition

06

DISADVANTAGES

A condition or situation that causes problems

07

SURVEY REPORT

08

CONCLUSION

a judgement or decision reached by reasoning

Plant diseases

Plant diseases can reduce human food availability. Modern plant disease management faces problems due to climate change, fungicide resistance, pesticide residues and biodiversity loss. This review discusses problems and challenges in plant disease management and future research needs for effective management. Plant disease forecasting models can be used to predict plant diseases ahead of time. Protected cultivation combats climate change

01

ABSTRACT

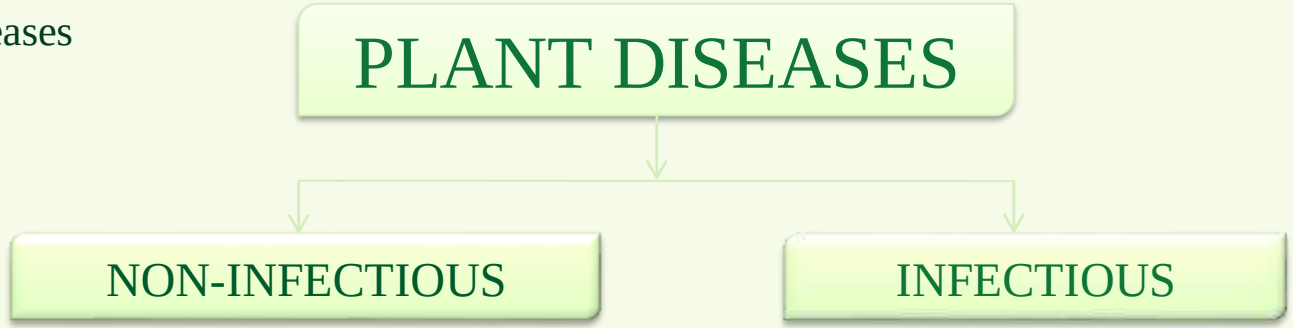
Plant diseases can reduce human food availability. Modern plant disease management faces problems due to climate change, fungicide resistance, pesticide residues and biodiversity loss. This review discusses problems and challenges in plant disease management and future research needs for effective management. Plant disease forecasting models can be used to predict plant diseases ahead of time

02

INTRODUCTION

Plant disease is an imparmentary of normal state of a plant that interrupts or modifies its vital functions.
A plant disease can also be defined as any problem with the plant that leads to a reduction in yield or appearance.
Many plant diseases are caused by Pathogens , disease causing agents are called Pathogens.
Plant diseases are well known to reduce the food available to humans by interfering with crop yields.
Plant diseases are classified primarily by their causative agents, which can be divided into three categories: fungal, bacterial and viral diseases . Classification of plant pathogens is divided into two types . They are

1.Non-infectious Plant Diseases
2.Infectious Plant Diseases

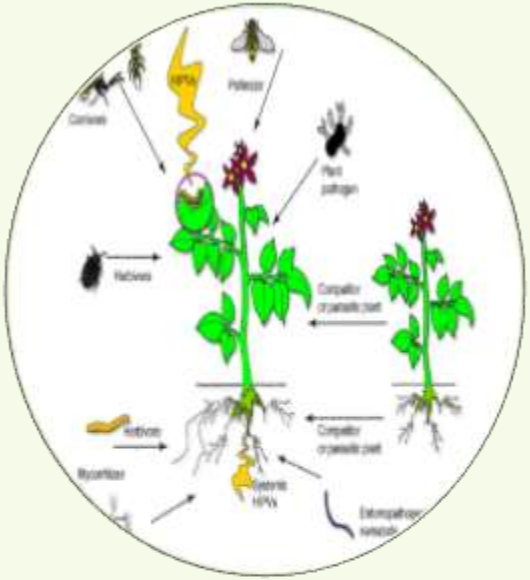


NON-INFECTIOUS PLANT DISEASES

- They are not associated with any animate or viral pathogen , so they cannot be transmitted from an infected plant to a healthy one .
- These are due to disturbances in the plant body caused by lack of certain inherent qualities like:
  - Low/high temperature
  - Un-favourable oxygen levels
  - Un-favourable water levels
  - Hail
  - Wind
  - Air pollution toxicity etc.

INFECTIOUS PLANT DISEASES

- These are the diseases caused by pathogenic organisms or viruses under a set of environmental conditions.
- Fungi , Bacteria , Viruses , nematodes & even some plants can be pathogens . They obtain nutrients , water &everything they need to reproduce from their host.
- Fungal & viral pathogens cause many plant diseases ; bacterial & nematodes pathogens cause a few.
- Some pathogens can infect several kinds of plants ; others require a specific type of host.
- Pathogens such as fungi & bacterial differ in their ability to survive , spread & reproduce .



03

EXISTING SYSTEM

- The existing method for plant disease is simply naked eye observation by us through which identification and detection of plant diseases is done.
- For doing so we need continuous monitoring of plant is needed which costs very high when we do with large farms.
- At the same time, in some countries, farmers do not have proper facilities or even idea that they can contact to experts.
- Due to which consulting experts even cost high as well as time consuming too.
- In such conditions, the suggested technique proves to be beneficial in monitoring large fields of crops.

NAME OF THE FARMER	NAME OF THE PLANT	SCIENTIFIC NAME OF THE PLANT	DISEASE OF THE PLANT
SARATH KUMAR	MANGO	MANGIFERA INDICA	POWDERY MILDEW, ANTHRACOSE
SURESH	JASMINE	JASMINUM	POWDERY MILDEW
RAMESH	SAMPANGI	MICHELIA CHAMPACA	LEAF BLIGHT,STEM ROT
RAMANAIAH	CHILLI	CAPSICUM FRUTESCENS	BACTERIAL LEAF SPOT, MOSAIC VIRUS
SUBBARAO	COTTON	GOSSYPIUM	BACTERIAL BLIGHT,WILT
DESAPANDE	LADY'S FINGER	ABELMOSCHUS ESCULENTUS	CHARCOAL ROT,POWDERY MILDEW
SUDHAKAR	BANANA	MUSA PARADISIACA	PANAMA WILT, CIGAR END ROT
ASHOK	BRINJAL	SOLANUM MELONGENA	BACTERIAL WILT,COLLAR ROT
SEENAIAH	CORN	ZEA MAYS	COMMON RUST,LEAF BLIGHT

A few diseases that we observed in our survey are

04

Proposed system

- Our project is to detect the plant diseases and provide the solutions to recover from the plant diseases.
- We planned to design our project with voice navigation system so that a person with lesser expertise in software should also be able to use it easily.
- In our proposed system we are providing a solution to recover from the plant diseases.
- And also show the affected part of the plant by some fertilizers
- The existing system can only identify the type of diseases which affects the plants.
- To minimize resistance development, fungicides with site-specific action should be used in combination with fungicides of other modes of action

NAME OF THE PLANT	PESTICIDES	PRECAUTIONS
MANGO	COPPER OXYCHLORIDE, HEXACONAZOLE	REMOVE WEEDS,PROPER DRAINAGE
JASMINE	CARBENDAZIM, CHLOROTHALONIL	SANITATION, CROP ROTATION
SAMPANGI	METALAXYL, CARBOFURAN	PLANT IN WELL DRAINED SOIL,SANITIZE TOOLS
CHILLI	COPPER HYDROXIDE, COPPER OXYCHLORIDE	ROTATE CROPS,PROPER IRRIGATION PRACTICES
COTTON	SULPHUR BASED FUNGICIDES	SEED TRATMENT, CROP ROTATION
LADY'S FINGER	METALAXYL,POTASSIUM BICARBONATE	PLANT SPACING AND PRUNING
BANANA	PROPICONAZOLE, MANCOZEB	SOIL HEALTH, DISINFECT TOOLS
BRINJAL	HERBICIDES,FUNGICIDES	PROPER PLANTING,WATERING
CORN	SPINOSAD,CARBARYL	AVOID DRIFT

05

ADVANTAGES

- The main advantage of plant disease detection is to protect crop production from quantitative losses.
- Automatic detection of plant disease is essential as it may prove benefits monitoring large fields of crops and thus automatically detect the symptoms of diseases as soon as they appear on plant leaves.
- This system can work as a universal detector , recongnizing general abnormalities on the leaves such as scorching or mold etc.
- It can be implemented to increase crop productivity by ensuring the quality and quantity of the food product.

06

DISADVANTAGES

- The main disadvantage of plant diseases:
- Loss of crops from plant diseases may also result in hunger and starvation
- Major diseases outbreaks among the food crops have led to famines and mass migrations throughout history.
- This required the development of specialized structures ,like roots and vascular tissues for water absorption and transport.
- On land , plants needed to develop stronger support structures to with stand gravity and wind or other environmental forces.
- Non selective products are the most harmful , because they kill all kinds of organisms including harmless and useful species.

QUESTIONNAIRE

- What are the plant diseases and how can they be recognized?
- What are the types of plant diseases?
- What is the cause of plant diseases?
- What plant diseases are caused by fungus?
- What is a plant disease pyramid and how is it connected to biotic diseases?
- What are phytoplasmas and what disease can they cause in plants?
- What are parasitic seed plants?
- What are some of the natural ways of treating plant diseases?
- What are the diseases caused by bacteria in plants?
- How does bacterial disease in plants spread?

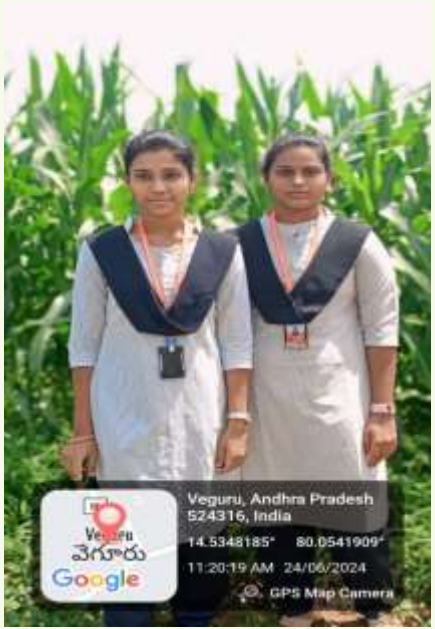
07

SURVEY REPORT

SURVEY -1 REPORT

SURVEY -2 REPORT

SURVEY-3 REPORT



SURVEY-4 REPORT

SURVEY-5 REPORT

SURVEY-6 REPORT

08

CONCLUSION

- In the end , our group made the conclusion that the plants grew towards the hole in the box .
- We accepted our hypothesis that the plants would grow towards sunlight and in the their needed conditions.
- It is very necessary to inform people about all the diseases , their symptoms and their treatments and most important thing is how to prevent them.
- Decisions that are based on reliable and accurate information increases the quality of farming.
- Plant diseases can be managed by using resistant varieties, treatment with pesticides, and, less, in other ways.
- The use of this survey, the infected region of the plant is segmented and analyzed. The images are fed to our application for the identification of diseases.

THANK YOU

GUIDE SIGNATURE

HOD SIGNATURE