

**Ideation Phase**  
**Brainstorm & Idea Prioritization**

Date	01 September 2022
Team ID	PNT2022TMID45437
Project Name	Project – Fertilizers Recommendation System for Disease Prediction
Maximum Marks	4 Marks



# Fertilizer Recommendation System for Disease Prediction

Agriculture is the most important sector in today's life. Most plants are affected by a wide variety of bacterial and fungal diseases. Diseases on plants placed a major constraint on the production and a major threat to food security. Hence early and accurate identification of plant diseases is essential to ensure high quantity and best quality. In recent years, the number of diseases on plants and the degree of harm caused has increased due to the variation in pathogen varieties, changes in cultivation methods, and inadequate plant protection techniques.



10 minutes to prepare  
1 hour to collaborate  
2-5 people recommended



Need some inspiration?



**Before you collaborate**  
A little bit of preparation goes a long way with this session. Here's what you need to do to get going.  
10 minutes

## A Team gathering

Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

## B Set the goal

Think about the problem you'll be focusing on solving in the brainstorming session.

## C Learn how to use the facilitation tools

Use the Facilitation Superpowers to run a happy and productive session.

Open article →



**Define your problem statement**  
What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

10 minutes

**PROBLEM**

1) In agricultural aspects, if the plant is affected by leaf disease, then it reduces the growth and productiveness. Generally, the plant diseases are caused by the abnormal physiological Functionalities of plants.

2) People who Grow Crops and facing Issues of Plant Disease.

3) The Traditional methods of Fertilizer prediction and Disease analysis are Expensive and takes a lot of time.

## Key rules of brainstorming

To run a smooth and productive session

Stay in topic.

Defer Judgment.

Go for volume.

Encourage wild ideas.

Listen to others.

If possible, be visual.



**Brainstorm**  
Write down any ideas that come to mind that address your problem statement.

10 minutes

## TIP

You can select a sticky note and hit the pencil (switch to sketch) icon to start drawing!

## Thulasimani

Website for Fertilizer recommendation

Identify the disease

Determining best fertilizer

## Kirubakaran

Deep learning based mathematical model for detecting diseases

Early detection and management of problem

Better utilization of available resources

## Prasanth

Useful to Farmers

Recommends Fertilizers

Utilizing of Resources

## Ramesh Kanna

Build keras image classification model

Making revolutionary changes in agriculture field

Cost of using this application is less

## Fertilizer Recommendation

Instant solution

It will save time

Portal for farmers

## Admin can view the recommended fertilizer through gmail

They can find the diseases at early stages

Smart solution to solve the problem

Cost of using this application is less

## Group Ideas

Take turns sharing your ideas while clustering similar or related notes as you go. In the last 10 minutes, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

20 minutes

## Category 1

Website for Fertilizer recommendation

Identify the disease

Cost of using this application is less

## Interactive user interface to upload images

Useful to people with no prior knowledge

Portal for farmers

## Category 2

Pre-trained model for image classification

Deep learning based mathematical model for detecting diseases

Build keras image classification model

## Interactive user interface to upload images

Making revolutionary changes in agriculture field

Early detection and management of problem

## Category 3

Instant solution

Admin can view the recommended fertilizer through gmail

Better utilization of available resources

They can find the diseases at early stages

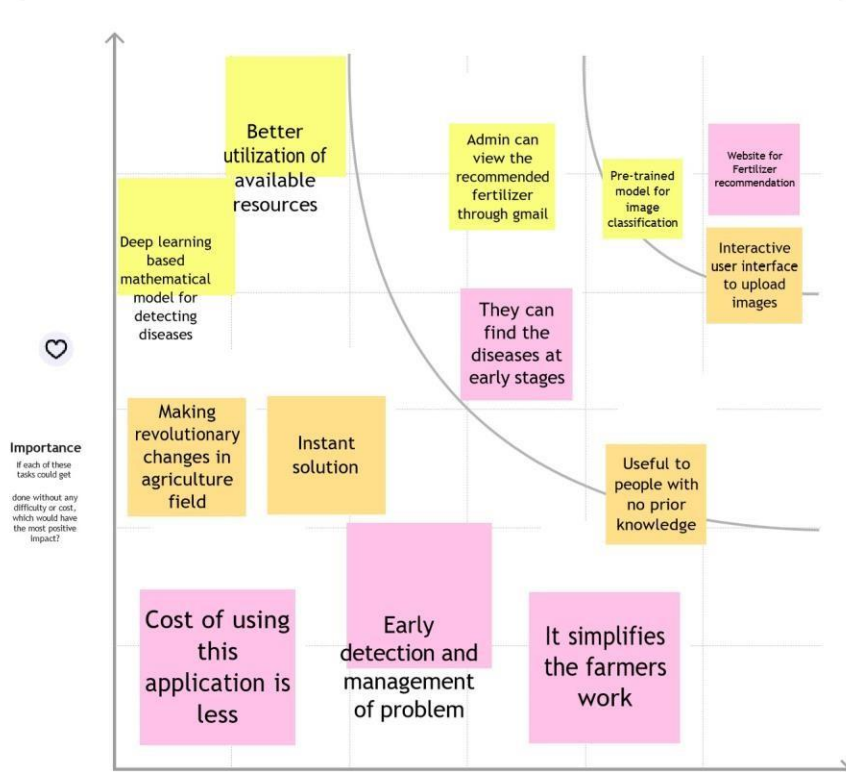
Smart solution to solve the problem

Cost of using this application is less



**Prioritize**  
Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

30 minutes



**After you collaborate**  
You can export the mural as an image or pdf to share with members of your company who might find it helpful.

## Quick add-ons



**Share the mural**  
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.



**Export the mural**  
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.



**Strategy blueprint**  
Define the components of a new idea or strategy.

**Open the template**



**Customer experience journey map**  
Understand customer needs, motivations, and obstacles for an experience.

**Open the template**



**Strengths, weaknesses, opportunities & threats**  
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.

**Open the template**

Share template feedback

