



# 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?  
See a finished version of this template to kickstart your work.  
Open example



## 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



### Team gathering

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



### Set the goal

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



### 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 yo problem as a How Might We statement. This will b focus of your brainstorm.

5 minutes

### PROBLEM

- Identify the disease on plants using deep learning techni and to recommend the fertilizers for reducing the diseas
- Provide website information for recommended fertilizer.



### Key rules of brainstorming

To run a smooth and productive session

Stay in topic.

Defer judgment.

Go for volume.

Encourage wild i

Listen to others.

If possible, be vis



## 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 icon to start drawing!

### Sathish M

Website for Fertilizer recommendation  
Identify the disease  
Determining best fertilizer  
User friendly website  
It reduces mam power  
Smart solution to solve the problem

### Madhesh

Pre-trained model for image classification  
Build keras image classification model  
Making revolutionary changes in agriculture field  
It simplifies the farmers work  
Cost of using this application is less  
They can find the diseases at early stages

### Selvakumar

Deep learning based mathematical model for detecting diseases  
Early detection and management of problem  
Better utilization of available resources  
Interactive user interface to upload images  
Improves productivity  
Interactive user interface to upload images

### justin jegan j

Fertilizer Recommendation  
Instant solution  
Useful to people with no prior knowledge  
Admin can view the recommended fertilizer through gmail  
It will save time  
Portal for farmers



## 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 and 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

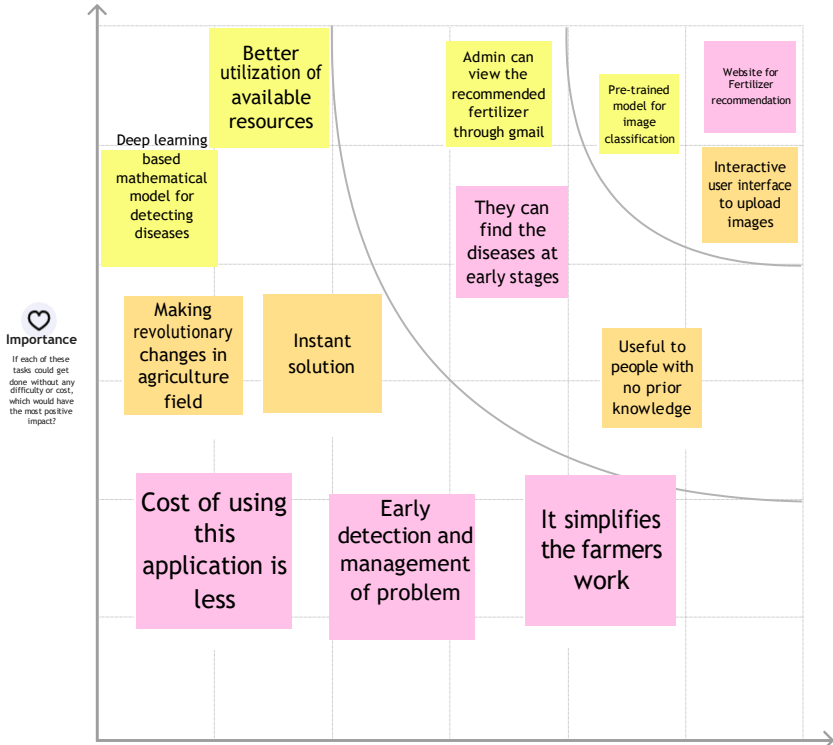
Instant solution  
Admin can view the recommended fertilizer through gmail  
Better utilization of available resources  
They can find the diseases at early stages  
Smart solution to solve the problem  
Cost of using this application is less



## 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.

20 minutes



**Importance**  
If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?

**Feasibility**  
Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)



## 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.

### Keep moving forward



**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