

Ideation Phase
Brainstorm & Idea Prioritization Template

Date	20 September 2022
Team ID	PNT2022TMID26689
Project Name	IoT Based Smart Crop Protection System for Agriculture
Maximum Marks	4 Marks

Brainstorm & Idea Prioritization Template:

Crop protection combines strategies, tools and products that protect against various wild animals. There are various ways to crop loss from wild animals, in some areas farmers burn elephant dung or other materials that smolder and create heavy smoke, that repels rabbits and deer. Develop smart and affordable solution to protect crops from wild animals is an ultimate objective of this work. Agricultural fences are quit an effective wild animal protection technology. The fences are like Wire fences, Electric fences, Plastic fences. Wire fences are constructed of metal wires forming a physical barrier that protect their crops from animals. Electric fences are constructed to inflict an electric shock to animals that come with the fences, thus preventing animals from crossing the fences. Plastic fences are generally less expensive and effectiveness in areas with a higher possibility of wild animals crop damage.

Natural repellents is a resources instead of mechanical or chemical protective practices. The natural repellents are smoke, fish or garlic natural emulsion and chilli peppers. Smoke in some area is due to, farmers burn elephant dung or other materials that smolder and create heavy smoke. Fish or garlic natural emulsion that repels rabbits and deer. Chilli peppers hot an excellent repellent against elephant, monkeys, squirrels and some other wild animals. Biophysical barriers is similar to traditional fences, but made of natural easily renewable materials. The renewable materials like bamboo sticks, coconut tree bunches or some other available shrubs. Electronic repellent is an effective and eco-friendly method. This method is used to protection that repels animals without harming them. Ultrasonic electronic repellent is silent to humans, high frequency sound waves repels wild animals. Sonic electronic repellent audible loud noise that scares animals.

Step-1: Team Gathering, Collaboration and Select the Problem Statement



Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

🕒 10 minutes to prepare

🕒 1 hour to collaborate

👤 2-8 people recommended



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.

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1

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.

🕒 5 minutes

PROBLEM

How might we [your problem statement]?



Key rules of brainstorming

To run a smooth and productive session



Stay in topic.



Encourage wild ideas.



Defer judgment.



Listen to others.



Go for volume.



If possible, be visual.

Step-2: Brainstorm, Idea Listing and Grouping

2

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!

JOTHIKA R

Agricultural fences: It is quite an effective wild animal protection technology.

Electric fences are considered as one of the most effective ways to protect crops from wild animals. They are easy to install and maintain.

Wire fences: are constructed of metal wires forming a physical barrier that protect them from animals.

Plastic fences are getting more and more popular in rural areas. They are easy to install and maintain.

DURGA SRI R

Natural Repellents: This resource is rich in natural repellents like chili, turmeric, and other natural products.

Fish or garlic natural emulsion: That repels rabbits and deer.

Scarecrows: In some areas, farmers burn agricultural waste or other materials that emit smoke and create a scary atmosphere.

Chili peppers: Chili peppers are a natural repellent against elephants, monkeys, squirrels, and some other wild animals.

SOUNDHARYA R

Biophysical barriers: It is similar to traditional fences, but made of natural easily renewable materials.

It is low cost practice: in protecting crops against wild animals.

Renewable materials: like bamboo sticks, coconut husk, burlap, or other natural fibers.

But it is also low efficiency: in protecting crops against wild animals.

SURIYA C

Electronic Repellents: It is an effective and eco-friendly method.

Ultrasonic electronic repellents: emit high frequency sound waves that repel wild animals.

This method is used for crop protection: that repels animals without harming them.

Some electronic repellents: emit loud noise that scares animals.

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, 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

To protect crop damage are by incorporating integrated pest and insects management.

Spraying insecticides, pesticides help to minimize the crop damage.

The farmer can protect their crops by analyzing temperatures, humidity and soil conditions.

Some ways to protect crops from wild animals like agricultural fences, Natural repellents, etc.

TIP

Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.



Step-3: Idea Prioritization

4

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

