

**Project Design Phase-II**

**FUNCTIONAL REQUIREMENT**

Date	01 November 2022
Team ID	PNT2022TMID18696
Project Name	Fertilizer Recommendation System for Disease Prediction

STAGES	AWARENESS	INFORMATION GATHERING	DECISION MAKING	PESTICIDE SELECTION	BEFORE DETECTION	AFTER DETECTION
GOALS	Understand the type of leaf disease possibilities exist.	Learning	Setting criteria for Healthy leaf	Complete knowledge about pesticides and achieve high yield production.	Leaf with high possibility of diseases.	A well-treated and healthy leaf without any disease.
ACTIONS	Sees a demo leaf with high infection which has to be treated.	Know about all the healthy and unhealthy leaf and talk to the specialist.	<ul style="list-style-type: none"> <li>✓ Compares healthy leaf possibilities to the unhealthy one and makes a decision</li> <li>✓ Refer to the leaf family</li> </ul>	Knowledge about which leaf should be treated with what kind of fertilizers	<ul style="list-style-type: none"> <li>✓ Check leaf condition</li> <li>✓ Check the weather condition</li> <li>✓ Check the soil condition</li> </ul>	<ul style="list-style-type: none"> <li>✓ Treats the leaf with suitable fertilizer as suggested</li> <li>✓ Makes sure of the suitable soil and weather condition</li> </ul>
TOUCH POINTS	<ul style="list-style-type: none"> <li>✓ Information provided at research</li> <li>✓ Interactions with the specialists at the research center.</li> </ul>	Verify the information provided at research	Information that can be asked/known with others for good healthy leaf production.	Checking pesticide quality and cost.	Get to know the knowledge about leaf and its diseases.	Training all leaves with good reference or by using good learning materials.

FEELINGS	POSITIVE ↓ NEUTRAL ↓ NEGATIVE	Building excitement, cost of effort		Interested in yielding		Satisfied
			Hesitation, self-doubt	Confusion, Doubt in choice	Frustrated, worried	
PAIN POINTS	Information was not clear at first.	Difficult to understand the leaf disease Some information was confusing.	Lack of outside resources Doubt over the specialist information Lack of financing opportunities.	More cost consuming Takes lot of time for detection More confusion over choosing the pesticides.	Missed opportunity for initial pampering of leaf needs Difficult for a farmer to choose amount of soil.	Training was not clear Self-directed training/reference materials also was not clear.
KEY INSIGHTS	Awareness over the leaf diseases should be given to farmers.	Information needs to be easily shared outside, through demos and workshops.	Decision depends on specialists and farmers according to their wish for a healthy leaf.	Pesticides has to be selected according to requirements for leaf nourishment.	Leaf was unhealthy and disease infected.	An enhanced customer experiences Increased yield production Data enabled decision making using data analytics, sharing of best fertilizers.