

| Problem-Solution Fit | | FERTILIZER RECOMMENDATION SYSTEM FOR DISEASE PREDICTION | | |
|---|--|---|---|---|
| Define CS, fit into CL | <div>1. CUSTOMER SEGMENT(S)<div>CS</div></div> <div>Any farmer is interested in knowing how much yield he is about to expect and also which fertilizers to be used as well as knowing the crop diseases all at one place.</div> | <div>6. CUSTOMER LIMITATIONS<div>EG. BUDGET, DEVICES</div><div>CL</div></div> <div>Cost, Time, human error and fatigue, Geographical changes, Lack of Resources, Poor knowledge.</div> | <div>5. AVAILABLE SOLUTIONS<div>PROS & CONS</div><div>AS</div></div> <div>Different techniques are decision tree, Naive Bayes, Neural network, visual plant disease estimation by human raters, microscopic evaluation of morphology features to identify pathogens, molecular, serological, and microbiological diagnostic techniques.</div> | Explore AS, differentiate |
| | <div>2. PROBLEMS / PAINS + ITS FREQUENCY<div>PR</div></div> <div>Yield prediction is a completely essential problem in agriculture. It is difficult for farmers to decide when and which crops to plant because of fluctuating market prices. Farmers are unaware of which crop to grow, and what is the right time and place to start due to uncertainty in climatic conditions. The usage of various fertilizers is also uncertain due to changes in seasonal climatic conditions and basic assets such as soil, water, and air.</div> | <div>9. PROBLEM ROOT / CAUSE<div>RC</div></div> <div><div>Natural causes:</div> Climatic, geographic and changes in basic assets such as soil, water, and air.<div>Human causes:</div> The usage of various fertilizers is also uncertain due to changes in seasonal climatic conditions and Incorrect prediction of soil deficiency.</div> | <div>7. BEHAVIOR + ITS INTENSITY<div>BE</div></div> <div>Admin can store the fertilizers based on disease categorization with severity levels. Soil testing for deficiency should be done regularly. Correct fertilizer should be used according to the necessity.</div> | Focus on PR, tap into BE, understand RC |
| Focus on PR, tap into BE, understand RC | <div>3. TRIGGERS TO ACT<div>TR</div></div> <div>Farmers use manures on crops for its good yield still there exists death of crops because of improper detection of mineral deficiency.</div> | <div>10. YOUR SOLUTION<div>SL</div></div> <div>The prediction of crop yield based on soil data and proper implementation of algorithms have proved that a higher crop yield can be achieved. Building a Website can be built to help farmers by uploading an image of farms. Crop diseases detection uses image processing in which users get pesticides based on disease images and Fertilizer prediction based on soil condition.</div> | <div>8. CHANNELS of BEHAVIOR<div>CH</div></div> <div><div>ONLINE</div><div>From simple connected switches to advanced soil sensors, almost every new sensor launched today has the capability to be connected to the internet.</div></div> | Extract online & offline CH of BE |
| | <div>4. EMOTIONS<div>BEFORE / AFTER</div><div>EM</div></div> <div><div>Lost, Insecure -></div><div>Confident, In control</div></div> | | <div><div>OFFLINE</div><div>Climate, topography, exposure, soil conditions, and accessibility, availability of water.</div></div> | |
| Identify strong TR & EM | | | | |