Project Title: Plant disease prediction and fertilizer recommendation Project Design Phase-I - Solution Fit Template Team ID: PNT2022TMID00086

* Farmers manually observe plant diseases and make a rough guess based on their experience , sometimes the fertilizer chosen might not be appropriate
* Other schemes for fertilizer recommendation may not be accurate for a specific disease.

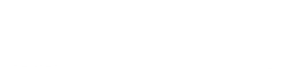
Constraints preventing customers from taking action

* Non availability of strong network connection in rural areas.
* Less availability of devices to upload the plant images.
* Regular power cuts.
* Insufficient knowledge about the use of devices and applications.
* Farmers
* Agricultural Scientists
* Agricultural Researchers



Constraints preventing customers from taking action

* Non availability of strong network connection in rural areas.
* Less availability of devices to upload the plant images.
* Regular power cuts.
* Insufficient knowledge about the use of devices and applications.
* Farmers manually observe plant diseases and make a rough guess based on their experience , sometimes the fertilizer chosen might not be appropriate
* Other schemes for fertilizer recommendation may not be accurate for a specific disease.
* Farmers
* Agricultural Scientists
* Agricultural Researchers

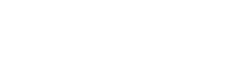


* Prediction of plant disease
* Recommendation of appropriate fertilizers
* Suggest preventive measures
* Improvement of model using feedback

Directly related: Early detection of disease and usage of accurate fertilizer by making use of automated models

Indirectly related : Approaching other framers, agricultural researchers for guidance at the right time

* Incorrect usage of fertilizers in the past.
* Low soil quality due to excess use of fertilizers.
* Disease causing pathogens.
* Usage of infected seeds.
* Delay in the observation of disease leading to its spread
* Improper maintenance.



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **3. TRIGGERS TR**   * Observing neighbouring fields and the crop yield * Learning about alternate solutions on the internet * Gathering information about other applications used by farmers for fertilizer recommendation | **10. YOUR SOLUTION SL**  Our fertilizer recommendation model uses deep learning techniques to identify various diseases that the plants are affected with and helps the farmer to choose the appropriate fertilizer to cure the same, thus making their task simpler. By training the model numerous times to make it accurate enough to predict various new diseases in less time. | 1. **CHANNELS of BEHAVIOUR CH**    1. **ONLINE**  * Reading articles online to improve knowledge about various plant diseases and appropriate fertilizers. * Gathering information online about various fertilizer recommendation sources.   1. **OFFLINE** * Manual observation of other fields and the fertilizers used by other farmers * Talking to agricultural researchers in person about plant diseases. |  |
| **4. EMOTIONS: BEFORE / AFTER EM**  When the crop gets affected by the disease the farmer feels  **Confused > Clarified**  **Distressed > Satisfied**  **Insecure > Content** |