Orchid Crop Advisor

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Farmers often face the dilemma of choosing which crop to grow in their fields. This decision heavily impacts their investments and resulting profit, which can either increase or decrease drastically. This issue has been resolved by the project by utilizing a soil analysis instrument that sends data to an app. The app assesses the data received to suggest the most suitable crop/s or required land alterations for better growth of other crops. First, the app that is made using Java language guides the farmer on soil sampling points based on land size. The farmer uses the Gaby Rapid Soil Meter to obtain soil readings from these points, which are transferred to their mobile phone. These readings include soil pH, Nitrogen content, Phosphorus content, Potassium content, Moisture, Temperature, and Electrical Conductivity . The app in the farmer's mobile phone then processes the aggregate sampled data using a fed database to suggest the ideal crops for optimal growth and necessary land modifications to enable the optimal growth of other crops. In conclusion, the development of a device that can accurately determine the optimal crop for planting based on the soil condition is a significant breakthrough in agriculture, leading to better yields and less wastage. This technology not only benefits farmers but also contributes to sustainable agriculture practices by ensuring efficient resource usage. Overall, this solution has the potential to transform the agriculture industry and improve the lifestyle of the farmers worldwide.

Awards Won: