AGRICULTURAL MANAGEMENT SYSTEM (KRISHI SAMADHAN)

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ABSTRACT

The Agricultural Management System is a comprehensive Android-based application integrated with a PHP web server, designed to assist farmers in making informed, data- driven decisions to enhance agricultural productivity and sustainability. The system offers multiple features aimed at improving farming efficiency, precision agriculture, and knowledge exchange among farmers. One of the core functionalities is crop disease detection, where users can upload images of their crops through the mobile application. The system utilizes machine learning algorithms and image processing techniques to analyse the images, identify potential diseases, and provide recommendations for treatment and preventive measures, helping farmers take timely action to minimize losses. Another crucial feature is soil health assessment, allowing users to input key soil parameters such as pH levels, Nitrogen (N), Phosphorus (P), and Potassium (K) content. Based on this data, the system evaluates soil fertility, suggests suitable crops, and provides personalized fertilizer recommendations to optimize soil management and maximize yield. Additionally, the system integrates real-time weather updates, enabling farmers to make informed decisions based on current and forecasted weather conditions, thereby reducing risks associated with unpredictable climate changes. By leveraging technology-driven solutions for precision agriculture, this system not only enhances farming efficiency and productivity.