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| **AN EFFICIENT AND INTELLIGENT DECISION MAKING FOR ECO-FERTILIZATION** | | | | [achakraborty0410@gmail.com](mailto:achakraborty0410@gmail.com)  ishitakatiyar11@gmail.com [gauravsharma01042000@gmail.com](mailto:gauravsharma01042000@gmail.com)  sumuk911@gmail.com |
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| **Keywords:** | Random Forest, Crop Yield, Leeching, Nutrient recommendation, aaFertilization, Decision making. | | |
| **Abstract:** Fertilizer use is typically under the limited control of farmers. For the farmers to achieve higher yields and reduce fertilizer loss, competent guidance ais required for the best use of these fertilizers. Rainfall that is moderate and falls at the right moment can help nutrients penetrate the soil's rooting zone and adissolve dry fertilizer. However, too much rain can increase the possibility of runoff and the pace at which nutrients like nitrogen (N) which is quintessential, aphosphorus (P), and potassium (K) which are crucial, manganese (Mn), and boron (B) that are present in the soil  aThe objective of this project is:   * To provide nutrient recommendations using an updated iteration of the random forest algorithm which is based on time-series data to forecast the required quantity of nutrients for various crops by examining rainfall patterns and crop fertility. * The method suggested here, should come in handy for improving soil fertility by providing nutrients recommendations for optimum conditions for crop growth and reducing leaching and runoff potential. | | | | |
| C:\Users\Shridhara\Desktop\Flowchart.png  **Data Flow Diagram** | | **Result** | | |