

Agricultural Health Report

Farmer Details			
Farmer's Name: Bhuvanesh		Farmer ID: 1234-5678-8901	
Country: India		State: Tamil Nadu	
District: Tiruvannamalai		Village: Tiruvannamalai	
PIN Code: 606601		GPS: 12.250019919480518, 79.07741198831168	
Soil Parameters			
pH: 6.5	Nitrogen: 50.0	Phosphorus: 30.0	Potassium: 50.0
Weather Parameters			
Temperature: 24.05°C	Humidity: 74%		Rainfall: N/A mm

Crop Recommendation

Prediction: Based on the provided soil and climate data, here's a suggestion:

- Crop: Paddy (Rice)

- Soil Amendments:

- + Lime: 1 ton per hectare to adjust the pH to the optimal range for paddy cultivation (pH 6.0-7.0)

- + Phosphorus-rich fertilizer: 50 kg per hectare to supplement the existing phosphorus levels and promote root development

- Estimated Yield: 4,500-5,500 kg/ha (based on typical paddy yields in similar conditions in Tamil Nadu)

Reasoning:

- * Loamy soil is suitable for paddy cultivation, and the existing pH of 6.5 is close to the optimal range.

- * The nitrogen levels are adequate, but phosphorus levels are slightly low. Paddy requires phosphorus for root development and grain formation.

- * The temperature and humidity in Tiruvannamalai, Tamil Nadu, are suitable for paddy cultivation.

- * The plentiful water availability is ideal for paddy, which requires adequate moisture for growth.

- * Paddy is a popular crop in Tamil Nadu, and the farmer's preference for "anything you can suggest" implies they may be open to trying a new crop.

Note: The estimated yield range is based on typical paddy yields in similar conditions in Tamil Nadu. However, actual yields may vary depending on factors like farming practices, irrigation, and pest management.

Fertilizer Recommendation

Prediction: Based on the provided soil and weather data, I would recommend the following fertilizer:

- Fertilizer: DAP (Diammonium Phosphate)
- Application Rate: 150 kg/ha

The soil pH is 6.5, which is slightly acidic to neutral, and the crop history is wheat, which suggests that the soil may have a moderate to high phosphorus requirement. The phosphorus level in the soil is 30.0, which is relatively low. DAP is a common fertilizer used to provide phosphorus to crops, and its application rate of 150 kg/ha is suitable for loamy soils with moderate to high phosphorus requirements.

Additionally, since the leaf color chart score indicates that nitrogen is sufficient, there is no need to apply extra nitrogen fertilizer. The plentiful water availability and moderate temperature (24.05°C) also suggest that the crop will have adequate moisture and temperature conditions for growth.

Please note that this recommendation is based on general guidelines and may vary depending on specific local conditions and crop requirements. It's always a good idea to consult with local agricultural experts or conduct further soil testing to confirm the fertilizer recommendation.

Leaf Color Chart (LCC) Result

LCC Analysis: Leaf is healthy. Nitrogen is sufficient. No extra fertilizer needed. (LCC Score: 2.2)