Plant Monitoring Report

Plant ID: 101

Date: 2024-12-18

Summary

This report provides a detailed analysis of the plant monitoring data for plant ID 101. The data covers the period from N/A to N/A.

Averages

Parameter	Average Value	Unit
Ph	5.99	
Light	250.82	µmol/m²/s
Soil_moisture	25.49	%
Temperature	47.52	°C

Trends

The following trends have been observed in the data:

- Ph: increasing
- Light: increasing
- Soil_moisture: increasing
- Temperature: decreasing

Anomalies

Detected anomalies are listed below with their corresponding timestamps:

Ph: 0 anomalies detected

Light: 0 anomalies detected

Soil_moisture: 0 anomalies detected

Temperature: 1 anomalies detected

Value: 30.0, Timestamp: 2024-12-10T16:49:34Z

Comparisons

Comparison of plant data with other plants in the room data (if applicable):

- Light: Difference = 0.00 µmol/m²/s
- Temperature: Difference = 0.00 °C

Correlations

The following correlations between different parameters were found:

- Ph and Light: Correlation = 0.91
- Ph and Soil_moisture: Correlation = 0.75
- Ph and Temperature: Correlation = -0.76
- Light and Soil_moisture: Correlation = 0.74
- Light and Temperature: Correlation = -0.80
- Soil_moisture and Temperature: Correlation = -0.66

Daily Summary

Date	Parameter	Average Value	Unit
2024-12-10	Ph	5.99	
2024-12-10	Light	250.82	µmol/m²/s
2024-12-10	Soil_moisture	25.49	%
2024-12-10	Temperature	47.52	°C

Insights

1. Key Findings:

- The lettuce plant is experiencing a mixed set of conditions, with increasing light and soil moisture, and decreasing temperature.

- pH and soil moisture levels are not controlled (N/A), which can lead to inconsistent plant growth.

- The data indicates one anomaly in the temperature trend, but no details are provided.

2. Actionable Insights:

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Temperature Management:

Monitor and adjust the temperature to prevent further decrease. This may involve using heating or controlled environment methods.

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pH Control:

Implement pH control measures to ensure optimal pH levels for the plant.

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Data Quality:

Investigate the anomaly in the temperature trend to determine its cause and prevent similar occurrences.

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Sustainability Improvement:

Continue to provide adequate light and soil moisture to support healthy plant growth.

3. Potential Issues:

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Growth Inhibition:

Decreasing temperature may lead to growth inhibition or stress for the plant. Early intervention is crucial.

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Nutrient Deficiency:

Inconsistent pH levels can cause nutrient deficiencies, affecting plant growth and development.

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Equipment Failure:

The unidentified anomaly in the temperature trend could be related to equipment failure or malfunctioning monitoring systems, highlighting the need for close observation.