Rashail Agro
Empowering Farming with Technology

Satellite Report

Farm Details

Report Generation on
Jan. 2, 2026, 1:59 p.m.

Satellite Imagery Capture Date
2025-12-31

Field Name
Dhuriya

Field Area
7.2649 acres

Field Location
Narmadapuram, Madhya Pradesh

Satellite Data Parameters

This report encompasses a comprehensive analysis of the Satellite Data collected from the designated farming site. The key areas of focus include:

S No	Category	Index	Role of Index
1	Crop Health	EVI (Enhanced Vegetation Index)	Monitors vegetation health by reducing atmospheric effects on satellite imagery.
2		LAI (Leaf Area Index)	Measures leaf area per ground area to assess plant growth and canopy coverage.
3		NDRE (Normalized Difference Red Edge Index)	Detects plant stress and chlorophyll content using the red-edge band.
4		NDVI (Normalized Difference Vegetation Index)	Monitors vegetation health and biomass by comparing near-infrared and red light reflectance.
5		SAVI (Soil Adjusted Vegetation Index)	Accounts for soil brightness to better assess vegetation health in areas with sparse vegetation.
6	Irrigation	NDMI (Normalized Difference Moisture Index)	Measures moisture content in plants, indicating drought stress.
7		NDWI (Normalized Difference Water Index)	Assesses water content in leaves and detects water bodies.
8	Soil Health	SI (Salinity Index)	Identifies areas with high soil salinity affecting plant growth.
9		SMI (Soil Moisture Index)	Measures soil moisture content to support irrigation planning.
10		SOC_VIS (Soil Organic Carbon - Visible Spectra)	Estimates soil organic carbon using visible light reflectance.
11		SOC_SWIR (Soil Organic Carbon - SWIR Spectra)	Estimates soil organic carbon using shortwave infrared reflectance.

Stats for Your Farm

S No	Category	Indicator	Value	Feedback
1	Crop Health	EVI (Enhanced Vegetation Index)	0.2387	OK
2		LAI (Leaf Area Index)	0.4980	Need Improvement
3		NDRE (Normalized Difference Red Edge Index)	0.2689	OK

S No	Category	Indicator	Value	Feedback
4		NDVI (Normalized Difference Vegetation Index)	0.4621	OK
5		SAVI (Soil Adjusted Vegetation Index)	0.2030	OK
6	Irrigation	NDMI (Normalized Difference Moisture Index)	0.025500	OK
7		NDWI (Normalized Difference Water Index)	-0.459200	Need Improvement
8	Soil Health	SI (Salinity Index)		
9		SMI (Soil Moisture Index)	0.516700	OK
10		SOC_VIS (Soil Organic Carbon - Visible Spectra)	5.487900	Good
11		SOC_SWIR (Soil Organic Carbon - SWIR Spectra)	0.956500	Good

Weather Data

Current Weather Data

Weather Details
Clouds :scattered clouds

Temperature
25.04 °C - 25.04 °C

Humidity
38 %

Wind Speed
1.45 m/s

Wind Direction
Northwest

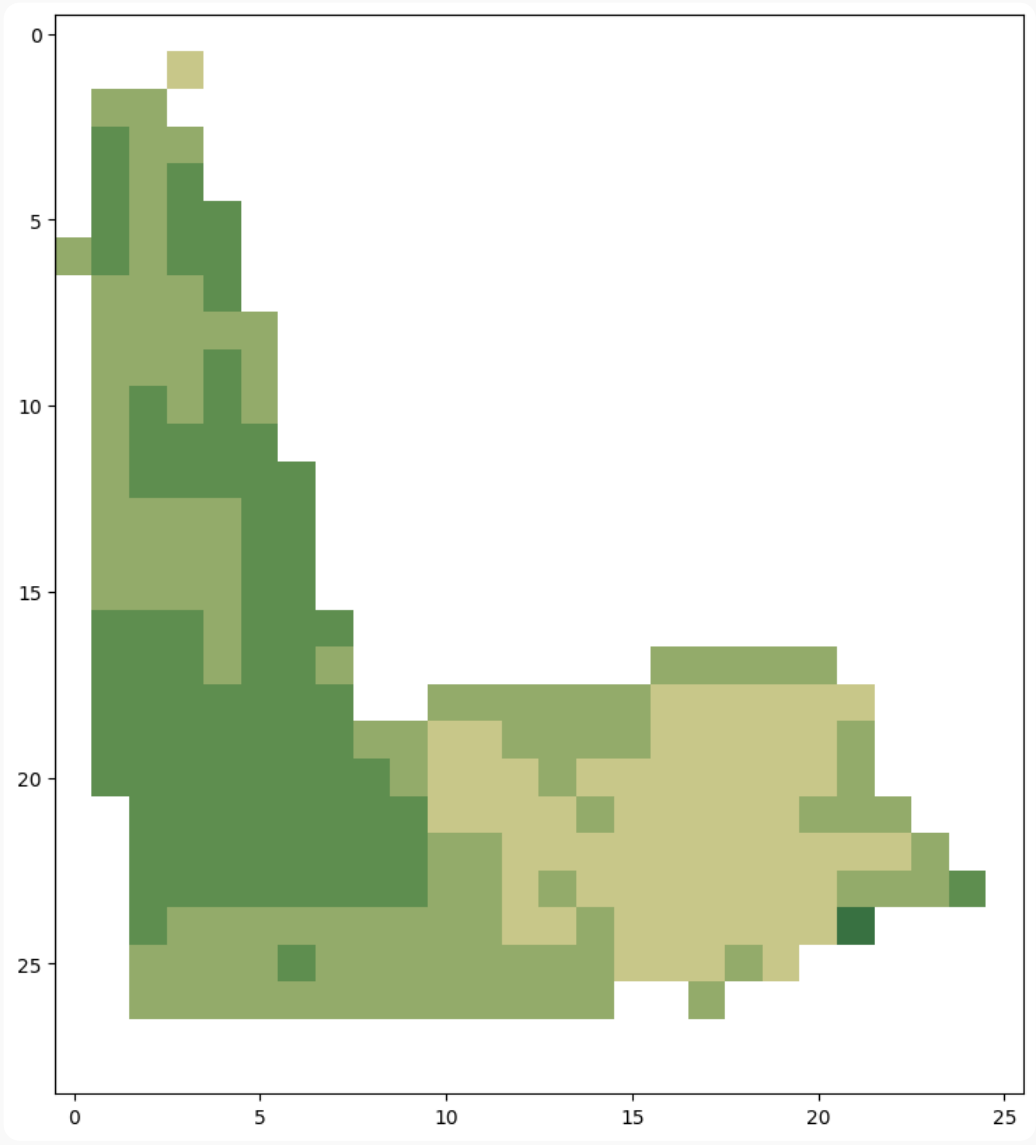
Pressure
1014 hPa

Weather Forecast

Date	Weather	Temp (Min | Max)	Rain Probability	Max Precipitation	Cloud Cover
January 02, 2026	clear sky, few clouds, scattered clouds	14.70°C | 25.83°C	0%	0.00 mm	0-34%
January 03, 2026	clear sky	13.52°C | 26.85°C	0%	0.00 mm	0-0%
January 04, 2026	clear sky	12.98°C | 26.41°C	0%	0.00 mm	0-0%
January 05, 2026	clear sky	11.40°C | 24.78°C	0%	0.00 mm	0-0%
January 06, 2026	clear sky	11.30°C | 27.15°C	0%	0.00 mm	0-0%

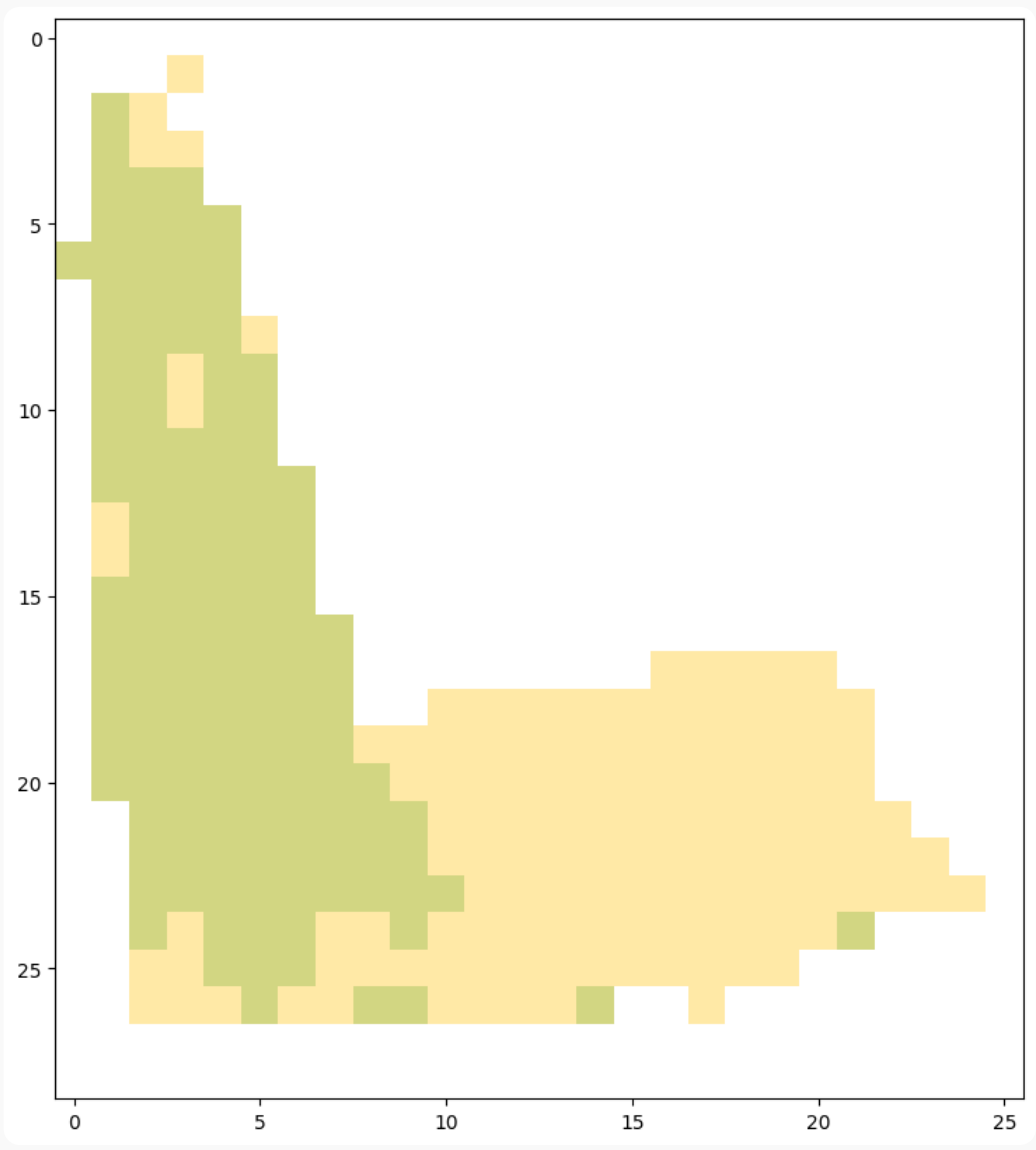
Understanding - NDVI (Normalized Difference Vegetation Index)

NDVI (Normalized Difference Vegetation Index) measures vegetation health and density using satellite images. It helps monitor crop conditions and make informed decisions.
Observed Value: 0.462100
Condition: OK
Suggestion:



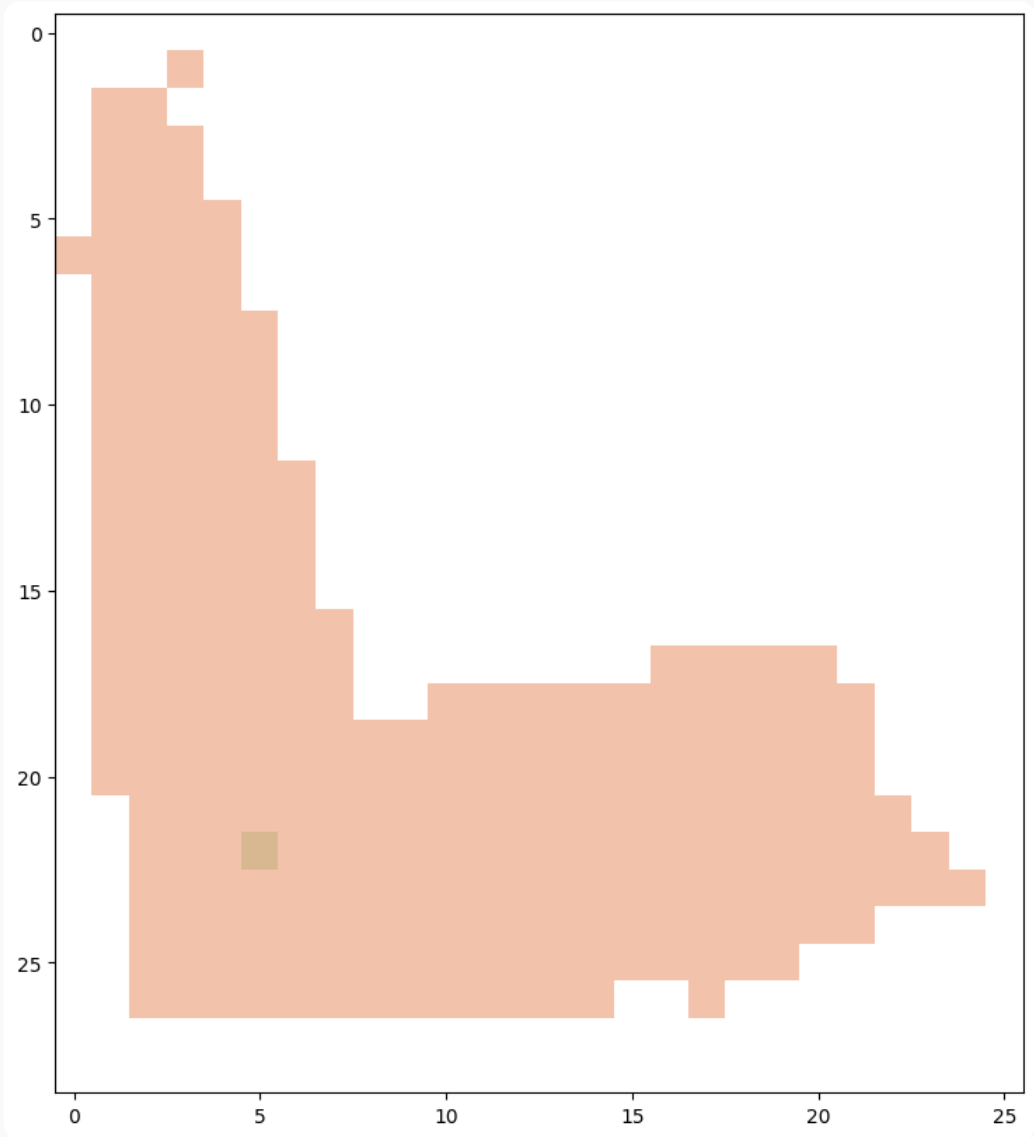
Understanding - EVI (Enhanced Vegetation Index)

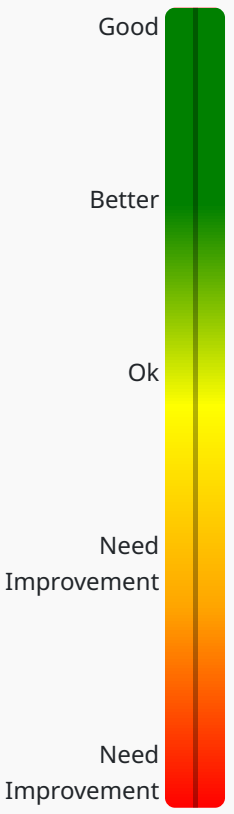
EVI (Enhanced Vegetation Index) addresses limitations of NDVI and is more sensitive to vegetation changes, atmospheric conditions, and canopy background signals.
Observed Value: 0.238700
Condition: OK
Suggestion:



Understanding - SAVI (Soil Adjusted Vegetation Index)

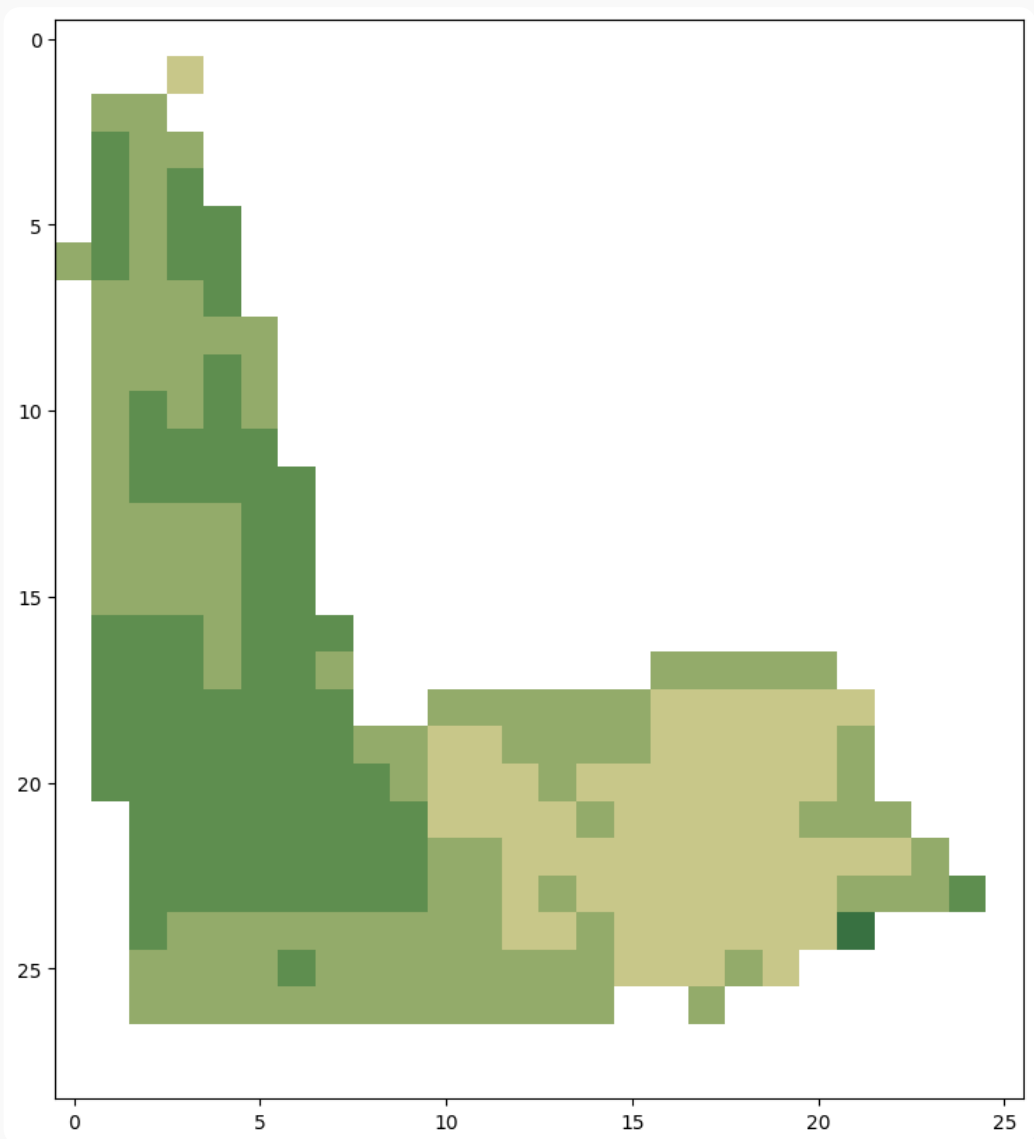
SAVI (Soil Adjusted Vegetation Index) adjusts NDVI for soil brightness, making it suitable for areas with sparse vegetation or arid regions.
Observed Value: 0.203000
Condition: OK
Suggestion:

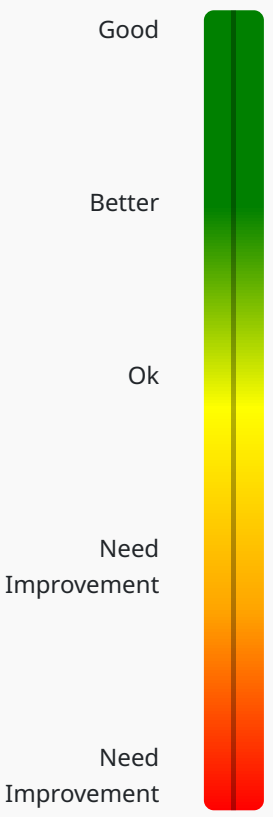




Understanding - NDRE (Normalized Difference Red Edge)

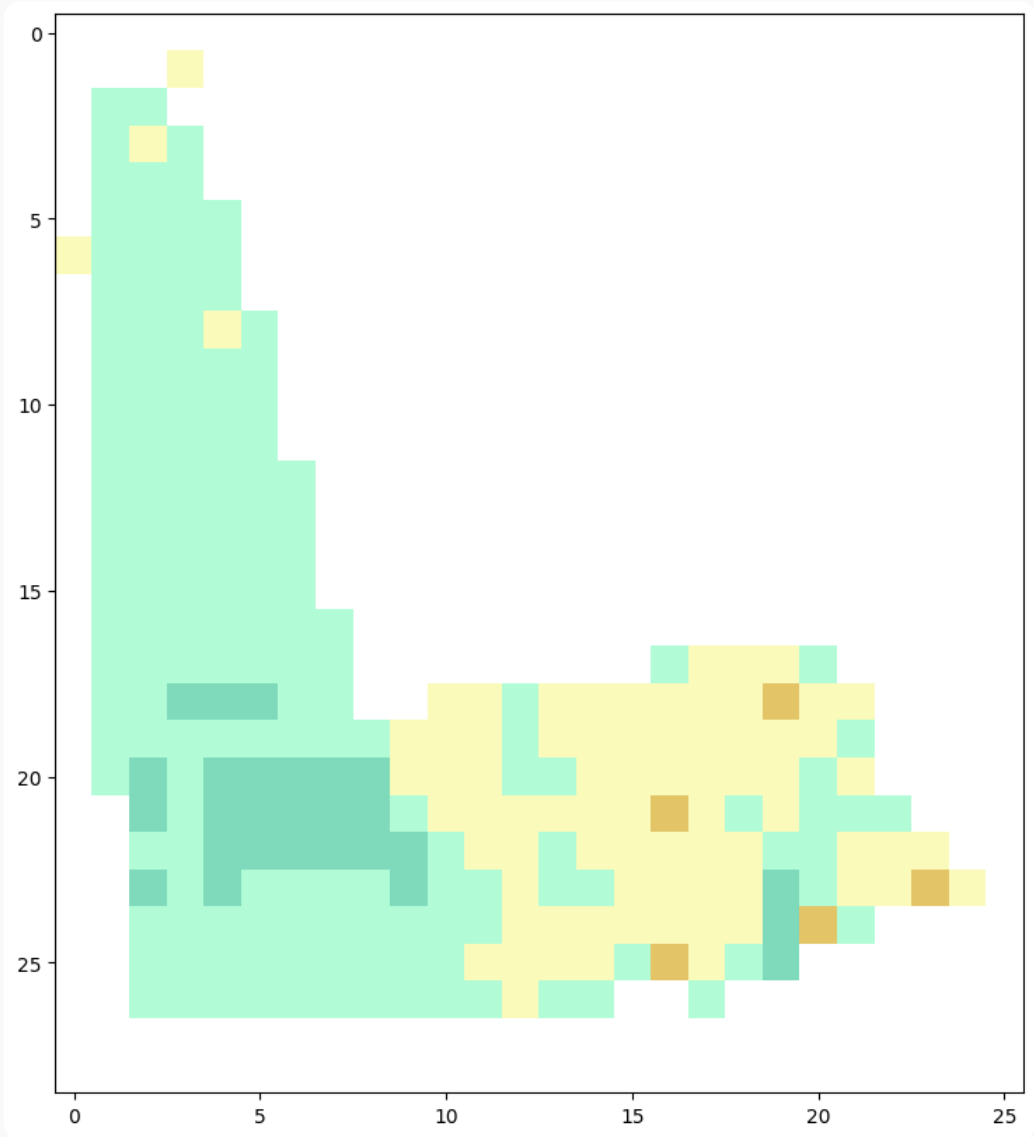
NDRE (Normalized Difference Red Edge) is used for assessing plant health and growth by measuring vegetation density.
Observed Value: 0.268900
Condition: OK
Suggestion:





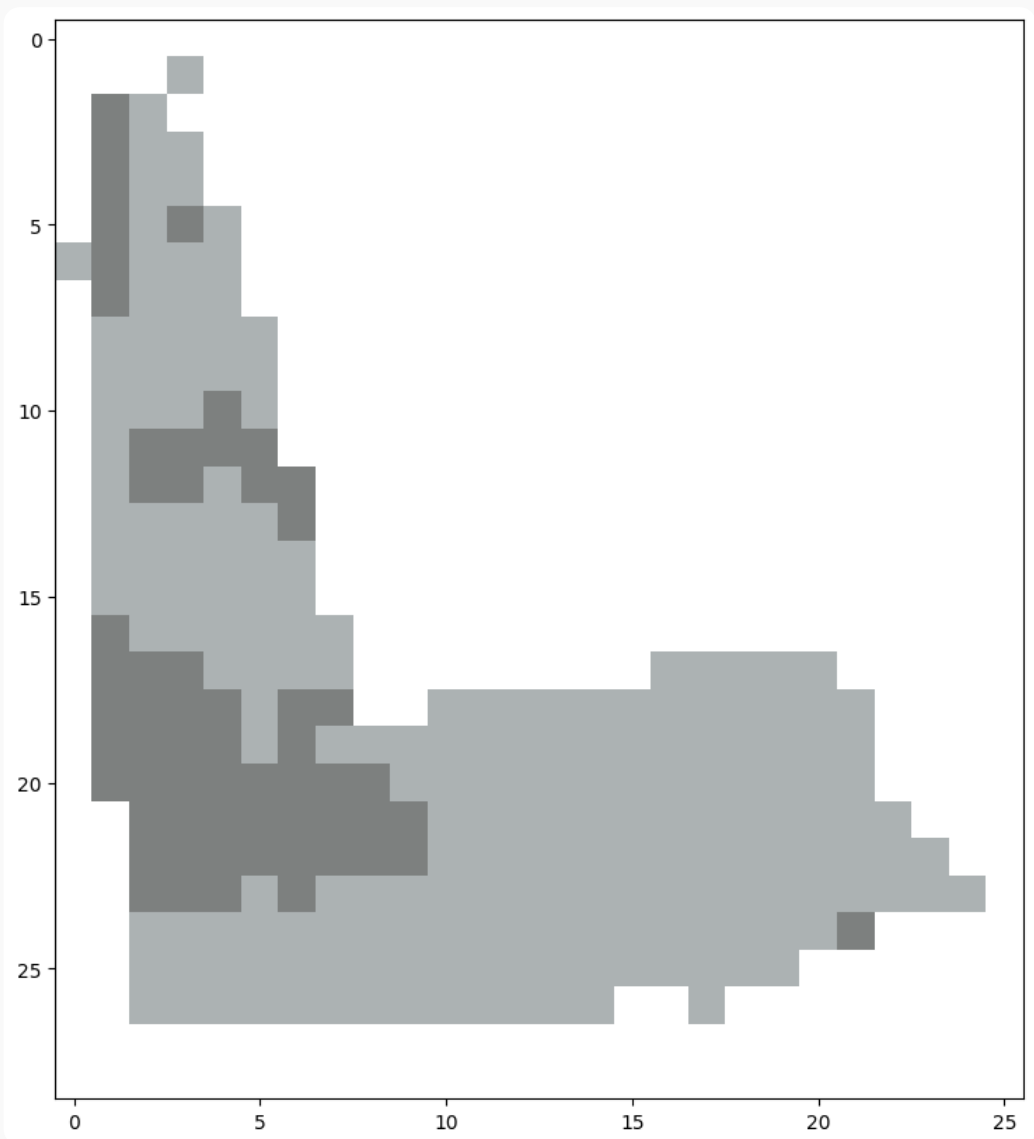
Understanding - NDMI (Normalized Difference Moisture Index)

NDMI (Normalized Difference Moisture Index) measure moisture content in plants, indicating drought stress..
Observed Value: 0.025500
Condition: OK
Suggestion:



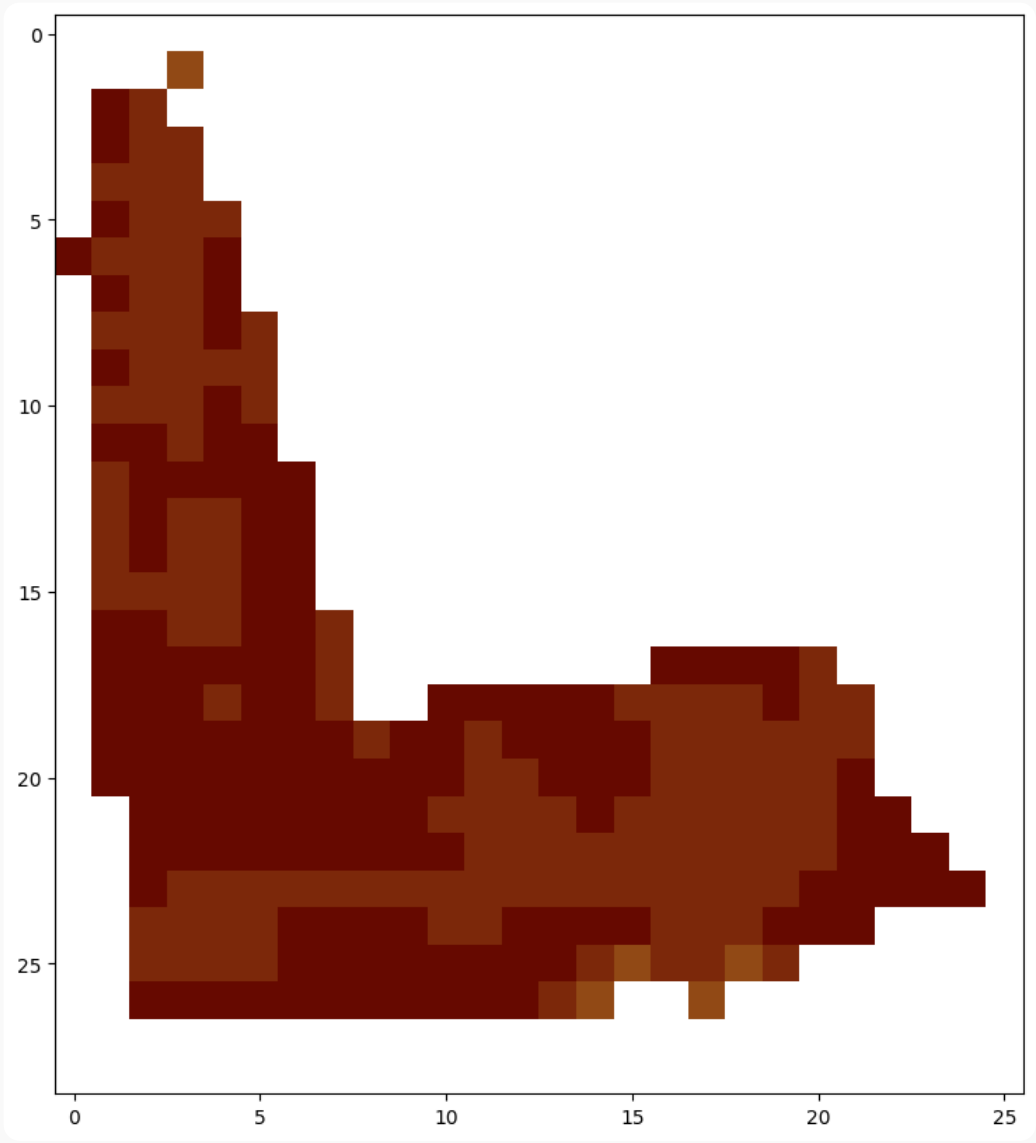
Understanding - NDWI (Normalized Difference Water Index)

NDWI (Normalized Difference Water Index) assesses water content in leaves and detects water bodies..
Observed Value: -0.459200
Condition: Need Improvement
Suggestion:



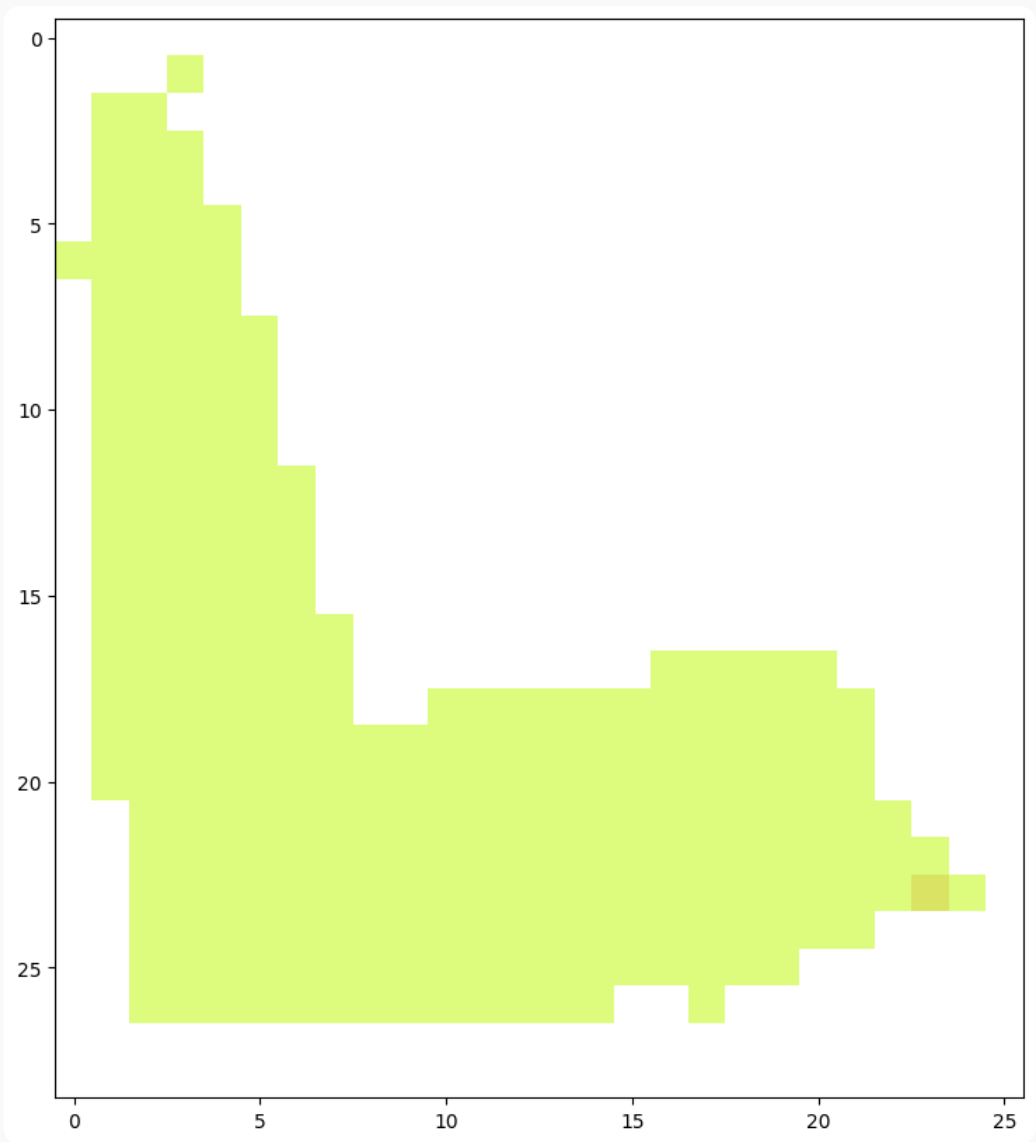
Understanding - SOC_VIS (Soil Organic Carbon - Visible Spectra)

SOC_VIS (Soil Organic Carbon - Visible Spectra) estimates soil organic carbon using visible light reflectance..
Observed Value: 5.487900
Condition: Good
Suggestion:



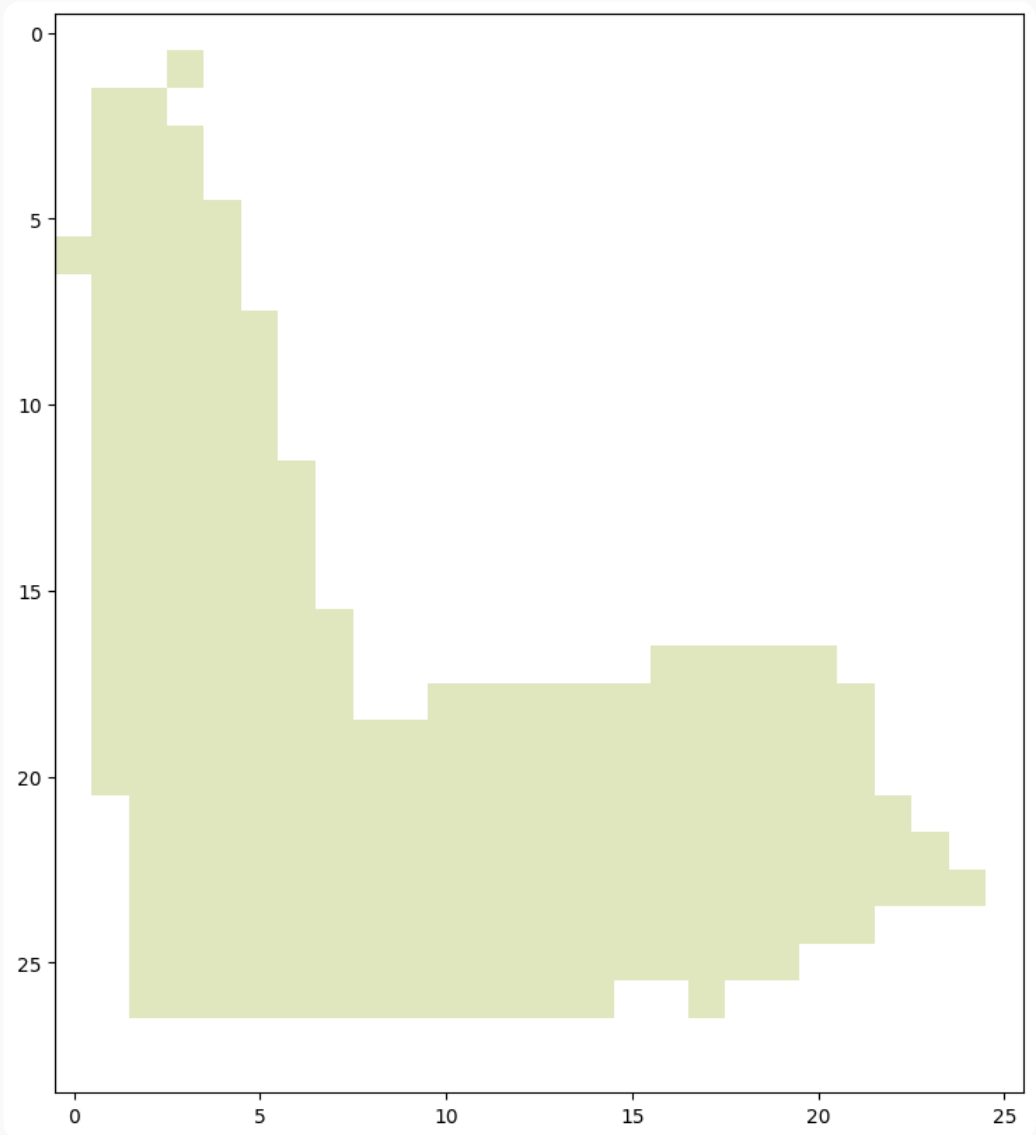
Understanding - SOC_SWIR (Soil Organic Carbon - SWIR Spectra)

SOC_SWIR (Soil Organic Carbon - SWIR Spectra) estimates soil organic carbon using shortwave infrared reflectance..
Observed Value: 0.956500
Condition: Good
Suggestion:



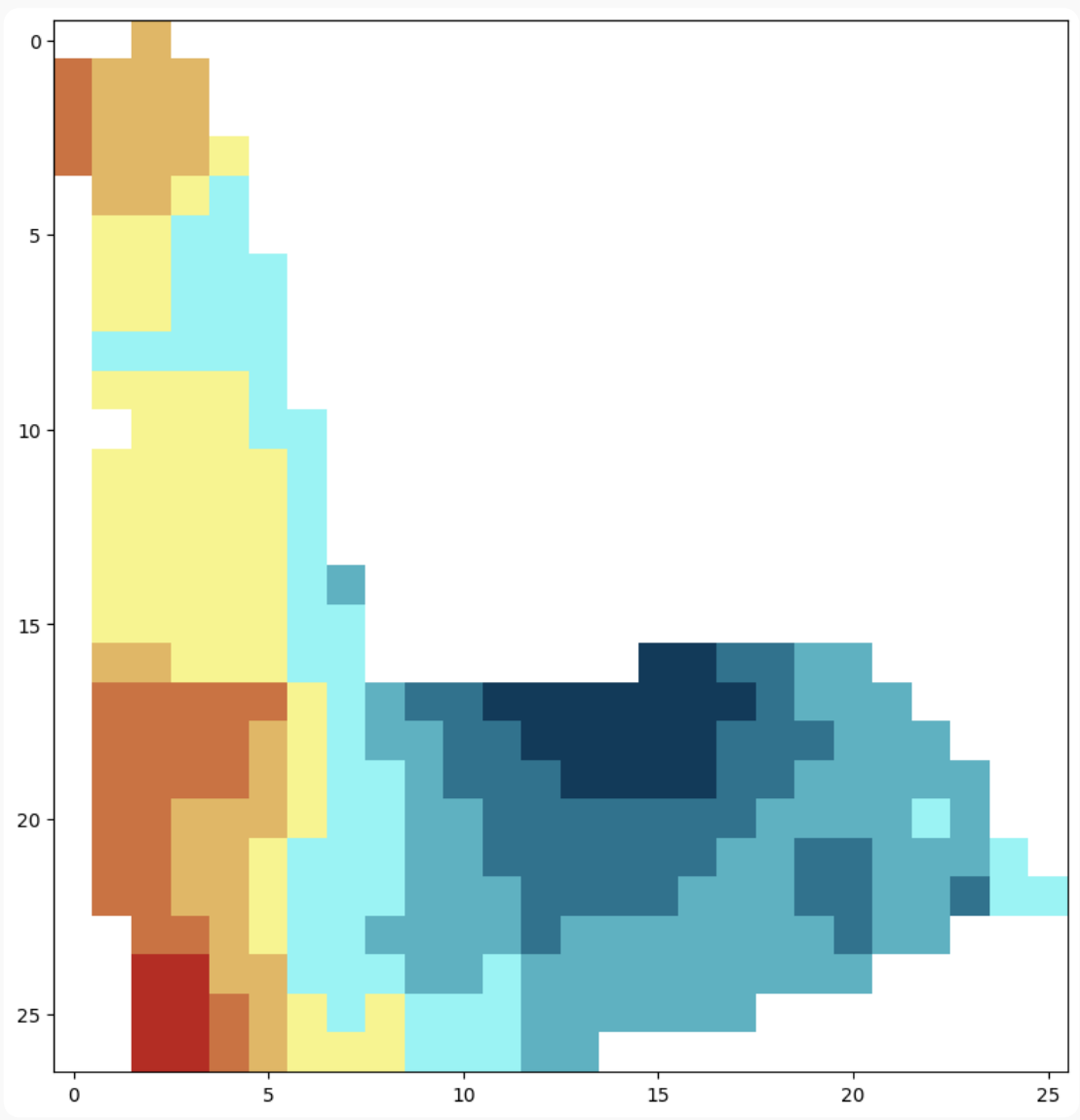
Understanding - LAI (Leaf Area Index)

LAI (Leaf Area Index) measures leaf area per ground area to assess plant growth and canopy coverage..
Observed Value: 0.498000
Condition: Need Improvement
Suggestion:



Understanding - SMI (Soil Moisture Index)

SMI (Soil Moisture Index) measures soil moisture content to support irrigation planning..
Observed Value: 0.516700
Condition: OK
Suggestion:



Expert Advice Based on Data

Comprehensive Summary on what you should focus on your farm NEXT based on our AI Model from your satellite farm data.

S No	Indexes	Correlation Value	Feedback	Suggestion
1	NDVI vs EVI	0.970434	Excellent vegetation health and density.	Maintain all current agricultural practices. Consider using these practices in other parts of the farm for better productivity.

S No	Indexes	Correlation Value	Feedback	Suggestion
2	EVI vs NDRE	0.956122	High chlorophyll content indicating healthy plants.	Maintain current fertilization and irrigation practices. Consider expanding these practices to other areas of the farm.
3	NDVI vs NDRE	0.984120	High chlorophyll and vegetation health.	Continue all current practices and consider expanding them to other areas for improved productivity.
4	LAI vs NDVI	0.953780	High leaf area and vegetation health.	Maintain all current agricultural practices and consider applying them to other farm areas.
5	NDWI vs NDMI	-0.939193	Very low water content in plants and soil.	Immediate irrigation required. Investigate potential water stress causes.
6	NDMI vs SMI	-0.127793	Very low soil moisture levels.	Immediate irrigation required.

Field Management Recommendations

Based on the current analysis, the following actions are recommended:

- Irrigation:Current irrigation levels are adequate.
- Fertilization: Consider applying additional fertilizer.
- Pest Control: Check for potential pest issues.

Conclusion

We have analyzed the satellite data to provide you with insightful and actionable information regarding the various indices used in agricultural monitoring. This report aims to assist in better decision-making for crop management, irrigation practices, and soil health improvement.

For further assistance or inquiries, please feel free to reach out to us. We are committed to providing support and solutions tailored to your needs.

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