

Field Intelligence Report

Parcel 54000 · Generated 27 July 2026 · LPIS 2024



Selected parcel among surrounding mapped fields (illustrative)

Crop Detection

SATELLITE ESTIMATE

■ Maize

Confidence: 100% ■ High

LPIS DECLARATION (FARMER)

■ Barley - Spring

Status: ■ Satellite estimate differs

This difference is presented as evidence for review, not as a determination that the declaration is incorrect — see Methodology for how differences are calculated.

1.6 ha

FIELD AREA

Silking

GROWTH STAGE (4/7)

0.80

NDVI (VEGETATION)

5–15 Oct

HARVEST WINDOW

Growth Timeline



Emergence



Vegetative



Tasselling



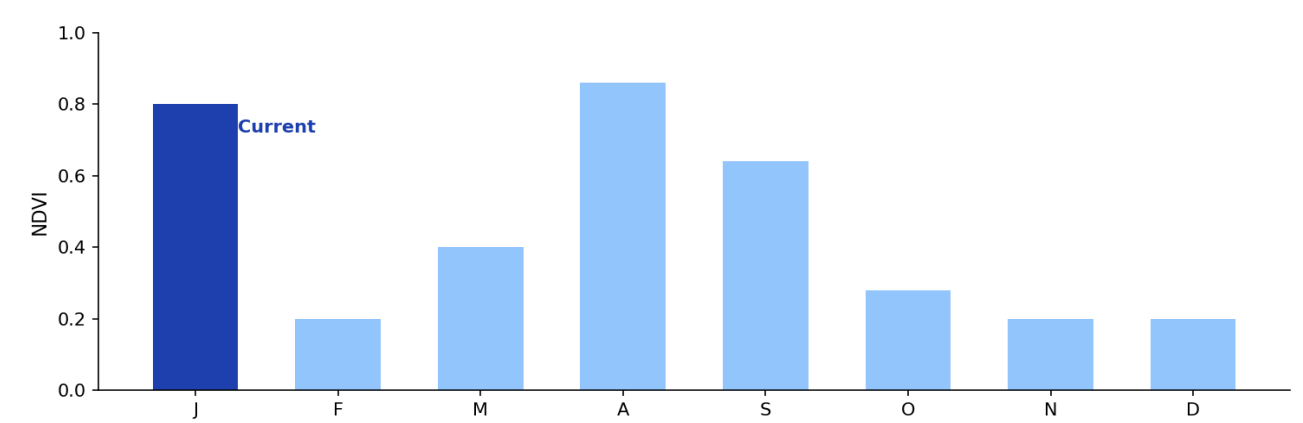
Silking

Grain Fill

Dough

Maturity

NDVI Seasonal Profile



Satellite Observations

Metric	Value	Note
NDVI (Vegetation)	0.80	Dense canopy
Soil Moisture (estimate)	Medium (29%)	Live, per-location — Open-Meteo
Cloud cover (7-day)	~45%	Affects imagery freshness

7-Day Weather Forecast

6 mm EXPECTED RAIN	9–22°C TEMPERATURE RANGE	20 km/h WIND
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AI Insights

■ High confidence difference from LPIS

Satellite strongly suggests Maize but the LPIS declaration is Barley - Spring. This parcel may warrant ground verification.

■ Healthy crop

Vegetation indices indicate good canopy development. No signs of stress detected from satellite data.

■ Next satellite pass

HLS revisit in approximately 4 days. Updated NDVI and vegetation maps will be available.

Parcel Information

Area	1.6 ha (~4 acres)	Parcel ID	54000
Centroid Latitude	53.1602°N	Centroid Longitude	-7.0502°W
Source	LPIS 2024	Data vintage	2022–2025 (4 seasons)

Methodology & Disclaimer

How this report was produced

This crop prediction is generated using a CatBoost machine learning model trained on 61,566 Irish tillage parcels from the LPIS 2024 dataset, using HLS (Harmonized Landsat Sentinel-2) satellite imagery — NDVI, EVI, NDWI, NDRE and NDII vegetation indices — across four growing seasons (2022–2025). The model achieves 77.05% balanced accuracy nationally on held-out validation data. Confidence scores are calibrated using isotonic regression so that the displayed percentage reflects genuine prediction reliability. Soil moisture is fetched live per-location from Open-Meteo at the time each parcel is viewed.

Reading confidence scores

■ High (80–100%)	Prediction is usually reliable.
■ Medium (50–79%)	Similar crops may also fit the satellite signature.
■ Low (<50%)	Use as a prompt for further review, not as a conclusion.

Known limitations

- Spring cereals (Barley, Oats, Wheat) are more easily confused with each other than with Maize or winter crops.
- Satellite observations are affected by cloud cover; confidence may decrease when limited clear imagery is available.
- Growth stage and harvest window are model estimates, not field-verified dates.
- The current model covers 8 tillage crop types only; grassland and other land uses are not classified.
- Soil moisture is a live estimate from weather-model data, not a direct field sensor reading.

Disclaimer: Cube Earth provides decision-support information and should not be used as the sole basis for regulatory or contractual decisions without additional verification. A difference between satellite prediction and LPIS declaration does not, by itself, establish that either is incorrect.