

Precision agriculture you can trust — in English and French.

AgriLens helps a farmer see what's happening across their fields from space, understand why, and decide what to do — without leaving the kitchen table. It runs entirely on open public data, works in both official languages, and is built for Canadian agriculture.

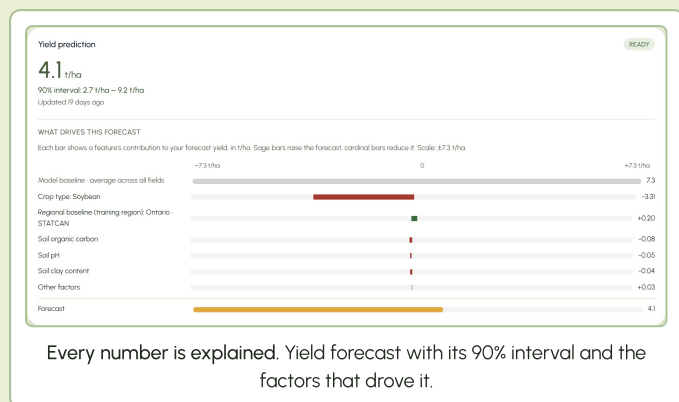
WHAT IT DOES TODAY

Satellite field monitoring. Per-field crop-health tracking from Sentinel-2 imagery — see stress before you'd catch it walking the field.

Explainable yield prediction. A yield forecast *and the reasons behind it* — every prediction broken down into the factors that drove it, with an honest uncertainty range rather than false precision.

Bilingual AI agronomy assistant. Answers agronomy questions in English or French, grounded in curated reference documents — and it declines when it doesn't have a sourced answer instead of guessing.

Disease detection. A trained corn-disease classifier that *refuses images it can't confidently read* rather than producing a confident wrong label. It tells you what it sees, and abstains when it isn't sure.



Climate adaptation. Official downscaled climate projections (from PCIC and Environment and Climate Change Canada) at regional and per-field scale — presented as scenarios, not predictions, with the model spread preserved.

Soil intelligence. Per-field soil profiles from open global soil data, clearly labelled as modelled estimates — not a substitute for a soil test.

Variable-rate prescriptions. Draft management zones and per-zone input rates for a field, each rate grounded in the reference corpus — the agent abstains rather than invent a number it can't source, and every prescription carries a "decision-support, agronomist review recommended" framing.

Carbon documentation. A per-field soil-carbon estimate you can export as a document — clearly labelled a modelled estimate, not a verified credit, and explicitly not Verra/VM0042-aligned.

WHAT SETS IT APART

- ◆ **Explainability** on every yield prediction — every forecast broken down into the factors that drove it, nothing hidden behind the number.
- ◆ **Bilingual English and French** — built for Canadian agriculture, both official languages first-class.
- ◆ **Serious climate-science integration** built on official government projections.
- ◆ **Open-data architecture** — no proprietary data lock-in.
- ◆ **And the foundation under all of it:** every number is explained, sourced, and honestly bounded. AgriLens tells you what it knows, what it doesn't, and refuses to fake a confidence it hasn't earned.

That last point is the difference. A model that knows its own limits — and says so — is one you can actually reason about. Across the build we chose, repeatedly, to show honest uncertainty over an impressive number.

BUILT ON Modern, production-grade engineering: explainable machine learning, computer vision, retrieval-grounded language models, a FastAPI + Next.js application, PostGIS geospatial data, and open satellite, soil, and climate sources — cloud-ready for Canadian-region deployment.

Apex Intelligence. Ottawa-based AI consulting. AgriLens is our flagship demonstration of end-to-end modern AgTech capability — remote sensing, explainable AI, cloud and DevOps, bilingual NLP, computer vision, and applied climate science, delivered by a practitioner who builds the whole stack.

See the work, or get in touch. »

Roadmap: field-validated disease detection and geospatial foundation models. OMAFRA Pub 811 recommendations are surfaced under non-commercial use with attribution (Crown copyright, attribution permitted); commercial use requires OMAFRA permission (ADR-026).