

From Field Signals to Field Action

Status: Chimera Vision • Evidence and calculation appendix

Evidence and calculation appendix

Chimera Vision • Michell Farms Strawberry 1 • Review date 7 October 2026

Scope and source record

This appendix links the implemented agricultural workflow, preserved field products, farm accounts and conditional cost modelling. The product description comes directly from the user, who confirms that the agricultural processing and review workflow is fully implemented and field deployed. Strawberry 1 documents its use in field inspection and grower decisions. [C-1100] [C-1101] [C-1102]

The operator export is preserved unchanged: 29 revisions, 10 current observations and 103 browser drafts. Drafts remain excluded from approved evidence. The ledger retains the source history alongside current claims and calculations. [C-0800]

The grower reported that the data helped substantiate a successful supplier claim. The refund amount is confidential and correspondence was not reviewed. This planting-material episode is separate from the later disease episode, where deterioration continued despite reported treatment. [C-0804] [C-0815] [C-0817] [C-0819]

Processing and evidence limits

The cover's drone-scanning image is a conceptual product illustration, labelled on the page. The maps and ground photographs are the case evidence. Supplied logos are used unchanged. Illustration provenance and the generation prompt are retained separately in illustration-provenance.json.

Source RGB mosaics and styled NDVI displays were supplied as derived products. Human concern marking and operator statements connect them to field review. Presentation processing is limited to source-preserving resizing, EXIF orientation and one documented crop of the April 29 report map panel. No new geometry, classification, colour normalization or quantitative image analysis was performed. Numeric NDVI calibration, source masks, exclusions and consistent cross-date denominators remain unavailable for this series. [C-1005] [C-1008] [C-1009] [C-1010] [C-1018]

Aircraft and sensor models, capture altitude, overlap, illumination, calibration and operating limits are not independently established for this case. The user describes local imagery and location processing as part of Chimera Vision. The field archive records the agricultural review workflow and the resulting inspection and grower decisions. [C-1100] [C-1101] [C-1102]

Selected ground photographs E-0387, E-0529 and E-0626 are assigned to Strawberry 1 by the operator; usable GPS is unavailable. Their capture dates are May 27, May 29 and June 11, while the corrected ground-check list is May 12, May 29 and June 11. Matching dates and field assignments do not establish an exact plant-to-map registration. [C-0823] [C-0825]

Visible leaf damage is documented. Downy mildew was a contemporary suspicion; black rot was a later farmer-reported tissue-test result without the laboratory report. Hedge removal is reported; the alleged reinfection mechanism remains unproven. A farmer-estimated approximately 100 lb loss converts to approximately 45 kg and is separate from the concern-share chart. [C-0816] [C-0817] [C-0818] [C-0820] [C-1015]

Event-specific decision record

Each pointer below identifies the saved observation and its source, replacing the copied nursery-reference text in the derived register only. The original export, including conflicting historical dates, is unchanged. Corrections are dated 2026-10-07 and do not retroactively turn reported outcomes into independently verified records. [C-0800] [C-0822]

Event/product date	Saved observation	Evidence	JSON pointer
2026-04-20	OBS-40187f877816 r9	E-0778	/notes/0
2026-04-29	OBS-c092ba40c9e8 r1	E-0020	/notes/1
2026-04-24	OBS-8ba511010a9a r1	E-0017	/notes/2
2026-05-08	OBS-0f84836adeb9 r1	E-0025	/notes/3
2026-05-12	OBS-47d6ba3a3838 r1	E-0144	/notes/4
2026-05-22	OBS-ba238f09fcf5 r1	E-0179	/notes/5
2026-05-27	OBS-fc4fab970117 r5	E-0387	/notes/6
2026-05-29	OBS-2c58b97a5b10 r5	E-0529	/notes/7
2026-06-04	OBS-f6f34c824672 r4	E-0139	/notes/8
2026-06-11	OBS-f6913e55671c r1	E-0626	/notes/9

See [dated clarification register](#) and [event-specific reconciliation](#). These contain source wording, replacement wording and limitations for every correction.

Field area and reported concern series

Input or conversion	Value	Trace
Operator-reported field area	2.87 acres	E-0801; C-1200
Exact unit factor	0.40468564224 ha/acre	CAL-1200; C-1200
Converted field area	1.1614477932288 ha; displayed 1.161 ha	$2.87 \times 0.40468564224$; CAL-1200; C-1200

The area is an attributed field size, not a newly surveyed boundary. It is not a denominator for converting image-space concern percentages into affected acres. [C-1200]

Review date, 2026	Reported image-space concern share	Claim / calculation
May 8	12.7%	C-1201 / CAL-1201
May 12	11.8%	C-1202 / CAL-1202
May 18	13.3%	C-1203 / CAL-1203
May 22	12.9%	C-1204 / CAL-1204
May 27	17.7%	C-1205 / CAL-1205
May 29	26.8%	C-1206 / CAL-1206
June 4	39.5%	C-1207 / CAL-1207

Source: E-0179, page 11, reported “Field affected” column. The appendix relabels the metric to preserve its image-space review meaning. Missing masks, consistent calibration and reproducible denominators prevent independent field-area or disease-area interpretation. These percentages are not treatment efficacy, recovered yield or diagnosed disease extent. [C-1201–C-1207]

May 22 to June 4 changed by +26.6 percentage points = 39.5 – 12.9. This is arithmetic on the reported series; unresolved denominator comparability limits biological interpretation. It is not a 26.6% relative increase. [C-1208; CAL-1208]

Conditional fungicide product-consumption model

The reported sequence is three Luna Tranquility + Captan passes followed by two Pristine + Captan passes. Modeling assumes all five covered the entire 2.87-acre field. Actual rates, per-pass coverage, dates, invoices and Captan brand/formulation are unverified. The selected Captan proxy is Maestro 80 WSP, not a confirmed farm product. Product consumption is prorated; package/pouch rounding, inventory carryover and waste are excluded, alongside labor, fuel, equipment, tax, shipping and downtime. [C-1209]

Model product	Canadian strawberry rate	Package price used	Unrounded unit price	Trace
Luna Tranquility, PCP30510	1.2 L/ha	CAD225.61 / 2 L; 2023	CAD112.805/L	C-1210, C-1213; CAL-1210
Assumed Maestro 80 WSP, PCP33488	3.5 kg/ha	CAD242.78 / 10 kg; 2023	CAD24.278/kg	C-1211, C-1214; CAL-1211
Pristine WG, PCP27985	1.3–1.6 kg/ha	CAD569.00 / 2.83 kg; observed 2026-10-07	CAD569/2.83 per kg	C-1212, C-1215; CAL-1212

Label sources: E-0900, Luna low-growing berries subgroup; E-0901, Pristine PDF page 24/booklet page 20; E-0910, Maestro PDF page 15. Pristine's powdery-mildew use specifies the higher rate. The modeled range changes only the Pristine rate and is not a statistical confidence interval. [C-1210–C-1212]

Luna and Maestro prices are historical Quebec distributor-average benchmarks from the 2023 IRDA list, recovered from indexed primary-source text (E-0909). The original PDF returns HTTP404; the retained evidence is an indexed snapshot, not the PDF. Pristine uses Early's Canadian listing and currency terms (E-0903/E-0904); shipping is Saskatchewan-only. The mixed-year prices are not inflation-adjusted and are not current BC procurement quotes. The original historical list or current supplier quotes would strengthen the price basis. [C-1213–C-1216]

Let A = 1.1614477932288 ha. Quantity = A × rate × passes. Cost = quantity × package price / package size. Quantities in the table are displayed to four decimal places. Exact values in the calculation register and the formulas below govern the result. [C-1200; C-1217–C-1219]

Modeled stage	Luna quantity	Pristine quantity	Captan quantity	Conditional product cost, CAD	Trace
First three passes	4.1812 L	—	12.1952 kg	767.74	C-1217; CAL-1213
Final two passes, included in total	—	3.0198–3.7166 kg	8.1301 kg	804.54–944.65	C-1218; CAL-1214
All five passes	4.1812 L	3.0198–3.7166 kg	20.3253 kg	1,572.27–1,712.39	C-1219; CAL-1215

First three: $3 \times A \times [(1.2 \times 225.61/2) + (3.5 \times 242.78/10)]$.

Final two: $2 \times A \times [((1.3 \text{ to } 1.6) \times 569/2.83) + (3.5 \times 242.78/10)]$.

All five: first-three result + final-two result, using unrounded values. The final two are a subset, never an additional amount on top of five. [C-1217–C-1219]

Totals are rounded only after addition. For example, displayed low subtotals sum to CAD1,572.28 while the unrounded calculation gives CAD1,572.27 after cent rounding; the one-cent difference is rounding, not a missing cost. Suggested case-text display: approximately CAD1,570–1,710 overall, including CAD805–945 for the final two. These are conditional product-consumption estimates, not actual expenditure or savings. [C-1220]

The reported sequence is not a validated spray rotation. Luna's strawberry Botrytis use is limited to two applications per season, with sequential Group7/9 restrictions; Luna and Pristine both contain Group7. Target disease, actual dates, other seasonal treatments and tank-mix compatibility were not verified. Label-based costing neither recommends the sequence nor establishes historical compliance. [C-1221]

Irrigation planning allowance

Item	Assumption or recorded status	Trace
Reported budget	CAD950–1,350, before tax	E-0800 /notes/1/inputs_cost_area; C-1222
Replacement scope	Two accessible drip lines; assumed 100 m row	C-1222
Implied tubing length	$2 \times 100 \text{ m} = 200 \text{ m}$; not measured	C-1223; CAL-1216
Timing	Deferred until after the season; completion unverified	E-0801; C-1224
Missing price basis	Tubing specification, fittings, labor, valve scope, disposal and supplier quote	C-1222, C-1224

This is the operator's conditional planning allowance. It cannot be independently rebuilt from the supplied detail and is not incurred repair cost, downtime or savings. Valve uncertainty is separate from the two-line allowance. Keep it separate from fungicide consumption and crop-loss accounts. [C-1222–C-1224]

Planting-cost statement retained for audit only

The original account reports CAD40,000 per acre for planting. Its cost basis is unverified. The acreage occupied by the corrected five bottom rows is unknown, so this rate is not multiplied into field loss, planting-material loss or supplier refund value. The supplier amount remains confidential; the planting rate does not estimate it. [E-0800 /notes/0; E-0801; C-1225]

Verification record

The accompanying CSVs link each appendix claim to evidence and calculations. `research/calculate_costs.py` reproduces the product model; `research/external_source_manifest.json` records retained source URLs, dates and hashes. Original observations remain preserved. Arithmetic and provenance checks do not establish independent diagnosis, historical application compliance or a measured treatment effect. [C-1226]

Finding and evidence confidence

Finding	Evidence and claim	Confidence boundary
Supplier claim supported	E-0800, E-0801; C-0804	Grower report; refund documents unreviewed
Dated mapped concern	E-0179; C-1201 through C-1208	Transcription and arithmetic checked; source masks unresolved
Symptoms and farm response	E-0387, E-0529, E-0626, E-0800; C-1012 through C-1016	Visible detail plus attributed farm account
Cost estimates	E-0900, E-0901, E-0903, E-0909, E-0910; C-1217 through C-1220	Conditional coverage, formulation and dated prices

Limitations and next evidence

Gap	What it prevents	Useful next evidence
No lab report	Independent disease confirmation	Tissue report and sample locations
No spray log or invoices	Actual treatment/expense reconstruction	Dates, rates, areas, product formulations and invoices
No stable masks or calibration record	Reproducing field-area or treatment metrics	Original masks, denominators and processing parameters
No weighed loss or counterfactual	Yield-effect or savings claim	Harvest and matched comparison records
No supplier correspondence	Independent refund verification	Private receipt or correspondence for authorized review
Historical price source no longer served	Original price-list retrieval	Original Canadian list or current supplier quotes

Audit navigation

Open the accompanying [evidence-and-calculation-appendix.html](#) for the complete source and claim crosswalk. The package includes the unchanged observation export, source hashes, dated clarifications and calculation register.

Story topic	Claim references	Primary evidence
Chimera Vision identity and agricultural implementation	C-1100 to C-1104	E-0179, E-0800, E-0801, E-0932, E-0934
Supplier claim and planting material	C-1000, C-1006, C-0802 to C-0804	E-0778, E-0800, E-0801
Irrigation and planning budget	C-1007, C-1030, C-1222 to C-1224	E-0020, E-0800, E-0801
Concern-share series	C-1020 to C-1026, C-1011, C-1201 to C-1208	E-0179 p11
Ground inspection and farm response	C-1012 to C-1016	E-0387, E-0529, E-0626, E-0800, E-0801
Estimated product-consumption cost	C-1031, C-1209 to C-1221	E-0900, E-0901, E-0903, E-0904, E-0909, E-0910