A DOCUMENT FOR GROWERS

Horticulture's weather-exposed economics, finally met with calibrated intelligence.

Every season you make calls worth five and six figures with a forecast, a hunch and a look at the sky. Harvora's AI turns the weather over your blocks into a decision you can price, and tells you honestly how sure it is.

We don’t show you the weather. We price it.

Harvora is an AI-powered prediction platform built for New Zealand growers. It reads the atmosphere over your blocks, your soil, your satellite imagery and, if you want, your own costs straight out of Xero. Then it turns all of that into a decision, in dollars, with the confidence attached.

What you get is something you can act on at ten o’clock at night with your hand already on the pump switch. The prediction engines find the signal. An AI reasoning layer puts it into plain English, walks you through both sides of the call, and answers when you ask it why. Every number it gives you comes from the models, and nothing happens on your blocks unless you say so.

Frost · Block 4

HIGH CONFIDENCE

BLACKCURRANTS · BEN ARD · 3.2 HA · TUESDAY NIGHT

Predicted minimum **−1.4 °C**. A **70% probability** of breaching your damage threshold. 80% confidence interval: −0.8 °C to −2.1 °C.

Expected loss if you don’t protect	NZ$8,400
Cost of running overhead sprinklers	NZ$210
Net expected benefit of acting	**NZ$8,190**

Recommended: run overhead sprinklers from 11pm to 4am. Ask the AI why, and it walks you through the cost-loss maths, which models agree, and how this block behaved the last time conditions looked like tonight.

ILLUSTRATIVE EXAMPLE · FIGURES DEPEND ON YOUR BLOCK, CROP AND COST INPUTS

A number you can weigh against a cost, in time to use it.
Harvora does the sums. You make the call.

More numbers never made the call any easier.

Today's tools miss the nights that cost the most. When they do fire, what comes back is a risk score on a scale of one to five. It tells you something is coming. It doesn't tell you what it's worth to you, or what to do about it, and there's nobody to ask.

So the call gets made the way it's always been made: experience, instinct, and a look at the sky. That works, right up until the night it doesn't, and then it costs a season.

26%

of damaging frost events missed by a climatology baseline

HARVORA BENCHMARK · 338 EVENTS · 13 NZ REGIONS

24%

fall in Central Otago wine production between the 2024 and 2025 vintages

NZ WINEGROWERS ANNUAL VINTAGE SURVEY 2025

1.1 °C

typical error in an overnight minimum, wider than the margin most damage thresholds sit inside

348,360 HELD-OUT ROWS

REANALYSIS BENCHMARK, NOT ORCHARD OUTCOME VALIDATION · VINTAGE FIGURES COMPARE YEARS, NOT CAUSES · COMPETITIVE POSITION ASSESSED AUGUST 2026

The limitation was never grower skill.

Holding six shifting probabilities, a crop value, a labour rate and a fuel bill in your head at 10pm, and getting the arithmetic right every time for every block, is a job nobody does reliably. You already know what matters on your land. This is sums, and sums are what a machine should be doing while you sleep.

Harvora takes that part. Your judgement, your land and your final call stay yours.

WHAT A GROWER ACTUALLY GETS

A short list each morning, ranked by what it's worth. An alert on your phone when something genuinely can't wait. A plain-language answer when you ask why. And a record, block by block, of what the calls were worth over the season, in dollars rather than stars.

HOW HARVORA THINKS

From probability to decision

Four steps, running on every block, every day. Nothing hidden, nothing you can't interrogate.

STEP 01

Predict

Up to a thousand simulated runs fuse physics models with machine learning across every block, producing calibrated probabilities rather than a single point guess. Same inputs, same answer, every time. Auditable by design.

STEP 02

Price

The finance layer converts each probability into expected value: dollars per block, per decision. Connect Xero read-only and it reasons with your real costs and returns, not industry averages.

STEP 03

Decide

Expected-value thresholds and a three-tier confidence rating turn priced risk into a clear call: protect or don't, irrigate or wait. When the call is marginal, it says so and hands it straight back to you.

STEP 04

Learn

Every outcome you confirm banks a dollar-valued result, builds that block's track record and retrains the models. The intelligence compounds season over season, and it stays with your orchard.

GETTING STARTED

Highlight your blocks. We do the rest.

01 · YOUR BLOCKS

Trace them on the map, or let Harvora detect them from your address.

02 · YOUR CROPS

Crop and variety per block, so predictions calibrate to your orchard from day one.

03 · YOUR COSTS

Enter your assumptions, or connect Xero read-only and use your real numbers.

04 · WE PULL THE DATA

Weather ensembles, soil maps, satellite imagery. The engine takes it from there.

Setup is deliberately light: an afternoon, not a project. Everything after that happens without you asking for it.

WHAT SETS HARVORA APART

Five things, and no one else in New Zealand has all five.

Plenty of tools do one of these well. What matters is that the chain runs unbroken, from the weather over your blocks all the way to the number on your invoice.

Probabilistic forecasts

A RANGE, NOT ONE NUMBER

Up to a thousand simulated futures for every block, every night. You see the range of what could happen and how likely each part of it is, because "−1 °C" and "somewhere between +0.4 and −2.6 °C" are two very different nights.

Dollar translation

RISK, IN THE LANGUAGE YOU BANK IN

Every probability is priced against your crop value, your protection costs and your labour. A 70% chance means nothing on its own. NZ$8,190 of net expected benefit means something immediately.

Confidence intervals

UNCERTAINTY, STATED OUT LOUD

Every prediction ships with its range and every recommendation with a confidence tier. When the models disagree or the history is thin, Harvora says so plainly and hands the call back to you.

Public calibration scorecard

OUR MARKING, IN PUBLIC

When Harvora says 30%, it happens about 30% of the time, and we publish the reliability data to prove it. Every prediction area ships with a measured accuracy figure on real New Zealand data, provenance available on request.

AI reasoning layer

IT EXPLAINS, IT DOESN'T DECIDE

An assistant that plans your season, briefs you each morning and answers questions about your own blocks in plain English. The engines do the maths; the AI explains it. Every number comes from the models, and nothing happens on your blocks unless you say so.

A weather app tells you what's coming. Harvora™ tells you what to do about it.

As at August 2026, we know of no other platform available to New Zealand growers that combines calibrated probabilities, an economic layer and published accuracy in one product. We keep a dated evidence file behind that claim, and we'll update it the day it stops being true.

Published accuracy.
Every prediction.

Measured on real New Zealand data. The accuracy figures are scored on data the models did not train on; the three below them are counts, not scores. Each carries its target, denominator and truth source in our claim manifest, and the full workings sit at **harvora.co.nz/proof**.

90.5%
of frost events caught on held-out nights we didn't train on

3.79%
false alarms at that same setting: the cost of the catch rate above

6.9%
sharper overnight lows than our pre-model baseline

92.2%
of promised spray windows stayed genuinely rain-free

90.9%
of damaging-wind days caught a day ahead

91.7%
accuracy on bee-flyable hours through bloom

1.5 days
median harvest-timing error, two months out

96.5%
irrigation-state accuracy against reanalysis, 13 NZ regions

11 · 13
crop families and NZ regions modelled at equal depth

up to 1,000
simulations behind every call, reproducible to the bit

26,312
region-nights scored in the frost benchmark

What we don't claim yet

- Our disease models faithfully reproduce published risk formulas, scoring 0.90 to 0.99 across fifteen held-out classifiers on 19,984 rows. That's reproduction fidelity, not field-validated infection prediction. Real validation comes as grower-confirmed outcomes accumulate, and both blackcurrant models are formula-only today.
- Yield-from-satellite isn't field-validated for any crop. The current models learned from their own agronomic prior, so they can't be scored independently at all. They stay blocked from serving.
- Our hail model is calibrated against a regional convective-event proxy, not observed hail. Only six hail-only events cleared the held-out split against a fifty-event gate. We'll flag conditions worth watching; we won't tell you to act on it yet.
- Soil Scouter and the Microclimate Station are both still in build. Nothing on this page was measured with our own hardware, and no prediction here depends on it yet. When Soil Scouter ships, its nutrient and pH readings will be marked indicative with lab confirmation advised, because a probe in the ground cannot honestly promise what a laboratory delivers.

This page is the point. Anyone can publish the numbers that flatter them. Publishing the ones that don't, including the ones that went down when we looked harder, is what makes the rest of them worth believing.

WHERE WE'RE GOING

The longer you grow with it, the better it knows your land.

Most software works the same on day one thousand as it did on day one. Harvora gets better. We call it **compounding seasonal intelligence**: every season you farm with it, it remembers, and what it remembers becomes sharper advice from something that has walked your rows for years.

RUNNING TODAY

Frost, hour by hour FLAGSHIP SURFACE	Block-level frost probability with the protection window bounded in time and priced against your crop, so protection runs for the hours that matter and shuts off when they've passed.
The whole season, priced LIVE ACROSS EVERY SURFACE	Spray windows, water, disease, bloom, wind, harvest and labour. Every surface runs the same probabilistic contract and lands as dollars per block.
A 23-feature AI layer IN THE PRODUCT NOW	Season planner, morning briefing, nightly scan, and an assistant grounded in your own blocks, your history and your real costs.
Calibration in public UPDATED AS THE SEASON RUNS	Every prediction area ships with a measured accuracy figure on real New Zealand data, with the reliability curves open to anyone who asks.

WHAT WE'RE BUILDING NEXT

IN BUILD · HARDWARE

Soil Scouter

A probe that goes in your ground. Today the engine works out your soil from the weather above it. Soil Scouter lets it measure what's actually down there, block by block.

IN BUILD · HARDWARE

Microclimate Station

Your own weather, recorded where your crop grows. Regional forecasts miss the cold hollow and the sheltered corner. This puts a reading on your block instead of nearest the town.

IN BUILD

Disease, field-validated

Our curves faithfully reproduce published risk models today. Every outcome you confirm moves them toward validated prediction on your blocks.

HELD BACK

Yield, once it's earned

Satellite yield stays flagged unvalidated until harvest outcomes prove it. The water models wait on Soil Scouter for ground truth.

What ships next is decided in the pilot season, by the growers running it. Further out, the same architecture suits cool-climate regions anywhere, proven here first on the hardest maritime climate we could have picked.

WHAT WE VALUE

A company is what it does on the difficult days.

Each of these has already cost us something: a claim we held back, a feature we left in the drawer, a number we published that we'd rather have kept quiet.

MANAAKITANGA

Care for the people we work alongside

Growers, their families and their crews come before the product roadmap. If a feature would be good for us and bad for you, it doesn't ship.

KAITIAKITANGA

Guardianship of the land, and of your data

Better decisions mean less water, less fuel and less spray for the same crop. Your orchard data is yours: you can export it or leave at any time. That's built into how the system works, so it holds whatever happens to us.

CALIBRATION HONESTY

We publish how wrong we've been

Confidence intervals on every prediction, accuracy figures in public, and a standing commitment to say "we don't know" out loud. It is how we run the whole company.

GROWER EMPOWERMENT

The decision stays yours

Your judgement is the thing we're building around. We take the sums nobody can do reliably at 10pm and hand the answer back in time for you to use it.

PLAIN LANGUAGE

If it needs explaining twice, we wrote it badly

A recommendation should read like something a good neighbour would say over the fence. The technical workings stay underneath it, there for anyone who wants to dig in.

WHO WE ARE

Harvora™ is a New Zealand company, built in Christchurch, tested on New Zealand ground.

Harvora was started in Christchurch by Aaqib Sharif and Hasan Sheikh, on the reasonable view that a grower shouldn't have to do maths at ten at night. We've been building it ever since, and aim to provide a platform where growers get an answer they can act on, and the reasoning behind it if they want to argue.

We started here because this is the hardest place to get it right: maritime, variable, and unforgiving of a model that only works on paper. If it holds up over a Canterbury spring, it will hold up anywhere. You'll be dealing with us directly, and we'd rather hear we've got something wrong than find out at the end of the season.

PILOT GROWERS WANTED

Join us in transforming horticulture.

We're recruiting New Zealand growers for the pilot season. Run Harvora on your blocks, shape what gets built next, and get the platform at pilot terms. No deck, no pressure, just thirty minutes with the people building it.

Pilot terms

Early access at pilot pricing, for the season that decides how this product grows up.

Your blocks, your data

Predictions calibrated to your orchard from day one, and every byte of it stays yours.

A direct line

You talk to the people writing the code. What you need next season is what we build next sprint.

On the night it matters, you won't have time to read a manual. You'll have a number, a recommendation, and the reason behind it.

TALK TO US ABOUT THE PILOT

partners@harvora.co.nz

GENERAL ENQUIRIES

support@harvora.co.nz

PHONE

021 0872 8213

BOOK A CALL

harvora.co.nz/work-with-us

30 minutes · pilot season

FOLLOW ALONG

linkedin.com/company/harvoranewzealand

HARVORA.CO.NZ

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