AGI FROST FANS

RELIABLE FROST PROTECTION

YOUR ALL-IN-ONE SOLUTION FOR FROST PREVENTION

AGI Frost Fans delivers a comprehensive range of frost mitigation solutions – integrated with advanced remote sensing and weather prediction technology, and backed by expert consulting services.

FULL-SERVICE FROST MITIGATION SOLUTIONS

AGI Frost Fans is based in Wellington, South Africa's renowned fruit-farming and engineering hub. With decades of fruit and wine industry expertise, our team designs and manufactures some of the market's most efficient frost-prevention solutions.

As agriculture works to decarbonise, we lead with low-footprint technologies that protect crops from frost damage.

Our offering spans various frost fan options, wireless sensors, advanced monitoring and control systems, plus tailored frost assessments – all powered by the latest technology to help growers safeguard crops with confidence.

FIXED FROST FAN & RETROFIT OPTIONS

MOBILE FROST FAN

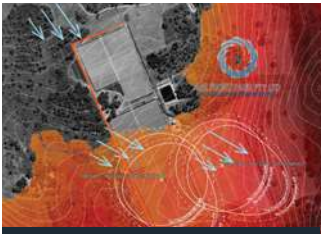
PTO-DRIVEN MOBILE FROST FAN

AGI LIVE CONTROL & MONITORING SYSTEM

AEROFROST™ GUIDE FOR HELICOPTER PILOTS

WIRELESS IoT SENSING OPTIONS

WEATHER STATIONS



FROST RISK & COLD DAMAGE CONSULTING

HEATING SOLUTIONS

YOUR ALL-IN-ONE SOLUTION FOR FROST PREVENTION

FIXED FROST FANS

AGI's electric frost fans deliver efficient, reliable protection across diverse environments. Each fan covers up to 9 hectares (22 acres) and is powered by a high-efficiency motor that achieves the lowest running costs in the industry – up to 90% less than fossil fuel alternatives.

Built for crops from pome and stone fruits to berries, citrus, nuts, and flowers, AGI's electric fans offer a greener, cost-effective solution for modern agriculture. Easy to deploy, simple to monitor, and designed for long-term efficiency, they meet rising demand for sustainable frost protection without compromising performance.

WHY CHOOSE AGI'S ELECTRIC FROST FANS?

- Specialised blade design covers up to 9 ha (22 ac) per fan
- Unique incremental or programmable rotation for precise cycle control
- Electric motor eliminates drive shaft/gearbox, reducing noise and running costs
- Real-time monitoring via AGI LIVE app (Android, iPhone, web)
- Optional hydraulic pivoting tower simplifies installation and servicing
- Operates via grid or generator for flexible deployment
- Hot-dip galvanised tower finish ensures corrosion protection and durability
- E22_ models offer the industry's lowest operating noise

WE'RE FIGHTING FROST WITH A LOWER CARBON FOOTPRINT – JOIN THE MOVEMENT

THE POWER OF CUSTOMISATION

AGI Frost Fans offers a range of models that differ in three key respects:

1. **ELECTRIC MOTOR POWER (kW)**

   Smaller motors suit limited grid supply, low frost risk, or noise-sensitive farms; larger motors deliver optimal protection for bigger or frost-prone areas.

2. **ELECTRICAL COMPONENTS**

   Choose between two ranges of electrical components: one prioritises reliability and performance, the other balances affordability and durability.

3. **TOWER OPTIONS**

   Choose a hydraulic pivoting tower for easier maintenance or a cost-effective fixed tower, also compatible with existing bases.

AGI'S FIXED FROST FAN MODELS & SPECS

MODEL	POWER OUTPUT	LAYDOWN TOWER	TOWER THICK	ELEC COMP	FAN MOTOR	MOUNTING FLANGE	NOISE LEVEL (LAeq)	ROTATION SPEED
E301	30kW / 40hp	Yes	8mm, 5/16"	ABB	ABB	8 hole round	**58dB** @ 300m / 985ft	**800rpm** Direct Driven
E302	30kW / 40hp	No	6mm, ¼"	Various	Various	4 hole square		
E303	30kW / 40hp	No	6mm, ¼"	ABB	ABB	4 hole square		
E151	15kW / 20hp	Yes	8mm, 5/16"	ABB	ABB	8 hole round	**54dB** @ 300m / 985ft	**800rpm** Direct Driven
E152	15kW / 20hp	No	6mm, ¼"	Various	Various	4 hole square		
E153	15kW / 20hp	No	6mm, ¼"	ABB	ABB	4 hole square		
E221	22kW / 30hp	Yes	8mm, 5/16"	ABB	SEW	8 hole round	**40dB** @ 300m / 985ft	**400rpm** Speed Reducer
E222	22kW / 30hp	No	6mm, ¼"	Various	Various	4 hole square		
E223	22kW / 30hp	No	6mm, ¼"	ABB	SEW	4 hole square		

FAN SPECIFICATIONS	MODELS E30_	MODELS E15_	MODELS E22_
Fan diameter	4m / 13.1ft	4m / 13.1ft	3m / 9.84ft
Shaft Power	27kW / 36hp	13.5kW / 18hp	18.8kW / 25.2hp
Fan rotational speed	800rpm	800rpm	400rpm
Noise level at 300m / 985ft	58dB (LAeq)	54dB (LAeq)	40dB (LAeq)
Tested coverage (vineyard and similar crops)	Up to 9ha / 22ac	Up to 6ha / 15ac	Up to 8ha / 20ac
Tested coverage (orchards and trees)	Up to 7ha / 17ac	Up to 4ha / 10ac	Up to 6ha / 15ac

WE'RE FIGHTING FROST WITH A LOWER CARBON FOOTPRINT – JOIN THE MOVEMENT

RETROFIT OPTIONS

Upgrade to cutting-edge technology at a competitive price by converting your conventional wind machine to AGI's latest electric model. The retrofit kit reuses your existing tower and foundation, making it a highly cost-effective upgrade.

It adapts seamlessly to existing fan bases, enabling a smooth transition from diesel or propane units to efficient electric fans.

OTHER RETROFIT BENEFITS INCLUDE:

- Up to 9 hectares (22 acres) coverage with 30 kW / 40HP
- Directly driven by electric motor
- Tri-blade composite propeller
- Blade-lock feature to prevent wear
- Incremental or programmable rotation feature
- Variable frequency drive as standard
- Integrates with AGI LIVE control & monitoring system

AGI'S RETROFIT MODELS & SPECS

MODEL	POWER OUTPUT	ELEC COMP	FAN MOTOR	MOUNTING FLANGE	NOISE LEVEL (LAeq)	ROT SPEED
CWR303	30kW / 40hp	ABB / SEW	ABB	4 hole square	58dB	800rpm
CWR153	15kW / 20hp	ABB / SEW	ABB	4 hole square	54dB	800rpm
CWR223	22kW / 30hp	ABB / SEW	ABB	4 hole square	40dB	400rpm

Enquire about our customised bolt patterns

REDUCE RUNNING COSTS BY UP TO 90% WITH AGI'S INNOVATIVE RETROFIT KIT

MOBILE FROST FANS

Fast, mobile, and efficient, this trailer-mounted frost fan protects orchards, vineyards, and other frost-sensitive crops. Towed with a standard hitch, it can be repositioned wherever needed – ideal for sites unsuited for permanent installations.

TELESCOPIC FROST FAN STANDOUT FEATURES INCLUDE:

- 10 m fan height with optimised cowl design maximises coverage and airflow efficiency
- Trailer-mounted with quick-deploy stabilisers for stable operation on uneven ground
- Towable by utility vehicle – no special equipment or site prep required
- Operates via grid or generator for flexible power supply
- Fast setup with no foundations, cutting time and costs
- Wide-area coverage comparable to competitors' fixed units, backed by AGI technology
- Remote monitoring and smart, data-driven deployment
- High-efficiency motors reduce running costs and environmental impact
- Blades engineered for low-noise performance

AGI'S MOBILE FROST FAN SPECS

MODEL	FAN Ø	FAN SPEED	FAN POWER	SHAFT POWER	NOISE @ 300m	COVERAGE*	COVERAGE**
ME221	2m / 6.56ft	600rpm	22kW / 30hp	21.3kW / 28.5hp	50dB (LAeq)	4-5ha / 10-12ac	5-6ha / 12-15ac

**Tested coverage: orchards and tree crops | **Tested coverage: vineyards and smaller crops*

BUILT FOR FLEXIBLE, ON-DEMAND PROTECTION WITH UNMATCHED EFFICIENCY

PTO-DRIVEN FROST FANS

This robust, mobile frost fan connects directly to your tractor's Power Take-Off (PTO) system, delivering powerful, efficient protection for orchards, vineyards, and other crops. Use it to extract cold air from frost pockets or pair it with our return stack heaters to push warm air into your crop zone.

Easily transported and deployed where it's needed most, the PTO-driven fan is a cost-effective tool for proactive crop care and yield protection.

PTO-DRIVEN FROST FAN ADVANTAGES:

- Optional 90° incremental oscillation allows for a larger coverage area than competing models
- Fans are mobile, enabling flexible placement and deployment
- No additional power source required – uses your existing tractor for power (40 kW)
- PTO system ensures easy maintenance and operation
- Simple operation eliminates the need for special training or highly skilled labour

AGI'S PTO-DRIVEN FROST FAN MODELS & SPECS

Shared specs: Fan power: 30 kW | PTO speed: 540 rpm | Air speed: 53 km/h | Airflow: 41 m^3/s

SPECS	PTO-18-S	PTO-18-O	PTO-29-S	PTO-29-O	PTO-40-S	PTO-40-O
HUB HEIGHT	1.8m / 5.9ft	1.8m / 5.9ft	2.9m / 9.5ft	2.9m / 9.5ft	4.0m / 13.1ft	4.0m / 13.1ft
FUNCTION	Fixed	Adj oscillation	Fixed	Adj oscillation	Fixed	Adj oscillation

GET EFFICIENT FROST PROTECTION RIGHT WHERE & WHEN YOU NEED IT

AGI LIVE CONTROL & MONITORING APP

The AGI LIVE platform uses the latest technology for real-time, cloud-based monitoring and control from any internet-enabled device. It provides full remote access to all operational settings, including remote fan activation, and live readings for temperature, humidity, wind speed and direction, and more.

From real-time data and remote fan control to smart alerts and sensor integration, AGI LIVE puts every tool at your fingertips.

FEATURES & FUNCTIONALITY OF OUR CUSTOM-DEVELOPED APP:

- Cross-platform access via web, Android, and iPhone
- Records data every 2.5 minutes for real-time insights and exportable historic reports
- Alerts via email, WhatsApp, AGI LIVE app, SMS, or phone call
- Remote temperature control for startup and shutdown thresholds
- Custom wind cutout settings automate fan response to average wind and gusts
- Alerts for battery voltage, temperature, tampering, power failure, and VFD errors
- Wireless sensors track temperature, soil moisture, liquid levels, and more
- Monitor over 22 inputs and outputs via radiofrequency communication

CONTROL ALL OPERATING PARAMETERS AT THE CLICK OF A BUTTON

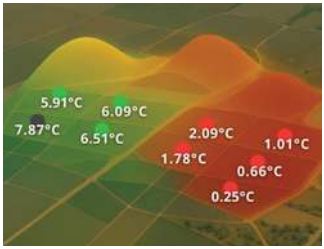
AEROFROST GUIDE™

AeroFrost Guide™ is a smart frost-monitoring system that helps farm teams and helicopter pilots spot frost danger in real time. Ground-based sensors track conditions across frost-prone fields, detecting cold pockets as they form. When temperatures reach critical levels, beacons activate instantly, marking exact areas for intervention.

Built for accuracy, reliability, and long-term outdoor use, AeroFrost Guide™ runs day and night, feeding real-time data to onboard logic for fast decisions. Beacon thresholds are fully configurable, enabling rapid response even in fog, darkness, or low visibility. Pilots know where to focus, and ground teams get clear visual direction when it matters most.

AEROFROST GUIDE™ SYSTEM FEATURES & FUNCTIONALITY:

- Tracks air temp, humidity, dew point, and wet bulb for instant frost detection
- Beacons trigger alerts the moment thresholds are reached
- Red/green lights with blink patterns mark danger zones and severity
- Onboard logic enables instant offline decisions – no server delay or Wi-Fi needed
- Records all data and alerts in your dashboard, both real-time and historical
- Learns each season to refine strategy, improve planning, and cut crop losses



TURN TEMPERATURE THREATS INTO CLEAR, TIMELY ACTIONS

WIRELESS SENSORS

AGI Frost Fans supplies a range of wireless sensors to monitor and record key data – such as soil moisture levels, rainfall, fluid level, and many more – tailored to your unique needs.

STANDARD FEATURES INCLUDED WITH ALL OUR SENSORS:

- Real-time monitoring and automation via AGI LIVE
- Comprehensive data storage for historical analysis
- Various notification options (email, sms, app, WA, call)
- Intuitive dashboard for easy access
- RF connectivity options require a home base receiver

WIRELESS SENSOR OPTIONS

STANDARD TEMPERATURE SENSOR

- Monitors dry bulb temperature
- Quick, hassle-free magnetic mounting
- Connectivity options: RF-based | SIM-enabled

FROST ALERT SENSOR

- Measures bulb temperature, humidity, and dew point
- Quick, hassle-free magnetic mounting
- Connectivity options: RF-based | SIM-enabled

TAKE YOUR FROST MANAGEMENT STRATEGY TO THE NEXT LEVEL

FLUID LEVEL SENSOR

- Monitors water level via pressure sensor
- 5 m standard cable length
- Connectivity options: RF-based | SIM-enabled

SOIL MOISTURE SENSOR - CAPACITIVE

- 2 to 15 independent sensing channels
- Monitors sub-surface soil moisture and temperature
- RF-based communication (requires home base receiver)

STATE CONDITION SENSOR

- Monitors operational states (open/closed, on/off, high/low) via cloud interface
- RF-based communication (requires home base receiver)

CONSUMPTION MONITORING (EXCL. METER)

- Monitors fuel, water, and gas usage via pulse sensor
- State conditions viewable via cloud interface
- RF-based communication (requires home base receiver)

ELECTRICITY CONSUMPTION

- Bi-directional metering with kWh monitoring to measure both consumption and generation
- RF-based communication (requires home base receiver)

IRRIGATION VALVE CONTROLLER

- Monitor and control irrigation valves remotely
- Includes 2 inputs and 2 outputs per device
- RF-based communication (requires home base receiver)

REMOTE SWITCH / GENERATOR STARTER

- Remotely control and monitor equipment on/off states
- Includes sender and receiver unit
- RF-based communication (requires home base receiver)

HOME BASE RECEIVER

- Receives data from all wireless sensors
- Enables connectivity to cloud interface
- Controls and monitors up to 20 devices

TAKE YOUR FROST MANAGEMENT STRATEGY TO THE NEXT LEVEL

WEATHER STATIONS

The iLeaf weather station delivers real-time, site-specific data on wind, rainfall, humidity, solar radiation, and temperature. Stations communicate via GPRS or Wi-Fi, sending hourly data to a central cloud server for quality-checked insights that support proactive, data-driven decisions.

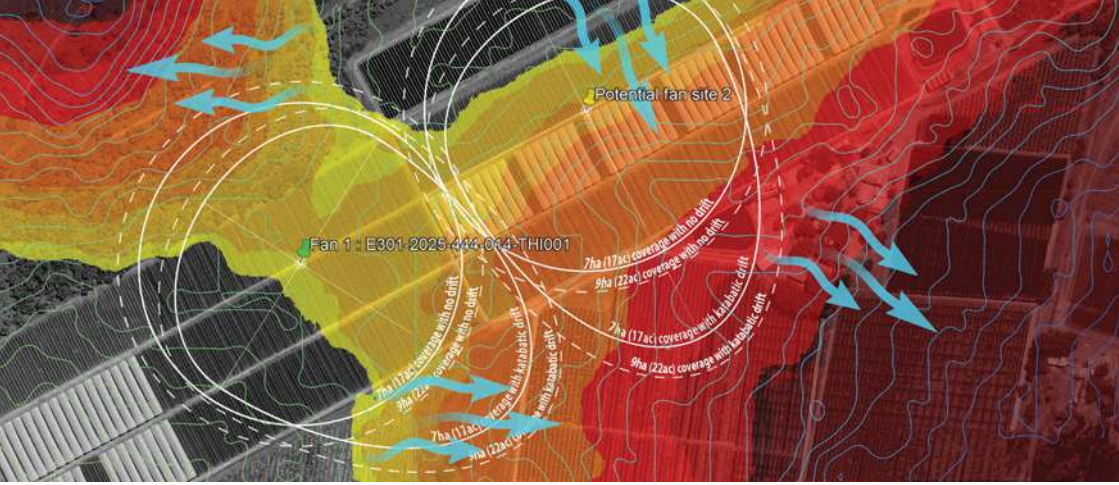
Our app integrates raw data, forecasts, and models for seamless decision support, accessible on desktop, tablet, or smartphone.

Choose from two models: Cirrus 50 for essential insights, or Stratus 300 for advanced multi-sensor monitoring.

iLEAF WEATHER STATIONS FEATURES & SERVICES:

- Updates every 5 minutes via 4G for accurate, site-specific temperature, wind, and humidity data
- Integrated with CRI-Phytrisk and other models to deliver early frost warnings via email
- Specialised algorithms process sensor data for precise, localised microclimate forecasts
- Access live and historic data on phone, tablet, or desktop via the iLeaf portal
- Backed by the AGI technical team for installation, calibration, and ongoing maintenance
- Purpose-built for high-risk microclimates where early intervention prevents crop loss and reduces costs

GET RELIABLE WEATHER INSIGHTS FOR SMARTER, PROACTIVE FARMING



FROST RISK & COLD DAMAGE CONSULTING

Rather than deploying frost fans in a fixed grid, we conduct detailed frost-risk and cold-damage assessments to pinpoint high- and low-risk areas. Using multiple data streams – weather records, biomass distribution, topography mapping, and katabatic drift analysis – these assessments are backed by over a decade of hands-on industry experience.

Our team provides expert guidance to maximise the effectiveness of any frost protection method and advises on preventative measures to strengthen farm-level strategies.

Choose from our standard assessment models below or request a customised solution tailored to your needs.

	OPTION 1	OPTION 2	OPTION 3
Assessment	Frost risk profile	Frost mitigation procedure	Frost mitigation plan
Location	Remote assessment	Remote assessment	On-site assessment
Result	Identify high and low frost risk areas in colour coded schematic with relevant observations noted.	Crop / cultivar-specific frost mitigation SOP, based on various levels of frost risk. Risk levels based on iLeaf weather station. Includes literature: Frost control techniques and preventive actions for agricultural applications.	Frost mitigation plan with observations, results and preventative measures to implement. Includes literature: Frost control techniques and preventive actions for agricultural applications.
Inputs	Topography data Katabatic flow analysis Micro-climate identification	Cultivar research Critical temp analysis High / low risk parameters Industry knowledge	Topography data Katabatic flow analysis Micro-climate identification On site analysis Historical biomass data Industry knowledge

EXPERIENCE THE DIFFERENCE WITH AGI'S EXPERT CONSULTING SERVICES

HEATING SOLUTIONS

AGI's return stack heaters provide reliable frost protection for orchards, vineyards, and high-value crops. Fueled by diesel or oil, each unit burns in an enclosed bowl, recapturing and re-combusting unburned fuel – cutting smoke compared to older smudge pots.

Trusted for decades in viticulture, horticulture, and agriculture, they deliver consistent results with a cleaner burn profile – giving growers a dependable, more environmentally friendly choice.

RETURN STACK HEATERS TECHNICAL SPECS:

- **Heater reservoir capacity:** 40L
- **Heat energy generated:** ± 40kW
- **Burning time (adjustable):** 6 - 12h
- **Construction:** SS pot with hot dip galvanised parts
- **Energy source:** Oil / diesel / paraffin / kerosene / waste oil

USING ORCHARD HEATERS WITH FROST FANS

For added protection during extreme frost or weak inversion layers, return stack heaters can be paired with frost fans. The fan captures the heater's hot air plume and pulls it downstream, boosting energy input and overall frost protection efficiency.

ENQUIRE ABOUT OUR CUSTOMISED, FULLY-AUTOMATED HEATING SOLUTIONS










AGI FROST FANS

RELIABLE FROST PROTECTION

CONTACT AGI FROST FANS TODAY!

AGI Frost Fans leads the way with frost mitigation equipment and technology, and offers growers smarter, greener solutions backed by decades of industry expertise.

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YOUR PARTNER IN SUSTAINABLE FROST MITIGATION SOLUTIONS