

# VINEYARD SPRAY RANGE

BUYERS' GUIDE • 2021  
[CROPLANDS.CO.NZ](http://CROPLANDS.CO.NZ)





# IT ALLS 30 YEAR

**The first Croplands sprayers made their way into New Zealand vineyards nearly thirty years ago. We've come a long way since then, evolving our range to give growers the ultimate in spray coverage.**

Our growth is reflected in the success of our customers. When they're able to protect their crop with a sprayer that's efficient, thorough and reliable, they thrive. Because we understand this, Croplands sprayers are a common sight in all vineyard growing regions across New Zealand.

Croplands machines are built with a respect for New Zealand's tough and varying terrain. Engineered to endure, this equipment gives growers the confidence to take on row after row, saving time, reducing costs and maximising productivity.

And because our range is as diverse as the grapes grown throughout the country, there's a machine to match every grower's needs.

## TIMELINE

- '70 Croplands starts manufacturing and selling orchard sprayers.
- '80 Croplands is purchased by Nufarm Ltd. and the head office is established in South Australia.
- '90 Australian manufacturing of vineyard sprayers begins.
- '00 Quantum Mist™ hydraulic drive axial fan is released.
- '10 Croplands grows its range with the refinement and completion of the QM-500 and 380 Quantum Mist fans. Grape sprayer production commences in Marlborough for the NZ region.
- '20 Croplands launches Quantum Mist Smart Spray and new range of QM-420 vineyard sprayers.



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# COVER-AGE IS KEY

**When it comes to disease control in your vineyard, spray coverage and performance efficiency are key.**

The high-volume, turbulent air delivered by our Quantum Mist™ sprayers opens up the foliage, allowing spray to penetrate into very dense canopies. This ensures more accurate coverage onto both sides of the leaves and into the tightest of bunches.

It is this technology that makes Croplands fans the best on the market.

More efficient and reliable than ever before, the 2021 range of Quantum Mist™ vineyard sprayers are fitted with new QM-420 axial fans.

Released in 2019 after extensive research and field testing, this industry-leading hydraulic driven fan produces highly turbulent air for superior penetration and crop protection. It's also extremely quiet and energy efficient.

Fitted with dual spray rings, the QM-420 can spray a wider band of application rates, while minimising off-target spray drift.

Want more proof as to why Croplands fans are the best on the market?

Croplands dealers and sales staff love nothing more than demonstrating our sprayers in the field – especially in conditions unique to you.

Contact your dealer now and let us show you that the proof is in the coverage.



## Selecting the right sprayer

The decision to purchase a new sprayer is an important one for any grower. With the extensive range of equipment that Croplands offers, there's a sprayer that'll suit your operation. To get the best fit for your business, consider the chart below when speaking to your Croplands dealer.

<b>CROP REQUIREMENTS</b>	Crop type (wine grapes/table grapes)	
	Application rates	
	Desired spraying speed	
<b>LAND DETAILS</b>	Vineyard area	
	Vineyard topography (flat, hilly, undulating, terraced, contoured)	
<b>VINEYARD PARAMETERS</b>	Row spacings (min and max)	
	Canopy height and width	
	Overhead irrigation system (if applicable)	
	Headland turning dimensions	
<b>TRACTOR REQUIREMENTS</b>	Engine capacity (HP)	
	Hydraulic flow and pressure rating at rear remotes	
	Number of hydraulic remotes at rear of tractor	

## Vineyard sprayer selection guide

VINEYARD SIZE	QM SMART SPRAY (MULTI-ROW)	QM CLASSIC (MULTI-ROW)	QM-420 (MULTI-ROW)	QM-420 SINGLE ROW	QM LINKAGE	QM 1000 TRAILED	CROPAIR 1000 TRAILED	CROPAIR LINKAGE
<b>CORPORATE, CONTRACTOR OR LARGE</b>	•	•	•					
<b>MEDIUM</b>		•	•					
<b>SMALL</b>			•	•	•	•	•	
<b>HOBBY/ BOUTIQUE</b>				•	•	•	•	•



# QUANTUM MIST™ SMART SPRAY





Released in 2019, Quantum Mist Smart Spray is the premium model sprayer in the vineyard model line-up. Available in 2 and 3-row configurations, the QM Smart Spray is packed with new technology and innovation.

### Fans

Individual QM-420 fans, hydraulically driven from the tractor hydraulics or via optional Micro Power Pack.

Dual spray ring allows for 3-tier spray rate solution (low, medium and high), adjustable from the cab via the Fusion controller, as well as upwind/downwind fan speed compensation – an extremely effective system for improving spray coverage and minimising off-target spray.

### Fan Frame

Newly designed fan frame system offers added protection and allows for precise, simple fan position settings.

### Boom

Premium heavy-duty boom with parallelogram folding design. Position sensors control boom width via in-cab Fusion controller. Unique mounting bracket design allows fitting for 3-row outer fan frame or optional 2-row drift reduction/recapture system.

### Pumps

AR-160LFP standard for 2-row models.  
AR-185LFP standard for 3-row models.  
AR-250LFP recommended for recapture model option.

### Nozzles

10 x nozzles per QM-420mm fan, available in 80, 60 and 40-degree options.

### Tanks

High-impact, UV-stabilised polyethylene tanks. Available in 2200L, 3000L and 4000L models.

### Chassis/axle

Hot-dipped galvanised chassis with single step. Self-steer draw bar and tandem walking beam axles standard on all models. Optional flotation tyres for low compaction.

### Controls

Control sprayer and hydraulic functions through a single platform with the Fusion controller featuring full-colour touch screen and integrated joystick. CANBUS technology with onboard diagnostics minimises downtime and is easily upgraded via simple software updates.

### Drift reduction/recapture system

Optional system best suited to 2-row, cool climate vineyard operations. Improves vineyard spraying efficiency and minimises off-target spray drift, especially during dormancy and early season sprays. The dual screens reduce trash build up with recaptured spray being filtered prior to returning to the spray tank.

### Micro Power Pack

Optional - compact, self-contained hydraulic oil supply system designed to drive QM-420 fans independent to the tractor hydraulic system. Improves tractor efficiency and allows smaller model tractors to power Quantum Mist models. Equipped with a safety cut off switch, the MPP shuts down if the oil level drops. Optional biodegradable oil.



# QUANTUM MIST™ 420 2&3-ROW



**Croplands Quantum Mist multi-row sprayers have been providing grape growers with industry-leading coverage for over twenty years.**

Incorporating the new QM-420 fan, the Quantum Mist 420 models take this proven formula to the next level.

The unique style of turbulent air from a Quantum Mist fan opens the canopy without the need of opposing air. Ensuring identical coverage row after row whether you're spraying one, two or three rows per pass.

## Fans

Individual QM-420 fans, hydraulically driven from the tractor hydraulics or via optional Micro Power Pack.

Dual spray ring allows for 3-tier spray rate solution (low, medium and high), manually adjustable.

Optional upwind/downwind fan speed compensation – an extremely effective system for improving spray coverage and minimising off-target spray (must have suitable rate controller fitted).

## Fan Frame

Newly designed fan frame system offers added protection and allows for precise, simple fan position settings.





### Boom

Heavy-duty boom with excellent adjustability for varying row widths.

### Drive

Tractor-driven hydraulic oil supply is standard on all models up to 12 fans.

Optional Micro Power Pack.

### Pumps

AR-160LFP standard for 2-row models.

AR-185LFP standard for 3-row models.

### Controls

Standard ECM manual control, left/right shut-offs and manual relief valve.

Optional rate control selections on page 14.

### Nozzles

10 x nozzles per QM-420mm fan, available in 80, 60 and 40-degree options.

### Tanks

High-impact, UV-stabilised polyethylene tanks fitted with separate flushing and freshwater tanks. Available in 2200L, 3000L and 4000L models.

### Chassis/axle

Hot-dipped galvanised chassis with single step.

Self-steer draw bar and tandem walking beam axles standard on all models.

Optional flotation tyres for low compaction.

### Micro Power Pack

Compact, self-contained hydraulic oil supply system designed to drive QM-420 fans independent to the tractor hydraulic system.

Improves tractor efficiency and allows smaller model tractors to power Quantum Mist models. Equipped with a safety cut off switch, the MPP shuts down if the oil level drops.

Optional biodegradable oil.



# QUANTUM MIST™ 420 SINGLE ROW



Perfect for smaller scale and estate vineyards, the Croplands Quantum Mist 420 single row sprayers take coverage to the next level.

## Fans

Individual QM-420 axial-type fan heads, hydraulically driven simultaneously from the tractor hydraulics. The QM-420 fan delivers turbulent, high-volume air for optimum canopy penetration and coverage.

Dual spray ring allows for 3-tier spray rate solution (low, medium and high), manually adjustable.

## Tower

Heavy-duty rear tower with adjustability for varying row widths.

Fans mounted in a new fan frame system, offering added protection and allowing for precise, simple, fan position settings.

## Drive

Tractor-driven hydraulic oil supply for fans. PTO driven spray pump.

## Pumps

AR-140 LFP positive displacement pump is standard. Optional AR-160 LFP pump for higher volume applications.

## Controls

ECM 4-tap control with pressure adjustment and gauge.

Optional rate control selections on page 14.

## Nozzles

10 x nozzles per QM-420mm fan, available in 80, 60 and 40-degree options.

## Tanks

High-impact, UV-stabilised polyethylene tanks fitted with separate flushing and freshwater tanks.

Available in 1500L, 2200L and 3000L models.

## Chassis/axle

Hot-dipped full length chassis with single step.

Self-steer draw bar standard.

Single-fixed axle is standard on all models.

Optional flotation tyres can be fitted for low compaction.



# QUANTUM MIST™ 420 LINKAGE



**Croplands Quantum Mist 420 linkage sprayers are ideal for narrow row spacings or challenging topography, delivering premium crop protection through the new QM-420 fan with dual spray ring and fan frame design.**

## Fans

Individual QM-420 axial-type fan heads, hydraulically driven simultaneously from the tractor hydraulics. The QM-420 fan delivers turbulent, high-volume air for optimum canopy penetration and coverage.

## Tower

Heavy-duty rear tower with adjustability for varying row widths. Fans mounted in a new fan frame system, offering added protection and allowing for precise, simple, fan position settings.

## Drive

Tractor-driven hydraulic oil supply for fans. PTO driven spray pump.

## Pumps

AR-80 LFP positive displacement pump is standard.

Optional AR-140 LFP pump for higher volume applications.

## Controls

Remote mount, 5 x outlet, UCM controller with manual pressure adjustment and gauge.

Optional rate control selections on page 14.

## Nozzles

10 x nozzles per QM-420mm fan, available in 80, 60 and 40-degree options.

## Tanks

High-impact, UV-stabilised polyethylene tanks fitted with separate flushing and freshwater tanks.

Available in 600L, 800L and 1000L models.

## Frame

Heavy-duty, hot-dipped galvanised frame.



# QUANTUM MIST™ 1000 TRAILED

<p><b>Fans</b> Individual QM-420 axial-type fan heads, hydraulically driven simultaneously from the tractor hydraulics.</p> <p><b>Tower</b> Single pole tower. Adjustable fan clamping brackets for simple fan positioning to the canopy.</p> <p><b>Drive</b> Tractor-driven hydraulic oil supply for fans. PTO driven spray pump.</p>	<p><b>Pump</b> AR-80 LFP positive-displacement pump standard.</p> <p><b>Controls</b> ARECM-4 manual controller with 4 x individual shut-off taps. Manual pressure regulating valve and gauge. Base electric or rate control options.</p> <p><b>Nozzle</b> 10 x nozzles per QM-420 fan, available in 80, 60 and 40-degree options.</p>	<p><b>Tanks</b> High-impact, UV-stabilised polyethylene tank fitted with separate flushing and freshwater tanks.</p> <p><b>Chassis/axle</b> Hot-dipped galvanised chassis. Self-steering draw bar supplied as standard. Adjustable-width axle fitted with 10.0/80 x 12 implement tyres.</p>
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# CROPAIR 1000 TRAILED

<p><b>Fan</b> FIENI 800mm, 2-speed fan with adjustable pitch blades for variable air outputs. Air output = 32,000m<sup>3</sup>/hr at low range and 39,000m<sup>3</sup>/hr at high range.</p> <p><b>Drive</b> PTO shaft supplied.</p> <p><b>Pump</b> AR-1064 105 L/min, 50-bar rated, four diaphragm pump.</p>	<p><b>Controls</b> ARVDR50, 2 x tap remote-mounted manual control. Manual pressure regulating valve and gauge. Base electric or rate control options.</p> <p><b>Nozzles</b> 7 x brass rollover nozzle bodies per side.</p> <p><b>Tank</b> High-impact, UV-stabilised polyethylene tank fitted with separate flushing and freshwater tanks.</p>	<p><b>Chassis/axle</b> Hot-dipped galvanised chassis with standard draw bar fitted. Adjustable-width axle fitted with 10.0/80 x 12 implement tyres.</p> <p><b>Power required</b> Recommended tractor engine HP requirement = 50-60 HP.</p>
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# CROPAIR LINKAGE

2021 NEW DESIGNS



## CROPAIR 300L

### Fan

FIENI 600mm single speed fan with adjustable pitch blades for variable air outputs.

Air output = 26,000m<sup>3</sup>/hr.

### Drive

PTO shaft supplied.

### Pumps

High-pressure (40 bar) AR-503 triple diaphragm pump.  
54 L/min open flow.

### Controls

ARRM401 2 x tap remote-mounted manual control.  
Manual pressure regulating valve and gauge.  
Optional electric control upgrade.

### Nozzles

5 x brass rollover nozzle bodies per side.

### Tank

300L spray tank with 30L flush and 15L hand-wash tanks fitted.

### Power required

Recommended tractor engine HP requirement = 25-30 HP.

## CROPAIR 600L

### Fan

FIENI 800mm, 2-speed fan with adjustable pitch blades for variable air outputs.

Air output = 32,000m<sup>3</sup>/hr at low range and 39,000m<sup>3</sup>/hr at high range.

### Drive

PTO shaft supplied.

### Pumps

High-pressure (40 bar) AR-503 triple diaphragm pump.  
54 L/min open flow.

### Controls

ARRM401 2 x tap remote-mounted manual control.  
Manual pressure regulating valve and gauge.

### Nozzles

7 x brass rollover nozzle bodies per side.

### Tank

600L spray tank with 85L flush and 15L hand-wash tanks fitted.

### Power required

Recommended tractor engine HP requirement = approx. 50 HP.



# SPRAY CONTROLLERS

## VISIO CONTROLLER

For growers who wish to monitor their spray application rate but prefer to control the application either manually or with basic electric controls. The Visio monitor offers a cost-effective solution. Coupled with a flowmeter and speed sensor, the Visio can display area applied, spray rate in L/ha, L/min and current speed.



## HV2400

For growers looking for a basic spray rate controller. 2-section solenoid control with up to 10 pre-set application rates. Programmable alarm settings with L/ha and L/100m capability.



## HV4000

For the professional operator, providing up to 4-section control of motor valves or solenoids. Pre-set row width and application rates for simple, on-the-go adjustments. Multiple screen selections, programmable audio and visual alarms and up to 10 individual operating histories to keep the operator informed. L/ha or L/100m capability. Fully integrated to NuPoint data management system and optional fan speed control.



## BRAVO 180

For the professional operator requiring GPS integration and data transfer via USB. Up to 4-section control of motor valves or solenoids. Pre-set row width and application rates for simple, on-the-go adjustments. Multiple screen selections, programmable audio and visual alarms and up to 10 individual operating histories to keep the operator informed. L/ha or L/100m capability. Fully integrated to NuPoint data management system. Optional fan speed control and tank level indicator.



## ARAG IBX-100 ISOBUS CONTROLLER

Premium controller optional for QM-420 multi-row model sprayers, combining spray and hydraulic control. ISOBUS compatible to in-cab screen (if fitted) or optional full-colour touch screen as virtual terminal. Up to 7 x boom sections and 9 x hydraulic functions. Programmable boom width control. L/ha or L/100m capability. Additional options – joystick control, individual L/R fan speed control (Wind Comp.), tank level sensor, mapping and auto boom shut-off (GPS receiver required).





# EXPERTISE FROM COVER TO COVER.



**As a division of Nufarm, Croplands is committed to best spraying practices and environmental sustainability.**

Widely used by specialist application consultants around the country, the Nufarm SprayWise handbook has everything you need to know about dosage rates, chemical mixing, assessing coverage, nozzle selection, drift, calibration, adjuvants and more.

Get the advantage and order a copy by contacting Croplands on 0800 106 898.

**Nufarm**  
**SprayWise®**



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## CROPLANDS ACCREDITED SERVICE AGENTS

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Norwood	Gisborne	Shane Preston	06 867 9865
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Spraying Equipment Specialist	Masterton	Vlodek Kwiatowski	04 478 2258
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NS Rogers	Tasman Region	Nathan Johns	03 528 9212
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Norwood	Timaru	Tony Scott-Walton	03 688 1133
Jordan Mechanical	Central Otago	Neil Jordan	027 290 5008

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