

# VINEYARD SPRAY RANGE



BUYERS' GUIDE • 2022  
[CROPLANDS.CO.NZ](http://CROPLANDS.CO.NZ)



CROPLANDS

# 50 YEARS

BRINGING YOU THE BEST

## Celebrating 50 years at the forefront of spray technology.

For the last 50 years, Croplands has been proudly helping New Zealand growers protect their valuable crops. With an unwavering commitment to produce spraying equipment that is efficient, reliable and engineered to endure, Croplands is always seeking to save you time, reduce your costs and maximise your productivity.

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 hydraulic drive axial fan is released.
- 10** Croplands grows its range with the refinement and completion of the QM-500 and 380 Quantum fans. Grape sprayer production commences in Marlborough for the NZ region.
- 20** Croplands launches Quantum Smart Spray and new range of QM-420 vineyard sprayers.

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# PERFORMANCE THAT'S PROVEN

**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 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.

The QM-500 fan was released in the early 2000s followed by the smaller QM-380 fan for cooler climate vineyard canopies.

The new QM-420 was 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.

# TO BE THE BEST, YOU NEED TO TEST.



In addition to designing and building sprayers, we continually field test our sprayers to validate their coverage and efficiency.

We work with independent industry experts and listen to their recommendations.

These learnings improve sprayer set up and performance for our customers.



# QUANTUM SMART SPRAY



**Quantum Smart Spray** is the premium model sprayer in the vineyard model line-up. Available in 2 and 3-row configurations, the 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-185LFP standard for 8 and 12-fan models.  
AR-250LFP recommended for 18-fan and recapture kit models.

### 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 models. Equipped with a safety cut off switch, the MPP shuts down if the oil level drops. Optional biodegradable oil.

# QUANTUM 420 2&3-ROW



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

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

The unique style of turbulent air from a Quantum 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-185LFP standard for 8 and 12-fan models.

AR-250LFP recommended for 18-fan models.

### Controls

Electric controls. Two-section (left and right) with pressure adjustment from the tractor seat.

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 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 models. Equipped with a safety cut off switch, the MPP shuts down if the oil level drops.

Optional biodegradable oil.

# QUANTUM 420 SINGLE ROW



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

## Fans

Individual QM-420 fans, hydraulically driven 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

Electric controls. Two-section (left and right) with pressure adjustment from the tractor seat.

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 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 420 LINKAGE

**Croplands Quantum 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 fans, hydraulically driven 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 manual controller with manual pressure adjustment and gauge.

Optional electric and rate controller 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 1000 TRAILED

## Fans

Individual QM-420 fans, hydraulically driven from the tractor hydraulics.

## Tower

Single pole tower. Adjustable fan clamping brackets for simple fan positioning to the canopy.

## Drive

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

## Pump

AR-80 LFP positive-displacement pump standard.

## Controls

Remote mount 4-outlet manual controller with manual pressure adjustment and gauge.

Optional electric and rate controller options on page 14.

## Nozzle

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

## Tanks

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

## Chassis/axle

Hot-dipped galvanised chassis. Self-steering draw bar supplied as standard.

Adjustable-width axle fitted with 10.0/80 x 12-inch implement tyres.



# CROPAIR 1000 TRAILED

## Fan

FIENI 815mm, 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.

## Pump

AR-1064 105 L/min, 50-bar rated, four diaphragm pump.

## Controls

Remount mounted 2-outlet manual controller with manual pressure regulating valve and gauge.

Optional electric and rate controller options on page 14.

## Nozzles

7 x brass rollover nozzle bodies per side.

## Tank

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

## Chassis/axle

Hot-dipped galvanised chassis with standard fixed draw bar fitted. Adjustable-width axle fitted with 10.0/80 x 12-inch implement tyres.

## Power required

Recommended tractor engine HP requirement = 50-60 HP.

# CROPAIR LINKAGE



## CROPAIR 300L

### Fan

FIENI 615mm single speed fan with adjustable pitch blades for variable air outputs.

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

### Fan and Pump Drive

PTO shaft supplied.

### Pumps

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

### Controls

Remote mounted 2-outlet manual controller with 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 815mm, 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.

### Fan and Pump Drive

PTO shaft supplied.

### Pumps

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

### Controls

Remote mounted 2-outlet manual controller with manual pressure regulating valve and gauge.

### Nozzles

7 x brass rollover nozzle bodies per side.

### Tank

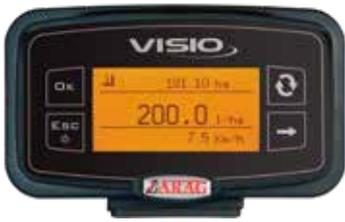
600L spray tank with 85L flush and 15L hand-wash tanks fitted.

### 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. 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.



## A-3 ECO FUSION

A basic version of the Fusion Controller combining auto rate and fan speed control. Joystick controls boom sections and Individual L/R fan speed control (Wind Comp.) L/ha or L/100m Capability. Up to 4 x boom sections. Multiple RPM speed inputs (spray pump / fans). Integrates to MPP (Micro Power Pack) if fitted.

## FUSION CONTROLLER (PICTURED ABOVE)

Premium controller optional for QM Smart Spray multi-row model sprayers, combining spray and hydraulic control. Includes integrated joystick control and full-colour touch screen. CANBUS design with in-built diagnostics and software upgradeable functionality. Up to 8 x boom sections. L/ha or L/100m capability. Individual L/R fan speed control (Wind Comp.), programmable boom width control. Optional tank level sensor.

# COVERAGE IS KEY

## 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-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>			•	•	•	•	•

# NATIONWIDE DEALERS

## NATIONAL DISTRIBUTORS

**PGG Wrightson**

PGG Wrightson Stores  
Nationwide, contact your local store

**Fruitfed Supplies**

Fruitfed Supplies Stores  
Nationwide, contact your local store

REGION	PHONE
Alexandra	03 448 6999
Blenheim	03 578 3019
Cambridge	07 827 7129
Christchurch	03 349 9948
Cromwell	03 445 3730
Feilding	06 323 0050
Gisborne	06 863 1660
Hastings	06 873 0950
Katikati	07 549 1316
Kerikeri	09 407 9621
Kumeu	09 412 2711
Levin	06 368 0892
Martinborough	06 306 9699
Motueka	03 528 8680
Ohakune	06 385 8500
Pukekohe	09 238 0713
Richmond	03 544 6115
Te Puke	07 573 7907
Whangarei	09 470 2520

## CROPLANDS ACCREDITED SERVICE AGENTS

SERVICE AGENT	REGION	CONTACT	PHONE
Splash Direct	Bay of Plenty	Craig Bell	07 573 6138
Noble-Adams Machinery	Canterbury	Aaron Witbrock	03 349 7862
Jordan Mechanical	Central Otago	Neil Jordan	027 290 5008
Norwood	Gisborne	Shane Preston	06 867 9865
Calnan's Spray Quip Services	Hastings	Greg Deck	06 879 5720
Keri Diesel Services	Kerikeri	Shane Mitchell	09 407 5300
O-Tec - Onsite Mechanical Services	Kerikeri	Olaf Gustafson	021 053 4852
ME & AL Mannington	Kumeu	Mike Mannington	09 412 8927
Agrivit Ltd	Marlborough	Jeremy Watts	03 572 8787
Spraying Equipment Specialist	Masterton	Vlodek Kwiatowski	04 478 2258
Norwood	Pukekohe	Kevin Hamilton	09 238 7189
Brian Miller Truck and Tractor	Richmond/Waimea Plains	Brian Miller	03 544 5723
NS Rogers	Tasman Region	Nathan Johns	03 528 9212
Norwood	Timaru	Tony Scott-Walton	03 688 1133
Machinery Maintenance Pump House	Wanganui	Ian Mackay	0800 667 867
Norwood	Whangarei	Greg Francis	09 438 3719

## NATIONAL SALES & SUPPORT

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**Upper South Island and West Coast**  
Leon Powell 027 700 0066

**Lower South Island and Canterbury**  
Rob Marshall 027 248 6822