



BUYERS' GUIDE

EFFECTIVE AUGUST 2018

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CROPLANDS



CONTENTS



THE ULTIMATE WEAPON AGAINST HERBICIDE RESISTANCE

**GENERAL
MANAGER'S
WELCOME** 3

**THE STORY
OF WEEDIT** 3

**WEEDIT OPTICAL
SPOT SPRAY
TECHNOLOGY** 4

WEEDIT 7000 6

**WEEDIT
6000 | 4000** 8

**12 METRE
TOOLBAR** 10

**NEW 12 TO 24
METRE TOOLBAR** 11



GENERAL MANAGER'S WELCOME

Dear Customer

We are proud to present our 2018 WEEDit Buyers' Guide, showcasing the Croplands range of WEEDit optical spot sprayers. Farmers right across Australia can reap the benefits of Croplands WEEDit, with our rigs now available in Western Australia.

Croplands has continued to develop the WEEDit product range with many new and exciting enhancements since the original model's inception in 2009. The WEEDit Toolbar – designed with smaller broadacre and irrigation properties in mind has been a huge success in Southern and Central Queensland since launched in 2015. This year Croplands has unveiled a new 24 metre Toolbar – a lighter and more transport friendly design.

The WEEDit 7000 encompasses many added features with operator safety and ease of use in mind. This innovation has given many WEEDit owners the opportunity to upgrade to a larger and more versatile model, with dual tank and dual line integrated into the design.

If you would like more information on the WEEDit product range, or would like to see WEEDit in action, please contact your local Territory Manager to find out when we are holding demonstrations near you. Their details along with those of our dealer network are listed on the back of this guide.



A white, handwritten signature of Sean Mulvaney on a black background.

Sean Mulvaney
General Manager
Croplands

THE STORY OF WEEDit

In 2011 Croplands partnered with Hawkeye Precision to develop a machine for WEEDit's near infrared sensors. The technology was developed by a Dutch university and at the time was used on a much smaller scale to spray weeds in urban areas, such as footpaths and railway tracks.

The challenge for Croplands was to increase the scale of the system to suit the tough conditions of Australian Broadacre farming. The first two years saw major developments in the suspension system to minimise fatigue and more importantly, allow the sensors to float both during compression and rebound over a harsh Australian summer fallow paddock.

WEEDit Series 2 featured a contour following boom and evolved from a single 4000 litre tank to a 6000 litre option with dual line and twin tank. Upon this, Croplands invested in further research and development to improve the chassis and suspension in the Series 3 model we have today. As part of the Croplands service philosophy, they offered all Series 2 owners the opportunity to have their machines retrofitted to the new suspension package.

In 2016 Croplands launched the brand new 7000 litre WEEDit with twin, purpose-built, interlocking tanks and dual line plumbing system. It was designed with operator safety in mind, featuring a chemical hopper for each tank, two handwash tanks and an access platform for safe and easy tank lid accessibility. The WEEDit 7000 also has incredible responsiveness with two 900 L/min centrifugal pumps.

The WEEDit Toolbar is another adaption of the technology released in 2015, suitable for smaller broadacre and irrigation properties – available in 12 and 16 metre boom widths. More recently in 2018, Croplands launched a new 24 metre WEEDit Toolbar – a lighter and easier to transport version.

WEEDit technology has proven to assist Australian broadacre farmers achieve substantial chemical savings, improve water retention, delay the onset of herbicide resistance and lower their weed seed bank. Croplands and Nufarm are committed to the long term development of this product through working with growers, understanding the problems they face and creating sustainable solutions for their future.



WEEDit OPTICAL SPOT SPRAY TECHNOLOGY

RESISTANT WEED STRATEGY

WEEDit only sprays on average 10% of the paddock, enabling the use of chemicals from other family groups that are normally considered to be too expensive for a blanket application. This also allows the agronomist to develop long term herbicide resistance strategies.

SUPERIOR MODE OF DETECTION

WEEDit's near infrared technology only detects the chlorophyll present in living plants sending a quick response to the nozzles which release the spray onto the weed. This superior mode of detection allows for faster travel speeds and the ability to target even smaller weeds. WEEDit improves at night because there is no interference from sunlight and weeds are often less stressed meaning the reaction to active chlorophyll is greater.

BACKGROUND CALIBRATION

Changes in background conditions such as soil type and stubble are not a problem for WEEDit's auto-calibration system. The WEEDit is not affected by changes in background conditions because it is only measuring active chlorophyll. For the operator this means even better targeting of small grasses.

TURN COMPENSATION

The WEEDit operating system utilises two speed sensors to automatically calculate and adjust the reaction time of the nozzles during cornering. This ensures the chemical hits the target accurately every time – regardless of boom tip speed.

CROPLANDS CONTOUR FOLLOWING BOOM

Croplands' heavy duty hydraulic fold 24 metre and 36 metre trailing contour following booms are designed to handle Australia's challenging broadacre farming conditions. Some models may have road transport speed limitations.

The hydraulically steered inner boom wheels control the folding and unfolding of the boom, this is also a pivot point for the boom to contour follow. In total there are five different plains that the boom and sensors can operate at to mirror the contours as accurately as possible. The sensors will achieve the lowest possible spray rate per hectare and effectively target small grasses when the boom height is maintained, with only small variations in height.

New responsive gas air ride suspension on all boom wheels is custom engineered for Croplands WEEDit. This helps to maximise sensor effectiveness by controlling compression and rebound to allow the sensor a smooth ride for superior detection. The responsive gas air ride suspension also absorbs vibration to reduce metal fatigue and improve longevity.

BETTER BOOM HEIGHT CONTROL = BETTER DETECTION + BETTER KILL

IN-CAB HYDRAULIC FOLDING BOOM

The boom is hydraulically controlled from the cab, to allow for quick and effortless folding and unfolding of the boom, from transport position to field operation.

Take control using WEEDit technology in fallow paddocks.

- » Operates using near infrared sensors to detect chlorophyll in the leaves of weeds in fallow paddocks
- » These sensors activate solenoids, controlling the release of chemical from the nozzles to the target
- » Sensor units are spaced 1 metre apart, reducing weight on the boom and improving effective operation driving speeds
- » WEEDit will become an increasingly important application solution for the management of resistant weeds requiring specialised chemistry



SENSOR AND NOZZLE PLACEMENT

WEEDit sensors are placed every 1 metre across the boom and control 5 nozzles (individually) on 20cm spacings. Benefits from this design are less weight due to less sensors and a smaller spray footprint when a weed is sprayed. This set-up provides great savings on chemical. The nozzle spacing of 20cm also allows for better penetration in stubble with less shading of small grasses.

SENSOR SPACING FOR ROW CROP SPRAYING

Traditionally WEEDit sensors are positioned at 1 metre spacings along the length of the boom. This spacing can be adapted to 40 inch to meet the needs of row cropping or matching tillage equipment based on imperial measurements. Regardless of sensor spacing, there are five nozzles per sensor positioned at 20cm spacings. Close nozzle spacings are a major advantage in penetrating heavy stubbles such as sorghum and also minimising shading.

NOZZLE SELECTION

The standard 40 degree flat even fan nozzle provides a course droplet spectrum and provides great coverage for broad leaf weeds in a warm summer weed spraying environment.

Full cone nozzles can be used for larger targets where non systemic chemicals are used in a strategy to avoid the over use of glyphosate. The full cone nozzle provides the advantage of spraying forwards and rearwards at an angle enhancing penetration. Full cone spray patterns aim for complete plant coverage. Coverage is king with contact chemicals.

ENHANCED ELECTRICAL SYSTEM

Weed detection systems place large demands on electrical supplies. The WEEDit overcomes this issue by running at 48 volts. This not only gives superior solenoid operation but current draw is 4 times less than other weed detection equipment using 12 volt systems. Faster solenoid operation also means quicker spraying speeds in the paddock.



IN CAB MONITOR AND CONTROLLER

The easy to use intelligent display provides constant monitoring of solenoid and sensor operation, with malfunctions or errors reported on screen – including warnings for low pressure, sensor faults and voltage. The smart design allows for easy fault identification and greatly increases productivity as the requirement to visually check and monitor the machine is dramatically reduced.

The display allows for sensitivity adjustments from the easy to use menu. The controller monitors increased boom speeds on corners and automatically adjusts response times to ensure the nozzle hits the target. This monitor also keeps record of nozzle activation, chemical use and sensor history.



40°/60° spot spray line

110° blanket line



WEEDit 7000

THE FIRST FULLY INTEGRATED TWIN TANK SPRAYER WITH INTERLOCKING TANKS

1 ACCESS PLATFORM

The up and over platform allows safe and easy access from both sides of the sprayer to the tank lids. Fold down steps provide greater crop clearance and safer access.

7 BIG PUMP CAPACITY

Standard pumping system uses two HYPRO 9306 hydraulically driven centrifugal pumps. High capacity flow exceeds 900 L/min and is ideal for spot spraying applications to deliver from zero to very high volumes almost instantly as required. Optional ForceField stainless steel pump available for dry run protection.



8 1500 LITRE HOT TANK

Used to hold high concentration chemicals used for spot spraying.

9 MANUAL JACK STAND

Optional hydraulic jack.

10 STANDARD AIR RIDE DRAWBAR SYSTEM

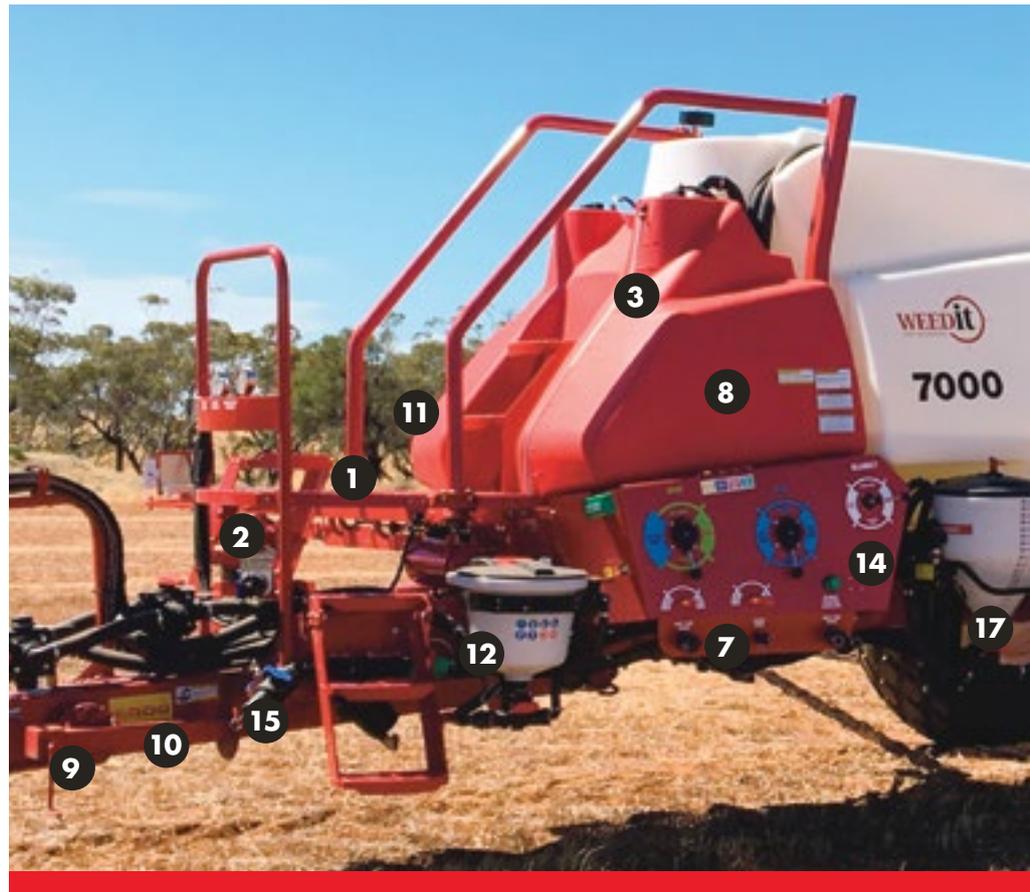
The heavy drawbar features an integrated Hendrickson airbag which is an integral part of the suspension package and improves the ride. Also features a heavy duty adjustable hitch and swivelling eye drawbar.

2 SELF FILL FUNCTION

The self filling pump can be used with 2 inch or optional 3 inch camlock for fast and efficient filling.

3 ELECTRONIC TANK LEVEL INDICATOR

In cab display monitors Hot Tank only. Easy to see tank level gauge featured on tank.



11 DRUM RACK

Side mounted drum rack can hold 20 litre drums or mount toolboxes.

12 FRONT TANK CHEMICAL INDUCTION HOPPER

The smaller, 30 litre hopper transfers chemicals directly to the 1500 litre Hot Tank.

13 DEEPER SUMP CAPACITY

Designed for optical spot spraying – spraying only 10% of the paddock allows 100 litres to cover a lot more country.

14 CENTRAL CONTROL PANEL

Makes filling, flushing, chemical mixing and induction a simple and efficient process from one central point. All functions are at hand and tanks can be filled from a single source – labelled, colour coded and logically laid out with the rear tank controls to the rear of the panel and the front tank controls to the front of the panel.

15 DUAL HAND WASH FACILITIES

Located in the front working area near the chemical hopper and also at the rear of the centre boom – can also be used for nozzle and filter cleaning.

4 7000 LITRE MAIN TANK

Spot spraying sensors or optional blanket line can be run from the main tank, utilising the dual pumps simultaneously. As an example, a pre-emergent herbicide could be applied through the blanket line, while the spot spray line may apply a knockdown herbicide to existing weeds.

5 800 LITRE FLUSHING TANK

Used to regularly flush the boom system and main tanks. This large capacity may provide enough fresh water to finish the last few hectares in a paddock.

6 STANDARD MUD GUARDS AND MUD FLAPS



STANDARD REAR MOUNTED ROAD LIGHTS

Stop, tail and indicator lights only. Oversize sign is mounted at the rear boom tips.

OFF-CENTRE JETS

Used for fenceline spraying and fitted to the left and right sides of both the spot spraying line and the blanket lines. They are manually activated with in-cab, electric controls.

AIR RIDE BOOM SUSPENSION

Featuring airbags to control ride-height. The system utilises coil springs to provide fast and responsive ride for the sensors. The enhanced ride assists with detection of weeds on both compression and rebound, minimising metal fatigue across the machine.

17 FULLY INTEGRATED CHEMICAL INDUCTION HOPPER

The standard 60 litre Chem-e-flush hopper is fully integrated to the sprayer's control system and delivers chemical to the 7000 litre main tank. Options include a chemical suction probe to induct chemical from smaller drums. Optional 12 volt chemical transfer pump system complete with micromatic drum fittings available.

18 CHASSIS AND AXLE

The chassis encompasses a simple robust design with a 3 metre air suspension axle and an automatic ride height valve.



WEEDit 4000 | 6000

1 6000 OR 4000 LITRE MAIN TANK

Spot spraying sensors or optional blanket line can be run from the main tank, utilising the dual pumps simultaneously. As an example, a pre-emergent herbicide could be applied through the blanket line, while the spot spray line may apply a knockdown herbicide to existing weeds.

2 1100 LITRE HOT TANK

Spot spraying sensors are run from the Hot Tank. A common strategy used to delay the onset of herbicide resistance is to use a more concentrated combination of chemicals for spot spraying. This is often referred to as the 'hot mix' that becomes affordable when only spraying 10% of the paddock with the WEEDit system.

3 CHASSIS AND AXLE

The chassis encompasses a simple robust design with a 3 metre air suspension axle and an automatic ride height valve.



4 TWIN HYDRAULIC DRIVE CENTRIFUGAL PUMPS

The advantages of the 900L/min centrifugal pump for spot spraying and blanket applications is that it can respond and deliver from zero to very high volumes almost instantly as required. Optional ForceField stainless steel pump available for dry run protection.



Optional Visio display for in-cab tank level reading.

5 CENTRAL CONTROL PANEL

From a central point, the operator can take charge of all the filling, mixing and flushing.

When the operator camlocks a 2 in. filling hose to the non-return valve on the sprayer, they can select to fill the spot spray tank, flush tank or main tank.

The electronic flow metre measures part tank filling.



7 470 LITRE FLUSH TANK

8 30 LITRE FRESH WATER TANK FITTED FOR OPERATOR SAFETY



AIR RIDE BOOM SUSPENSION

Featuring airbags to control ride-height. The system utilises coil springs to provide fast and responsive ride for the sensors. The enhanced ride assists with detection of weeds on both compression and rebound, minimising metal fatigue across the machine.

OFF-CENTRE JETS FOR FENCELINE SPRAYING, LEFT AND RIGHT

OPTIONAL MUDGUARDS AND MUDFLAPS

REAR TAIL LIGHTS AND FLASHING BEACON

6 **CHEMICAL HANDLING**

- » 60 litre Chem-e-flush
- » Integrated suction probe transports chemical directly into the tank without putting neat chemical through the pump
- » 12 volt chemical transfer pump system comes complete with micromatic couplings

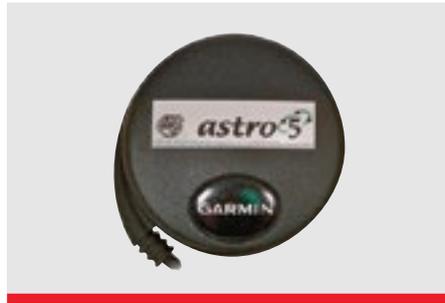
The secondary rotary valve allows selection of the chemical suction probe, 60 litre Chem-e-flush hopper or return to spray position.

The control panel also allows selection of spot spray tank rinse, main tank rinse, agitator and chemical suction probe rinse through a series of valves.



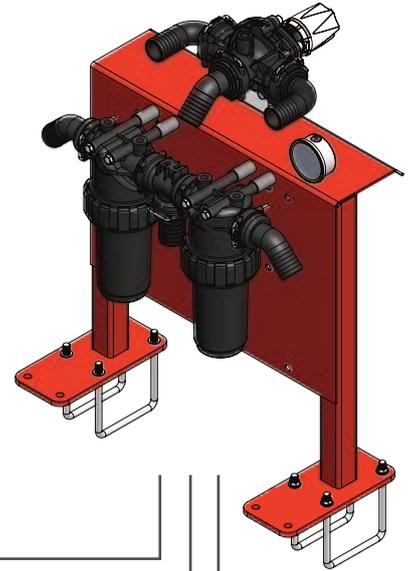
WEEDIT CONTROLLER AND MOUNT BRACKET

For easy installation in the tractor cab.



GPS SPEED SENSOR

The Astro 5 GPS Speed Sensor continues to provide speed input when turning on headlands, for consistent application and accurate speed readings.



BOOM RECIRCULATION

Recirculation plumbing keeps boom lines active with improved flow response.

POWER BOX

Mounted to the toolbar with either a 4 inch or 7 inch U-bolt provides power to all sensors and solenoids.

PRESSURE FILTERS

Traps particles before reaching the solenoid valves and nozzles.

SENSORS AND NOZZLES

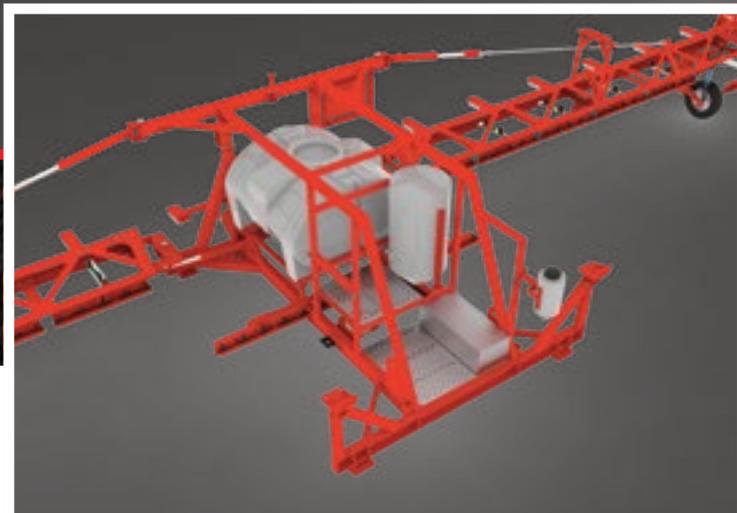
- » 1 inch stainless steel tubes to deliver the chemical across the toolbar connecting with Quick Connectors
- » Sensor brackets secured to the toolbar with either 4 inch or 7 inch U-bolts
- » Nozzles mounted on the same bracket for ease of fitting

WEEDit Toolbar



NEW

12 TO 24 METRE TOOLBAR



**LIGHTWEIGHT
AND EASY
TO TRANSPORT**

FEATURES

TANK AND CHASSIS

- » 1100 litre polyethylene tank, fitted with hinged lid top/bottom fill and fully draining sump. Comes standard with tank rinsing facility and drain outlet. Easy to read calibrated sight gauge, UV and chemical resistant. Easy access bottom fill and controls
- » Can be filled with a fire-fighter through the standard 2 in. fill coupling
- » Heavy duty fabricated chassis with easy access platform designed for maximum durability, fitted with stands for when uncoupled

CONTROLS

- » WEEDit System – easy to use intelligent display provides constant monitoring of solenoid and camera operation, with malfunctions or errors reported on screen
- » This display allows for setup and sensitivity adjustments from the easy to use menu
- » The controller also monitors increased boom speeds on corners and automatically adjusts response time to ensure the nozzle hits the target
- » 5 in. touch screen level display for folding and monitoring of the hydraulic gauge wheels

HYDRAULIC FOLDING BOOM

- » Heavy duty hydraulic folding 12 to 24 metre booms designed to handle Australia's challenging broadacre farming conditions. Responsive hydraulic levelling via a gauge wheel custom engineered for Croplands WEEDit and helps to maintain boom height
- » Boom folds to the rear for ease of transport

FLUSHING AND SAFETY

- » 20 litre fresh water/handwashing tank fitted for operator safety
- » 120 litre polyethylene tank for sprayer flushing

NATIONWIDE DEALER LISTING



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NSW		
Forbes	Forbes Machinery Centre	02 6852 3211
Griffith	Guidolin Agrimac Australia Pty Ltd	02 6964 3400
Gunnedah	NFS-Ag	02 6742 7771
Moree	Black Truck & Ag	02 6752 2277
Parkes	McPherson's Parts & Service	02 6862 3888
Temora	Temora Truck & Tractor Service	02 6977 1098
Tottenham	Western Farm Machinery	02 6892 4078
Walgett	Walgett Tyre & Machinery Service	02 6828 1500
Warren	Western Farm Machinery	02 6847 3422

QUEENSLAND		
Biloela	BIMAS	07 4992 5332
Dalby	Black Truck & Ag	07 4669 8988
Dalby	Dalby Rural Supplies	07 4662 6122
Emerald	Springsure Tractor & Header Service	07 4984 1258
Goondiwindi	Black Truck & Ag	07 4677 8113
Goondiwindi	Agtronics	07 4671 4715
St George	St George Machinery Centre	07 4625 3633
Roma	Black Truck & Ag	07 4624 4800

SOUTH AUSTRALIA		
Cleve	Pringles Crouch	08 8628 2150
Crystal Brook	Pringles Crouch	08 8636 2257
Cummins	Pringles Crouch	08 8676 2105
Kadina	AW Vater & Co.	08 8821 3922
Kimba	Pringles Crouch	08 8627 2071
Loxton	Ronco Motors	08 8584 5575
Pinnaroo	Ronco Motors	08 8577 8129
Saddleworth	AW Vater & Co.	08 8847 5000
Tanunda	Vater Machinery	08 8563 2008
Wudinna	Pringles Crouch	08 8680 2236

TASMANIA		
Statewide	Spray Shop Tasmania	03 6343 1666

VICTORIA		
Ballarat	Central Machinery Services	03 5332 0566
Bendigo	Precision Control Australia	03 5448 8484
Horsham	Traction Ag	03 5381 1385
Mildura	Sunrise Ag	03 5023 0284
Nhill	Traction Ag	03 5391 1144
Ouyen	Sunrise Ag	03 5092 1031
St Arnaud	The Sprayer Centre	03 5495 3222
Swan Hill	Sunrise Ag	03 5032 0099
Yarrawonga	Agrispray Australia	03 5743 1610

WESTERN AUSTRALIA		
Albany	AFGRI	08 9842 8529
Boypup Brook	AFGRI	08 9765 1305
Dalwallinu	AFGRI	08 9661 1105
Esperance	AFGRI	08 9071 6702
Gnowerrangerup	AFGRI	08 9827 1207
Lake Grace	AFGRI	08 9861 0000
Perth	AFGRI	08 9277 1140
Pingelly	AFGRI	08 9887 1395
Wagin	AFGRI	08 9861 0000
Wongan Hills	AFGRI	08 9671 1311

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Central NSW/TAS

Dave Farmer 0427 651 971

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SA Bill Burgess 0409 899 491

South NSW/VIC

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REGIONAL MANAGER

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TERRITORY MANAGER

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YOUR CROPLANDS DEALER

OUR RANGE OF BUYERS' GUIDES



OPTIMA

Horticultural

Self Propelled

WEEDit Optical
Spot Spraying

Broadacre Trailed