

WeedSeeker[®] 2

SMALLER • LIGHTER • FASTER • SMARTER



SPOT SPRAYING SYSTEM

www.agriculture.trimble.com

WeedSeeker® 2 automatic spot spray system

Building on more than 25 years of experience in the field, the WeedSeeker® 2 system brings generational improvement to the spot spraying market.

WeedSeeker® 2 is the next-generation spot spray system from Trimble Agriculture.

WeedSeeker® 2 delivers all-around superior performance compared to previous solutions.

Using advanced optics and processing power, the WeedSeeker® 2 system detects and applies herbicide to weeds.

When a weed passes underneath the sensor, it signals its linked spray nozzle to precisely deliver herbicide and kill the weed, reducing the amount of chemical applied by up to 90%.



The **ONLY** spot spraying with:



ISOBUS COMPATIBILITY



WEED MAPPING



SECTION CONTROL



Agricultural producers and contractors are reaping the benefits from sensors that can be used to selectively apply herbicides to plants in an agricultural, horticultural, viticultural and industrial situations.

WeedSeeker® 2 users are achieving up to 90% savings in fallow herbicide: substantially reducing costs and significantly delivering environmental benefits.

The WeedSeeker® 2 system is designed for use on any crop-free surface, such as under vines or trees, between row crops, industrial situations or, most commonly, on broadacre fallow paddocks.

DPI research in the late 1990s in Northern NSW has shown that the average weed cover in fallow paddocks is as low as 20% of the paddock area. This means that often 80% of the herbicide is applied to bare soil is wasted. This is inefficient, expensive, and environmentally unsustainable.

THE STORY OF WeedSeeker® 2

Crop and weed sensing technology has existed as a research tool in Australia since 1984. The concept was originally developed by researcher Warwick Felton at the DPI Tamworth, NSW.

The reliable application of the concept in agriculture has only been possible with the commercial release of WeedSeeker® & more recently WeedSeeker® 2 selective application equipment.

WeedSeeker® was first imported into Australia in 2002 by the Brownhill family from Spring Ridge NSW. The Brownhills realised the chance of significantly reducing their herbicide use after DPI research in Northern NSW showed a possible saving of up to 80% on their fallow herbicide applications.

This led to WeedSeeker® 2 being released to the public at AgQuip field day in 2019, with the first sales of WeedSeeker® 2 soon after 2019.

Although WeedSeeker® 2 has undergone major changes, still to this day it uses the similar concept for detecting chlorophyll in plants/weeds as first designed by Warwick Felton all those years ago.

The use of dual wave lengths of light to detect chlorophyll has stood the test of time as the most effective way of sensing plants/weeds from a soil/stubble background.

To current day where weed sensing technology such as the WeedSeeker® 2 is common place on farms throughout Australia.

KEY BENEFITS

- ▶ Unbeatable accuracy with high resolution sensors
- ▶ Lightweight sensors and cabling
- ▶ Reduce chemical use by up to 90%
- ▶ Better for the environment
- ▶ Ability to target herbicide resistant weeds
- ▶ Day/Night Operation

HOW IT WORKS

During WeedSeeker® 2 development, Trimble investigated multiple ways to detect chlorophyll in plants.

All wavelengths of light were tested but the Red & Near InfraRed dual band combination was found to be the best chlorophyll detection source.



WEED DETECTION SOURCE

Dual-Frequency Light Source. Red and Near Infra-Red light, are used to detect chlorophyll in living plants. Red light is absorbed by the weeds chlorophyll and Near Infra-Red light reflects, the WeedSeeker® 2 detects chlorophyll presence by changes in light reflectance.



OPERATING SYSTEM

New display not required—use any ISOBUS-compatible display you currently own to monitor and control your WeedSeeker® 2 system. Our simple and intuitive interface allows for people of any skill level to track herbicide use and log coverage maps.



AUTO CALIBRATION

WeedSeeker® 2 sensors are constantly tuning themselves to the conditions, accounting for changes in soil background levels, ambient light levels, daytime temperature etc.



TURN COMPENSATION

WeedSeeker® 2 automatically adjusts when you are cornering, ensuring there are no missed targets because of speed-related changes.



INTELLIGENT
SENSOR

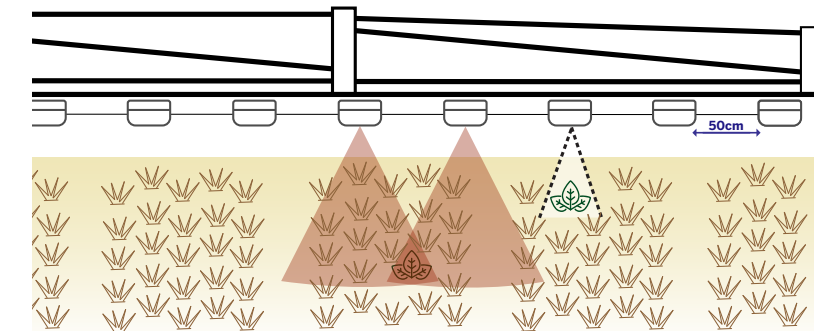


DAY/NIGHT
OPERATION

SENSOR SPACING

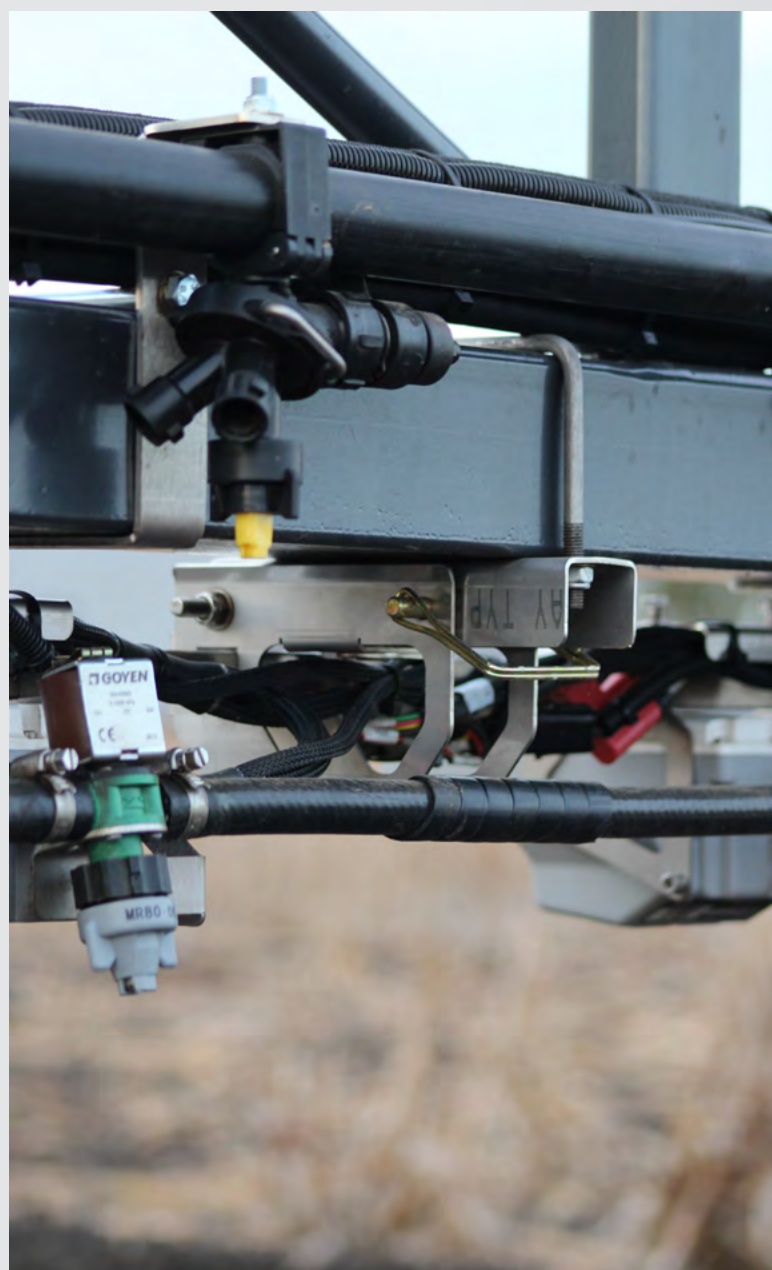
Compared to the first generation WeedSeeker®, WeedSeeker® 2 has increased its coverage width per sensor from 38 to 50cm, this is still twice resolution of our competitors.

There is also a wider overlap pattern, ensuring small targets previously unseen because of stubble shading are now not missed.



QUICK-RELEASE BRACKETS

**EASY TO REMOVE AND
EASY TO INSTALL**



A lightweight, universal, quick-release bracket has been developed to suit most common booms on the market.

Users can quickly remove or fit the sensors to their existing sprayer without needing to purchase a second boom dedicated to a spot-spraying system.

The ability to easily remove and store the sensors when not in use ensures optimal protection of your WeedSeeker® 2 equipment.

KEY FEATURES

- ▶ Quick installation and removal
- ▶ One-person operation
- ▶ Protect your investment when not in use
- ▶ Strong light weight universal bracket



WATCH quick-release
bracket tutorial here

WeedSeeker® 2 IS AVAILABLE TO RETROFIT TO ANY BOOM

WEEDSEEKER® 2 CAN BE FITTED TO ANY PLATFORM WHERE YOU CAN PHYSICALLY FIT THE SENSOR.

SUSPENDED BOOMS

The number of suspended booms WeedSeeker® 2 can be fitted to has greatly increased since the new system is 50% lighter, requires 30% less sensors and only 50cm spacing.

A suspended boom has the ability to handle rough conditions without damage compared to ground-following booms.

ADJUSTABLE BOOM HEIGHTS

The ability to adjust for varying boom heights on the go means a ground-following boom is not necessary.

If the WeedSeeker® 2 is outside its target height range, a constant spray will turn on until it's back within range, ensuring no missed targets.

RETROFIT KITS AVAILABLE



MILLER NITRO

WeedSeeker® 2 system is available to be fitted to a Miller Nitro Truss Boom.

The use of a quick-release bracket means the WeedSeeker® 2 can be removed easily when not in use.

The standard overall spray line stays in place allowing for both the WeedSeeker® 2 and overall line to be used at the same time.

The visibility of the sensors on a front mount boom is unrivaled.

Kits are available for all Miller Nitro models with a truss boom.



JOHN DEERE

WeedSeeker® 2 system is available to be fitted to a John Deere self-propelled sprayer.

Quick-release brackets are used for easy removal of the system for storage.

Depending on the setup, the standard overall line can remain in place allowing for both the WeedSeeker® 2 and overall line to be operated at the same time.

Kits are available for the following models:

John Deere 47 & 48 Series sprayers

John Deere R4023, R4030, R4038 & R4060 Series sprayers



GOLDACRES

WeedSeeker® 2 system is available to be fitted to a Goldacres self-propelled sprayer.

Quick release brackets are used for easy removal of the system for storage.

The standard overall spray line stays in place allowing for both the WeedSeeker® 2 and overall line to be used at the same time.

Kits are available for the following models:

Goldacres G4 & G6 Series self-propelled sprayers

Goldacres trailing booms



CASE PATRIOT

WeedSeeker® 2 system is available to be fitted to a Case IH Patriot self-propelled sprayer.

Quick-release brackets are used for easy removal of the system for storage.

Depending on the setup, the standard overall line can remain in place allowing for both the WeedSeeker® 2 and overall line to be operated at the same time.

Kits are available for the following models:

Case IH Patriot 30, 40 & 50 Series self-propelled sprayers

WeedSeeker® 2

Miller
Since 1899

Many growers are realising the benefits of mounting their WeedSeeker® 2 system on a Miller Nitro self-propelled sprayer.

Platform kits are designed for easy installation with no modifications required to the boom structure. Touch down wheels & protection bars help protect your investment whilst in the field spraying.

Outstanding visibility coupled with a stable platform & boom ensures you get the best results from the WeedSeeker® 2 system.

Being able to also run the standard overall spray line with the WeedSeeker® 2 system gives growers the ability to apply a light rate of chemical in conjunction with a higher rate through the WeedSeeker® 2 system in the one pass.

CAPACITY

Large volume tanks available with a Miller sprayer will mean more time spent in the field spray & less time filling

FRONT-MOUNT BOOM

With a front-mount boom, visibility of the WeedSeeker® 2 on the Miller platform is un-matched.

You can very clearly see how your WeedSeeker® 2 is performing without having to turn your neck.

STABLE PLATFORM

Stability of the Miller platform and boom is paramount in achieving the best performance of the WeedSeeker® 2 system.

QUICK-RELEASE BRACKETS

The system is mounted on a quick release bracket kit, meaning the WeedSeeker® 2 can be removed quickly and stored safely when not in use, protecting your investment.

WeedSeeker® 2



A partnership between Stoll Boomsprays & McIntosh Distribution has produced a dedicated platform designed specifically suited to fit WeedSeeker® 2.

The Stoll Boomspray is a multi-task boom, with twin tanks allowing you to spot spray with WeedSeeker® 2 alone, and dual line applications allowing you to spot spray & apply a light rate of overall herbicide at the same time, or, as an overall spray application with both tanks combined to give up to 8000 litre capacity.

Quick-release brackets also give you the ability to easily remove the WeedSeeker® 2 sensors from the Stoll boom when not in use.

BOOM

- Steel construction, single truss design with twin chains
- Excellent boom stability, eliminates any yaw
- Available sizes: 24 to 36 metres

2000L HOT MIX TANK -(OPTIONAL)

- For dual line work using WeedSeeker® 2
- Ability to apply a higher rate or different chemistry through the WeedSeeker® 2 line whilst still applying a light rate through the main line.

SUSPENSION

Heavy duty air bag suspension as standard.

QUICK ATTACH BRACKETS

Quickly remove & install WeedSeeker® 2 sensors, allowing the boom to be used as an overall sprayer, protecting your investment when not in use.



In partnership with McIntosh Distribution, Novus Industries has designed a standalone 3-point linkage sprayer suitable for the WeedSeeker® 2. Widths from 9 to 18 metres are available with hydraulic folding to under 3.5 metres for transport.

A 3-point linkage unit with a self-levelling boom & touch-down wheels help keep a consistent height independent of what the tractor is doing.

Hydraulic Hypro product pump is used for both filling & spraying from the standard 1,500 litre product tank.

A boom recirculation system is used to prime the spray line with chemicals before spraying.

A 200 litre flush tank is also standard for rinsing the spray line through a recirculation system, ensuring no product is wasted on the ground.



APPLICATION HORTICULTURE & INDUSTRIAL

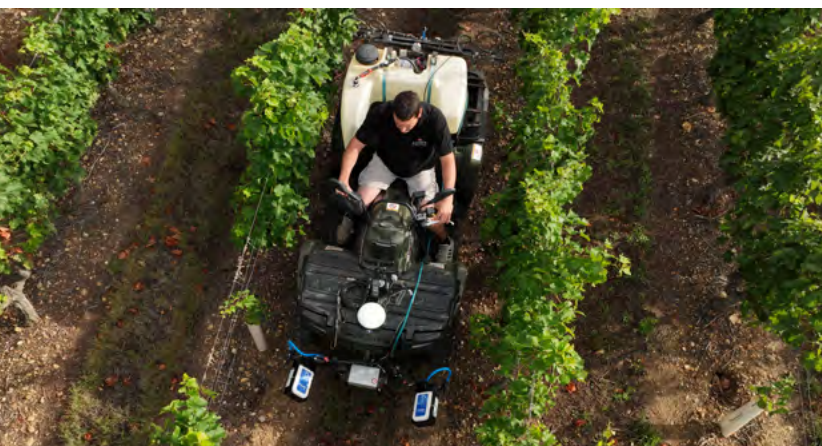
Vineyards, tree crops & councils are also reaping the benefits of selectively applying herbicide to just the weeds with the WeedSeeker® 2 system, herbicide savings up to 90% are being achieved.

The ability to apply higher rates of expensive herbicide chemistry on hard-to-kill or resistant plants is not just limited to the broad acre market.

The Horticultural & Industrial settings face similar issues when it comes to herbicide resistance & the high cost of weed control.

WeedSeeker® 2 is a cost-effective way for these industries to reduce the amount of herbicide being applied, which is better for the environment & the grower's bottom line.

APPLICATION: HORTICULTURAL



CONTROL WEEDS ON BERMS, STRIPS OR ROW-TO-ROW

VINEYARDS & ORCHARDS

Vineyards and orchards managers use WeedSeeker® 2 to control weeds on berms, strips or row-to-row by automatically spot spraying the weeds and not bare soil.

Self-propelled, utility vehicles, ATVs or pull-behind sprayers all spray constantly to apply herbicide regardless of high or low weed coverage.

Herbicide costs are the same in either situation.

The WeedSeeker® 2 system uses advanced optics and computer circuitry to sense the presence of weeds. When the weed enters the sensor's field of view, it signals a spray nozzle to deliver a precise amount of herbicide only to that weed.

Herbicide use is reduced 60% to 90% on most spray applications.



APPLICATION: INDUSTRIAL



SPRAY WEEDS, NOT DIRT OR ASPHALT

There are tens of thousands of kilometres of railway, roadway, footpath and runways in Australia, all of which need weed control.

The WeedSeeker® 2 is ideal for application of chemical on weeds which can be used both day and night, and with an integrated controller, sensors can spray at speeds of up to 18km/hr, an increase over conventional spraying techniques.

Limiting the amount of herbicide applied in these applications is safer for the community, lessening the impact on the surrounding environment.



WHAT OUR CUSTOMERS ARE SAYING

"I love the WeedSeeker® 2 – it's the best thing I've ever bought. The more time I spend on it, the more I learn what I can do with it. I've even been able to pick out Bathurst burr in sheep country."

GRIFFITH SPRAY CONTRACTOR

"Most growers can spend around \$10/ha on knockdown sprays and with the WeedSeeker® 2 you can save up to 90%– plus you are saving the hours on the tractor by spraying in the one pass."

SOUTHERN MALLEE GROWER

"The sensors check the background as you are going along – they are unreal. Every paddock we go into, it does a calibration in five seconds, which is great for peace of mind."

MOREE SPRAY CONTRACTOR



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