

CleverSpray PRO System for
automated spraying of orchards and
vineyards

Innovations in fruit growing technology

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CLEVERSPRAY PRO

Just spray more efficiently
Plant protection at a new level

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The CleverSpray Pro automated spraying system is a guarantee of precise and even distribution of products on every centimeter of the tree crown.

- specially developed spraying system for orchards and vineyards
- can be mounted on any sprayer
- maximum ergonomics for the user
- easy operation via Android tablet or smartphone
- Modularity and wide range of retrofitting options
- upgradability and modernization
- high savings potential due to automatic switching off/on of the treatment sections - up to 10% in orchards with 1250 or more trees per hectare and up to 30% in orchards with up to 1250 trees per hectare.
- Ability to upload documentation in the SprayTools personal cabinet and analyze the tractor driver's actions. Information can be stored up to several years for each tour.



Benefits:

- Fully automatic application rate control
- High-precision measurement and control system
- Pressure control based on precise speed measurement
- Nozzle control based on total volumetric flow rate
- Automatic switching on/off of machining sections
- Emergency control via push button panel possible

Personal account in SprayTools

With CleverSpray Pro automated spraying, the spraying procedure is defined in advance, each team member can work efficiently in an automated and repeatable manner, and processes can be monitored in real time on the screen wherever you are and reread at any time.



Pressure control based on precise speed measurement

The accuracy of the speed measurement is essential to ensure the specified solution application and guaranteed crop protection. The speed on the tractor tachometer may differ from the actual speed due to wheel slippage. Tractor wheel slip must be eliminated!

Spraying Example:

- row spacing width 4.0 m
- design speed 8.0 km/h
- design pressure 12.4 bar
- number of nozzles on the sprayer 18 x ATR orange
- spray rate 500 l/ha

Speed	7.0 km/h	7.5 km/h	7.5 km/h	8.5 km/h	9.0 km/h
Quantity l/ha	571 liters	533 liters	500 liters	470 liters	444 liters
Delta per 30 hectares in liters	+2130 liters	+999 liters	0 liters	-900 liters	-1680 liters

In this example, you can see that if you decrease the speed, the amount of solution poured out increases, resulting in your financial loss. If you increase the speed, the amount of solution poured out decreases, which can lead to poor treatment quality and infestation or incomplete pest control, which will also affect your financial success.

Nozzle control based on total volumetric flow rate

It often happens that a nozzle is clogged and does not work, and the tractor driver makes round after round without paying attention to it. Using our example, you can easily calculate how much spray solution is under-sprayed on one hectare.

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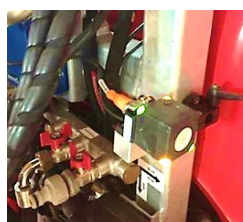


One orange-colored ATR nozzle at 12.4 bar pours out 1.48 l/min. At a given speed of 8 km/h it will take approximately 19 minutes to spray one hectare. The unsprayed quantity of spray liquid will be 28 liters.

The fluid flow meter monitors the exact amount of fluid being consumed and if any nozzle is clogged, it signals the problem to your tablet or smartphone display.

Automatic switching on/off of machining sections

- Automatic activation/deactivation of the treatment sections by means of ultrasonic tree crown detection sensors and headland management system
- Reliable headland detection
- Counting rows
- Fine-tune the spacing distance between trees to include and to shut down the machining sections.
- Switching off in between can save up to 10% in gardens with a number of trees from 1250 and above per hectare and up to 30% in orchards with the number of trees up to 1250 per hectare.



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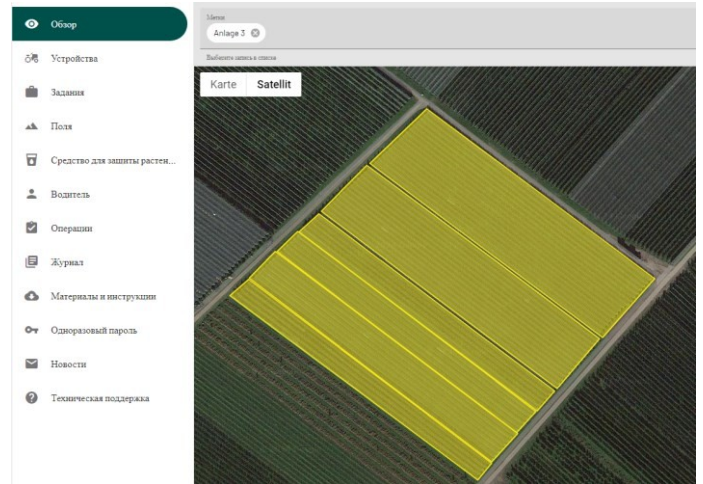
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Personal account at SprayTools

- Allows you to create tour configurations in the office
- Allows you to monitor spraying in real time (very useful for large enterprises)
- Allows you to analyze past sprayings
- Makes an automatic record of your It is very useful for farms that work with the Global GAP program. Very convenient for farms that work under the Global GAP program.



Scope of delivery:

- Control unit
- Cable set
- Flow sensor. Allows the system to check injector operation during spraying. Helps identify inoperative injectors during spraying
 - Pressure sensor
 - 2 speed sensors
 - 2 distance sensors (SSC)
 - keypad (emergency control)
 - SSC kit for section control
- Free access to farmunited CLOUD (data exchange, administration, digital spray diary)
- Free software updates

(Tablet and tablet holder are not included)



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