

ARA : Ultra-High Precision Sprayer

AI-powered spraying technology that cuts the use of plant protection products and fertilizers by up to 95%. ARA offers a reliable solution for meeting strict environmental regulations while boosting agricultural profitability.



Plant-by-Plant AI Treatment

Achieve up to 95% reduction in plant protection product usage!



Fast ROI on Your Investment

See returns in just 2 to 4 years, depending on farm size.



Boost Your Bottom Line

Lower costs on inputs while maximizing your crop yields.



Year-Round Versatility

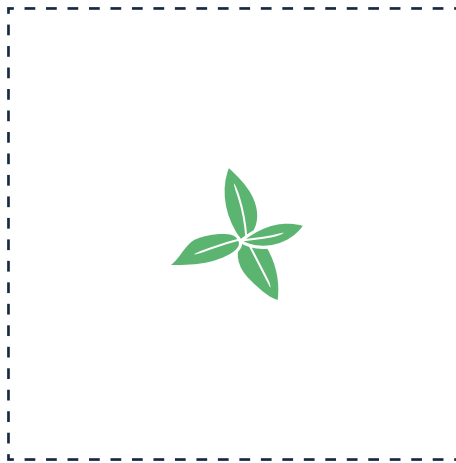
From herbicides to fertilizers, ARA adapts to all your seasonal needs.

A Revolution For Precision Farming

ARA is one of the most precise field sprayers available, offering plant-by-plant spraying. With a working width of 6 meters and a driving speed of up to 7.2 km/h, ARA can cover 4 hectares per hour.

Actual-Size Demonstration

ARA offers **6 x 6 cm of precision**, targeting only the specific area that needs spraying while leaving the surrounding areas untouched.



Detection Threshold

Minimal Recognition Size

Weeds
(Mono & Dicots)



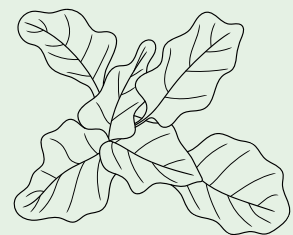
≥ 2 mm

Crop



≥ 2 cm

Dock | Thistle



≥ 5 cm

Versatility : Day & Night, All Year-Round, Even in Windy Conditions

ARA operates as well at night as it does in the day and can cover up to 96 hectares every 24 hours. The protective covers prevent sun and wind from getting in, greatly reducing drift.



Ultra-High Precision Plant-by-Plant Spraying

1. Reduced phytotoxicity thanks to ultra-high precision spraying – increasing crop yields and improving biodiversity.

2. Nozzle action close to the ground and protective covers minimizes spraying drift by 95%- certified by Julius-Kühn-Institut (JKI)



“

We have done over 1750 ha of onions with ARA with savings up to 96% on raw chemical input. It obviously depends on weed pressure and crop growth stage, but we are very pleased with the results. Due to reduced phytotoxic crop impact, we would expect yield benefits of at least 10-15% and positives associated with a reduction of crop stress.

Angus Hill | Agronomist & Farm Support Consultant

Crop Protection & Fertilizer Application

Precise spraying of herbicides, fungicides, insecticides, etc., in row crops, vegetables, prairies, and lawns.

CROPS

Onions
including volunteer
potatoes



Chicory



String
beans



Lettuce
various types



Spinach



Carrot



Sugar beets
including volunteer
potatoes



MEADOWS AND LAWNS

Dicots in
lawn



Thistle



ADDITIONAL FEATURES

Universal Functions
with adjustable
minimum/maximum
target size



Dock



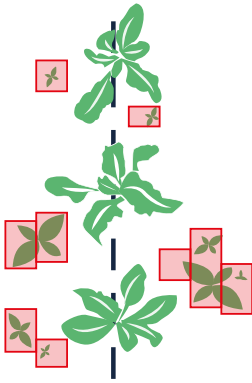
Dual-Tank System

ARA is supplied with a water and a product tank that are carried on the front of the tractor. This enables mobile refilling of the spraying liquid in the field.

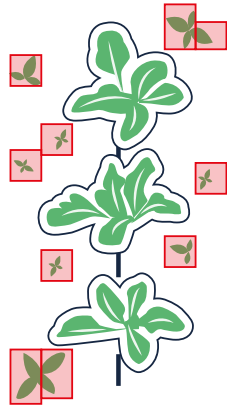


Crop Care Procedures

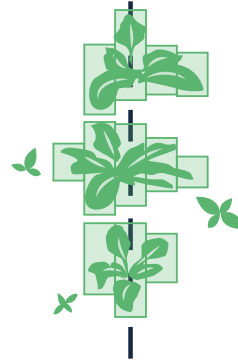
Crop-Specific Algorithms



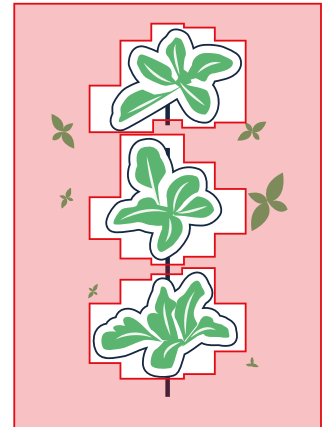
Application of selective herbicides **on weeds even close to crops.**



Application of non-selective herbicides **with an adjustable safety zone.**



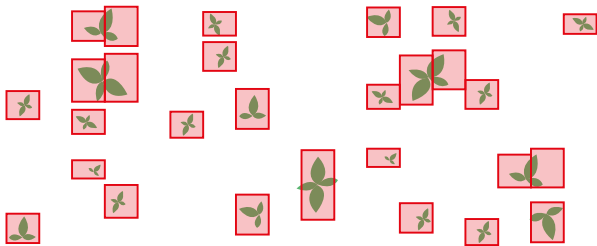
Application of fungicides, insecticides, fertilizers and biostimulants **on the crop only.**



Spray all but crop **with an adjustable safety zone.**

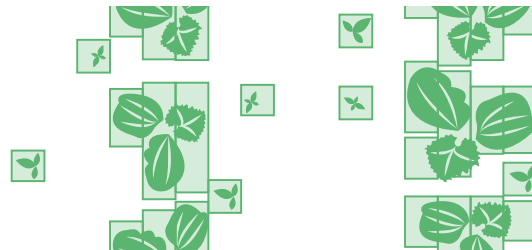
Universal functions (non crop specific)

All-Green Function



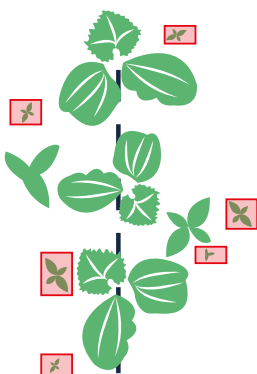
For preplanting : herbicide application.

All-Green Function

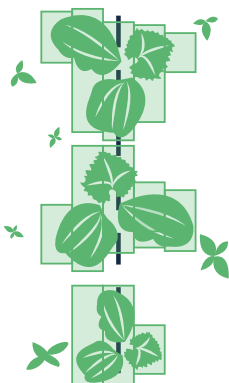


Application of fungicides, insecticides, fertilizers and biostimulants **on all green plants.**

All-Green Combined with Target Size

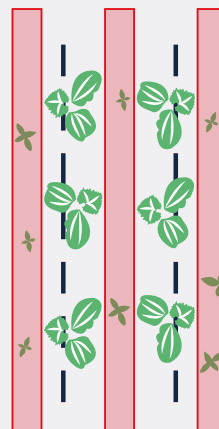


Size-based **herbicide** application.

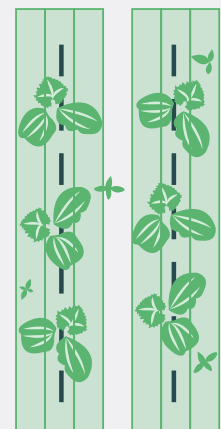


Size-based application of **fungicides, insecticides, fertilizers and biostimulants.**

Band Spraying with Row Algorithm



Interrow herbicide treatment.



Application of fungicides, insecticides, fertilizers and biostimulants **in the row.**

Easy-to-Use Operation

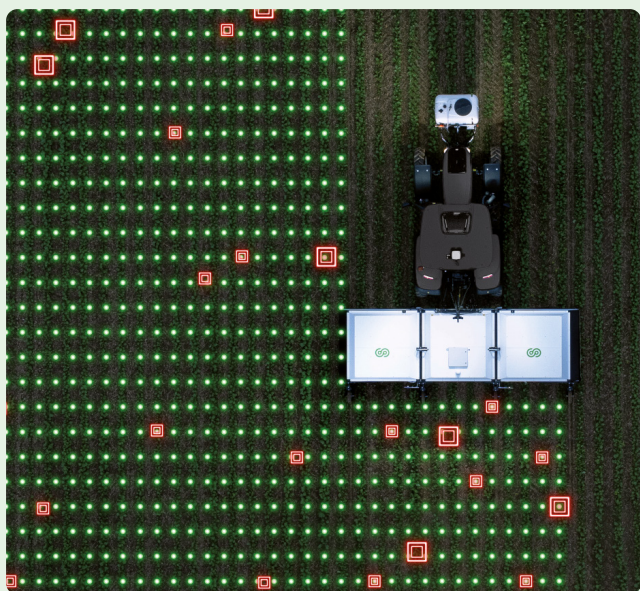
Just plug-in and go!

ARA attaches easily to the back of any tractor and is controlled with a tablet in just a few clicks. Select the type of crop, treatment type, and ARA does the rest! All other settings are automatically set to match the driving speed and direction.



Three-Phase Plant-by-Plant AI

- 1** Collection & analysis of images from on-board cameras.
- 2** Recognition & identification of individual crops & weeds.
- 3** Targeted spraying only on selected plants or weeds.



Your Cloud Assistant

Optimise your crop management based on automatic documentation of your operations.

During treatment, data is continuously recorded by ARA and stored in the cloud.

With your personal login you have access to detailed statistics, like the amount of plant protection products used and the area worked. In addition, an application map is created for each field.

Technical Data

System dimensions

Length × Width × Height

3 spraying modules

Transport dimensions : 2.74 m × 2.97 m × 3.20 m

Working dimensions : 2.74 m × 6.46 m × 1.26 m

Wheel spacing : 1.5 to 2 m

Spraying dimensions

156 high-precision spray nozzles spaced 4 cm apart

Weight

Front tank : 450 kg (empty) and 1350 kg (full)

Spraying modules : 1200 kg

Front tank volume

600 litres water tank + 300 litres spray tank

Working width

6.0 m

Spacing between crop rows

No constraints

Speed

Up to 7.2 km/h

Wheels

Available for crops or meadow

Area output

Up to 4 hectares/hour, day & night

Efficiency

Up to 95% saving on plant protection products
(depending on weed density)

Connections on the tractor

Hydraulic : min. 100 bar

PTO : 3 kW max. (4 cv) of energy required

Nozzle rinsing

According to existing standards

Control and configuration

Via wireless tablet

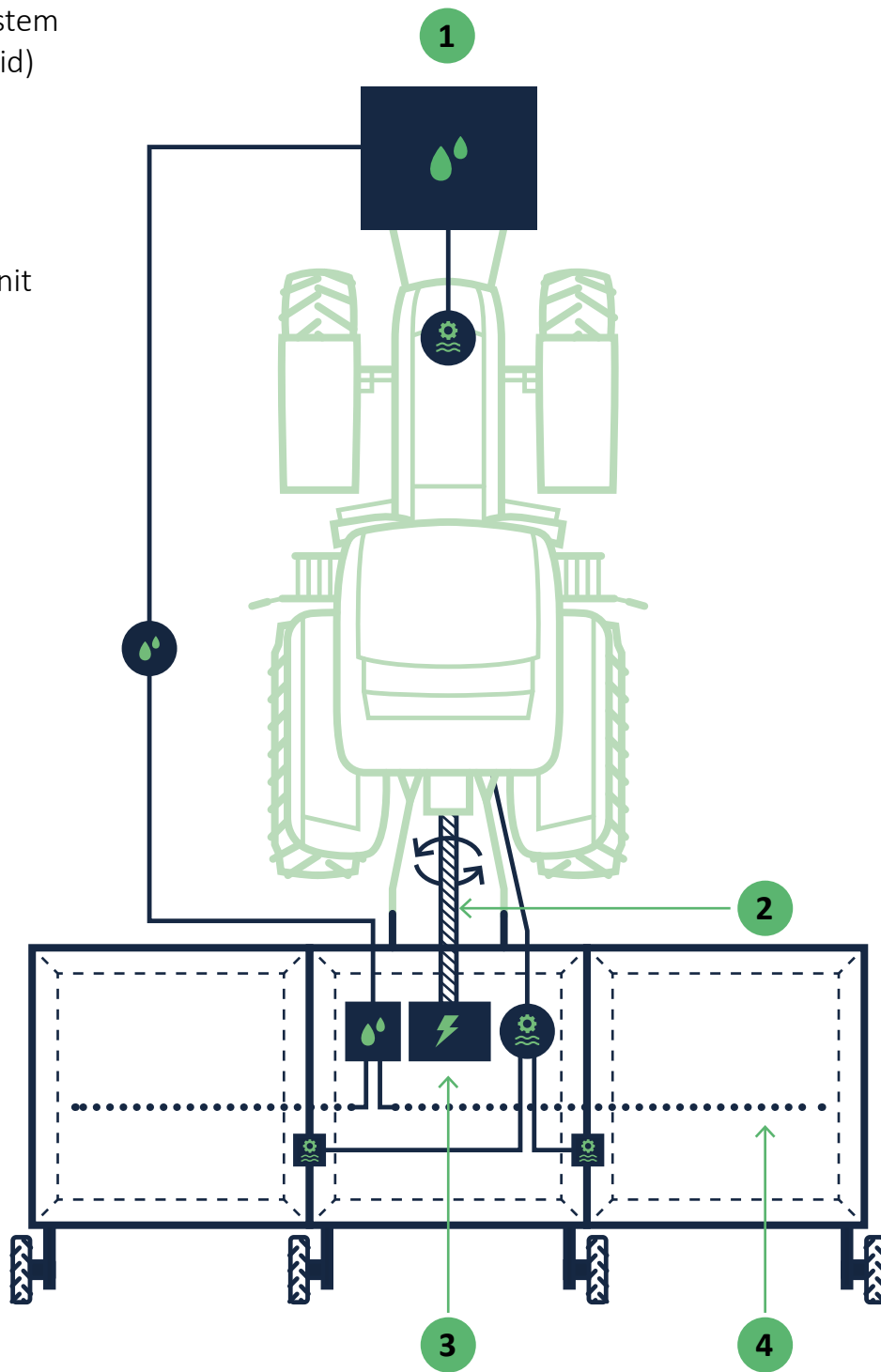
Communication

Short (Wi-fi) or long distance (3G, 4G)

Specifications for information purposes only, subject to change without prior notice.







- 1 Front dual-tank system (water + spray liquid)
- 2 PTO
- 3 Hydraulic power unit
- 4 Spray boom



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For more information, contact your regional distributor.

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