# FARMNAUIGATOR

## **G7** Dataseed

## Universal Automated Inter-row Weeding

In any type of soil, crop phase and weather condition!



In any type of soil, crop and weed population

Without the limitations of image recognition.



In any condition of visibility and weather

Without the problems of dust, humidity and wind.



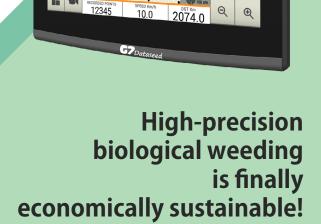
Effective, precise and sustainable biological weeding

Now at affordable costs.



#### With Dataseed technology

G7 Dataseed is based on superior precision tracking of sowing, a technology developed in Italy by AvMap.



ARMNAVIGATOR

<<<< 0.15<sub>m</sub>≥>

Fewer costs Fewer crop losses Fewer herbicides More quality





## The complete system for Universal Automated Inter-row Weeding:

G7 Dataseed • ECU Dataseed • 1Minute RTK



#### **Dataseed Technology**

Superior precision tracking of sowing by AvMap, the pioneers of GPS

G7 Dataseed is based on an innovative technology that allows you to perform automated weeding with centimeter precision

without the use of cameras, infrared, or auto-steering.



10 Positions received per second



RTK centimetric accuracy +/- 2cm

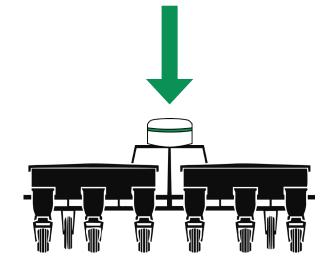


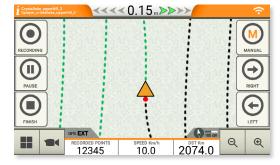
Inclinometer to record and compensate for any variation in the terrain

#### How does the innovative Dataseed system work

#### 1. Sowing

- During sowing, the high-precision GNSS receiver is installed in the center of the seed drill.
- G7 Dataseed records the exact track performed by the implement, including curves and any sowing errors. Thanks to the proprietary Dataseed technology, the system saves the track taking into account the inclinations of the terrain and the speed of work.
- All the tracks saved on the G7 Dataseed internal memory can be organized by customers and fields and exported in the most common standard formats.





Real sowing track recording with high precision and high dot density

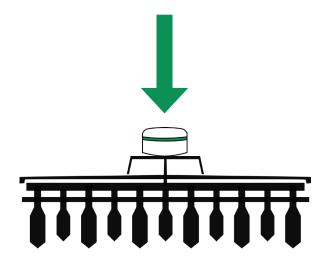


Creation of the sowing tracks database



#### 2. Weeding

- During the weeding phase, the high-precision GNSS receiver is moved to the center of the weeder.
- The dataseed track recorded during sowing is recalled on the G7 Dataseed.
- The automated weeder, equipped with hydraulic control, is guided by the ECU Dataseed and accurately follows the same track performed during sowing, regardless of the driving of the tractor.





#### G7 Dataseed is effective in any soil condition, not just the ideal one:

The Dataseed method applied to an advanced satellite technology guarantees precise control of the weeder from the very first stages of the plant's germination, in any soil condition and weed population.







Ideal soil condition

Early sprouting stage

Abundant weeds



**G7 Dataseed** 



**G7 Dataseed** 

It works from the earliest stages of sprouting.



**G7 Dataseed** 

It works even with abundant weeds.



**Image recognition systems** 



**Image recognition systems** 

The camera cannot distinguish between cultivated area and weeds until they reach a certain size.



**Image recognition systems** 

The camera cannot distinguish between cultivated area and weeds if they are too abundant.



#### G7 Dataseed is suitable for the organic cultivation of all types of crops:



**Potatoes** 



Turnips



Soybean



Sunflowers



Corn



**Tomatoes** 



Beets

and much more...

# FARMNAUIGATOR The Dataseed system

#### **MADE IN ITALY**

By AvMap, the GPS pioneers

The FARMNAVIGATOR line is produced by AvMap, the Italian company pioneer of positioning and satellite navigation in every environment: land, sky and sea.





On-board 7" display computer recording the sowing tracks



- Dimensions: 188 x 146 x 33 mm
- Weight: 640 g without power cable
- Display: 7 "capacitive multitouch screen (1024 x 600 px)
- Supply Voltage: 10-35 Vdc
- Power consumption: 1,5A max @ 12V (~ 18 W)
- Power cable with 3 adapters: cigarette lighter plug, spade terminals, Cobo
- Serial ports: 3 (2x powered 12 Vdc)
- WiFi
- Operating temperature: -10°C / +60°C
- Storage temperature: -30°C / +80°C
- Waterproof IPX6 suitable for use on tractors without a cab



### **ECU**Dataseed

It controls the mechanical weeder directly on the hydraulic electrovalves

#### **Technical Specifications**

- Dimensions: 130 x 90 x 40 mm
- Weight: 500 g without harness
- Supply voltage: 10-35 Vdc
- Power consumption: 14A max @ 12V (~ 170 W)
- Included harness: 1x main connection cable, 1x power cable, 2x electrovalves
- RS232 Serial port

- WiFi
- Operating temperatures: -20°C / +60°C
- Storage temperature: -30°C / +80°C
- Waterproof: IP67
- Output:
  - 2x On / Off (PWM)
  - 2x Proportional electrovalves (PWM)



#### 1Minutertk

Connected GNSS receiver with inclinometer and +/- 2 cm accuracy

#### **Technical Specifications**

- Dimensions: ø 98 mm x H 50 mm
- Weight: 240g without power cable
- Power supply: 10-35 Vdc
- Power consumption: 1.5 W
- Power cable: 4 m Conxall DB9
- Triaxial accelerometer + gyro
- Steel bracket: 133 x 101 mm
- Operating temperature: -20°C / + 60°C
- Storage temperature: -30°C / + 80°C
- · Waterproof: IP67

#### **Communication**

- GNSS Receiver: GPS + GLONASS + GALILEO + BEIDOU + SBAS
- GNSS frequency band: L1, L2

#### **Performance and Connectivity**

- RTK accuracy +/- 2 cm
- Baseline RTK 100 Km
- Integrated NTrip client
- Built-in cellular modem
- Automatic connection to IoT server
- Automatic updates



#### **Customer Support**

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