

Quanti Farm

CROP FARMING DATAS VARIABLE RATE TECHNOLOGIES



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FACTSHEET #10



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WHAT ARE THE DATSs?

Digital Agricultural Technology Solutions (DATSs) are digital tools, systems, and platforms that collect, analyse, and use data to improve **farm management, productivity, sustainability, and animal welfare.**

They support better decision-making by transforming **real-time and historical data** into **targeted actions** on the farm.

WHAT ARE VARIABLE RATE TECHNOLOGIES (VRT)?

Variable Rate Technologies (VRT) are a category of Crop Farming DATSs that enable the automatic adjustment of inputs, such as fertilisers, pesticides, or water, according to the specific needs of different areas within a field.

Their purpose is to apply the right input, at the right place, in the right amount, based on field variability and crop requirements.

By adapting application rates in real time or through prescription maps, VRT supports more precise, efficient, and sustainable crop management.

WHO ARE THEY FOR?

Variable Rate Technologies are designed for:

Crop Farmers and Farm Managers

aiming to optimise input use



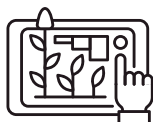
Advisers and Extension Services

supporting precision crop management



Agricultural Consultants and Digital Innovation Hubs (DIHs)

promoting digital farming solutions



Researchers and Stakeholders

analysing precision agriculture practices



They are applicable across **different crop types and field conditions.**

KEY OBJECTIVES

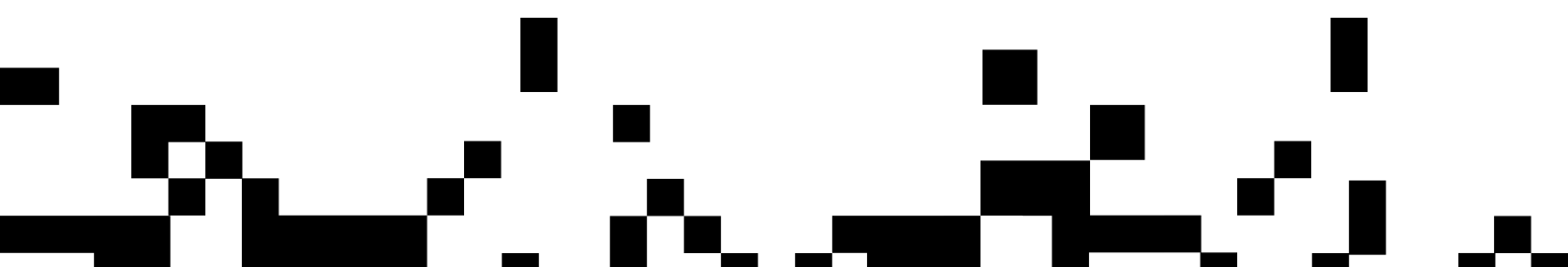
To optimise the use of fertilisers, pesticides, and water

To increase crop productivity and efficiency

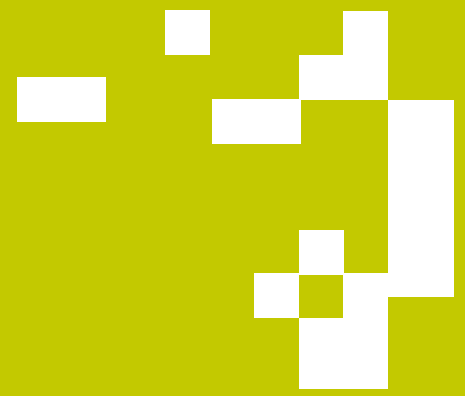
To reduce input waste, costs, and operational risks

To **improve environmental sustainability** by limiting over-application

To support evidence-based and site-specific crop management decisions



MAIN FEATURES



Variable Rate Technologies (VRT) focus on adjusting applications automatically based on field needs:

Variable rate spreaders

Apply different amounts of seeds or fertiliser across the field, ensuring resources are used efficiently, and crops receive what they need.

Variable rate sprayers

Adjust pesticide application rates to match local crop conditions, helping maintain crop health while reducing unnecessary use.

Precision irrigation systems

Deliver the right amount of water exactly where crops need it, saving water and supporting optimal plant growth.

Together, these technologies help farmers **reduce waste, protect the environment, and improve crop performance** through precise and targeted input application.

Learn
More



quantifarm.eu
info@quantifarm.eu

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