
Omnia
Precision Agronomy
Translating data
into knowledge

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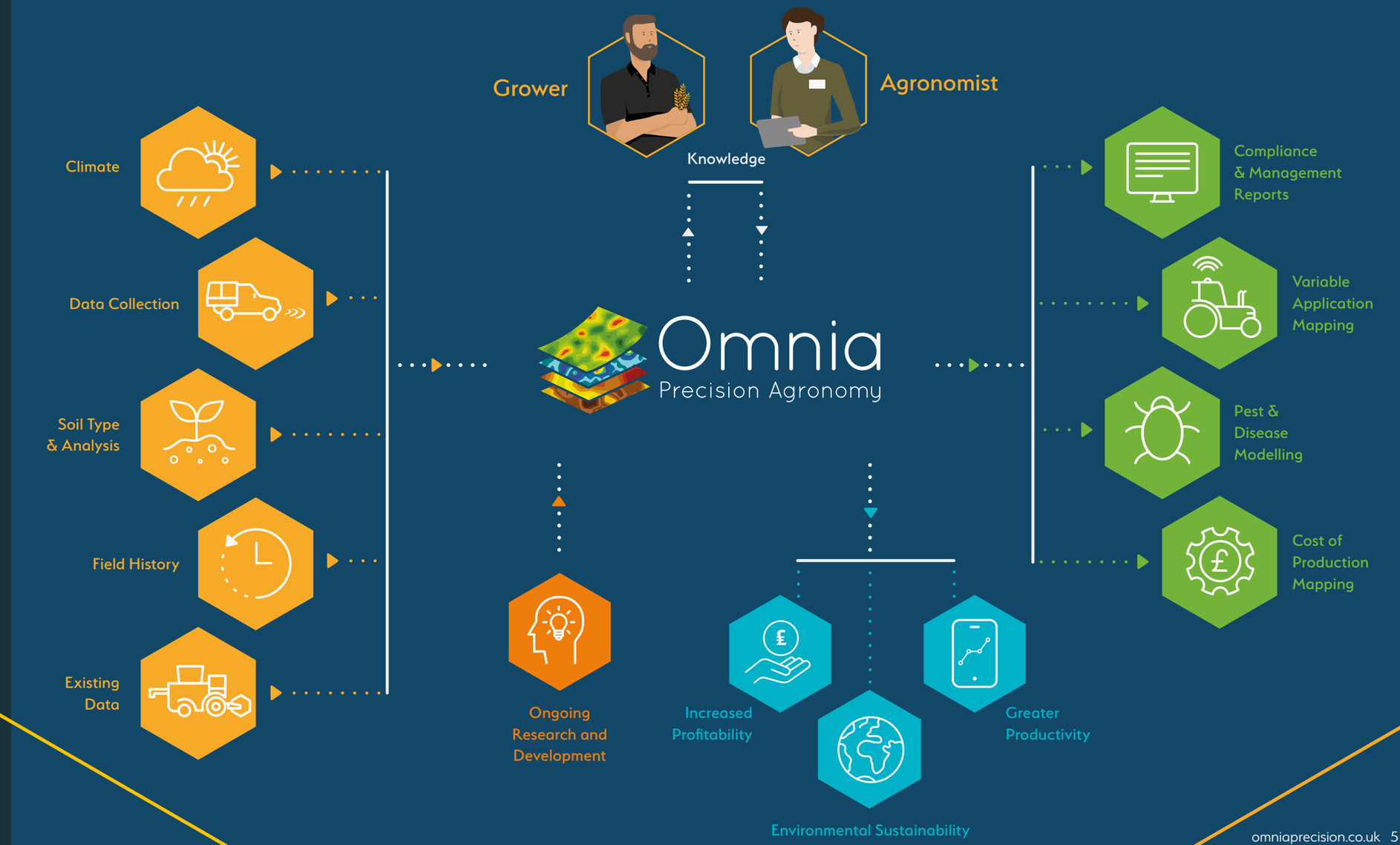
Precision data at your fingertips

Translating Data Into Knowledge

Growers have always relied upon the relationship with their agronomist to optimise their crop output. Omnia has been developed with this key partnership in mind.

Omnia is a revolutionary precision farming system that will interpret existing information, whether this is digital or personal knowledge and experiences to give practical and effective advice.

› Improving productivity, increasing profits and ensuring future sustainability



Omnia Access

A free service offering growers customised farm mapping and local weather data.

- Fields module
- Map layers module
- Climate module
- Data imports

Omnia Field Manager

Industry-leading advice without the requirement for precision farming technology. Reporting software providing cropping plans, soil analysis results, plus nutrient and fertiliser requirements for each field, along with the necessary NMAX calculations.

- Everything in Omnia Access
- Stocks module
- Nutrition calculators
- NVZ compliance
- Seed rate calculations
- Reports
- Historical climate data
- Crop growth models
- Pest and disease models
- Satellite Imagery (NDVI/Chloropyll/RGB)
- Field Diary

Omnia Precision

Unrivalled analysis of information from a variety of sources, allowing intelligent and informed decisions for a whole range of variable input applications at sub-field level.

- Everything in Omnia Field Manager
- Variable rate prescription plans
- Data exports
- Field performance mapping
- Cost of production mapping

> We have been impressed with Omnia, as we have been able to make changes to what we are doing in a quick, efficient manner and we have not had to make a huge investment to do this.

Tom Ramsden,
Low Lindrick Farms, Yorks

Omnia Packages

Omnia Access - Free Your Data

Free to use, Omnia Access is the perfect entry point for those looking to get more from their data...

Custom maps

Create custom maps of your farm in Omnia's advanced software.

Existing mapping data

If you already have mapping data from another system, it is absolutely free to import your data into Omnia Access.

Accurate Weather Data

There is no need to invest in a weather station, if you sign up to Omnia Access, as we have developed an innovative solution that collects data from all nearby stations.

Omnia Field Manager - Tailored to your needs

A more holistic and integrated approach to crop management than has previously been possible...

Tailored to suit the individual farm requirements

Every service consists of a complete set of reports that show the cropping plan for the field, soil analysis results, nutrient and fertiliser requirements, along with the necessary NMAX calculations.

Nutrient Planning

By helping growers to target appropriate applications of crop inputs for each area of the field, thereby meeting the crop's optimum requirements, Omnia is able to deliver unrivalled environmental sustainability.

Manure Management Planning

Any farm that either has livestock or imports manures or organic waste is required to have a Manure Management Plan, which is updated annually.

Omnia Precision - An unrivalled level of agronomic accuracy...

Making Precision Agronomy Work for You through a multi-layered approach...

Omnia Precision is available for growers to either use themselves or as part of a bespoke service delivered in conjunction with an Omnia specialist. The service is tailored to meet the growers' specific precision agronomy requirements.

Variable Rate Application Plans

Using data alongside agronomist and grower knowledge, Omnia Precision can create variable rate application plans for nutrition, seed and crop protection.

Variable Nutrition

With the ability to create sub-field sampling, Omnia can tailor your nutrition application at sub-field level.

Variable Seed

When trying to determine the appropriate seed rate it's important to take many factors into account.

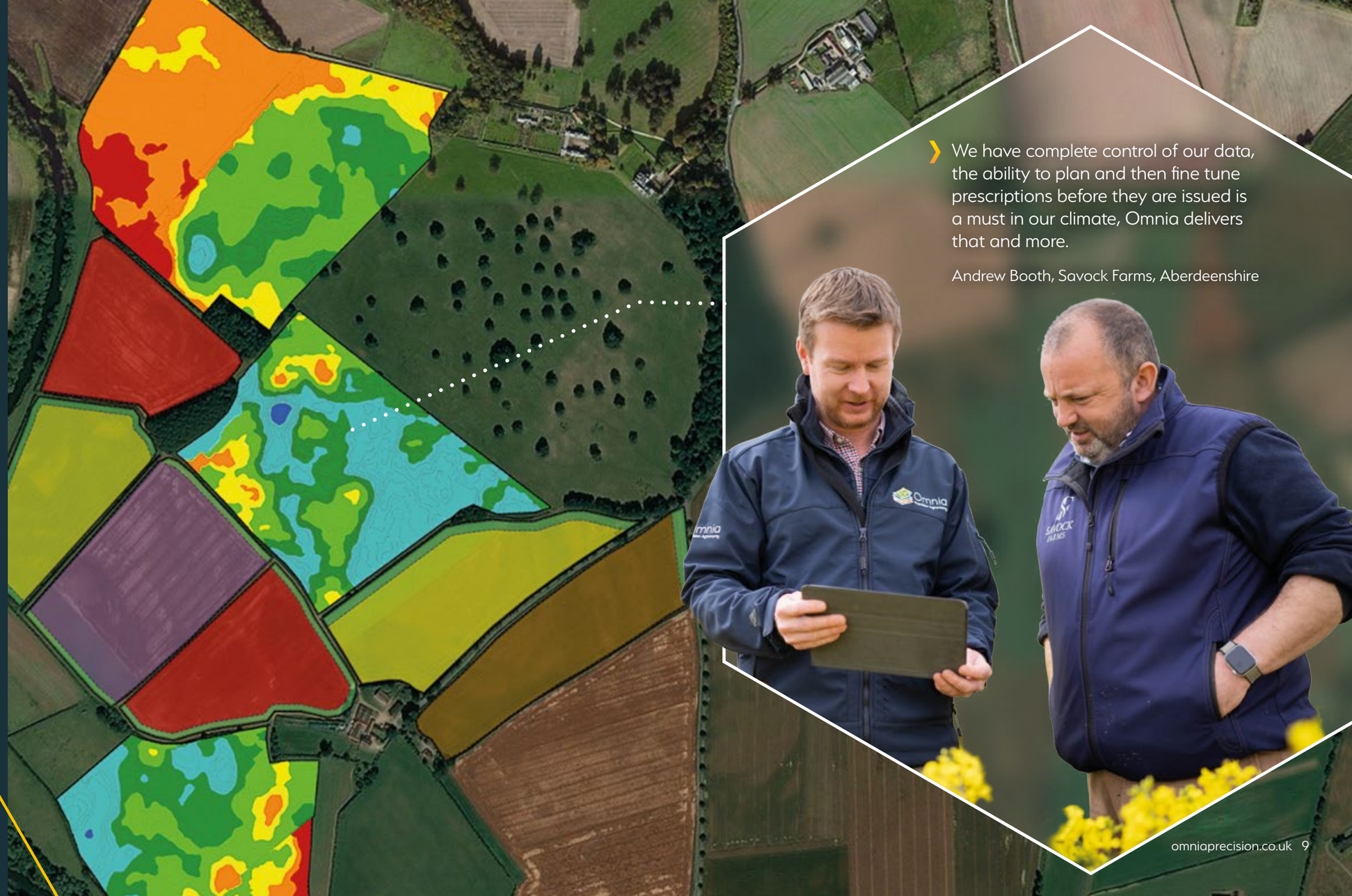
Omnia allows you to have a different map for: soil type, weed pressure, seedbed condition and slug pressure.

Omnia Precision

Realising the full potential of precision technology

Omnia Precision unlocks the full potential of your precision farming data. Whether you have historic data such as yield maps or current season data, the extra tools in Omnia Precision allow you to maximise your investment in technology.

- Variable rate prescription plans
- Data exports
- Field performance mapping
- Cost of production mapping
- Multi-dimensional analysis
- Advanced climate module



> We have complete control of our data, the ability to plan and then fine tune prescriptions before they are issued is a must in our climate, Omnia delivers that and more.
>
> Andrew Booth, Savock Farms, Aberdeenshire

Never lose paper maps again, with the ability to load them into Omnia or manually draw them into Omnia's market leading 'Map Layers' function.

Drawing Layers

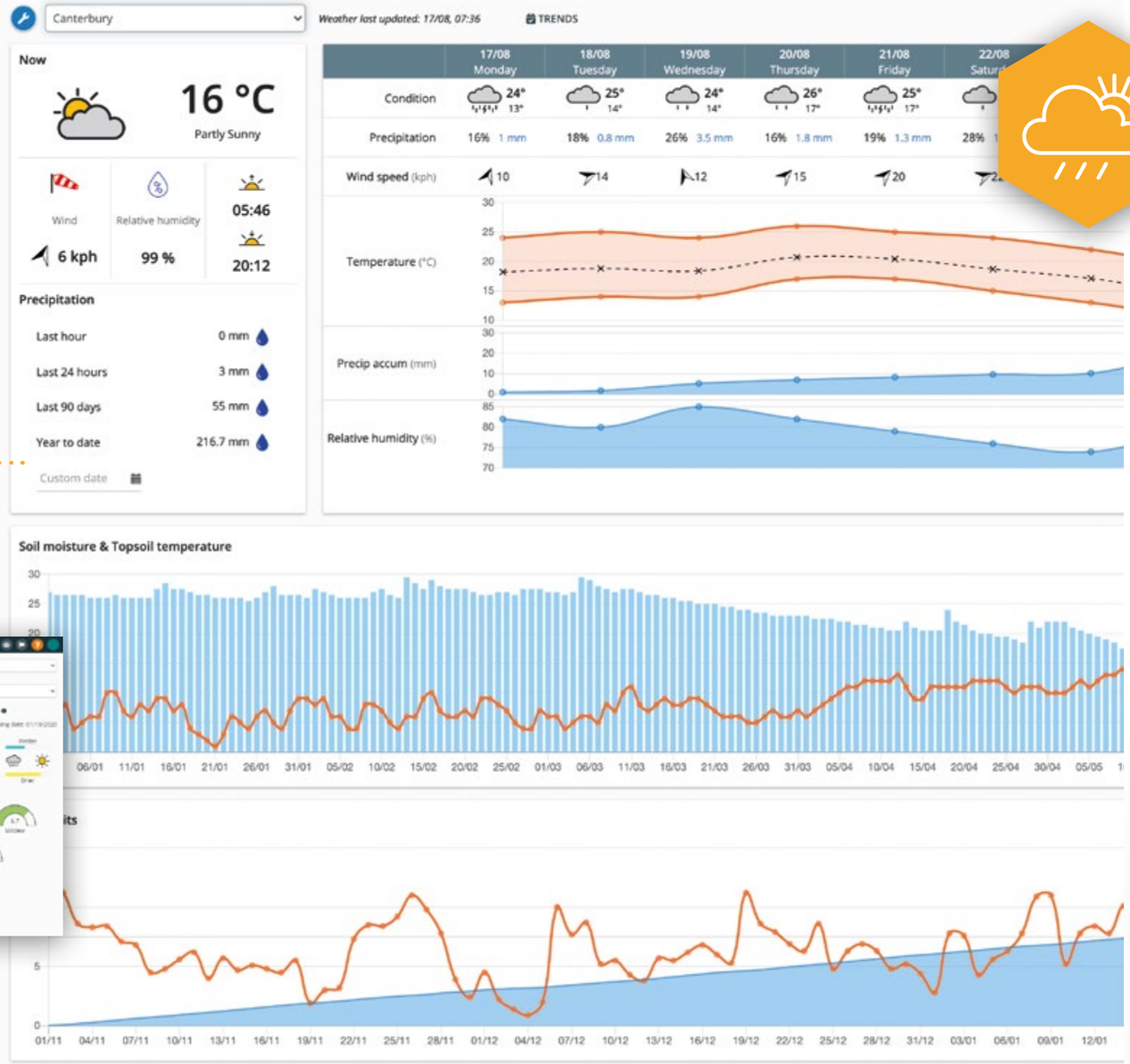
Capture your thoughts and knowledge in one place

Map layer transparency and filters allows you to see what you need to see, all of which can be used to create reports.

- Weed and slug pressure
- Drainage
- Pictures
- Environmental features
- Trial areas
- Drone imagery
- Tracks and field access points
- Buffer zones
- Irrigation equipment
- Special points of interest

Climate Module

- Long Term Weather Trends
- Historic Weather Data
- Soil Temperature and Moisture Charts
- Crop Growth Stage Modelling
- Pest and Disease Forecasting – Optional Email Alerts
- Windspeed and Solar Hours



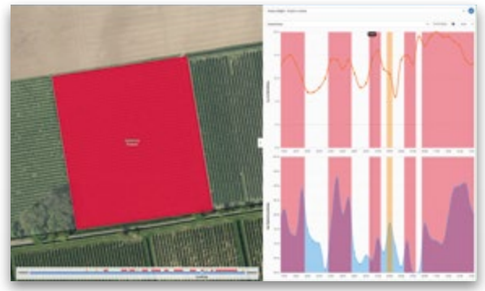
The Climate module enables users to place virtual weather stations at any location, providing weather forecasts which are accurate to 1km² of that station for a 10 day period.

Several stations can be placed on the holding, and fields can be associated with individual stations.

As well as the forecast weather, you can also view historic data. This makes record keeping and treatment justification much easier.

Within this module, there are also crop growth models for Wheat and Barley which are specific to your situation.

In addition to the crop growth models, there is pest, disease and risk forecasting. These combine the weather data and crop growth models to make forecasting charts, with email alerts when a high risk period has been identified.



Accurate management of manure and fertiliser

› It all comes down to the same requirement; using manures to maximum benefit, saving money where fertiliser is not needed, reducing harmful impact on the environment, whilst complying with NVZ rules.

Michael Howie,
Morwick Dairy, Northumberland

Nutrient & Manure Management

Maximising Nutrient Use Efficiency

Omnia delivers unrivalled whole field nutrition planning and reduces the workload associated with producing NVZ compliance data for inspections.

Growers can use Omnia themselves, or choose a service delivered by an Omnia specialist. Nitrogen calculations are fully justified to meet specific farm needs.

Regular soil sampling can be included within the service to ensure the most effective use of P, K, Mg and S and the absolute efficiency of N use, whilst managing pH is critical for optimum nutrient uptake.

In addition Omnia can be used to measure other essential soil attributes such as;

- pH
- Organic Matter
- Cation Exchange Capacity
- Micronutrients

Manure Management Planning

Considerable benefits can be made by utilising organic manures correctly.

Manure and slurry should therefore be treated as a valuable resource of nutrients and organic matter.

An Omnia manure management plan is split into five specific sections;

1. Risk Map
2. Farm Limit
3. Field Limit
4. Storage
5. Imports and Exports

An Omnia manure management plan will help you use your manures to maximum benefit and reduce harmful impact on the environment, whilst complying with all the NVZ regulations.

Soil Samples Taken and Data Processed

The infield process of collecting the data is carried out in two very simple steps; scanning and collecting reference soil samples.

The raw scan, soil data and soil samples are then combined and processed to produce up to 27 high-definition soil property layers.

Measures Four Naturally Emitted Isotopes

The TerraMap system uses gamma-ray detection technology to map all of the common nutrient and physical soil properties.

The scanner, which is manufactured by Canadian company SoilOptix, measures four naturally emitting isotopes: Caesium, Uranium, Potassium and Thorium.

800 Reference Points Per Hectare

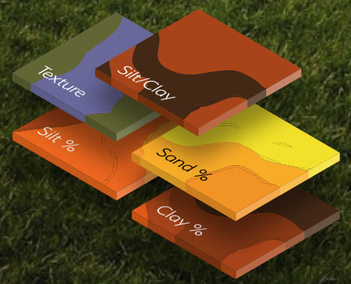
The TerraMap produces the highest resolution soil mapping layers in the world at over 800 data reference points per hectare.

In comparison, grid sampling map layers have only a single data point per hectare.

> TerraMap offers a big jump in accuracy.
>
> Charles Parkinson,
> Manor Farm, Lincs

Standard Properties

Soil Texture



Other Properties

Additional Elements

TerraMap

TerraMap is a soil mapping and sampling service which enables agronomists and growers to make better informed decisions for crop management and soil stewardship.

- Measures and maps common nutrient properties
- Defines soil textural changes within the field
- Provides more data points, greater definition and more detailed soil maps than any other system in the world
- Data can be used to produce variable rate application for seed and crop nutrition
- Tailored to the specific soil conditions with unprecedented accuracy

Targeted Seed Rates

Hutchinsons trials over a number of years have shown that the variation in crop establishment within a field can be considerable.

Until now seed rates have largely been decided by guesswork. It is often done by deciding upon the 'average rate' and then increasing or decreasing the rate based partly upon experience and instinct.

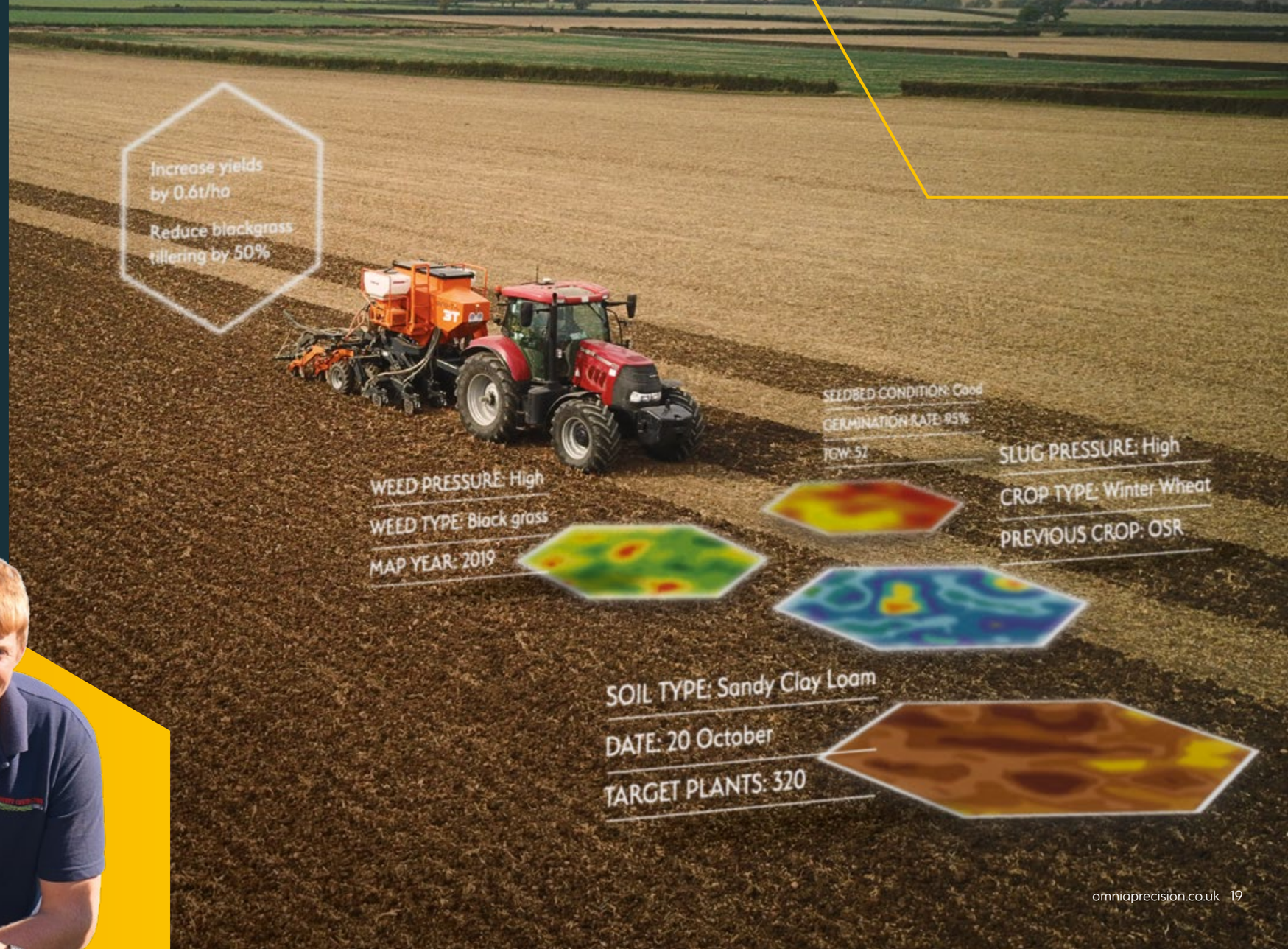
Omnia is different. Using the crop type, variety and anticipated drilling date Omnia selects the correct algorithm and suggests a target plant population, which you can modify to meet your individual situation.

Maps of the soil types within the field are then loaded into Omnia to form the basis of the plan. Additional factors can then be overlaid, such as; seedbed condition, weed or slug pressure.

Omnia's unique multi-dimensional analysis then analyses the data and creates a seedrate map that matches the actual agronomic requirement of the field more closely than ever before.

› Without a uniform plant stand you are always playing 'catch up' and have already lost potential.

Chris Wade,
Graham Wade Farms, Lincs



Satellite Imagery

Whether you are looking to monitor crop development and health over the season, create variable Nitrogen plans, or scout fields; Omnia satellite imagery has you covered.

Omnia allows you to view available Sentinel 2 data and choose which images to save as layers against your crops.

- RGB True Colour
- NDVI
- Chlorophyl Index

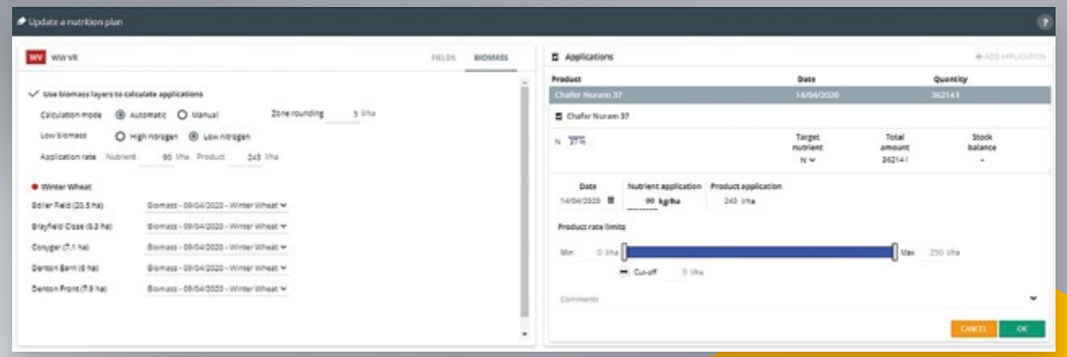
Targeted Nutrition

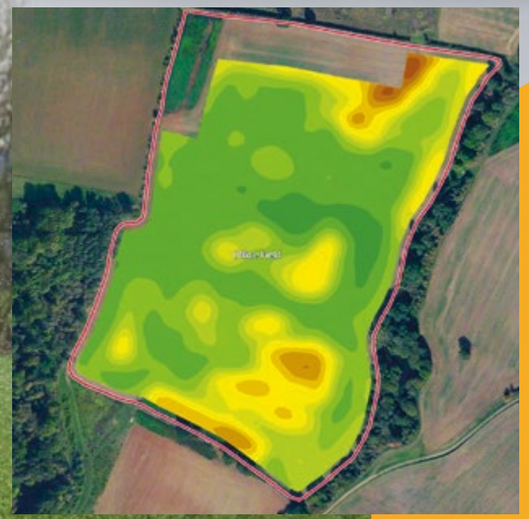
Supplying crop demand accurately and cost effectively.

Omnia offers effective solutions to managing variable fertiliser applications.

- Optimise fertiliser use for yield and quality
- Increase applications to low or high biomass areas
- Vary liquid or solid fertiliser applications
- Use satellite imagery data
- Compliance with Rules for Water
- Nmax calculation

> We used to blanket treat everything, but now fertiliser is only applied where it's needed.
>
> Daniel White,
> Bottisham, Cambs





Target nutrients where they are needed most

One of the main objectives of precision farming is a more targeted approach to fertiliser applications.

Variable rate fertiliser applications require the need to determine the actual crop demand accurately and cost-effectively.

Omnia has the ability to utilise historic grid and zone sample results to compare with the most recent analysis.

Soil sampling can be collected by the grower, as part of the Omnia service or by a third party and can be automatically uploaded into the software.

Connectivity

A key component of Omnia is utilising data regardless of the machinery brand you operate. Omnia supports all common format standards from across the industry to ensure data transfer is quick and easy.

- Import/Export common file formats
- Cloud telematics links
- Cloud software links
- Wireless data transfer
- Smartphone/Tablet applications

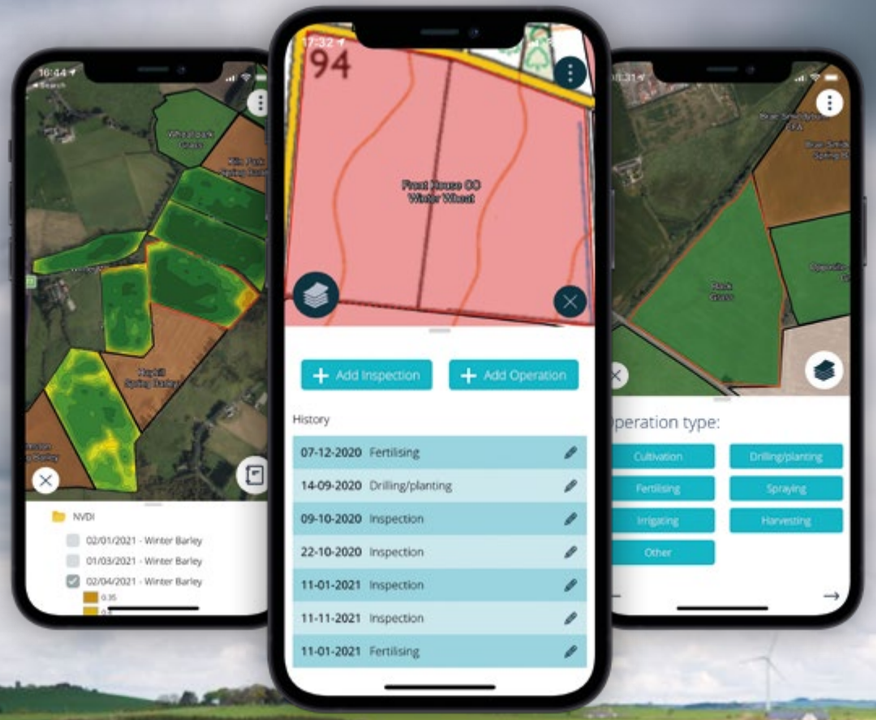
> Omnia has made it super easy for us to import and export data with multiple platforms and brands. We are yet to find something Omnia doesn't work with.
>
> Roy Fisher,
> Airdrie Farming, Fife

Field Diary

Field Diary allows you to view and log field inspections or operations that have been made throughout the season.

Data captured on the Omnia Scout App flows seamlessly into Field Diary to allow this information to be viewed centrally by key stakeholders.

- View/Log inspections and operations
- Confirm application of plans
- Store and view crop pictures
- Create reports of diary entries
- Enhance traceability and justifications



› The Scout app has been really useful to get my clients to record fertiliser and manure applications quickly and easily – this helps me with crop nutrition requirements and also keeps them compliant with legislation.

Jim Clark, Agronomist, Cumbria

Scout App

The iOS Omnia Scout app allows you to view and log data whilst out in the field.

Scout has been designed to be intuitive to use, extending your use of Omnia wherever you are.

The digital multi-tool enables key stakeholders to keep up to date with what is happening out in field.

- View/Add/Edit layers
- Add field inspections
- Add field operations

Hardware Solutions

iPad Variable Rate Solutions – Streamline your precision farming operations.

Connect and E-Seed are low cost solutions that have been designed to simplify precision farming. The iPad apps not only allow you to seamlessly and instantly send variable application maps created in Omnia to the field, but also control the machines as well.

- Cost effective
- Intuitive
- Greater control
- Wireless data transfer
- Improves efficiency
- Wide range of compatibility

Visit the Omnia website for a full list of compatible machines.

iPad Variable Rate Solutions

Streamline your precision farming operations

Omnia Connect

Easily connect your drill, spreader, or sprayer to an iPad for variable rate applications. A low cost solution to enable variable rate where you do not have GPS rate control technologies.

Omnia E-Seed

Upgrade any mechanical drive drill with the E-Seed conversion kit. Variable rate drilling is now possible with the land wheel replacement electric drill module.

Look at your business in a new way

The imminent loss of subsidies as we know them means farmers will need tools to identify the parts of fields consistently performing well, or poorly and be able to manage them accordingly. Yield maps may have been collected for years but in most cases, they are simply not being used.

Multi-Dimensional Analysis within Omnia has now made yield map analysis possible. Using a number of years worth of yield maps, farmers can produce field performance maps that accurately reflect the performance of that field. This provides a decision support tool for ongoing management decisions within the field.

› It has allowed us to look really closely at how different parts of the field are performing.

Ed Ford,
Childerditch Farms, Essex

Cost of Production Mapping

The importance of understanding your costs of production might seem obvious, however, variation in output across a field and the increasing use of variable inputs mean that this may be misleading when done at a field scale.

Omnia allows growers to identify the least and most costly areas within a field and make decisions based on this more detailed information.

Costs, based upon industry standards, allows a quick and easy snapshot of individual site performance. For growers that have their own financial information, this can be easily adopted to show much more detailed analysis, bespoke to the individual farming business.

> Precise evaluation of profit and loss is key to sustainability.
>
> John Pelham,
> Andersons

> We really wanted to drill down into our costings but we had never been able to do this accurately, until now.
>
> Andrew Mason,
> Low Lindrick Farms, Yorks

Omnia
Precision Agronomy

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Crop Production Specialists