



**Stuart Hill**  
(Head of Technology & Innovation Hutchinsons)

# Technology, the power in your hands...



Stuart Hill, Hutchinsons Head of Technology and Innovation describes how the Helix project continues to lead the industry in the development of technology tools that support decision making on farm.



There is much focus on BPS reduction and introduction of ELMs and SFI currently but in reality, the weather is arguably the biggest single driver of profitability in UK arable farming. We only have to look at the last 5 years and see how extended wet, dry, hot or cold periods have impacted on seasons in different ways and has made us more reactive. It makes budgeting, planning, forecasting, timing, applications etc nigh on impossible - or does it?

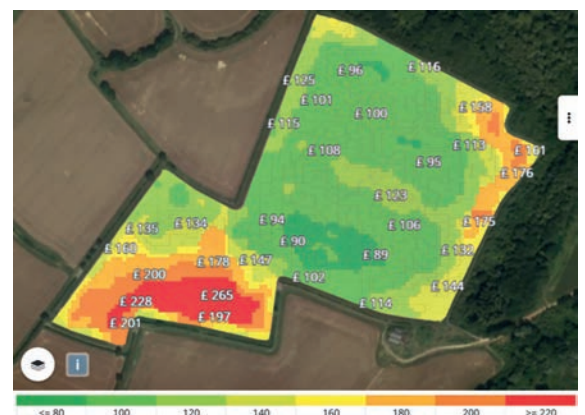
If we have no understanding of past patterns, we cannot then make strategic decisions about the future.

**This is where data is key to building long term resilience on farm and where the Helix project is delivering benefits by developing and validating technology alongside agronomic knowledge.**

## Build Resilience

- **Yield maps:** This basic data is a must have to make strategic farm decisions. It is possible to analyse all farm productivity over a number of years to assess consistently poor areas and decide what to do.
- Ask the question, is remedial action needed such as soils assessment, drainage work or is geography the issue, such as areas next to woodlands impacted by lack of light or wildlife.
- If we cannot improve these areas cost-effectively is there an opportunity to remove them from food production and into an environmental scheme to improve farm biodiversity and return.

- Although the area farmed is slightly less, the profitability per field increases. It is possible to spread fixed costs on more land or reduce machinery number or size to fit the new area.

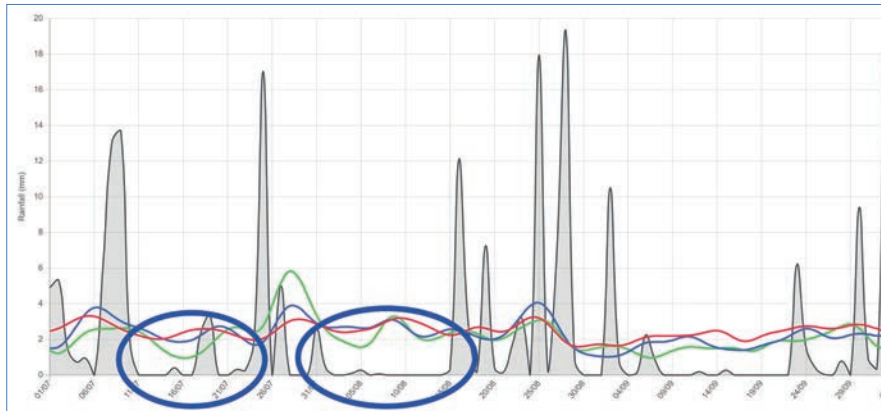


*Omnia cost of production map at Helix National Farm*



# > Omnia climate tool weather trends

Green line (Last 5 yrs) circled areas indicate periods of below average rainfall



~~~~~ last 5 years rainfall    ~~~~~ last 10 years    ~~~~~ last 30 years

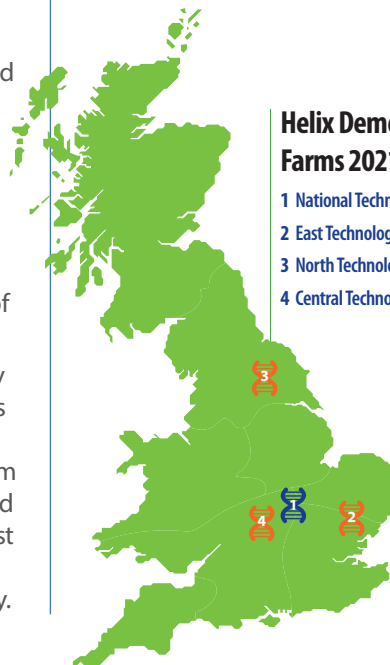
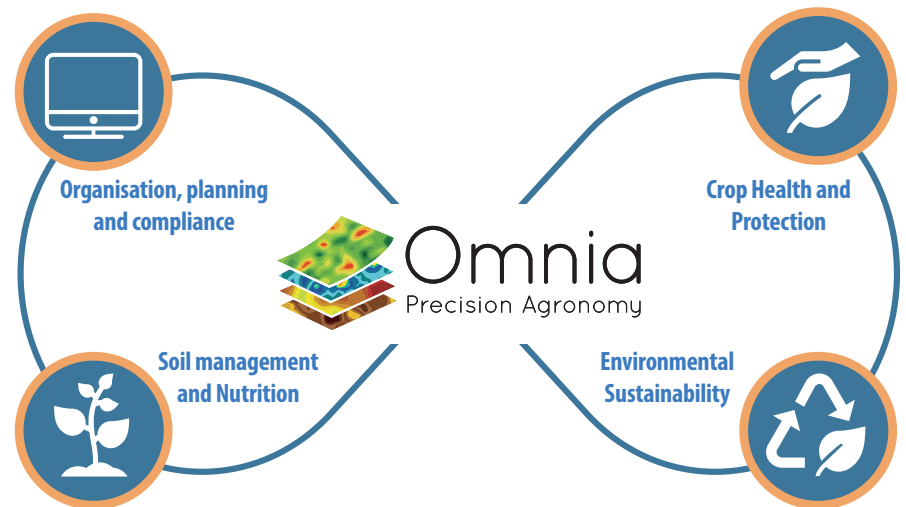
- **Climate data:** Climate data is invaluable in making key decisions, such as using the Omnia climate tool developed and validated at Helix.
- Review weather patterns over the last 30 years to help make better decisions of when to drill oilseed rape, taking into account, the challenges of cabbage stem flea beetle.
- Data shows that over the past 5 years we are seeing a drier window in late July / early August - coinciding with the more appropriate timing to avoid CSFB adults.
- This provides a really useful analysis and could help with the decision to re-introduce or increase OSR in the rotation.

## Rotational planning:

- This is a challenge between short term profitability and long-term sustainability.
- With OSR prices heading towards the £500 / tonne level with bonuses, it is very tempting to plant a significant area.
- Local factors need to be considered such as historical CSFB pressure, weather patterns, workloads at appropriate drilling window etc.
- When you look across individual crop profitability, then a 1.7t/ha yield stands up to other break crops profitability, but be aware of what the actual field yields are.
- This level of crop pricing is unlikely to be around medium term, so this comparison will change. It is also important to consider the longer-term diversity of rotations and the good that it can bring to reduce weeds, pest and disease pressures and support improved soil structure and biology.

**There is a business planning tool currently being developed at our Helix Farms. This will enable long-range analysis of different rotations linked with costs of production across the farm and will be invaluable for long term business sustainability.**

## Hutchinsons ICM Focus Areas



### Helix Demonstration Farms 2021

- 1 National Technology Farm
- 2 East Technology Farm
- 3 North Technology Farm
- 4 Central Technology Farm (NEW)

## ICM:

- Demonstrating Integrated Crop Management (ICM) in a transparent way is becoming increasingly important.
- Whilst many growers already practice ICM, it is not necessarily recorded.
- This means taking into account and recording all factors and implementing cultural opportunities before making a decision on use of crop protection options.
- The Omnia Field Scout and Diary are tools to allow users to record what is seen including any potential issues geolocated in fields. Notes can be made even when no action is needed, so an inspection record is kept.
- We will be launching an ICM programme within Omnia that simplifies this process to deliver a transparent record and audit of ICM in one place.

These are just some of the farming challenges and technical developments that the Helix project is addressing, alongside soils, nutrition and genetics. Helix tests, develops and validates these new opportunities at the increasing number of Helix Farms around the UK.

**The Helix project will continue to lead the industry in development of technology tools that benefit you, the grower, by using data with your agronomist to adapt and evolve a long-term sustainable business.**

**For more information about our Helix project please visit our dedicated website: [www.helixfarm.co.uk](http://www.helixfarm.co.uk)**