

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

# Fieldwise

AGRONOMY NEWS FROM

**HUTCHINSONS**

Crop Production Specialists

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## 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?

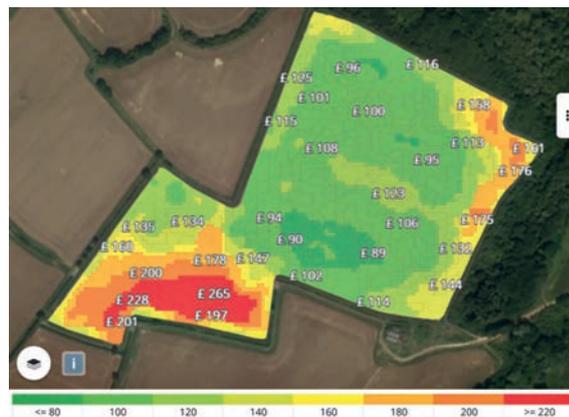
If we have no understanding of past patterns, we cannot then make strategic decisions about the future.

**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.

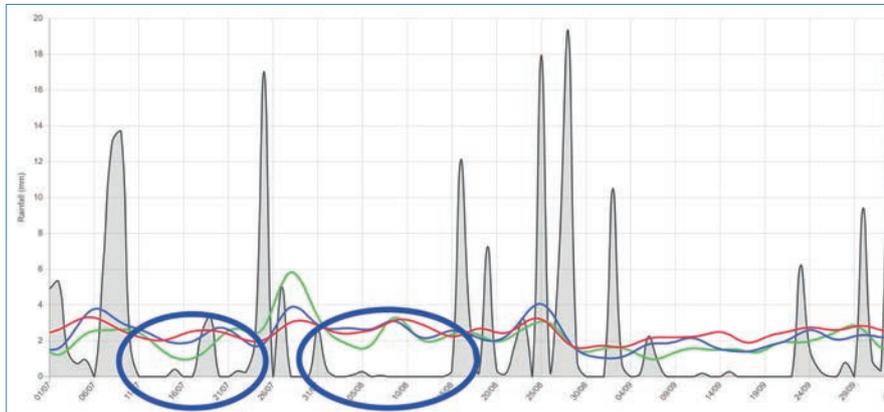


*Omnia cost of production map at Helix National Farm*



# > 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

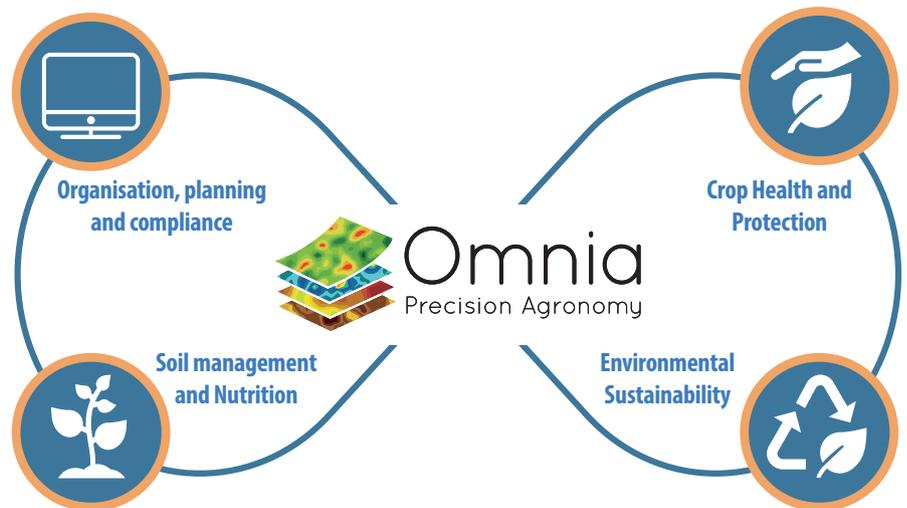
- **Climate data:** Climate data is invaluable in making key decisions, such as using the Omnia climate tool developed and validated at Helix.
- Review weather patterns over the last 30 years to help make better decisions of when to drill oilseed rape, taking into account, the challenges of cabbage stem 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)**

**John Cheesbrough of Cheesbrough & Sons Ltd**, Building Farm in the Tyne Valley is one of the very first growers to make use of Oxbury Farm Credit.

Mr Cheesbrough was interested in a scheme that would allow him to borrow in a flexible way. Talking to his Hutchinsons agronomist, Conor Campbell, it seemed that Oxbury Farm Credit would allow him to do just that.

“There are certain times of the season when a lot of money is going out and not much coming in – usually 6-8 weeks before harvest when the grain stores are empty but we have to invest in inputs for the growing crop.

In the past, this has been a real pressure point for the business, however with the flexibility of repayments with Oxbury Farm Credit we have been able to put repayments on hold until later in the year when we are in a better financial position and we can resume our payments.

It has been reassuring to deal with a bank that understands farming – main stream banks don't get farming in the same way.

The online platform is easy and straightforward to use, there is nothing too complicated about it so its clear to see exactly what is what.



**John Cheesbrough**  
(Cheesbrough & Sons Ltd)

It has been a similarly positive experience for **Seb Richardson of J Richardson & Sons**, Cotterstock Lodge, near Oundle in Northamptonshire.

The Oxbury Farm Credit offering makes complete sense from a farming perspective; the ability to borrow when needed and flexibility to pay back when the crops have been sold. You can choose when you want to repay.

Having access to this form of financial support tides us over when we are buying a lot of inputs in the spring, which we can wait to pay off after harvest.

There is a definite value to having a dedicated Oxbury manager who understands farming. Its also useful to have all finances in one place that can be easily accessed whenever needed. We would certainly consider Oxbury Bank for any future development plans.



**David Hutchinson**  
(Hutchinsons Chairman)

# Positive start for Oxbury

The Agricultural Bank

Earlier this year Hutchinsons announced that it was working with the new UK bank for farmers, Oxbury.

Oxbury Bank plc (Oxbury) is the only UK bank 100% dedicated to British agriculture. Designed for farmers, by farmers, Oxbury set out to give the industry confidence to invest and grow as direct support from the Government falls away.

“British farmers today face an unprecedented range of challenges and opportunities – however farmers have always risen to the challenge through their ability to adapt and innovate. We recognise that this often requires additional investment and specialised lending, be that for improving efficiency, diversification or consolidation,” says David Hutchinson, Chairman of Hutchinsons.

“Farmers have been consistently telling us that they want a bank that understands their individual businesses, that understands farming and the agricultural sector and that is looking to build a relationship between real human beings at the bank and the farm business.”

“Oxbury offers that partnership, priding itself on customer focus and offering products that are attractively priced, easy to use and offer the flexibility that many farming business require across the annual farming calendar.”

Oxbury's flagship product is Oxbury Farm Credit, a credit account which gives farmers the freedom to buy and pay for their inputs when it suits their cashflow.

This account offers an alternative to a bank overdraft and solves the cashflow problem faced by farmers having to fund their inputs many months before receiving income from the sale of the produced goods.

Please contact your Hutchinsons agronomist or account contact for more information on the Oxbury bank schemes or email us: [information@hlhltltd.co.uk](mailto:information@hlhltltd.co.uk).

More details can be seen here: [www.hlhltltd.co.uk/products/oxbury-input-finance](http://www.hlhltltd.co.uk/products/oxbury-input-finance)



**Matt Ward**  
(Services Leader)

# Improve or remove underperforming land

Deciding whether to continue cropping underperforming areas of fields or remove them from production is a question more growers are asking as the removal of direct subsidies edges closer.

**Two difficult seasons that have left some soils in fragile condition may hasten the decision for some, however services leader Matt Ward says the choice between “improve or remove” must consider multiple factors and not be a knee-jerk reaction.**

He recommends first assessing crop performance over several years, ideally five or more, to identify areas that consistently yield well, and those that struggle to turn a profit. This can be easily done within Omnia, where an aggregated Field Performance map can be generated from multiple yield maps. The Cost of Production module combines this with costings data (fixed and variable) to show the average cost of production across different performance zones within individual fields, highlighting areas of concern.

“Cost of production can vary anywhere from £70/t to £300/t, so even at a wheat price of £200/t there may still be areas of fields that aren’t profitable.”

If yield maps are not available, Mr Ward notes that Omnia users can also access satellite imagery for the current and previous season to give a more general indicator of potential problem areas.

## Pinpoint problems

The next task is deciding what to do with underperforming areas, which requires identifying why crops are not performing. “Poor crop performance may be due to inherent variations in soil type, but issues like shading, pH, poor drainage and compaction are just as frequent,” says Mr Ward.

“For most arable farmers, a good wheat crop drives profitability, so we’ve got to do everything possible to maximise the potential of first wheats.”

Some issues, such as low pH or compaction, can be relatively easily rectified, but others may require significant investment, rotational changes, or removing land from

production. This can be a temporary move to help rectify issues, such as putting whole or part fields into a cover crop or temporary grass ley, or a more permanent conversion to other uses, such as targeted establishment of stewardship features, if profitable production cannot be achieved.

Defra’s Sustainable Farming Incentive (SFI) promises to open new opportunities and income sources for alternative land uses, including habitat creation, flood prevention, and carbon capture. Although details are still being developed, identifying potential sites and opportunities now ensures growers can react quickly once schemes are available, and makes business sense in the meantime, he says.

“Take carbon, for example. Fertiliser and fuel are two major drivers of the carbon footprint, so using them efficiently drives productivity, improves efficiency and saves carbon. **That’s a win-win.**”

## Risk versus reward

Individual growers’ attitude to risk plays a big part in the “what to do next” question.

At a wheat price of £150/t for example, there is a greater risk of not making a profit on less productive areas than there is at a price of say £200/t.

“Taking the high-risk [i.e., less productive] areas out of production gives a greater chance of success, but it is down to an individual’s attitude to risk.

“The important thing is to use all tools available to make informed decisions, considering all options.”

When it comes to managing the best-performing areas, this is the focus of Hutchinsons trials this season, examining how inputs should be used to maximise productivity in zones of higher yield potential.

**For more information on cost of production mapping within Omnia, please visit our website:**

**[www.omniaprecision.co.uk](http://www.omniaprecision.co.uk)  
or email: [consultancy@omniaprecision.co.uk](mailto:consultancy@omniaprecision.co.uk)**

Map Layers LAYERS IMAGERY A. FARMER 2021

Compare layers

# Take a smarter approach to rotation planning

A “smarter” approach to crop rotation planning will help growers maximise productivity and deliver on the environmental goals of the new farm policy era, says Hutchinsons head of Integrated Crop Management, David Howard.

**David Howard**  
(Hutchinsons head of Integrated Crop Management)

**The removal of direct payments threatens to reduce the ability of businesses to tolerate poor seasons, so growers should act now to build greater financial and agronomic resilience into farm rotations and help businesses capitalise on future opportunities, he says.**

This requires moving away from focussing on crop gross margins towards more emphasis on the net impact of any decisions on the wider rotation and cost structure (fixed and variable).

“Take oilseed rape for example. The higher prices we’ve seen in recent months make the gross margin much more attractive and if crops yield well, no other break crop compares to it. But the risks of growing oilseed rape haven’t gone anywhere.”

Growers must be realistic about potential losses and consider how risks can be mitigated, which may affect other parts of the rotation. For example, the preceding crop must allow early access to land for drilling into a good, friable surface, any soil issues need to be rectified well before OSR is sown, and the gap between brassicas may need extending to reduce pest and disease risks.

“The aim is to develop a flexible rotation that gives high value crops the greatest chance of success, capitalises on the best-performing areas, and identifies where higher-risk land may be better put to other uses.”

## Consider all options

Winter wheat remains the cornerstone of many arable rotations, offering relatively high value and comparatively low risk. However, it is essential to consider where effort should be focussed, especially during the relatively short and sometimes unpredictable autumn establishment window.

As recent seasons have shown, it pays to plan for different scenarios. This may require identifying fields that are best suited to specific crops or drilling dates, and in wet seasons, decisions about which parts of fields to drill first and which to leave (e.g., headlands, low patches).

In some cases, regular catch or cover crops may be needed in the rotation, especially ahead of late autumn drilling or spring-sown crops. Elsewhere, consistently underperforming, or difficult areas may be better put to alternative uses.

Such scenario planning will be a key feature of the new rotation management tool within Omnia, due to be unveiled by the end of this year, allowing growers to make predictions about different crops based on accurate yield and financial information.

As well as cropping options, Mr Howard advises growers to consider how stewardship can be better integrated into rotations, and not just on land permanently removed from production. The Countryside

## Rotation planning tips

- Use net margin, not just gross margin when evaluating crops
- Consider risks and wider rotation impact
- Be open to all options (crops and other land uses)
- Prioritise where to focus attention, especially in short drilling windows
- Remain flexible and prepared to change plans
- Use technology to help plan rotations - look out for the Omnia rotation planner later this year.

Stewardship two-year legume fallow for example, offers a net margin of around £450/ha, which is comparable to an 8 t/ha wheat crop or 2.5 t/ha of oilseed rape.

“It’s low risk, establishment costs are spread over two years and it delivers benefits to soil nutrition, structure, organic matter and nutrient retention. It looks very good on paper, but as with any rotation decision, it depends on what is best for your farm.”

**Discuss effective rotation planning with your agronomist, or contact us: [information@hlhlt.co.uk](mailto:information@hlhlt.co.uk)**

# Avoid cultivating a grassweed problem this autumn



To cultivate or not? Less may be more when it comes to controlling grassweeds between harvest and drilling, as Hutchinsons technical manager Dick Neale explains.

Dick Neale  
(Hutchinsons Technical Manager)

**Stale seedbeds are an important tool for tackling grass weeds while there is no crop in the ground, but best results require a cautious approach to post-harvest cultivations.**

There is often a rush to cultivate once fields are cleared, but Mr Neale urges against moving any soil unless “absolutely necessary”.

“If the underlying soil structure is good, then as soon as it wets up you’re likely to have a good enough seedbed to drill straight into, almost regardless of what drill you use. Moving soil is costly, disrupts natural structuring and may bring up new problems, so always question why you need to do it; creating a stale seedbed for black-grass control is not a good enough reason.”

Given sufficient moisture, most grassweeds will germinate when left on the surface, he continues. “There may be some benefit from using a stubble rake or very shallow cultivation to disturb weeds and improve seed-to-soil contact, especially for volunteer cereals, but it must not go deeper than 25-50 mm as most weeds, apart from brome and wild oats, won’t grow from deeper than this.”

Rolling stubbles is a quick, cheap way of improving seed-to-soil contact and encouraging a strong flush of weeds that can then be sprayed off, he says.

For black-grass in particular, patience is needed, as peak germination does not occur until late September, so

an early stale seedbed immediately after harvest is only likely to give a partial chit, he adds. “If you then drill in mid-September, don’t be surprised to see a flush of black-grass. Many got away with it last autumn as there was enough moisture for residual chemistry to perform really well, but that’s never guaranteed.”

Ryegrass germination can be more protracted than black-grass, although it too mostly occurs in autumn, and control techniques are very similar.

**The main exception is brome**, where it is vital to know what type you are dealing with, Mr Neale says. Barren/Sterile and Great Brome needs a shallow cultivation to encourage germination as light exposure triggers dormancy, whereas Meadow/Rye/Soft brome needs light to ripen and germinate, so stubbles should be left uncultivated for at least a month to encourage growth.

Increased spring cropping has seen wild oats, particularly spring-germinators, become more problematic, especially in barley, he adds. Herbicides are more limited and the effectiveness of residual chemistry relies on adequate soil moisture in spring.

“Wild oats are typically very patchy though, so it’s a weed that is often best controlled by mapping problem areas and spot spraying”.

## Use cover crops wisely

Overwinter cover crops before spring cropping have become more popular, but growers must not compromise weed control, Mr Neale says.

Cover crops are best sown straight after harvest, leaving no time for controlling weed flushes first, so selecting the right mix is crucial. Hutchinsons research shows the best approach is to establish a multi-way mix containing at least seven or eight species, rather than mixes based on two or three.

“Black-grass likes growing in mono-crop environments but hates multiple competition. We have seen the level of black-grass under multi-species cover crops fall to just a fraction of what we would get managing black-grass alone. However, such an approach wouldn’t be effective for brome as this will grow happily amongst competition.”

**Questions about grassweed control? Contact us: [information@hlh ltd.co.uk](mailto:information@hlh ltd.co.uk)**

For more information on any of our products or services, please contact your local Hutchinsons agronomist, or contact us at:

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