



Managing Risk

The consequences of global events including Covid19, fuel price increases and the war in Ukraine have raised many questions already about what farmers should do in the medium term. **Stuart Hill**, Head of Technology and Innovation discusses how we can help to address this.



Stuart Hill (Hutchinsons Head of Technology and Innovation)

Do I grow more wheat, less wheat, more premium wheat, bring back OSR or grow more, or increase legumes and what should I now do with environmental areas?

These are a snapshot of the questions being asked currently by growers about what they should be doing this autumn and beyond. All on the back of increasing volatility of markets and costs, started by Covid, added to by gas and oil price rises and compounded by the very sad war in Ukraine. It does seem churlish to be talking about these challenges when you see what is happening over there. We, of course, must help and support where we can and critically focus on growing food.

The consequence of all of this is a lack of labour, massive global raw materials sourcing challenges and global supply chain issues leading to the significant fuel and fertiliser price

increases alongside broader input availability and fixed cost increases. The positive from all this perfect storm is that output price increases have been unparalleled.

So how do we go about answering all these questions? Managing risk is at the core of what we have already been and will be answering over the coming months and more directly at our Helix Farms and Regional Trial Centres this June and July.

The simple fact is, that risk increases due to the financial outlay in growing a crop. Understanding this and how and when you market produce to manage this is the biggest single factor that can make a difference.

Assessing and ensuring good cashflow is critical to managing the business and on the back of this, budgeting is key to answering those questions.

Rapid knee jerk reactions can easily result in unintended consequences. The rotation, cropping diversity and environment aspects of farms are there for a reason. Areas removed because they were unproductive will still be unproductive. The goal remains to maximise productivity across the rotation, improving soil structure, building soil fertility and its ability to cycle nutrition, managing carbon and all together supporting better plant health to manage inputs more efficiently.

Summer open events

These are just some of the areas we will be addressing and discussing at our summer Helix and Regional Trial Centres (RTCs) events around the UK, with our 'managing risk' theme. >



➤ Across ten RTCs this year we will focus more directly on how varieties and disease management are a key part of ICM and link with various trials to show how to manage efficient input use.

For 2022 the number of Helix Farms has increased to seven. These are farm scale developments and demonstrate how technologies deliver data to help improve decision making for the grower and agronomist. With such a range of farms around the UK it means we can test and develop technologies and what they deliver across a broad cross section of regions, farm types, systems, and climate. So you will see technologies used on each farm and information bespoke to each farm and how that has been used for benefit.

At Helix, farm strategy is the first area of focus. This is supported by the launch of a new Business Planning Tool through the Omnia platform. This enables growers and agronomists to assess productivity around the farm, what actions to take with different areas and look at different rotational/cropping scenarios and the impact that has on cost of production and sustainability, both financial and environmental.

We take a deeper dive into integrated pest and crop management approaches which is becoming ever more relevant in terms of sustainable farm practice. This includes variety choice as part of an integrated approach and the use of predictive and imagery technologies that provide data to help manage the optimum use of inputs.

Nitrogen use efficiency will be discussed as it continues to be high on the agenda, not just because of current cost and supply but the longer-term

reduction in bagged Nitrogen use addressing carbon sustainability goals. This includes discussion on optimum cropping from a Nitrogen perspective, use of data from the soil and crop, its yield potential and Nitrogen use efficiency leading to optimum guidance for the coming year.

Soil also fits clearly into the integrated approach and how it is treated and developed as a biological system has significant impacts on input efficiency. This includes diversity in rotations, the use of cover and companion crops and minimising soil disturbance. These changes need measuring over time and we will be looking at how data from

technologies can help improve decision making through periods of change.

A year ago we would never have anticipated being in such volatile times. It will be ever more critical to make well informed decisions to ensure the best possible chance of increasing profitability and productivity over the coming years. **We very much hope to see you at our events from early June onwards so we can help with those decisions.**



Demonstration Farms and Regional Trial Centres

Locations and Events Summer 2022

- 1 Carlisle – Tuesday 14th June
- 2 Alnwick – Wednesday 15th June
- 3 Grayingham – Tuesday 28th June
- 4 Trevone – various
- 5 Harleston – Thursday 7th July
- 6 Stowbridge – Friday 1st July
- 7 Rosemaund – Monday 4th July
- 8 Sutton Bonington – Wednesday 29th June
- 9 Old Leake – Wednesday 15th June
- 10 Great Fransham – Thursday 16th June
- 11 National Technology Farm – Wednesday 13th July
- 12 East Anglia – Tuesday 14th June
- 13 Yorkshire – Thursday 16th June
- 14 Oxfordshire – Tuesday 21st June
- 15 Northumberland – Tuesday 28th June
- 16 Fife – Wednesday 29th June
- 17 Agroecology Farm – Tuesday 5th July



Please look out for an invitation to your local event, which will be sent out during May. Check our website for more information, or email: information@hlh ltd.co.uk

“Flag leaf and ear sprays”

The sharp increase in input costs and wheat prices has raised the stakes for protecting the flag leaf and ear to maximise yield and quality this season. Hutchinsons' Dr David Ellerton and David Howard offer their advice on some key T2 and T3 questions.



David Howard
(Hutchinsons Head of ICM)



Dr David Ellerton
(Hutchinsons Technical Director)

Q) Why is the T2 so important and when should it be applied?

The flag leaf or T2 spray has long been central to fungicide programmes as it protects the top two leaves, which contribute approximately two-thirds of final yield.

It therefore remains the spray timing that is likely to deliver the greatest yield response, although in recent seasons we have seen the T1 gain greater significance as diseases evolve and the curative ability of some chemistry declines.

Yield responses obviously vary, but last year there was a 3.22 t/ha uplift in the mean treated yield from all fungicides over untreated across five Hutchinsons trials sites. At prices of £300/t, that could be worth close to £1,000/ha.

Accurate timing is critical though, and ideally T2 treatments should be applied when flag leaves on main tillers are at least 75% to fully emerged (GS 37-39). This usually occurs in mid- to late-May, however decisions must be based on crop growth stage, not calendar date.

As mentioned, fungicides generally lack the same curative activity against Septoria as they once did, so disease must not be allowed to establish on newly-emerged leaves if crops are to stay protected throughout the growing season.

Q) Which are the main disease priorities?

Septoria and rusts are the main targets at T2, although mildew may sometimes need controlling.

Prioritise susceptible varieties with a AHDB Recommended List rating of 6 or less, but remember that drilling date makes a big difference, especially for Septoria where early sowing increases risk, even in varieties with a high RL score.

Omnia's disease forecasting model is updated fortnightly and provides a useful risk indicator across the farm, from which individual treatments can be tailored.

Q) Can I delay the T2 if I recently applied an interim T1.5 spray?

With some early-sown wheat reaching GS 32 (T1) around three weeks earlier than last year, there has been more need to apply an interim T1.5 fungicide to protect crops through the extended period to T2, which has far exceeded the recommended three to four weeks.

Even if this interim spray has been applied recently, it is vital not to postpone flag leaf sprays beyond the optimum timing, as new leaves will be exposed to potential infection which will be harder to control once it gets established.

There may be slightly more leeway on fungicide timing in varieties with strong genetic resistance, such as KWS Extase, potentially allowing susceptible varieties to be treated first.

Q) What are the main fungicide options?

Any fungicide strategy must be based on the most appropriate product and dose for that crop and disease pressure at the time. There is a good range of chemistry available, allowing products to be tailored to risk in a way that also benefits long-term resistance management.

Generally, mefentrifluconazole (Revysol) offers the strongest curative activity against Septoria and will be the go-to option for many in higher risk situations, such as earlier-sown susceptible varieties like Elation, KWS Barrel, KWS Jackal, KWS Kerrin and RGT Gravity, or where spraying is disrupted due to adverse weather.

Fenpicoxamid + prothioconazole is also strong on Septoria, with good protectant activity, while twin SDHI products based on bixafen + fluopyram offer a useful combination and may be the strongest of the older chemistry, ahead of the likes of fluxapyroxad + prothioconazole. Including the multisite folpet can be worthwhile for extending Septoria protection in high pressure >



Later developing Septoria may not be as damaging to yield as early disease, but it can still have a significant impact by curtailing grain fill and there is little scope to recover the situation once we get to T3.

Trials show the yield response to T2 fungicides usually far outweighs the risk of cutting chemistry should the weather turn.

Q) Is there more scope for saving on the T3?

While the ear spray may contribute less to overall yield response than the T1 and T2, it plays a vital role in protecting grain quality - especially from DON mycotoxins produced by Fusarium - and topping-up foliar disease control.

For quality wheat growers and those wanting to maximise yield in high-potential crops, the T3 is key, although others may look to make savings, especially if disease pressure is low or crops are senescing early.

The main ear diseases include Fusarium, favoured by warm and wet conditions during ear emergence, Microdochium (cool and wet) and sooty moulds. Although Microdochium nivale does not produce mycotoxins, it can significantly impact yield.

Foliar diseases like yellow rust and brown rust can become problematic later in the season, so susceptible varieties may benefit from extra protection. Brown rust, for example, can develop on varieties such as Crusoe late in the season in warm conditions, while in wet, extended seasons it may be worth topping-up Septoria protection in susceptible varieties.

Q) When should the T3 be applied?

For the most effective control of Fusarium and Microdochium, apply the T3 as soon as the ears complete emergence and flowering is underway with anthers visible on the middle florets (GS 63- 65).

It is a narrow window of opportunity that can be tricky to achieve when there is a large area of wheat to cover, so monitor crops closely and be ready to apply fungicides when needed. Growing a range of varieties with different speeds of maturity offers distinct management advantages for the T3 application.

Q) What are the main T3 options?

Product choice should be tailored to what's happening in the field, together with the weather forecast and predicted Fusarium risk, as determined by completing the AHDB risk assessment (<https://ahdb.org.uk/mycotoxins>).

Prothioconazole-based products are effective at T3 as the active is strong against both Fusarium and Microdochium species. Tebuconazole is a useful addition for extra Fusarium and rust control, while strobilurins, notably fluoxastrobin or azoxystrobin, are good on sooty moulds and rust. Strobilurins can also bring worthwhile physiological benefits to green leaf retention and stress tolerance.

For crops with high yield potential, it may be worth considering SDHI chemistry, such as products based on benzovindiflupyr or bixafen, especially if the season is likely to be extended with higher disease pressure. Previously this has not always been possible as the SDHI allocation was often used at T1 and T2, however with fenpicoxamid now available at these timings, it may be possible to use an SDHI at T3 where yield potential justifies the additional investment.

Q) How can I maximise T3 efficacy?

Other than accurate spray timing and product selection, ensuring good coverage on the ear and the leaves is key to maximising efficacy.

This can be challenging given that they present two very different targets though, so start by deciding which is the priority, whether to protect the ear, or tackle foliar diseases on the top two leaves, as this will determine the most appropriate product selection and application. Spray coverage can be maximised through a combination of factors, including using forward and backward-facing nozzles, higher water volumes, slower forward speeds and correct boom height.

If you need advice on fungicide product choice and timing on your farm, email us: information@hlhlt.co.uk

> situations, and for building an effective resistance management strategy, but if doing so, use it in addition to the main products, not as a substitute, and resist cutting rates of other products to offset the cost.

For yellow rust, include triazoles such as tebuconazole or metconazole +/- fluxapyroxad. Strobilurins (e.g. fluoxastrobin, azoxystrobin or pyraclostrobin) offer extra persistence and knockdown, while the strongest SDHI on rusts is benzovindiflupyr, although this tends to feature more at T1.

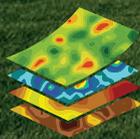
Where mildew control is needed, consider reduced rate cyflufenamid where not used previously, or prothioconazole.

Q) Can I cut back if the weather is very dry?

While prolonged dry weather reduces immediate disease in crops, we have seen before how levels can quickly change when the weather turns.

The dry, cool conditions ahead of last year's T1 were a case in point, prompting some growers to cut back fungicides, only to find Septoria ramp up when rain came in May. The same can happen around the flag leaf timing, so the more you cut back, the more crops will be exposed if/when the weather changes.

Farming Smarter with Omnia



Precision Agronomy



Alistair Shepherd
(Hutchinsons Agronomist)

With the loss of BPS subsidies looming, James and Ellie Hay of Barton Place Farms near Bury St Edmunds, needed to know that they were making the best possible decisions about every aspect of their farming operations.

Having returned to the farming business, which is a mixture of 800 hectares of owned, rented and contract farmed land, after some time away in other careers, both James and Ellie felt it was essential to understand exactly how each part of the farm was performing - and this required as much information as possible.

"We didn't want to know how a particular field was performing but how each part of that field was performing and to achieve this we needed a precision software system that would allow us to build up additional layers of data or information to help us make the very best informed strategic decisions."

On the recommendation of their Hutchinsons agronomist, Alistair Shepherd they trialled Omnia and felt that it was the best system to deliver what they were looking for. "We looked at other systems that just felt clunky; the Omnia interface was much more user-friendly."

One of the first steps was to get the whole of the farm TerraMapped to provide a baseline measurement of the soils they were farming.

TerraMap is Hutchinsons' revolutionary soil scanning service that provides high definition mapping of all common nutrient properties, pH, soil texture, organic matter and CEC as well as elevation and plant available water. TerraMap results are then used to create maps within Omnia.

"The results of the TerraMapping confirmed a lot of what we already knew, but also threw up some very unexpected results," says James.

"Organic matter levels were much more variable than expected, as was pH. We overlaid these results with our yield maps in Omnia and the magic happened! The areas of low OM and low pH corresponded with the areas of low yields."

"We are now in the second year of addressing some of the shortfalls in organic matter by adopting a min till approach where required, incorporating as much straw as possible, using poultry manure, and cover crops," says Alistair.

"We created a variable rate liming plan that allowed us to correct any low pH hotspots, which meant we only used lime where needed."

"This has led to a more variable rate approach to be adopted for P&K across the farm and last year, for nitrogen in wheat."

"We applied set rates for the first and second splits, but the third split was variably applied. We calculated rates using NDVI measurements based on biomass, and applied the nitrogen accordingly within parameters. Areas of lower biomass on more drought prone soils had less nitrogen and those areas with more potential, reflected by a higher NDVI reading or biomass, had higher rates of N."

"In this climate, we have got to optimise inputs and the technology has allowed us to do that."

The Yield Performance and Cost of Production tools also worked well when overlaid with the Terramap results, adds James.

"Some areas such as headlands were consistently performing poorly and when overlaid with the Terramap results we could see this was down to waterlogging. We hadn't realised just how much this was impacting crop performance which has prompted us to invest in better drainage in those problem areas."

For the Hays' it's all about using the right technology to farm smarter and Omnia is allowing them to do that. "We will spend where needed, and with the reassurance of the data behind us we can justify and measure whatever actions we take."

**For more information on Omnia services, please visit our website:
www.omniaprecision.co.uk
or email: consultancy@omniaprecision.co.uk**



James Hay
(Barton Place Farms)



Eleanor Hay
(Barton Place Farms)

Barton Place Farms

Great Barton, Bury St Edmunds Suffolk

Rotation driven by potatoes, which also incorporates winter wheat, sugar beet, beans and spring barley.
Land is rented out for onions.

jessaline
photography

Oilseed Rape for Autumn 2022?

David Bouch (Hutchinsons National Seed Manager) says that current market conditions and a wide choice of varieties, are making many consider including oilseed rape in the rotation.



David Bouch (Hutchinsons National Seed Manager)

The question on many growers' minds, "should I, or shouldn't I?" is certainly something to contemplate in the coming weeks.

The first consideration is the end market which is as firm in price as many will ever recall (but with much volatility). Even without the subsequent transformation following the unfortunate circumstances in Ukraine, the market was likely to be relatively bullish as we are for the foreseeable future net importers of OSR, until the market regains the areas planted at the end of the last decade. Additionally, even with the current Nitrogen prices, the gross margin for the crop, if established well, will stack up favourably at 3.5 tonnes to the hectare given present market values.

There would certainly appear to be some reduction in flea beetle numbers, although this is by no means the case for the entire country. It is also safe to say that, had there been moisture present in the very damaging autumn of 2019, the challenge (although significant) would undoubtedly have been less destructive. The planting of markedly reduced areas in the last two autumns has also impacted flea beetle numbers.

Considering these factors, we will almost certainly see a decision to plant an increased OSR area for autumn 2022. Key to this will be planting when the conditions are right. This could be as early as late July, or indeed as late as middle to end of September, given warm soils

and moisture. Preparation of a good seedbed is also essential.

Choosing the right variety

The decision on variety choice is key. **Hybrids would be the preferred option** as they possess traits that the conventionals largely do not. **Aurelia** and **LG Aviron** are two key hybrids with TuYV resistance, pod shatter resistance, RLM 7 Phoma resistance and, in the case of Aviron, the best LLS resistance currently available. Aurelia is suited to earlier drilling and Aviron with its superb autumn and spring vigour is well suited to third week of August and beyond. Add to these choices **PT303**, with sclerotia resistance, and you have three key options.

If conventional is the preferred option, as home saved seed is a requirement, then look no further than the two most widely grown varieties in the UK, **KWS Campus** and **Acacia**. Campus has remarkable consistency and has now been successfully grown for 8 years with a reliability that many growers find reassuring. Acacia has shown its abilities in the last two years and is a sound option too. TuYV resistance in the conventional market can be found in **Annika**.

If Clearfield® is in your calculations, then **Matrix CL** looks to offer the best package available at this moment.

Finally, there are the **Clubroot resistant variety options** which should only be grown where Clubroot is an issue and not because they now offer less drop off in yield. **Croozier**

and **Chrome** have a track record in this sector, whilst newcomer **LG Scorpion** offers TuYV resistance and exceptional autumn vigour to aid establishment. Clubroot could conceivably be a more widespread threat this season, as earlier drilling offers more risk. Clubroot can appear from nowhere and infection is a threat in moist soils where temperatures are in the range of 16 – 25°C. PH levels below 7.5 add to this risk.

In summary, correct establishment is key. This means drilling into the right soil conditions at the correct time, with the best varieties. The 10 varieties listed above offer a competent solution for all sectors.

Speak to your agronomist about growing oilseed rape and appropriate variety choice, or contact us: information@hlhlt.co.uk

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

HUTCHINSONS

Crop Production Specialists

H L Hutchinson Limited • Weasenhall Lane
Wisbech • Cambridgeshire PE13 2RN

Tel: 01945 461177

Fax: 01945 474837

Email: information@hlhlt.co.uk

@Hutchinsons_Ag HLHutchinsons

www.hlhlt.co.uk

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