



“It’s about spending better — not necessarily less.”



Take care of the pennies...

Technical Spotlight on costs

As growers seek to boost profit by reducing their outgoings, *CPM* delves into some of the key considerations when it comes to being efficient with variable costs, as well as advice from the experts about how to spend on fungicides.

By Charlotte Cunningham

As UK agriculture moves quickly into the biggest period of change in over 50 years, one thing that is certain is that to remain afloat, it’s going to be crucial for businesses to ensure they remain competitive and viable.

However, this isn’t a new notion for grower, Pat Thornton, who has been using benchmarking and data gathering to keep a lid on variable costs at his 150ha farm in North Lincs for some time. “Analysing our costs is actually something my grandfather introduced,” he explains. “More recently, we began using the Farm Business Survey

and have been benchmarking against this for years.

“Benchmarking gives us the opportunity to challenge what we’re doing and how we’re performing, as well as flagging up any potential issues within the business.”

Value for money

Having worked as an independent agronomist for many years, Pat says good advice is essential when it comes to keeping an eye on costs. “It’s important to remember that it’s not always about reducing your spend, but more about getting true value for that money. Benchmarking is a good way of evaluating this, but peer-to-peer learning is so important too.”

Looking at costings on Low Melwood Farm, Pat estimates about 60% of the total production expenditure is apportioned to fixed costs, however, the annual total can fluctuate dramatically depending on the weather. “Interestingly, through collecting data over the years, we’ve found that the biggest influence on both our fixed and variable costs is rainfall — we can actually plot our costings against the rainfall data and see a direct correlation.

“So because we’re such a small farm, I had to start thinking about what we could do in light of this to prevent such volatility and ensure we remained a viable business.”

One of the main things Pat has done is to invest in soil health. “Soil is the most valuable asset on farm and while I don’t proclaim to be an avid direct driller, I’ve always had a good understanding of the impact machinery and cultivations can have.

“With rainfall having such an effect on whether we have a profitable year, I started thinking about how the amount of rainfall impacts the number of machinery working



Benchmarking gives Pat Thornton the opportunity to challenge what the farm is doing and how they’re performing.



Trial work has shown that even varieties with high disease resistance – like KWS Extase – can still have a good yield response to a fungicide (Source: NIAB, 2020; untreated on left; assessed 15 July).

days that are available. So changing our approach was very much a risk-management strategy that allowed me to essentially buy time in a year of heavy rainfall.”

As well as making use of the Farm Business Survey, Pat has also been involved in BASF’s Real Results programme which he says has been incredibly beneficial. “Being a part of this programme has allowed me to get involved with the YEN project and yield mapping. Sometimes, our ability to be early adopters of technology is limited by our size, however,

this has been a really helpful way of building a better picture of individual field data.”

Having access to this data also means that better decisions can be made when it comes to variable cost, he adds. “I’ve found that variable costs are very recognisable and can be the obvious place to cut when it comes to keeping your outgoings down. However, in terms of crop protection spend, by the time I get to a traditional T1 timing, I’ve probably spent about a good half of my production costs, so I then see my



Bill Clark says fungicides are not just about protecting against disease, but also for insuring against yield losses.

variable costs being a risk-management expenditure, rather than something that just needs to be reduced. Basically, every penny I spend from T1 needs to give me an investment on return.

“So the advice from me is that rather than just looking to cut costs, instead, make sure you’re using the best chemistry, applied at the ideal time, at the optimum rate and the benefits will speak for themselves.

“This is what we’re trying to practice and as a result, we’re becoming more resilient. We have a lot of data and for us, it’s about using that data to see what the impact is on the bottom line.”

Arguably, one of the largest variable costs for arable growers is fungicides. As traditionally regional disease pressures have become more nationwide, it’s fair to say their importance has increased across the board, however, according to Bill Clark, technical director at NIAB. “A lot of people think fungicide usage is about disease and that they’re applying it just to protect against disease. However, the way I look at it is that it’s actually insuring against yield loss.”

Although the risk of loss is often correlated with disease, it’s crucial to look at the bigger picture and think about local disease pressures, seasons, and historic performance data, he adds. “Identifying your main risk has certainly become more difficult as disease pressures have become heterogeneous — for example, there are plenty of growers in the West who had never seen yellow rust and now it’s becoming more prevalent.

“However, it’s crucial to monitor and be aware of your local risk as this will directly impact yield potential.”

While developments in plant breeding ►

A strategic approach

In the South, farm manager, Robin Aird, is also seeing the benefits of being more strategic with costings on the 1400ha Charlton Park Estate. “We grow around 1200ha of arable crops here, on a low input/average output system — largely due to our soil type preventing us from reaching some of the higher yields.”

The soil is a shallow silty clay loam over limestone, which runs wet in the winter and dry in the summer, which naturally has an impact on both costs and likely crop performance. “I’d rather budget for likely yields and grow to that, and then, if we get rain at the right time that boosts things, it’s a bonus. For me, I prefer to think about margin rather than just chasing high yields that often aren’t feasible for us.”

As part of his financial strategy, Robin says the key things are working a year ahead, trying to home-save seed as much as possible, and not scrimping on herbicides. “I don’t put a ridiculously robust programme on, but where I do invest is in a good pre-em.

“To reduce high inputs, I do tend to drill a little later and also make use of resistant varieties to give us a helping hand. Septoria is one of our biggest threats, but this seems to definitely help.”

When it comes to balancing variety choice with chemistry in order to be cost efficient, Robin says he selects the market he wants to



With lower yielding soils, Robin Aird budgets for margin, rather than chasing high unrealistic yields.

grow for, looks at the most resistant varieties suited to that market, and then bases his fungicide programme around how robust it is. “KWS Extase and KWS Siskin are examples of varieties that have proved to work particularly well for us.”

While home-saved seed and variable rate fertiliser application have also played a role in reducing costs, the most influential element overall is prioritising spending, he adds. “I recommend a good strong T1 application, though the weather before application will influence just how strong that needs to be. You may also be able to drop the T3 spray, depending on the market.

“I always try to keep the market in mind through the whole production cycle and when I budget, I’m realistic but competitive.”



Revystar XE (fluxapyroxad+ mefentrifluconazole) contains a new azole that appears to have greater efficacy than others on the market.

► now mean that many varieties are now armed with a good level of resistance in their DNA, they're still giving yield effects with a fungicide application, adds Bill. "For example, Theodore, KWS Extase and LG Astronomer are all varieties which on paper have such good disease resistance, that you might expect them not to respond to fungicide usage. However, what we have seen is that they do — in terms of green leaf area retention, which is not related to disease.

"When you have no disease, but a big difference in green leaf area — due to fungicide usage — it begs the question: Why?"

"We don't have an explanation yet, but there were similar observations 20 years ago with strobilurins, which were well known for greening and delaying senescence. We see these effects with new SDHIs and triazoles — which would include Revysol — but don't yet have a good handle on how they work."

Evidence of the non-disease effects of SDHI/azoles has been seen in trials this year, says Bill. "I was really interested in seeing how long varieties held onto their green leaf, and in the case of Extase, I've been to trials where there's no disease risk, but when a fungicide programme was applied, a yield response of up to 2t/ha was seen and the greening levels were completely different."

Looking to specific fungicides, resistance is one of the greatest challenges facing growers at present, he adds. "Resistance is a big deal. Triazoles are drifting in the level of control they provide, and even some of the mainstream products that were brilliant three years ago are now just very average."

According to Bill, the problem with this is that efficacy is deteriorating quicker than new products are coming to market. "If you've seen Alice in Wonderland, you'll be familiar with the Red Queen scene, where both Alice and the Queen are running quickly but not actually going anywhere with the famous line 'you have to run just to stand still'. Translated into the situation that fungicides find themselves in, the new products that are coming through now are just compensating for the loss — or reduced efficacy — of older ones. It seems every time we get something new, it only lasts for a few years."

So how do you balance using fungicides to protect yield losses, against the pressure of declining efficacy, and turn it into a formula for budgeting?

Best products

Bill believes the best way to get the most from chemistry and expenditure comes down to using the best products available. "Even if you don't spend more, but just use better products, then you'll be getting better control and more for your money.

"For example, when Revystar was launched, a lot of people complained that it was too expensive, but pound-for-pound, it's better than anything else on the market."

With this pound-for-pound comparison in mind, Bill also says that optimising newer chemistry can prove to be much more cost-effective. "Older products are often cheaper, but you would have to put them on at a higher dose, which would increase your expenditure.

"Eventually that wouldn't be enough, and you couldn't apply the products at a high enough dose to get the same level of control as some of the more recent products. It's about spending better — not necessarily less."

But for those who are looking to reduce their costs, being clever with timings may be a way of slimming things down, he adds. "If you can get the timings right, you can afford to adjust down. Even at T1, if you're too late or too early it can really put pressure on the flag leaf spray.

"So while it's important to plan ahead, make judgements in real-time. We don't

know now what the pressure is going to be like next spring."

There are also a lot of varieties with high disease-resistance scores available to those wanting to cut costs, adds Bill. "There's quite a large handful of low-risk varieties whereby if you cut the spend and mess up, you don't lose too much. The advice from me is that if you want to cut costs, do it where the risk is small."

Fungicides also have a role in protecting the disease-resistance genes of "low-risk" varieties, while on higher risk varieties, it's crucial to spend to protect the crop, he warns. "We have a points system where we look at the yield responsiveness of a variety. If they're not very responsive, we recommend spending half the amount you usually would. It's important to remember that your insurance on a Ferrari is going to be more than it would be on a Renault Twingo. You can afford to spend more if the potential loss is greater."

And in high-risk situations, Bill says Revystar is head and shoulders above everything else for septoria control. "Arguably, the SDHI part is under a bit of pressure because of the selection of resistance, but the combination of products is fantastic."

For septoria control, Bill recommends using it at T1 and T2. "The only chink in the armour is yellow rust and you have to be careful with this. It can offer good control at a high enough rate, but a lot of people this year just added tebuconazole to bring it up."

Bill suggests that while other chemistry has declined in terms of efficacy, the same pattern hasn't yet emerged for Revystar, so he recommends making use of it now while it's at its best. "If you're going to spend £40 on a flag leaf spray, you might as well spend that £40 on the best product you can buy. You're almost guaranteed to get a higher level of control from a newer product, and right now, there's nothing rivalling Revystar." ■



Resistance is a major problem for growers at the moment — particularly in triazoles.