

# Early Disease Control in Winter Cereal and Oilseed Rape Crops

In this article **Dr David Ellerton** (Hutchinsons Technical Development Director) considers the importance of early disease control in winter cereals and oilseed rape, following an extremely mild and damp start to the season.

**These weather conditions, combined with relatively early drilling and good crop establishment last autumn, have had significant consequences as far as crop growth and disease levels are concerned.**

## Winter Wheat

Most crops are exhibiting high levels of *Septoria tritici* on established leaves at present and there have also been reports of yellow rust and mildew on a range of varieties across the country. Stem base and root diseases such as eyespot, *Fusarium* and take-all are also present in many crops.

Early diseases significantly limit growth and yield potential and priority should be given to keeping disease in check during the spring. April marks a key stage in managing disease control in cereals with Growth Stage (GS) 32 heralding the appearance of final leaf 3, which is usually the trigger for the crucial T1 fungicide timing.

The T1 wheat fungicide inputs should be based on a strong triazole (e.g. epoxiconazole or prothioconazole), especially where varieties are particularly susceptible to *Septoria*.

The inclusion of tebuconazole will improve curative control of rusts, as will the use of a strobilurin. In addition, as discussed in the last issue of *Fieldwise*, strobilurins such as azoxystrobin, fluoxastrobin or



pyraclostrobin can affect plant physiology increasing nitrogen utilisation and promoting rooting, while the first two also help plants overcome take-all.

Where foliar disease pressure is high in the spring canopy (carried on the overwintered leaves), choosing one of the SDHI products such as fluxapyroxad, bixafen or penthiopyrad can improve curative control of *Septoria*, while products based on isopyrazam can prolong persistence of protection - particularly important should the flag leaf spray be delayed. In second-wheat crops, the established SDHI boscalid will give good control of both strains of eyespot, although the newer SDHI penthiopyrad has also shown strong activity, in addition to an increase in rooting due to a direct impact on crop physiology.

Recent discovery of strains of *Septoria* resistant to SDHIs has highlighted the fact that they should always be used in conjunction with a triazole to extend

the range of diseases controlled and to give protection against the further development of resistance. In order to avoid the need for strong eradicant control of *Septoria* later in the season, growers will need to ensure that the disease is prevented from spreading within the crop by adopting a robust protectant approach from early on in the spring.

For winter wheat, the inclusion of the multi-site active ingredients, chlorothalonil or folpet, is useful in trying to maintain protectant control of *Septoria* for as long as possible.

In order to avoid foliar diseases infecting newly emerged leaves, it is vital that the gap between any T0 and T1 sprays should not exceed 3 to 4 weeks.

Where the gap is likely to be longer, consideration should be given to an additional T1.5 spray again based around multi-site active ingredients, once leaf 2 has emerged around GS 35-37, in order to increase persistence of control.

**Continue overleaf >>>**

## >>> Winter Barley

In winter barley, the T1 fungicide timing during stem extension and early node formation (GS 30-31) has been shown to be crucial in optimising yield potential by maintaining tiller survival. As with wheat, disease levels in many barley crops are high this season and trials have shown that some SDHI based products are particularly effective against the key diseases of Rhynchosporium and net blotch, so in most cases programmes should be based around this new chemistry. Where Rhynchosporium is the main disease present, prothioconazole should be included wherever possible.

High levels of mildew will necessitate the use of a specific mildewicide, although prothioconazole offers a good level of control.

## Winter Oilseed Rape

For oilseed rape, the green-yellow bud growth stage marks the start of the Sclerotinia control programme, as well as the second part of canopy manipulation. Tebuconazole, metconazole or cyproconazole will impact on both aspects, while prothioconazole or boscalid adds to Sclerotinia control. The inclusion of azoxystrobin will increase sclerotinia control further, as well as increase crop greening and oil content.

Where crops are particularly thick, consideration should be given to the newly introduced growth regulator for oilseed rape containing metconazole and mepiquat chloride. The product influences the structure of the canopy to allow more light penetration to the pods, as well as reducing the risk of lodging and may be applied any time from the start of stem extension up to and including yellow bud stage.

Where **pollen beetles** are present at threshold levels at the green bud stage, a pyrethroid insecticide may be included, although if resistance is suspected then alternative, effective products to switch to include indoxacarb, thiacloprid or pymetrozine. It has also been found that, despite being a pyrethroid, tau-fluvalinate has controlled pyrethroid resistant beetles in trials. It is important to avoid spraying crops when bees are foraging or once the crop starts to flower.

**By utilising the most up to date information and trials results, your Hutchinsons agronomist will be able to provide expert guidance on suitable fungicide and pesticide programmes to adopt over the next few months in your crops.**

# Should Oilseed Rape feature in your 2017 crop planning?

As **Donald Rumsfeld**, United States Secretary for Defence in his time said, "**There are known knowns and known un-knowns**". This is where we often are in the planning process when assessing cropping choices and variety selection options for the next season.

We **know** that Oilseed Rape is probably the best autumn-planted rotational break crop and entry for 1st wheats. OSR is frequently called the "banker crop" on most arable farms. The **un-known** is what its actual value might be when the crop is marketed.

**Colin Button** – Hutchinsons Seed Manager – examines the place and importance of OSR as a crop option for UK farmers this autumn.

In spite of the uncertainties – perhaps mostly focussed around crop output value - growers and agronomists will shortly have to take the decision on what share of the crop rotation Oilseed Rape should take.

## Price & value fluctuations

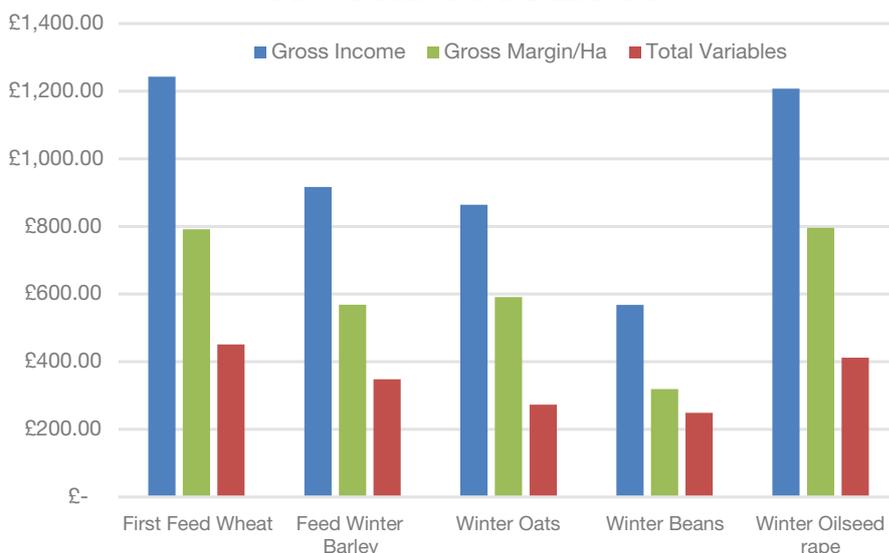
This time last year, the price indicators showed wheat around £140/t and oilseed rape hovering in the low £200's.

In the face of the low potential returns and the anticipated establishment difficulties from Cabbage Stem Flea Beetle (CSFB) attack, many growers decided to reduce the rape area they planted. The AHDB autumn 2015 planted area survey figure now shows a reduction in planted rape area of 10% to 548,000Ha (vs 2015 harvest area of 611,000Ha).

What we now **know** is that wheat prices have fallen dramatically and there has been an improvement in rapeseed values which, when added to oil bonuses, makes the OSR crop look much more attractive than could have been anticipated a year ago.

In fact OSR is approaching 2.5 times the value of wheat - a rule of thumb which was always said to govern where the crop price should be to justify its place in a farm's crop rotation.

## Gross Margin Comparison / ha for Harvest 2017





## Viewing crop choices

With this change of crop values, now could be the right time to look ahead to harvest 2017 and put OSR back in place as the key autumn-planted rotational crop. The establishment challenges remain, especially in the CSFB hot-spots. However, away from these specific areas, if given close attention to best practice over soil management pre-drilling, soil moisture preservation and a little luck, it is possible for the majority of the national crop to be successfully established.

The potential Gross Margin returns for OSR - as seen in the chart below, left - give a clear picture of where Winter OSR sits, alongside the other options (all figures based on likely crop values for 2017 harvest from information taken in early March 2016).

## Conventional or Hybrid?

Once the decision is made to grow the crop, the question which follows is "Which varieties would be my best option"? Should I go for a conventional (open pollinated) type, or opt to choose a hybrid? Or some of both?

There are very good reasons to consider both. The yield potential of conventional varieties has kept pace with hybrids in the AHDB Recommended List year on year. But look into the establishment criteria and there are several varieties which are clear leaders and arise from within both types.

Vigour through the germination and establishment phases can make all the difference. In our own RTC site observations, the hybrids **Incentive**, **Wembley**, **SY-Harnas**, **Fencer** and **Harper** have stood out particularly.

Indeed Fencer has shown to be the most vigorous, whether sown early or late (second week of September).

The conventional varieties **Campus** and **Elgar** have also shown good vigour. Campus in particular, is the outstanding variety and is in fact the widest grown conventional variety planted for harvest 2016. A testament to the faith that growers had in their choice for the year's crop in the face of the establishment uncertainties. Its Verticillium Wilt tolerance, as tested in the breeder's trials, also makes the variety a continued stable, reliable choice.

We should recognise that Elgar tops the new list and is, with its ratings for Gross Output, lodging, oil and disease scores a potentially choice variety. Sitting alongside a proven variety like Campus,

it will be one to consider growing. Although the 2015 Recommended List pushed Elgar to the front, it has previously seen some variability in performance – I would advise some caution before making major changes in variety selections (see Figure 1. below).

## Care with seed rates

Finally, an additional consideration in the choice between hybrids and conventional varieties is their seed rate for successful establishment. The hybrids normally require approximately 1.5 million seeds for 3 ha's (around 50 seeds/m<sup>2</sup>) versus the 4 million seed packs of conventional types (>100 seeds/m<sup>2</sup>).

On the face of it, the conventional type and higher seed rates will provide more seed and therefore a denser plant-stand in the field. The conventional seed rates, perhaps, could be pushed a little further from 4 ha's to drill across 5 ha's. However, it would be wise not to gamble and risk variable establishment, especially if conditions immediately after drilling become dry or CSFB attacks deplete the crop stand.



**As always, discuss these issues with your agronomist. At Hutchinsons the Seed Team and our field agronomists across the UK look forward to helping you make the best decisions for your farm business.**

## The Matrix of Variety Risk Taking

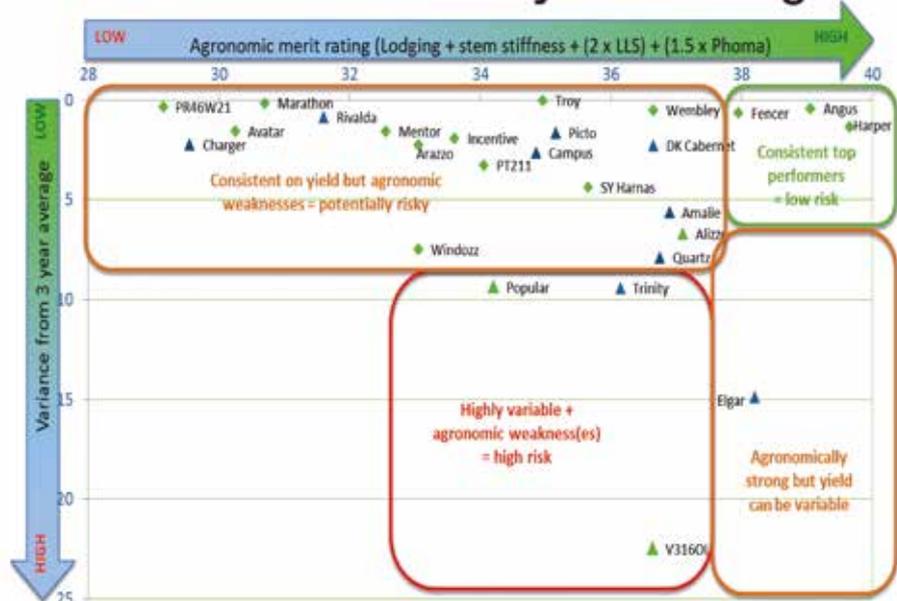


Figure 1: The Matrix of Variety Risk Taking – source Bayer UK



Source: HGCA RL 2016/17



# Implications of Loss of actives to UK agriculture

We review the practical repercussions that new European Regulation is having on the use and availability of pesticides in the arable, fruit, vegetable and grassland sectors of UK food production.

**The implications of the latest European Regulation on pesticides are now beginning to have significant effects on UK agriculture.** This EU Regulation poses problems for farming because, for the first time, we are suffering the consequences of the move from a risk-based system to a hazard-based system. Whilst we see the impacts of this on two major insecticides, **chlorpyrifos** and **pirimicarb**, the impact of this new regulation is not just about the loss of actives, but also significant changes to the usage of products that are going through re-registration. For example we are seeing differential changes to tebuconazole labels regarding the number of applications, restrictions on timings and rates that can be used in the future.

Coupled with this we are also seeing a greater impact from the Water Framework Directive (WFD) and Drinking Water Directive (DWD), and the implications these are having on buffer zones from water. There has also been a recent DEFRA study looking at proposals to reduce the use of metaldehyde and other oilseed rape actives in Drinking Water Protected Areas (DrWPAs).

We have already seen the impact of the neonicotinoid seed dressing ban (supposed to be a 2 year moratorium), and this looks unlikely to be resolved before 2017.

Our industry - through the AIC - is working hard to ensure that the UK has a derogation for use again in autumn 2016. Growers of oilseed rape are struggling to control cabbage stem flea beetle, which are showing high levels of resistance to pyrethroids that have been widely used to control this pest in the past.

## Loss of chemistry in the arable sector

Recent losses of insecticide active ingredients will have a significant effect on pest control in a number of arable crops including: cereals, legumes, sugar beet and potatoes. In cereals, not only does chlorpyrifos form the basis of control for pests such as Wheat Bulb Fly and Leatherjackets, but it is also a valuable option in the armoury for other pests including Frit Fly, Orange Wheat Blossom Midge and Grain Aphid. It is also our only option currently for control of Leatherjackets in sugar beet and other crops.

Pirimicarb has also recently been re-registered and this has brought with it changes to its approval, losing a number of crops from its label. The newly re-registered pirimicarb will now only be approved on peas and beans and will have a maximum application number of 1 per crop.

The changes to these active ingredients have particular significance as they reduce our options for use in anti-

resistance strategies. For example, both products could form part of a strategy for Grain Aphid control, as populations continue to develop greater resistance to the pyrethroid a.i. group. The loss of these two active ingredients for this usage means there are now only 3 active ingredient groups remaining for control of cereal insect pests. The consequence is that much greater importance must be put on the cultural control methods available to us.

## Loss of Chlorpyrifos in Grassland

The loss of the active chlorpyrifos from grassland is a major blow for the control of some key grassland pests that can also impact on other crops that may follow grass in the rotation. These pests are Leatherjackets and Frit Fly - we will have limited options for Frit Fly going forward, but this will require precise timing of product against the adult flights. The bigger issue is in control of Leatherjackets, for which there is no alternative for this soil pest. We have also seen issues with Chafer Grubs in agricultural pasture land, which chlorpyrifos has given a measure of control for - again there are no viable pesticide alternatives for this pest in grassland. Growers will need to consider a wider period between burning down grass and re-sowing either grass or other crops to reduce the pest burden; good seedbed preparation will also be of major importance.



## Implications of loss of actives for Vegetables

With the recent revocations announced for field scale use of chlorpyrifos, changes to the pirimicarb labels and MRL changes, it is worth summarising how these changes affect some key uses in vegetable crops.

With regard to chlorpyrifos, growers had until the 1st of April 2016 to use on crops in the field; afterwards the only approval is by automatic gantry sprayers on seedling brassica modules. The main uses lost in field veg would be the in-field drench on brassicas for cabbage root fly and the foliar spray applications for the control of a range of pests.

The recent approval of Verimark 20SC (cyazapyr) as a brassica module drench will help to overcome some of the potential pitfalls. The other key crops affected being onions and leeks, where chlorpyrifos would have been used for thrip control. This use can be

replaced with spinosad, thiacloprid (leeks only), abamectin (leeks only) and a potential new active that is close to being launched in to the market.

The loss of approvals of pirimicarb on all crops other than legumes will cause issues with aphid control in many crops. The recent approval of Cruiser 70 WS through Phyto-Drip application will give excellent aphid control in brassicas without the use of pirimicarb. The same can be said in carrots with the recent EAMU authorisation for Cruiser 70 WS as a seed treatment. Where old label pirimicarb is in stock, then careful management is required to use the product up without exceeding the new MRLs.

## Loss of Chlorpyrifos uses in fruit

Again, growers had until 1st April 2016 to use chlorpyrifos on all fruit crops. The loss will certainly leave a significant gap - in the 2013 DEFRA-funded Pesticide Usage Survey, chlorpyrifos was the

number 1 insecticide in top fruit, accounting for 34% of all insecticide applications. In soft fruit it was the second most widely used, with a 22% share of all insecticides used in 2014.

In top fruit there are alternative active ingredients available - for example options for Codling Moth control; these include chlorantraniliprole, methoxyfenozide or indoxocarb. It appears, in the post-chlorpyrifos era, that the alternative insecticides are effective, but much more targeted, and other previously minor pests are starting to appear, which chlorpyrifos or other broad spectrum insecticides were controlling before as a "bonus". Pests such as Mussel Scale, Rhynchites Weevil, or various minor caterpillar pests (e.g. Apple Bud Moth) are all appearing and need controlling with other chemistry such as thiacloprid or with the Codling Moth pesticides mentioned above. As a consequence this could mean more applications, but of more targeted products.

This may not be the last casualty, particularly of the broader spectrum insecticides. Legislators and retailers are making more demands on pesticide residues, and scrutinise carefully the impact of plant protection products on non-target organisms, especially bees.

Fruit growers also have issues about label changes, when products are re-registered, which reduce the number of applications, increase the interval permitted between application or increase the harvest interval, amongst other restrictions. This is making it harder to construct robust, cost effective spray programmes in crops where quality is as important as yield.

## Unintended consequences

In conclusion, one of the unintended consequences of these losses or restrictions on the number of available actives, in all crop production sectors, is that we have limited options to reduce the risk of resistance.

**Whilst we all would agree that we need to be ever more diligent with the safe use of pesticides, we would be best served by a system that evaluates the risks, rather than the hazards of active ingredients and products.**

**That having been said, we do need, as an industry, to continue to adhere to stewardship schemes to protect those products at risk from water protection issues.**

Crop	Pest	Control	
		Cultural	Chemical
Cereals	Wheat Bulb Fly	<ul style="list-style-type: none"> <li>• Encourage good establishment to limit tiller effect- rolling etc.</li> <li>• Spring sown cereals</li> <li>• Vigorous varieties</li> <li>• Avoid cultivation in July/Aug</li> </ul>	Tefluthrin or Cypermethrin seed treatments
	Frit Fly	<ul style="list-style-type: none"> <li>• Lengthen interval between ploughing grass in the autumn, by a period of 6-10 weeks, before sowing a susceptible crop</li> <li>• Consolidation of seedbeds to impede pest movement</li> </ul>	Pyrethroids
	OWBM	<ul style="list-style-type: none"> <li>• Risk assessment - trapping</li> <li>• Resistant/tolerant varieties</li> </ul>	Lambda-cyhalothrin, Thiacloprid
	Grain Aphid	<ul style="list-style-type: none"> <li>• Removal of "green bridge"</li> <li>• Delay drilling</li> <li>• 5 week cultivation and sowing gap</li> </ul>	Seed treatment , Pyrethroids, Thiacloprid, Fonicamid, Dimethoate
Cereals and Sugarbeet	Leather Jacket	<ul style="list-style-type: none"> <li>• Risk assessment- trapping</li> <li>• Ploughing grassland in July and subsequent cultivations can destroy up to 50% of leatherjacket populations</li> </ul>	None
Legumes	Black bean aphid		Pirimicarb (1 application)
Potatoes	Aphids	<ul style="list-style-type: none"> <li>• Removal of "green bridge"</li> <li>• 5 week cultivation and sowing gap</li> </ul>	Thiamethoxam, Lambda-cyhalothrin, Thiacloprid, Pymetrozine, Acetamiprid, Esfenvalerate, Fonicamid

**Table 1:** Remaining options for certain key pests following loss of Chlorpyrifos and changes to Pirimicarb in the arable sector

# National Black Grass Centre of Excellence

## your invitation to visit 22nd & 23rd June

**Dick Neale** (Hutchinsons Technical Manager) previews the summer open days at Brampton this year, describing our ongoing research and sustainable long term strategy for soil health, management cost reductions and positive black grass control.

**It is time again to invite you all to visit us at our black grass research site at Brampton - the later timing this year reflects the continuing move to spring cropping as a key component in the control strategy for black grass.** These situations are best demonstrated later in June.

Now in its sixth year, the holistic approach to grass weed control continues with research again applied in a commercial situation. Hybrid winter barley has now replaced 2nd winter wheat and spring wheat is being utilised in the lower pressure soil zones.

Because the Brampton site has developed predominantly around the commercial application of the researched techniques, we are able to identify real life issues and adapt our management to have maximum impact in controlling black grass. We are also able to research new opportunities as they present themselves, and a number of fields last autumn were sown in the last week of September, following assessment of the black grass numbers present in the context of the previous five years of management in those fields. This demonstrates that we are not locked into a late October drilling window when a sustained, planned and technically sound management approach is implemented across the rotation.

**Alternative cultivation strategies and cover cropping are featured.**

With black grass levels continuing to decline on the site, cover crops have this year been included for the first time in the commercial management of seedbeds and weed control. Previous experimental investigation on the site was suggesting that black

grass levels were too high for reliable cover cropping success.

**Spring Barley remains the dominant spring crop for competing with black grass.** Agronomic input on the heavier, moisture retentive soils at Brampton to optimise the output from this crop remains a key feature of our research. Optimising establishment, varietal choice and output will be features of the open days.

**The trials at Brampton still focus on integrating the latest research from all areas into the commercial farming operation.** This allows us to identify the consequences of one operation upon other operations planned for later in the year or the infield impact across the rotation.

During the past five years we have trialled, tested and developed cultivation tools and establishment techniques that optimise both black grass cultural control and herbicide impact. The benefits of these tools are now becoming clear to see, with extremely high levels of control delivered now across the site and rotation. We are continuing to develop this area and hope to have further enhancements on show in June.

Varieties, seeding rates, sowing dates and herbicide interactions have all been investigated during the past five years and each year sees us move on to the next commercial stage, utilising the optimum approach indicated by this work. We do not repeat this work continually at Brampton, as our aim is to reduce the levels of black grass to the absolute minimum across the site.

**Herbicide demonstration work continues,** but the 'untreated' plots are culturally controlled levels of black grass which have allowed the herbicides to generate very high levels of control this season.

**Black grass control levels across the site this season are very high** and we invite you to come and discuss how this has been achieved. Your fears regarding the utilisation of alternative tillage techniques are addressed and the integration of soil management for soil health, soil resilience, increased soil organic matter, soil fertility, grass weed and general weed control and growing cost controls will be presented and discussed across the site.

**Cost controls, in the current climate of reduced commodity prices, are a real focus on farm.** The research at Brampton demonstrates clearly the positive interaction of management practises that address not only black grass, but increasingly the multitude of agronomic factors that interact across the rotation to achieve our shared goals.

Our open days in June 2016 will offer a unique opportunity to see and discuss how all the elements practiced or being promoted on farm can come together to achieve a sustainable, affordable and long term strategy for soil health, cost reduction and effective black grass control.

As always, early booking is advised, as group size is managed to optimise the visitor experience.

**To book your place** at Hutchinsons' Brampton open days, please either return the tear-off reply card from this newsletter, or simply book online via the 'events' section on our website: [www.hlhtd.co.uk](http://www.hlhtd.co.uk)



### Spring videos:

The latest series of videos from Brampton, clearly demonstrating the effects of 'conditioning crops' and different soil management regimes on soil health, can be viewed by visiting our website: [www.hlhtd.co.uk](http://www.hlhtd.co.uk)

# National Black Grass Centre of Excellence

For tours 22nd - 23rd June 2016

**HUTCHINSONS**



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## Hutchinsons Regional Technology Centres

# Summer Demonstration Events

During June and July, Hutchinsons will be hosting a range of open days for farmers to visit demonstration sites around the country. The most important aspect of these days is the opportunity for you to discuss crop husbandry and soil management with agronomists from Hutchinsons. On show will be varieties of cereals and oilseed rape from the AHDB Recommended Lists, along with techniques to improve yield and quality.

The majority of sites will have a wide range of winter wheat and winter oilseed rape varieties on display, with seed specialists available to demonstrate key variety characteristics. Treated and untreated areas of each variety are adjacent to each other to make it easier to assess disease resistance and straw strength. Hybrid and conventional barley varieties are available at five of the sites and Great Tew, Little Ponton and St Mabyn will have spring cereal demonstrations.

Our new site at Millthorpe in Lincolnshire focuses on black grass control and demonstrates the use of spring cropping as part of a cultural control strategy.

The overarching themes this year are yield improvement, cost of production and precision farming. Alongside varieties, the demonstrations will include seed treatments, crop nutrition, plant growth regulators and fungicide programmes. There will be a particular focus on nitrogen and potash nutrition at all of the sites. In the winter wheat variety plots you can also find out about the Yield Enhancement Network (YEN) project.

Information will be presented on the results from last year and the prospects for this year. During the course of this year we are collecting information on crop development, disease resistance and soil nutrient levels.

This information will be explained as part of the demonstration. >>>

Please complete your contact details and then nominate the day and time you wish to visit below:-

Wed. 22nd June

.....places for tour

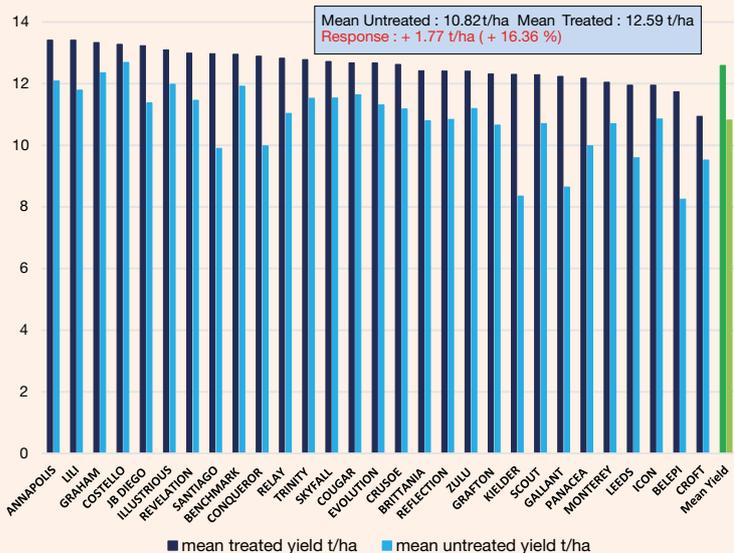
10am	12noon	2pm	4pm
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Thurs. 23rd June

.....places for tour

10am	12noon	2pm	4pm
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Winter Wheat Varieties Mean of all sites 2014/15  
Yield (t/ha) +/- Fungicide treatment



# Memory Jogger

The site is located on the west side of the A1 at Brampton, just south of the intersection of the A14 with the A1 (see map overleaf).

I have booked to visit the site on:-

Wednesday 22nd June

10am	12noon	2pm	4pm
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Thursday 23rd June

10am	12noon	2pm	4pm
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Where to find us:

National Black grass  
Centre of Excellence

Brampton, Huntingdon, PE28 0DB

**HUTCHINSONS**



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## > Omnia Precision Agronomy

At all of the sites we will be demonstrating our unique nutrient management and precision farming services, Omnia. Utilising multiple layers of field information, Omnia combines all of this data together to provide more accurate application plans, which represent more closely the actual agronomic needs of the crop. This technique significantly enhances the agronomic benefits from the targeted, variable application of a wide range of inputs. This leads to reduced costs and increased yields, whilst meeting environmental objectives.

Our summer demonstration programme extends from the beginning of June to early July (see table of dates below and map locations).

Please look out for an invitation to your local event, which we will be sending out during May.

For a preview of the National Black Grass Centre of Excellence event in June, please see further information in this issue.

## Summer Programme 2016

- 1 Agrivice, Beccles
- 2 National Black Grass Centre
- 3 Balgonie with Scottish Agronomy (NEW)
- 4 Alnwick
- 5 Great Tew
- 6 Morton-on-Swale
- 7 Adisham with NIAB
- 8 Little Ponton
- 9 Warden Farming, Grayingham
- 10 Stow Bridge
- 11 St Mabyn, Bodmin
- 12 Ludlow
- 13 Millthorpe (NEW)



## Summer Open Day

## Demonstration Dates 2016

LOCATION	DATE	TOUR TIMES
Agrivice, Beccles, Suffolk	Mon. 6th June (Black grass trials)	2pm - 4pm
Agrivice, Beccles, Suffolk	Monday 13th June (Oilseed Rape)	2pm - 4pm
National Black Grass Centre, Brampton	Weds/Thurs 22nd /23rd June	10am - 4pm
Balgonie, Glenrothes	Tuesday 21st June	12.00 noon - 4.00pm
Alnwick	Wednesday 22nd June	12.00 noon - 4.00pm
Agrivice, Beccles, Suffolk	Mon. 27th June (Wheat /fungicides)	10.00am - 2.00pm
Great Tew, Oxfordshire	Tuesday 28th June	10.00am - 1.00pm
Morton-on-Swale, Northallerton	Tuesday 28th June	10.00am - 1.00pm
Adisham, Canterbury, Kent	Wednesday 29th June	10.00am - 1.00pm
Little Ponton, Lincolnshire	Wednesday 29th June	10.00am - last tour 1.00pm
Warden Farming, Grayingham, Lincs	Thursday 30th June	5.00pm - 6.30pm
Stow Bridge, Norfolk	Friday 1st July	12 noon - 3.00pm
St Mabyn, Bodmin, Cornwall	Tuesday 5th July	3pm - 7pm
Ludlow, Shropshire	Wednesday 6th July	3pm - last tour 5.30pm
Millthorpe, Lincolnshire	Thursday 7th July	3pm - 6pm

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

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