

# IPM NET



## The IPM Network

Creating connections to advance IPM.

IPM NET aims to improve the practical understanding and application of IPM for farmers, and inform policy design promoting IPM strategies. IPM NET is an open IPM Network, enabling benchmarking of critical IPM metrics and facilitating sharing of knowledge. The network will enable members to collect, interpret, and share knowledge and information from farms to better understand the effectiveness of IPM approaches and the impact on yield, quality, and profitability.

This Welcome Pack provides instructions on how to join IPM NET and guidance on how to gather IPM data to develop your skills as an IPM practitioner and benefit from the collective knowledge of the network.

If you need additional information, guidance or support, please get in contact:  
[IPMNET@adas.co.uk](mailto:IPMNET@adas.co.uk)



## Meet the Team

### Dr Sarah Kendall - Crop Physiologist

Sarah.kendall@adas.co.uk



Sarah grew up on an arable farm in East Yorkshire and now lives on a mixed farm in Nottinghamshire. She completed her PhD at the University of York and has worked as a crop physiologist at ADAS since then. Sarah has a keen interest in understanding factors affecting cereal and oilseed rape yields, and how this understanding can be used by growers to make improvements. Sarah also has worked on several research projects aiming to understand tolerance to slugs, pollen beetle damage cabbage stem flea beetle in wheat and oilseed rape.

### Dr Mark Ramsden – IPM & Crop Protection Scientist

Mark.ramsden@adas.co.uk



Mark is an agro-ecologist and entomologist, working at ADAS since 2014. He has a background in applied biology, and a PhD in invertebrate pest management. Mark's main areas of expertise are in farm-research network management, IPM decision support, plant-insect interactions and invertebrate pest management. Mark is currently involved in the development of an online platform supporting IPM decisions, and a pan-European network of IPM demonstration farms.

### Dr Ellie Dearlove - IPM & Crop Protection Scientist

Eleanor.dearlove@adas.co.uk



Ellie is an integrated pest management scientist at ADAS. She specialises in applied entomology, biopesticides and mixtures for pest control and has a PhD in integrated approaches for invertebrate pest control. Eleanor's work involves researching IPM for key weeds, diseases and insect pests in major crops across Europe and focuses on knowledge exchange to increase IPM, facilitation of farmer-led research and addressing policy and regulation barriers to the use of alternative pest control methods.

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## Check-list for getting started with IPM NET.

To do:	Completed
Download the IPM NET Members Journal	<input type="checkbox"/>
Read our Data Privacy Policy	<input type="checkbox"/>
Complete page one of the IPM NET Members Journal	<input type="checkbox"/>
Review all Journal pages and comment on requirements	<input type="checkbox"/>
Register by sending your Members Journal to <a href="mailto:IPMNET@adas.co.uk">IPMNET@adas.co.uk</a>	<input type="checkbox"/>

### Key dates

<b>End of June</b>	<b>Deadline to link with the Pest &amp; Disease Survey Data</b>
<b>5 July 2024</b>	<b>Registration deadline to get full benefits of membership</b>
<b>31 October 2024</b>	<b>Final membership deadline and Deadline return of complete Member Journals</b>

## IPM NET Pilot Feedback

IPM NET pilot membership (2023-2024 growing season) is free and is a two-way process. We welcome your feedback and insights – especially during the pilot phases of the IPM NET – which will shape the network's development.

Throughout the pilot season we will be asking about your experience and challenges participating in the IPM NET. This includes comments on the Welcome Pack, the Member Journal, your personalised IPM NET report(s), any communications and in-person meetings. If you have any queries or suggestions please contact any member of the team or email [IPMNET@adas.co.uk](mailto:IPMNET@adas.co.uk).

## **IPM NET membership**

Being part of IPM NET supports you in reviewing your IPM strategy and identifying opportunities to reduce costs and enhance the efficiency, sustainability, and profitability of your farm. You can benchmark your IPM approaches, gather insights for improvement, and discover solutions to pest management challenges. The network will help you stay informed about new technologies and innovations in IPM, while sharing your own experiences with a community dedicated to advancing sustainable agriculture.

### ***As a member of IPM NET, you will:***

- Benchmark your IPM approach, providing data on field(s), crop observations and agronomy.
- Have priority access to IPM NET resources.
- Join the IPM NET annual end of season conference to discuss IPM NET results.
- Earn BASIS and NRoSO CPD points.

### ***IPM NET will:***

- Securely store and analyse data submitted. Any personal data will be protected and never shared outside of the IPM NET Team without informed consent.
- Provide field-specific IPM reports to each member.
- Share insight derived from the IPM NET database.
- Facilitate IPM focused discussion and ideas sharing between members.
- Share insights and opportunities relating to relevant IPM initiatives partners with IPM NET.

## **IPM NET Steering Committee**

The IPM NET steering committee was established in autumn 2023. It is a governing body of independent stakeholders that oversee and support development and maintenance of the network to ensure that the project is obtaining its goals. The steering committee consists of organisations and individuals with expertise in IPM implementation and quantification as well as those representing the needs of farmers.

## Getting Started

Registration for eligible farms is a quick and simple process:

- Visit <https://adas.co.uk/projects/ipm-net-knowledge-sharing-network-to-improve-the-effectiveness-of-ipm/>
- Download the IPM NET Membership Journal.
- Under the first page, 1. Membership Details, please complete Section 1 and 2.
- Once completed, save the document and send it to us at [IPMNET@adas.co.uk](mailto:IPMNET@adas.co.uk).

## IPM NET Membership Journal

Your Membership Journal is the tool for tracking your field(s) registered in the IPM NET. It includes pages for specific types of data, allowing for organised and efficient data collection.

Work your way through the questions in each section. To the right of the response boxes, red text provides additional information or guidance.

The type of input required will be indicated on the left hand side.

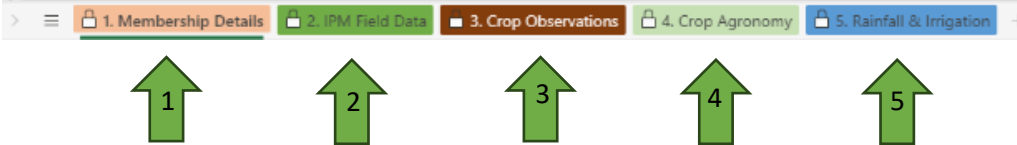
Input required	Guidance
<b><i>pick list</i></b>	Click on the response box, a small grey arrow appears, click the arrow and select your response from those provided.
<b><i>text required</i></b>	Click on the response box and type your input.
<b><i>number</i></b>	In some boxes, we may ask for a number. The metrics (if any) for these numbers are shown on the left hand side (e.g., mm, cm, ha, plants per m <sup>2</sup> ).
<b><i>dates</i></b>	When inputting dates, please keep the format DD/MM/YYYY unless otherwise stated in the journal.

Not all sections of the Journal need to be completed in order to receive an IPM report at the end of the season. However, providing more information will enable us to provide a more in-depth report at the end of the season.

Cells shaded **PINK** are automatically filled  
Cells shaded **BLUE** **MUST** be completed  
Completing **WHITE** cells will enable a more detailed final report

# IPM NET Membership Journal

IPM NET Entrant details		Complete sections 1 and 2
Your IPM NET Membership Number:		Pilot Year - no membership charges apply
Entry payment status		
<b>Section 1: Membership details</b>		
<b>Primary contact details</b>		
First name		<i>This should be the main point of contact for the fields details in this IPM NET Journal, and the named individual accepting terms and conditions below.</i>
Surname		
Contact email address		
Telephone number		
Mobile number		
Contact role		
<b>Additional contact details (if applicable)</b>		
Full name		<i>Additional contacts will only receive notifications and copies of reports, and can only attend the end of season IPM NET Conference if they are members of the IPM NET.</i>
Email address		
Contact role		
IPM NET Membership Number		
<b>Additional contact details (if applicable)</b>		
Full name		<i>Do not share personal details of additional contacts without their permission.</i>
Email address		
Contact role		
IPM NET Membership Number		
<b>Terms and Conditions</b>		
I have read, understood and agree to my data, including personal data, being managed in accordance with the IPM NET Data Privacy Policy.		Accept / reject
I have read, understood and agree to the terms and conditions of joining the IPM NET.		Accept / reject



Under the different pages, you can:

1. Enter membership details;
2. Provide entrant field data;
3. Complete crop observations;
4. Enter Crop Agronomy details, and;
5. Give detail on rainfall and irrigation.

All members must accept the IPM NET Data Privacy Policy and Terms and Conditions before membership is confirmed.



## Data Privacy Policy

IPM NET Data Privacy Policy can be found [here](#).



## Terms and Conditions

IPM NET Terms and Conditions are currently under review, and will be shared with all prospective Pilot IPM NET members before membership is ratified.



# IPM NET Journal Content

## 1. Membership Details

This page should be completed as part of the registration process. Please keep this page completed and update the information on other pages throughout the season.

Please note that a separate Membership Journal should be completed for each field enter. During the pilot season up to three fields can be entered per member, at least one of which should be a cereal crop for harvest in 2024. If you would like to enter other crops, or crops from previous years, please contact us.

*Information on this page is used to confirm membership details, and enable us to communicate effectively with you during the season.*

## 2. IPM Field Data

On this page, provide data about your selected field.

The location of the field must be provided, ideally as a Grid reference. Grid References may be found at <http://www.gridreferencefinder.com/> and right clicking on the field being entered. This will be used to obtain climate and other remotely collected data.

Topsoil textures and Subsoil textures can be identified by using the RB209 flow-chart in The Fertiliser Manual in [Appendix 1](#). Ideally, soil textures should have been determined by an experienced soil scientist.

Estimations of topsoil stone content should be provided as a percentage (%). The diagram in [Appendix 2](#) can help when entering estimates.

*Information on this page is used to define key aspects of the field you've selected, which may impact on pest management and crop performance.*

## 3. Crop Observations

On this page, provide data about how the crop developed, including dates of sowing, growth stages, harvest. There are also questions about the crops health and evenness at emergence, stem extension and grain filling, and about the presence of pests, weeds and diseases and perceived impact on crop performance. This page can be completed during or at the end of the growing season.

*Information on this page is used to track the impact of growing conditions and pests, diseases and weeds on your crop.*

### **Diseases:**

Please provide an estimate of the percentage of the field affected by disease as well as the severity rating of the disease. In [Appendix 3](#) you can find a key to help with estimating percentage of your field affected. We have provided a list of commonly observed diseases, but please type your response under 'other' if required. A useful guide for cereal diseases can be downloaded by clicking this link: [Cereal Disease Guide](#).

### **Pests:**

Please provide an estimate of the percentage of the field affected by symptoms of pests and let us know the severity rating of the perceived impact on yield. We have named some common pest symptoms, but if you know the specific pest causing damage, please let us know in the

feedback box found at the bottom of the page. In [Appendix 4](#) you can find useful information to help identify pests based on symptoms.

**Weeds:**

For grass weed species, please provide an estimate of the percentage of the field infested with weeds. In [Appendix 3](#) you can find a key to help with estimating percentage of your field infested. For broadleaf weeds, please provide an estimate of number of weeds per m<sup>2</sup>. We have also provided a list of commonly found grass and broadleaf species but please let us know if your field contains any other species. You can find a useful guide to help identify arable weeds, [here](#).

**4. Crop Agronomy**

This page asks members to submit seed treatments, pesticide, and fertiliser applications. Please record all pesticide and growth regulator sprays, use full brand name. Please state NONE if none used, so that we can separate zero applications from missing data. Information for adjuvants and trace elements are not required.

*Information on this page is used to assess your treatments during the season.*

**5. Rainfall & Irrigation**

Information can be entered monthly from March – August. If local rainfall data are not provided, ADAS will obtain rainfall data from alternative sources, to at least a 10km grid resolution. Basic agronomic information is requested from all entrants.

*Information on this page is used to supplement any climate data we collect, to better understand interactions with pests, weeds and disease.*

**Feedback**

At the bottom of each page in the IPM NET Journal there is an open section where you can provide feedback. This can include any additional observations not captured in the page, any questions about the data requested, or any other comments or queries about the IPM NET process.

This information will be used to improve future versions of the IPM NET Journal, and to develop IPM NET FAQs. Your feedback will be kept anonymous.



## Contact us

To receive further information regarding IPM NET, please contact us at:



[IPMNET@adas.co.uk](mailto:IPMNET@adas.co.uk)

RSK ADAS Ltd, 172 Chester Road, Helsby, Cheshire UK WA6 0AR

Development of the IPM NET pilot year has been funded by Defra.



Department  
for Environment  
Food & Rural Affairs

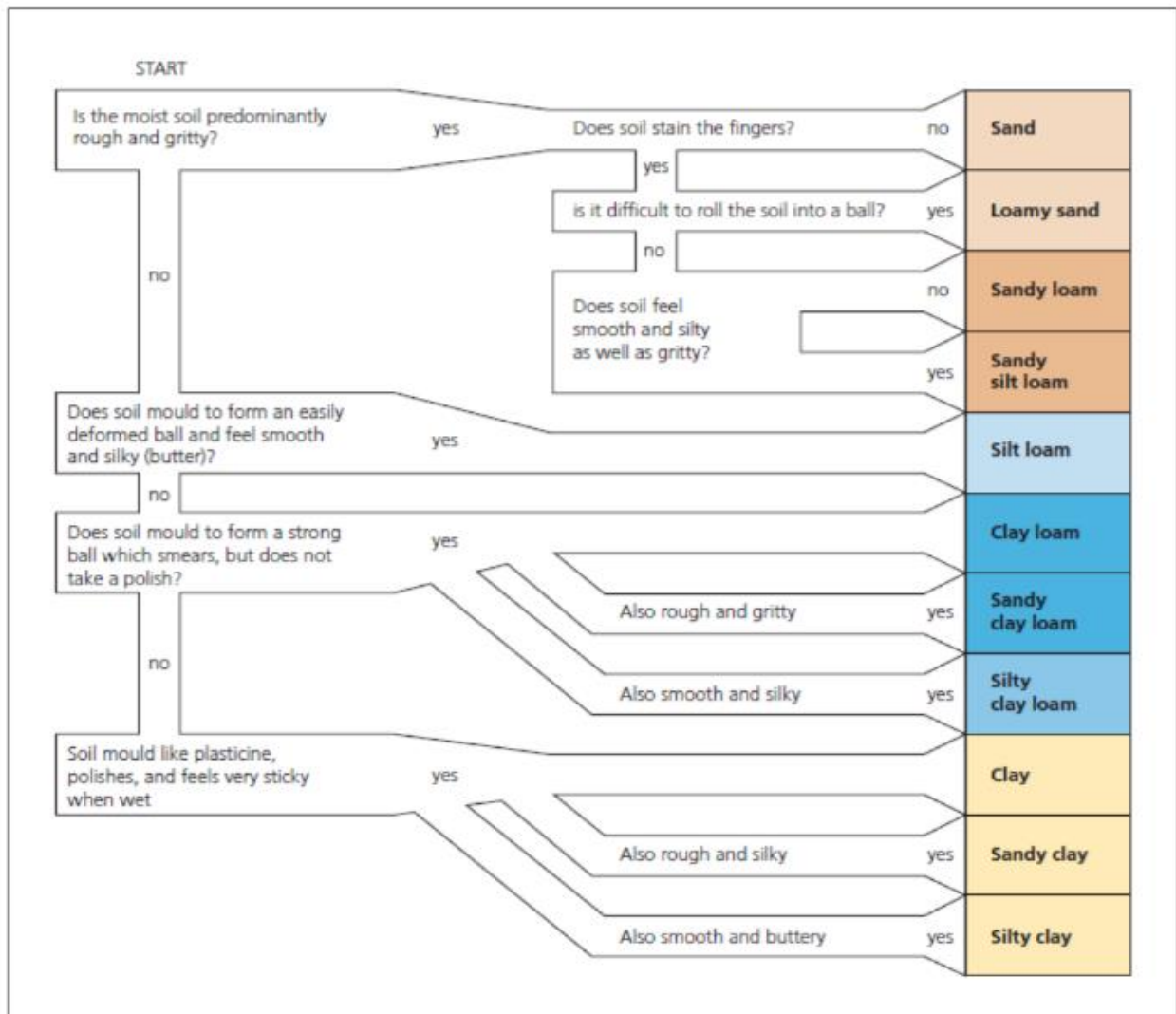
# Appendix 1.

From The Fertiliser Manual (RB209), Defra 2010

## Assessment of Soil Texture

Accurate measurement of soil texture requires laboratory analysis, but for practical purposes texture can be assessed by hand using the following method:

Take about a dessert spoonful of soil. If dry, wet up gradually, kneading thoroughly between finger and thumb until soil crumbs are broken down. Enough moisture is needed to hold the soil together and to show its maximum stickiness. Follow the paths in the diagram to get the texture class.

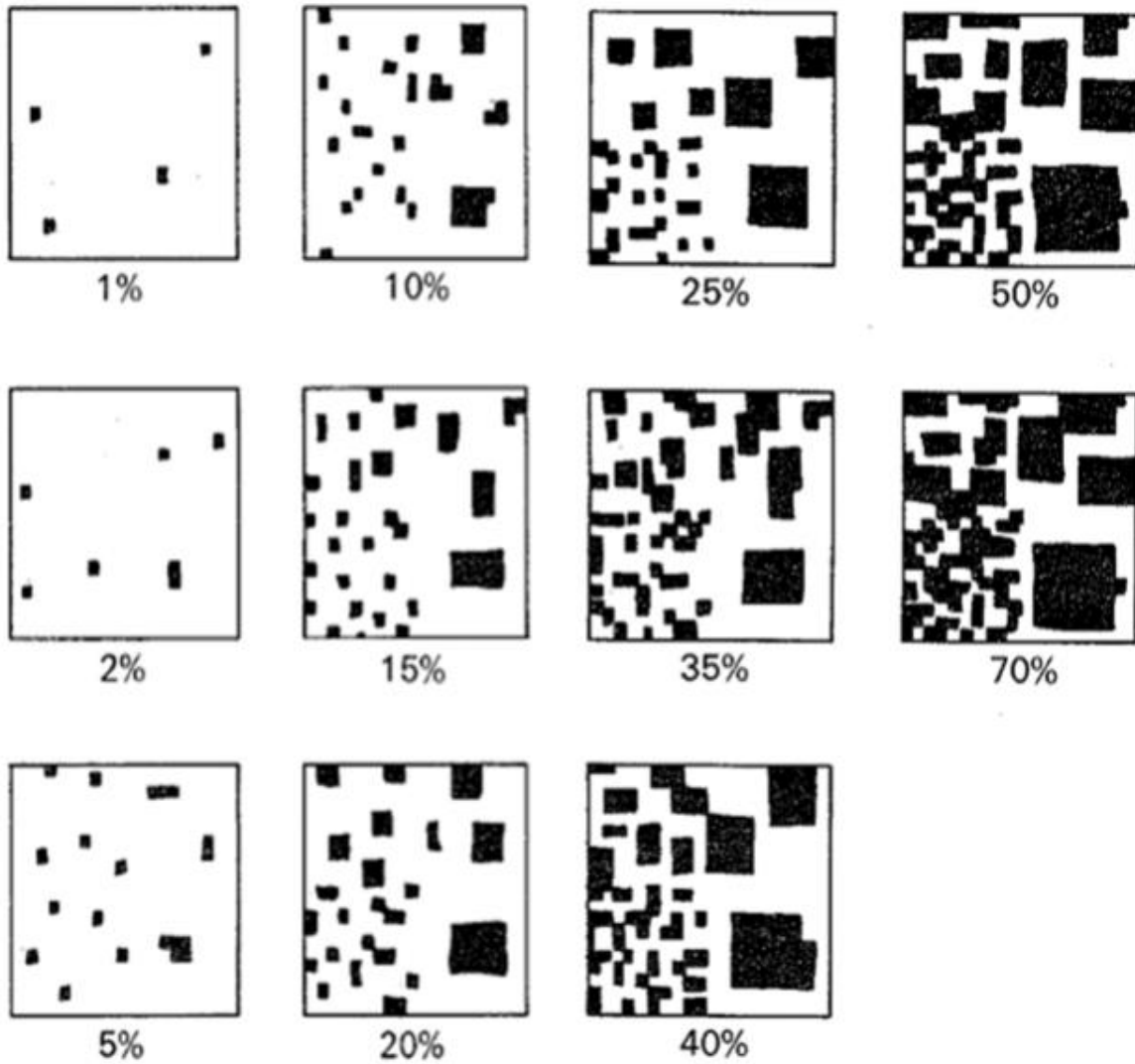


A texture triangular diagram, defining the particle size distribution for each named texture class, is given in Appendix D of *Controlling Soil Erosion (MAFF PB4093)*.

## Appendix 2.

Estimations of topsoil stone content should be provided as a percentage (%).

### Chart for estimating mottles, stones, nodules etc.

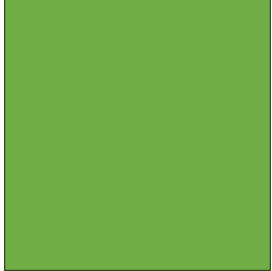
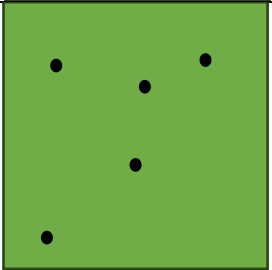
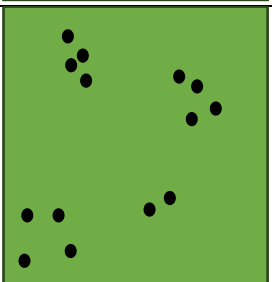
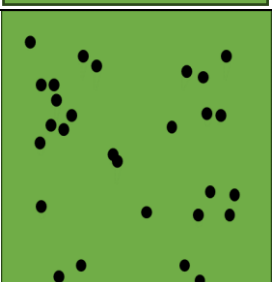
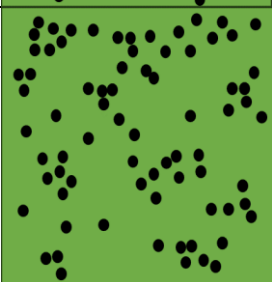


Each quarter of any one square has the same area of black

### Appendix 3.

Pest, weed and disease score ratings.

Please use the table below to assist in estimating the severity of pest symptoms, grass weed infestation and disease infestation across the field.

Rating	Percentage	Visual representation of rating within a field
None	0%	
Slight	Less than 10%	
Moderate	Between 10-25%	
Significant	Between 25-50%	
High	More than 50%	

## Appendix 4.

Pest	Common symptoms
Autumn aphids (BYDV symptoms)	<a href="https://ahdb.org.uk/knowledge-library/encyclopaedia-of-cereal-diseases">https://ahdb.org.uk/knowledge-library/encyclopaedia-of-cereal-diseases</a>
European wheat stem sawfly	<a href="https://ahdb.org.uk/knowledge-library/damage-caused-by-the-cereal-stem-sawfly-and-leaf-sawflies">https://ahdb.org.uk/knowledge-library/damage-caused-by-the-cereal-stem-sawfly-and-leaf-sawflies</a>
Frit fly	<a href="https://ahdb.org.uk/knowledge-library/identification-and-management-of-frit-fly-in-cereals#:~:text=Damage%20in%20cereals%20is%20most,death%20of%20the%20main%20shoot.">https://ahdb.org.uk/knowledge-library/identification-and-management-of-frit-fly-in-cereals#:~:text=Damage%20in%20cereals%20is%20most,death%20of%20the%20main%20shoot.</a>
Gout fly	<a href="https://ahdb.org.uk/knowledge-library/risk-factors-and-management-of-gout-fly-in-cereals#:~:text=In%20autumn%20sown%20crops%20C%20damage,and%20never%20produce%20an%20e ar.">https://ahdb.org.uk/knowledge-library/risk-factors-and-management-of-gout-fly-in-cereals#:~:text=In%20autumn%20sown%20crops%20C%20damage,and%20never%20produce%20an%20e ar.</a>
Grey field slug	<a href="https://ahdb.org.uk/knowledge-library/dealing-with-pests-and-diseases">https://ahdb.org.uk/knowledge-library/dealing-with-pests-and-diseases</a>
Orange Wheat Blossom Midge	<a href="https://ahdb.org.uk/knowledge-library/how-to-identify-wheat-blossom-midges#:~:text=Orange%20wheat%20blossom%20midge%20larvae,and%20result%20in%20premature%20sprouting.">https://ahdb.org.uk/knowledge-library/how-to-identify-wheat-blossom-midges#:~:text=Orange%20wheat%20blossom%20midge%20larvae,and%20result%20in%20premature%20sprouting.</a>
Saddle gall midge	<a href="https://ahdb.org.uk/knowledge-library/saddle-gall-midge">https://ahdb.org.uk/knowledge-library/saddle-gall-midge</a>
Yellow Wheat Blossom Midge	<a href="https://ahdb.org.uk/knowledge-library/how-to-identify-wheat-blossom-midges#:~:text=Orange%20wheat%20blossom%20midge%20larvae,and%20result%20in%20premature%20sprouting.">https://ahdb.org.uk/knowledge-library/how-to-identify-wheat-blossom-midges#:~:text=Orange%20wheat%20blossom%20midge%20larvae,and%20result%20in%20premature%20sprouting.</a>
Summer aphids (direct damage)	<a href="https://ahdb.org.uk/the-biology-and-control-of-cereal-aphids">https://ahdb.org.uk/the-biology-and-control-of-cereal-aphids</a>
Wheat bulb fly	<a href="https://ahdb.org.uk/knowledge-library/how-to-manage-wheat-bulb-fly-risk-in-cereals">https://ahdb.org.uk/knowledge-library/how-to-manage-wheat-bulb-fly-risk-in-cereals</a>
Yellow cereal fly	<a href="https://ahdb.org.uk/knowledge-library/yellow-cereal-fly-biology-and-management#:~:text=Feb%20E2%80%93May%20L arvae%20enter%20and,left%20by%20wheat%20bulb %20fly">https://ahdb.org.uk/knowledge-library/yellow-cereal-fly-biology-and-management#:~:text=Feb%20E2%80%93May%20L arvae%20enter%20and,left%20by%20wheat%20bulb %20fly</a>
Leatherjackets	<a href="https://ahdb.org.uk/knowledge-library/dealing-with-pests-and-diseases">https://ahdb.org.uk/knowledge-library/dealing-with-pests-and-diseases</a>
Wireworms	<a href="https://ahdb.org.uk/knowledge-library/identification-and-management-of-wireworms-in-field-crops">https://ahdb.org.uk/knowledge-library/identification-and-management-of-wireworms-in-field-crops</a>