IPM planning to support disease management

Defra Test and Trial Project 253a and 253b

Philip Walker, John Gadsby, Antonio Calatayud, Kath Behrendt (ADAS)
Neil Paveley (ADAS), Henry Creissen (SRUC), Chris Hartfield (NFU)

Sustainable Farming Incentive (SFI)

DEFRA Sustainable Farming Incentive:

- Four SFI paid actions for IPM.
- Project collated evidence for the paid actions for their effectiveness, impact on biodiversity and applicability across crops.
- IPM Planning Tool developed in consultation with Defra to help farmers and advisors complete an IPM plan.

Code	Action	Previous rate	New payment rate
IPM1	Complete an integrated pest management (IPM) assessment and produce an IPM plan	£989	£1,129
IPM2	Establish and maintain flower-rich grass margins, blocks, or in-field strips	£673	£798
IPM3	IPM3 - Establish a companion crop	£55	£55
IPM4	IPM4 - No use of insecticide	£45	£45

Published
9 January 2024

Department for Environment Food & Rural Affairs

IPM1: Assess IPM and Produce a Plan

IPM1: Assess integrated pest management and produce a plan

How much you'll be paid

You'll receive £1,129 for the assessment and plan per year.

This action's aim

This action's aim is that you:

- understand the benefits, costs, impacts and risks of your current approach to crop pest, weed and disease management for your land
- effectively plan how to adopt a range of integrated pest management methods appropriate to your farm

Where you can do this action

You can do this action on all agricultural land located below the moorland line.

IPM1 is an agreement level SFI action. Once you've included this action in an SFI agreement, you cannot apply for it again until that 3-year agreement ends. You cannot apply for it in multiple SFI agreements.

This means you do not enter specific areas of land into this action in your SFI application. The assessment and IPM plan should cover all of the relevant areas of your farm.

To apply for this action, at least 1 land parcel needs to be linked to your Single Business Identifier (SBI), so it shows on your digital maps in the Rural Payments service.

Department for Environment Food & Rural Affairs

Rural Payments Agency

(Credit: Alison Day)

Sustainable Farming Incentive (SFI)
Handbook for the SFI 2023 offer

www.gov.uk/defra/sustainablefarmingincentive

Published April 2024

https://assets.publishing.service.gov.uk/media/6626521d1cbbb3400ba7e51f/SFI23_handbook_v6.0.pdf

IPM Planning Tool

- Interactive online IPM Tool allows for farmers and advisers to create, record and plan IPM activity. The IPM Tool guides users to: (i) identify important pests (invertebrates, weeds and diseases) that drive pesticide use on their farm, (ii) identify effective IPM measures for those pests, (iii) record a plan of IPM measures they will implement.
- IPM Tool enables planning for winter and spring wheat, winter and spring barley, winter and spring oats, maize, improved grassland, potatoes, combining peas, vining peas, field beans and broad beans, oilseed rape, sugar beet, apple, and vegetable brassicas (cabbage, cauliflower, brussels sprout and broccoli).

IPM Tool

Register Login

What is the IPM Tool for?

The tool provides specific guidance on the IPM control measures that are relevant to the crops you grow, and the particular pests, weeds and diseases that are a problem on your farm.

Using the Tool will also complete and record an IPM plan for your crops.

www.ipmtool.net

How do I use the IPM Tool?

For a set of short videos showing how to use the tool, click here:
On how to set up →
On how to produce a plan →

On how to produce a summary report →

Introductory videos on IPM:
Arable here →
Grassland here →
Horticulture here →

Written guidance on IPM here:
Apple →
Brassicas →
Improved Grassland →

Who created the IPM Tool?

The tool was produced by crop protection and IPM specialists at ADAS and SRUC.

It links to guidance from AHDB and other independent sources, and development of the Tool was funded by Defra as part of a Test and Trial project.

ADAS SRUC AHDB

NFU Department for Environment Food & Rural Affairs PGRO

WALKER ESTATES - IPM PLAN - 2024

1. Select the harvest year of the IPM Plan

2024

2. Select your crops for the IPM Plan

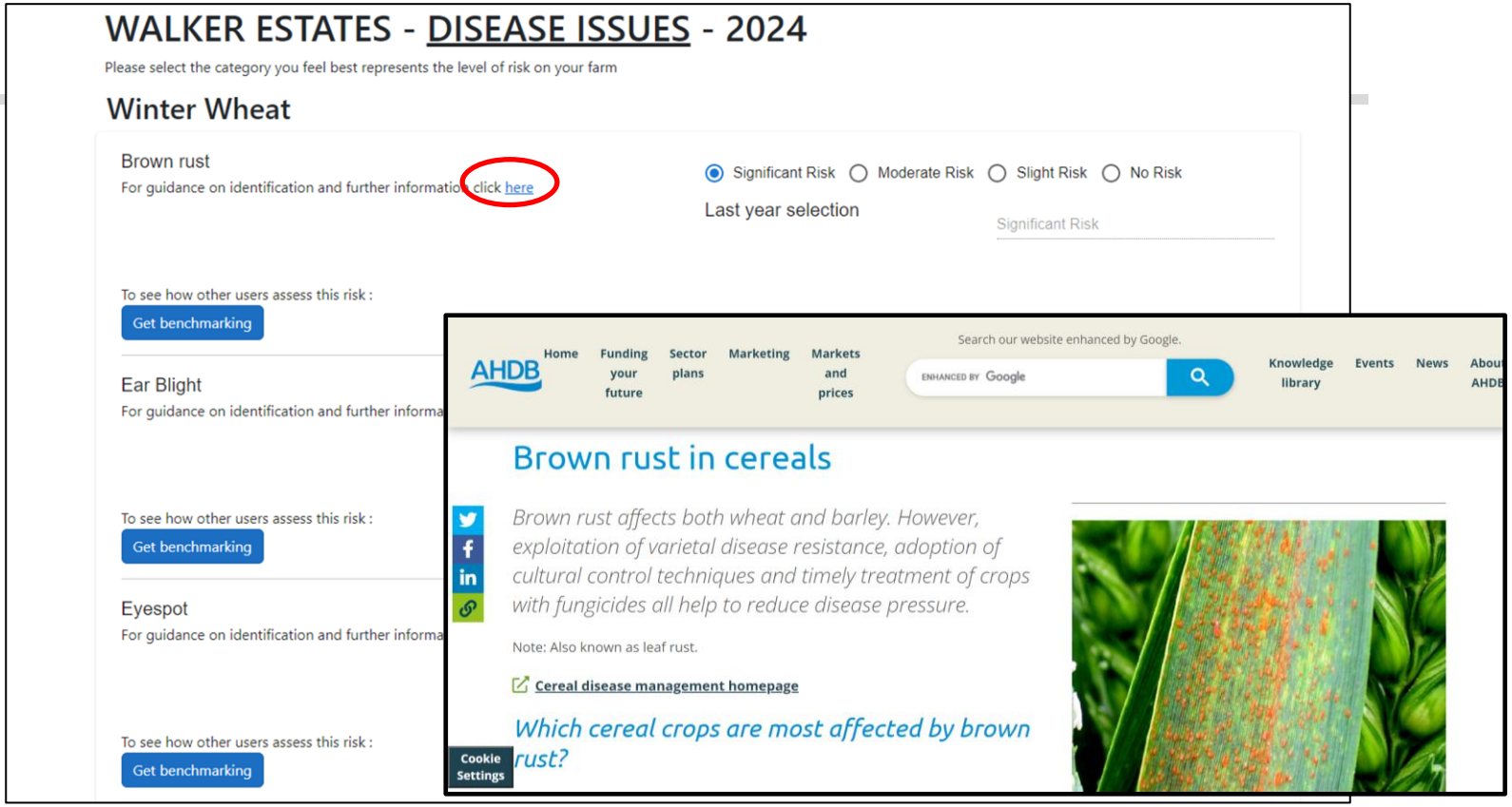
Improved Grassland ⊗ Maize ⊗ Spring Barley ⊗ Winter Beans ⊗ Winter Wheat ⊗ Apple ⊗ Brassicas ⊗ Oilseed Rape ⊗ Peas ⊗ Potatoes ⊗
Sugar Beet ⊗ Spring Beans ⊗ Spring Oats ⊗ Spring Wheat ⊗ Winter Barley ⊗ Winter Oats ⊗

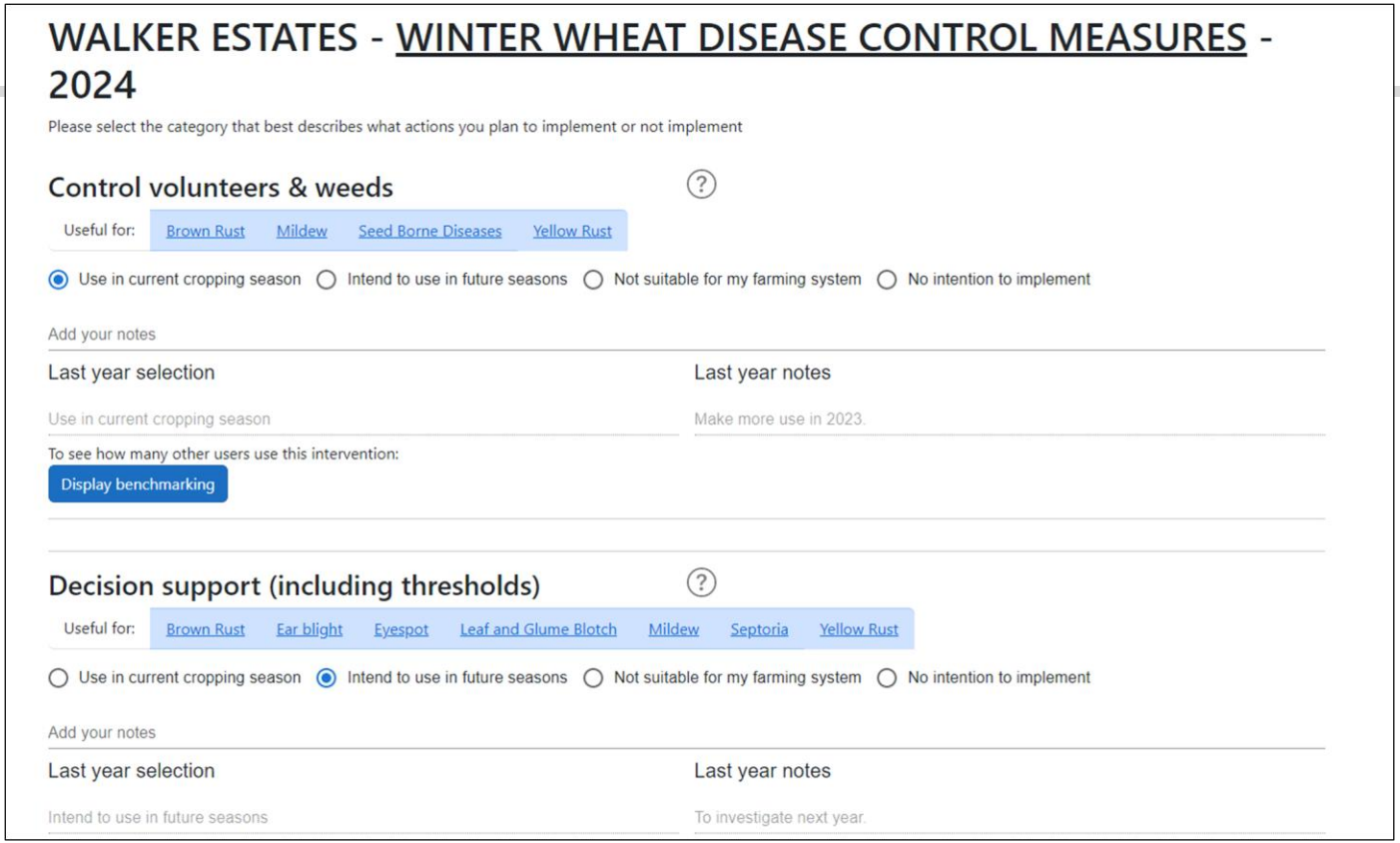
Cancel and go back to your farms

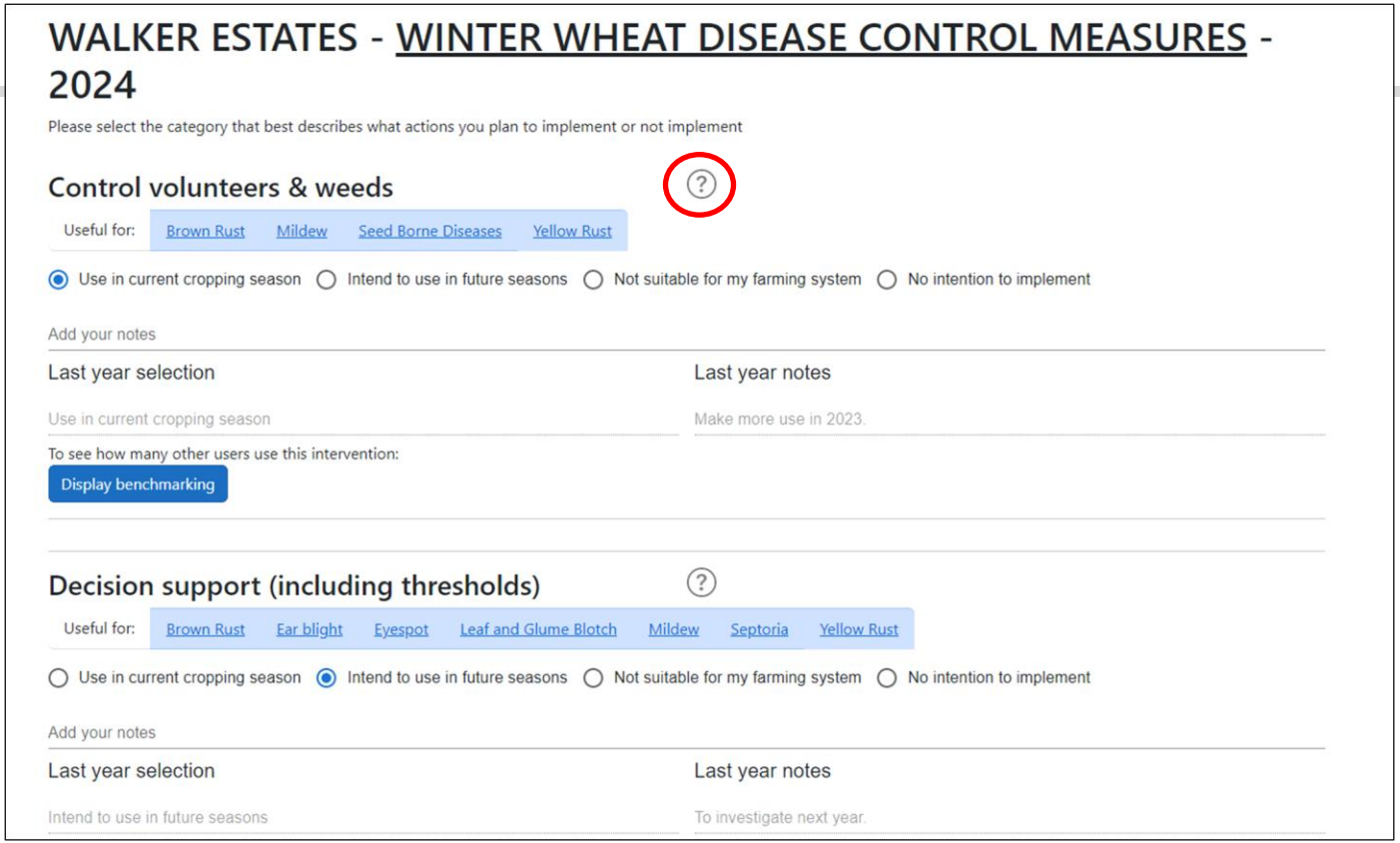
← Go back

⇆ Go to

Save and continue →


WALKER ESTATES - DISEASE ISSUES - 2024
Please select the category you feel best represents the level of risk on your farm
Winter Wheat
Brown rust
For guidance on identification and further information click here
Significant Risk
Moderate Risk
Slight Risk
No Risk
Last year selection
Significant Risk
To see how other users assess this risk :
Get benchmarking
Ear Blight
For guidance on identification and further informa
To see how other users assess this risk :
Get benchmarking
Eyespot
For guidance on identification and further informa
To see how other users assess this risk :
Get benchmarking
AHDB
Home
Funding your future
Sector plans
Marketing
Markets and prices
Search our website enhanced by Google.
ENHANCED BY Google
Knowledge library
Events
News
Brown rust in cereals
Brown rust affects both wheat and barley. However, exploitation of varietal disease resistance, adoption of cultural control techniques and timely treatment of crops with fungicides all help to reduce disease pressure.
Note: Also known as leaf rust.
Cereal disease management homepage
Which cereal crops are most affected by brown rust?
Cookie Settings


WALKER ESTATES - WINTER WHEAT DISEASE CONTROL MEASURES - 2024
Please select the category that best describes what actions you plan to implement or not implement
Control volunteers & weeds
Useful for: Brown Rust Mildew Seed Borne Diseases Yellow Rust
Use in current cropping season
Intend to use in future seasons
Not suitable for my farming system
No intention to implement
Add your notes
Last year selection
Use in current cropping season
Last year notes
Make more use in 2023.
To see how many other users use this intervention:
Display benchmarking
Decision support (including thresholds)
Useful for: Brown Rust Ear blight Eyespot Leaf and Glume Blotch Mildew Septoria Yellow Rust
Use in current cropping season
Intend to use in future seasons
Not suitable for my farming system
No intention to implement
Add your notes
Last year selection
Intend to use in future seasons
Last year notes
To investigate next year.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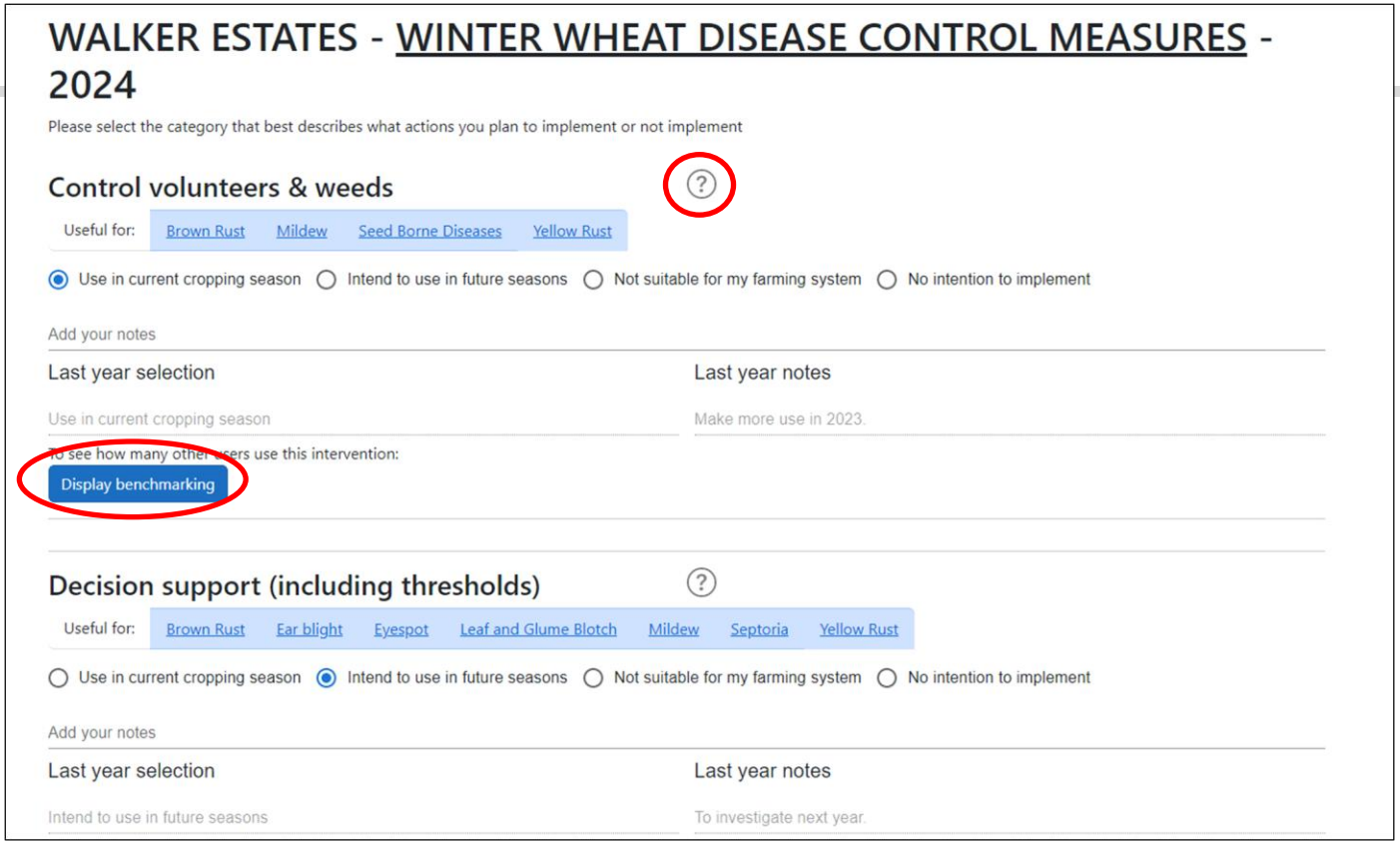
To investigate next year.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Use in current cropping season
Intend to use in future seasons
Not suitable for my farming system
No intention to implement
Add your notes
Last year selection
Last year notes
Intend to use in future seasons
To investigate next year.

WALKER ESTATES - WINTER WHEAT DISEASE CONTROL MEASURES - 2024

Please select the category that best describes what actions you plan to implement or not implement

Control volunteers & weeds

Cereal volunteers carry a range of diseases and are most significant as a 'green bridge' for powdery mildew, yellow rust, brown rust, and crown rust. Ideally volunteers should be destroyed prior to the emergence of new crops.

Useful for: Brown Rust | Mildew | Seed Borne Diseases | Yellow Rust

(•) Use in current cropping season ( ) Intend to use in future seasons ( ) Not suitable for my farming system ( ) No intention to implement

Add your notes

Last year selection	Last year notes
Use in current cropping season	Make more use in 2023.

To see how many other users use this intervention:

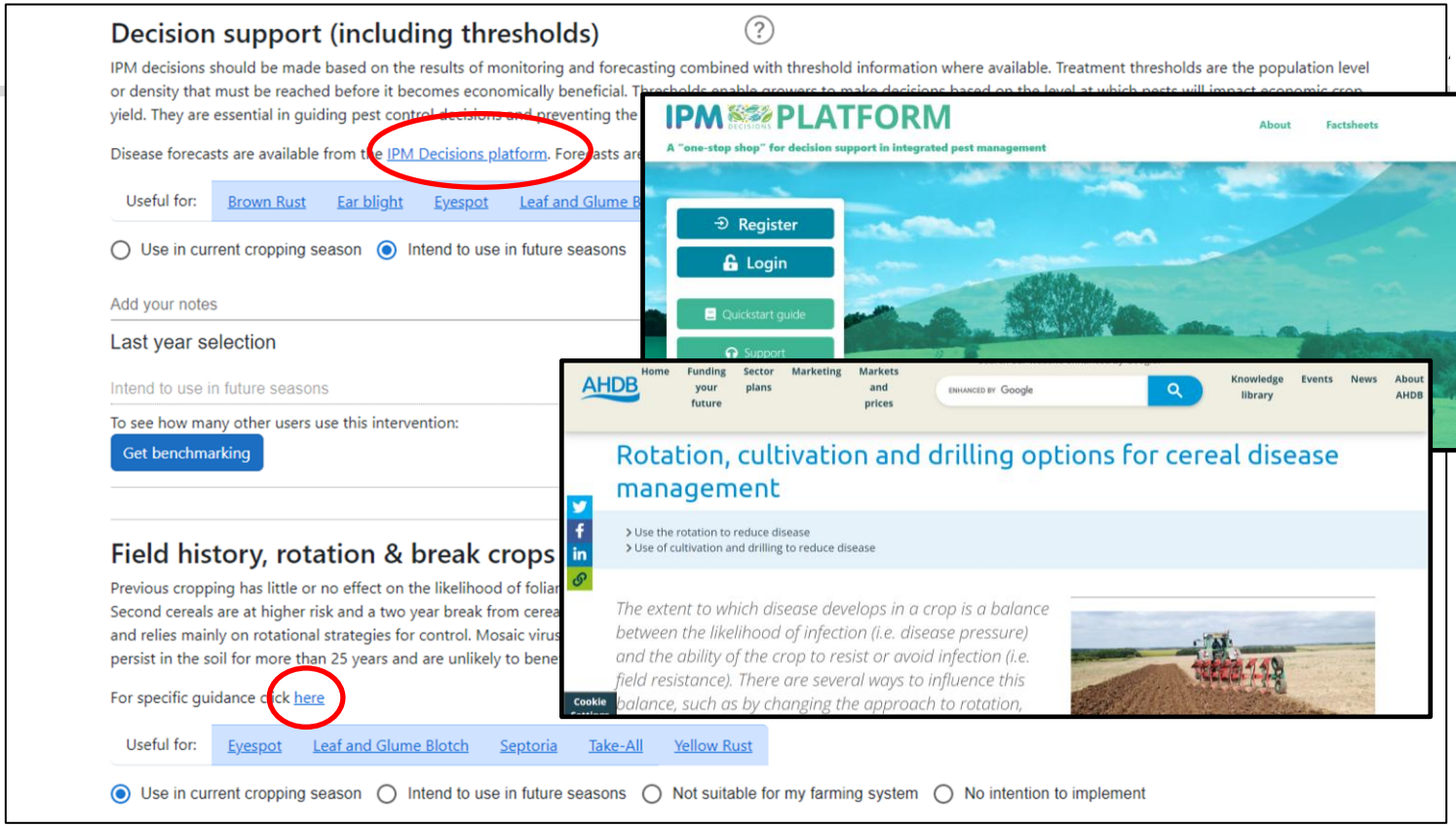
Hide benchmarking

This year we got 618 responses from other users to this question

	Percentage of users
Use in current cropping season	96%
Intend to use in future seasons	3%
Not suitable for my farming system	1%
No intention to implement	0%

Last year we got 178 responses from other users to this question

	Percentage of users
Use in current cropping season	92%
Intend to use in future seasons	7%
No intention to implement	1%
Not suitable for my farming system	1%


Decision support (including thresholds)
IPM decisions should be made based on the results of monitoring and forecasting combined with threshold information where available. Treatment thresholds are the population level or density that must be reached before it becomes economically beneficial.
yield. They are essential in guiding pest control decisions and preventing the
Disease forecasts are available from the IPM Decisions platform. Forecasts are
Useful for: Brown Rust Ear blight Eyespot Leaf and Glume B
Use in current cropping season
Intend to use in future seasons
Add your notes
Last year selection
Intend to use in future seasons
To see how many other users use this intervention:
Get benchmarking
Field history, rotation & break crops
Previous cropping has little or no effect on the likelihood of foliar
Second cereals are at higher risk and a two year break from cerea
and relies mainly on rotational strategies for control. Mosaic virus
persist in the soil for more than 25 years and are unlikely to bene
For specific guidance click here
Useful for: Eyespot Leaf and Glume Blotch Septoria Take-All Yellow Rust
Use in current cropping season
Intend to use in future seasons
Not suitable for my farming system
No intention to implement
IPM PLATFORM
A "one-stop shop" for decision support in integrated pest management
About
Factsheets
Register
Login
Quickstart guide
Support
AHDB
Home
Funding your future
Sector plans
Marketing
Markets and prices
Knowledge library
Events
News
About AHDB
Rotation, cultivation and drilling options for cereal disease management
Use the rotation to reduce disease
Use of cultivation and drilling to reduce disease
The extent to which disease develops in a crop is a balance between the likelihood of infection (i.e. disease pressure) and the ability of the crop to resist or avoid infection (i.e. field resistance). There are several ways to influence this balance, such as by changing the approach to rotation,
Cookie

Seed testing

The use of certified seed is important for most crops to ensure that heavily infected seed stocks are not used and can be an effective approach to reducing some diseases. Seed testing of home saved seed should be used to identify common seed-borne diseases such as Fusarium spp., bunt and loose smut and contaminants such as ergot.

For specific guidance click here

Useful for: Seed Borne Diseases

○ Use in current cropping season ◉ Intend to use in future seasons ○ Not suitable for my farming system ○ No intention to implement

Add your notes

Last year selection

Intend to use in future seasons

To see how many other users use this intervention:

Get benchmarking

Seedbed Quality

Direct and non-inversion drilling increases the risk of disease transfer from p
should be effectively controlled.

For specific guidance click here

Useful for: Take-All

○ Use in current cropping season ◉ Intend to use in future seasons

Add your notes

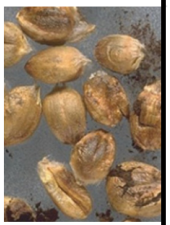
Last year selection

Last year notes

Seedborne diseases of cereals: tests and thresholds

- Certified seed sources
- Farm-saved seed sources
- Regulatory standards and advisory thresholds for key seedborne diseases of cereals
- Seed treatment
- Organic seed sources
- How to sample grain
- Seedborne diseases

It is important to understand the quality of cereal seed intended for drilling, especially the presence of seedborne diseases. This page includes the tests and thresholds available for certified, farm-saved and organic seed sources of wheat and barley.

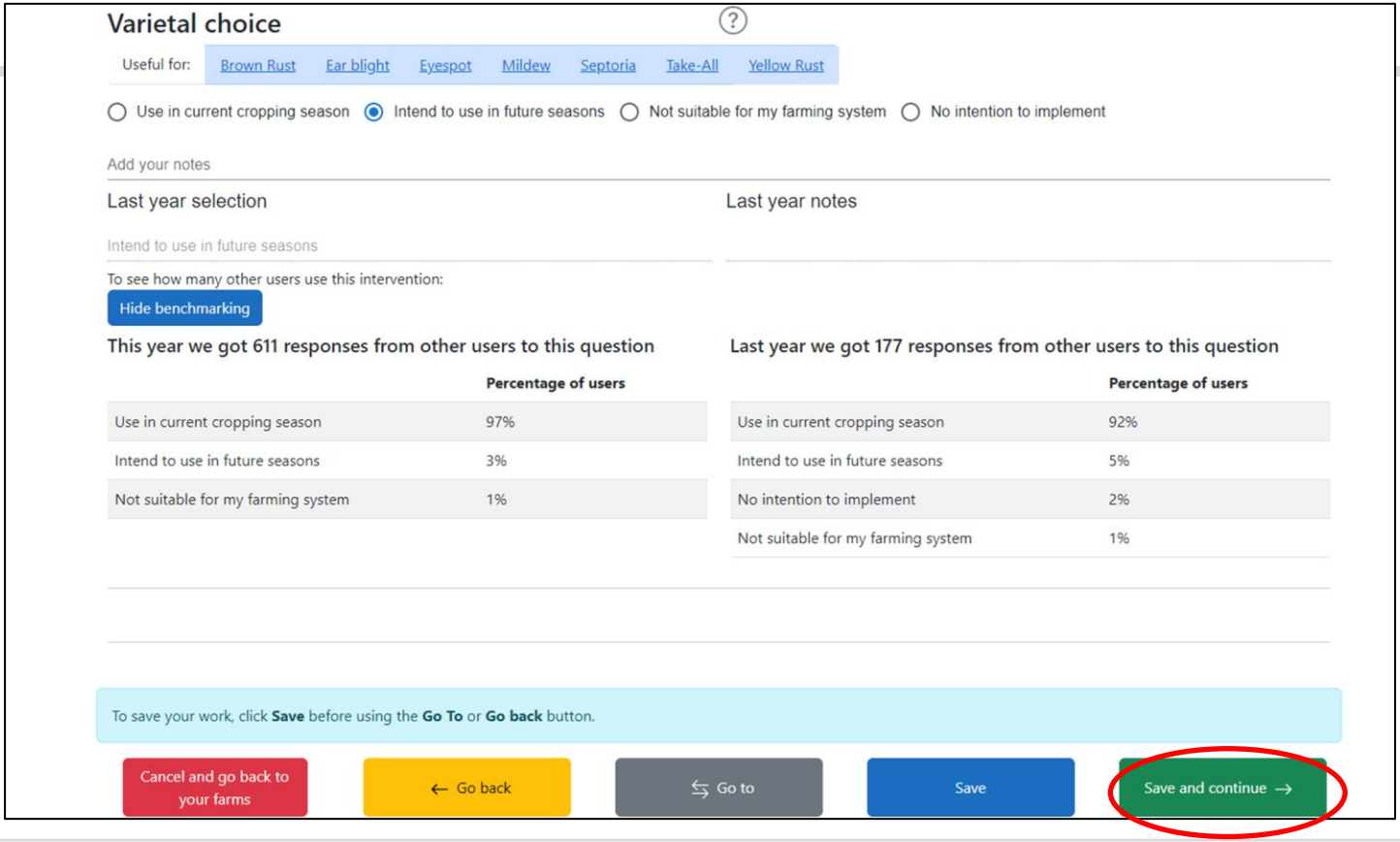


Cereal disease management homepage

Cereal quality standards are published in the Seed Marketing Regulations.

The regulations state: "Harmful organisms that reduce the usefulness of the seed shall be at the lowest possible level."

Certified seed sources


Varietal choice
Useful for: Brown Rust Ear blight Eyespot Mildew Septoria Take-All Yellow Rust
Use in current cropping season
Intend to use in future seasons
Not suitable for my farming system
No intention to implement
Add your notes
Last year selection
Intend to use in future seasons
Last year notes
To see how many other users use this intervention:
Hide benchmarking
This year we got 611 responses from other users to this question
Percentage of users
Use in current cropping season 97%
Intend to use in future seasons 3%
Not suitable for my farming system 1%
Last year we got 177 responses from other users to this question
Percentage of users
Use in current cropping season 92%
Intend to use in future seasons 5%
No intention to implement 2%
Not suitable for my farming system 1%
To save your work, click Save before using the Go To or Go back button.
Cancel and go back to your farms
← Go back
⇆ Go to
Save
Save and continue →

WALKER ESTATES - DISEASES RESISTANCE MANAGEMENT - 2024

Please select the category that best describes what actions you plan to implement or not implement

Managing fungicide resistance

Reducing reliance on intensive fungicide programmes by implementing IPM, will help slow development of fungicide resistance.

Following resistance management guidance from the UK Fungicide Resistance Action Group here will further reduce the risk of resistance.

○ Use in current cropping season ◉ Intend to use in future seasons ○ Not suitable for my farming system ○ No intention to implement

Add your notes

Last year sele

Intend to use in f

Check if resistanc

○ Use in curre

Add your notes

Last year sele

Intend to use in f

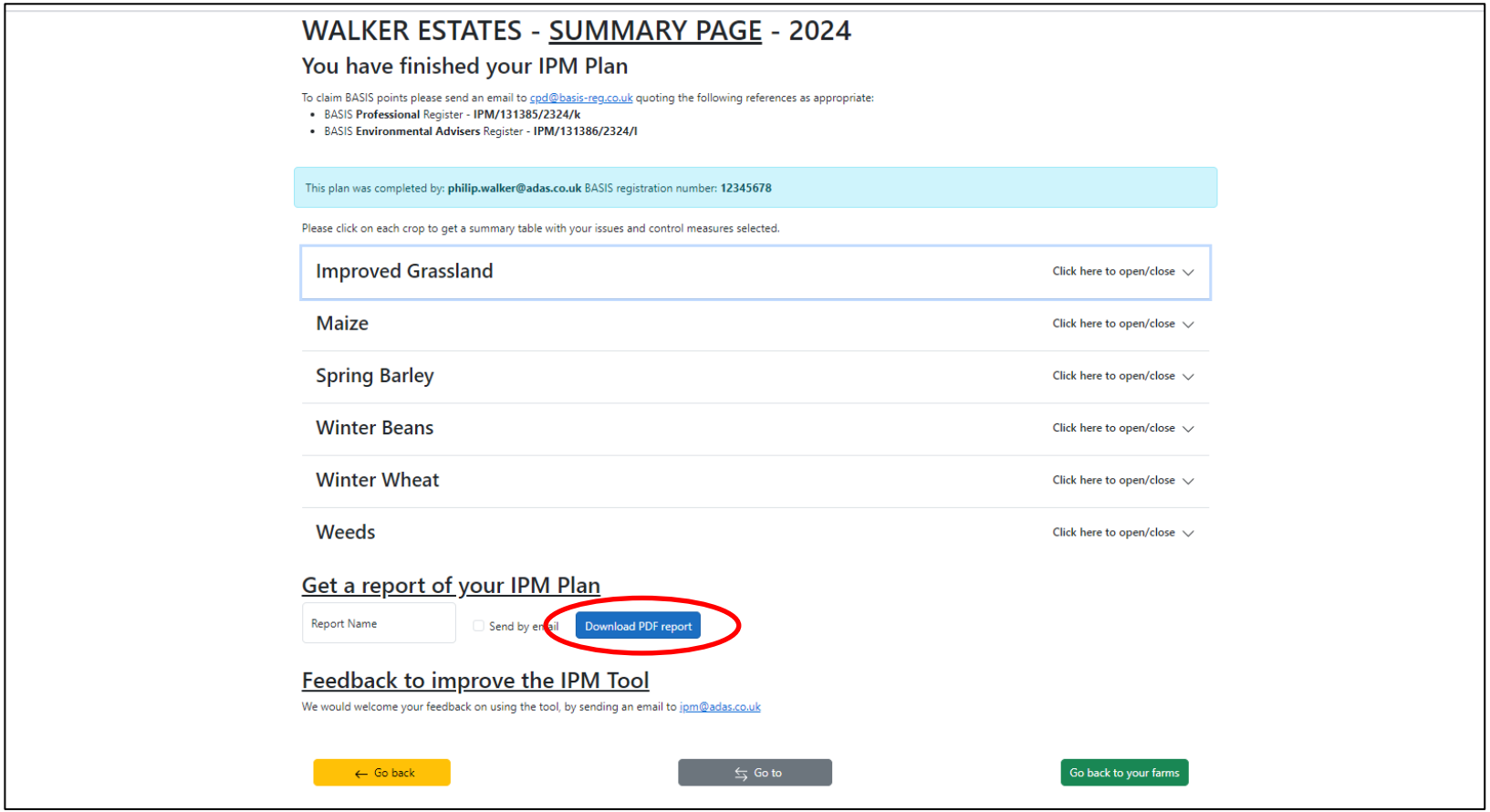
The Fungicide Resistance Action Group (FRAG-UK)

> FRAG guidance
> Further information
> How fungicide resistance happens

The Fungicide Resistance Action Group (FRAG) produces guidance on pesticide resistance issues. Hosted by AHDB, this information can be used to help protect crops and the long-term efficacy of fungicides.

Cookie Settings

The AHDB-supported Resistance Action Groups (RAGs) are informal, UK-based groups consisting of experts from the Crop Protection Association (CPA) member


WALKER ESTATES - SUMMARY PAGE - 2024
You have finished your IPM Plan
To claim BASIS points please send an email to cpd@basis-reg.co.uk quoting the following references as appropriate:
BASIS Professional Register - IPM/131385/2324/k
BASIS Environmental Advisers Register - IPM/131386/2324/l
This plan was completed by: philip.walker@adas.co.uk BASIS registration number: 12345678
Please click on each crop to get a summary table with your issues and control measures selected.
Improved Grassland
Click here to open/close
Maize
Click here to open/close
Spring Barley
Click here to open/close
Winter Beans
Click here to open/close
Winter Wheat
Click here to open/close
Weeds
Click here to open/close
Get a report of your IPM Plan
Report Name
Send by email
Download PDF report
Feedback to improve the IPM Tool
We would welcome your feedback on using the tool, by sending an email to ipm@adas.co.uk
Go back
Go to
Go back to your farms

IPM TOOL

IPM Plan report name: IPM PLAN 2024

Farm Name: Walker Estates

Summary Year: 2024

Plan completed by: philip.walker@adas.co.uk

Basis registration number: 12345678

Report generated on: 30/05/2024

The IPM Tool provides access to guidance on integrated pest management (IPM) in outdoor crops and enables users to record current, and planned, IPM actions.The IPM Tool Host has no economic responsibility whatsoever for losses, damages or inconveniences arising out of the use of or inability to use this service.

IPM Tool **IPM Plan report name: IPM PLAN 2024**

WINTER BEANS - DISEASES

	Level of risk identified for pest targeted by selected control measure		
	Significant Risk	Moderate Risk	Slight Risk
No IPM control measures implemented			

Use in current cropping season

	Level of risk identified for pest targeted by selected control measure		
Control Measures Selected	Significant Risk	Moderate Risk	Slight Risk
Nutrient management	Botrytis, Rust		
Primary cultivations (crop residue burial)	Botrytis, Rust, Sclerotinia		

Intend to use in future seasons

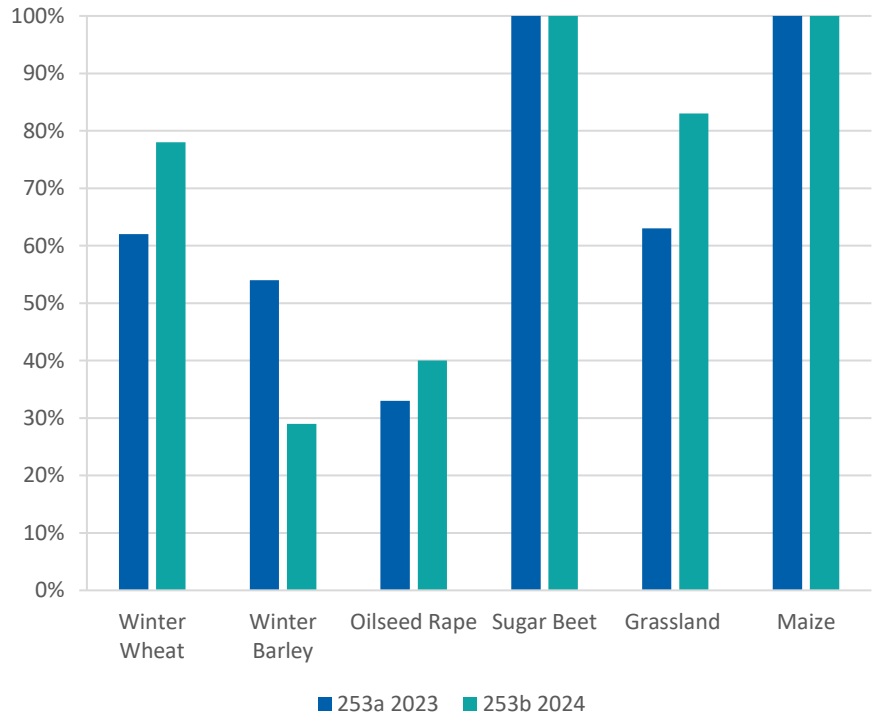
	Level of risk identified for pest targeted by selected control measure		
Control Measures Selected	Significant Risk	Moderate Risk	Slight Risk
Control volunteers & weeds	Rust, Sclerotinia		
Decision support, incl. monitoring	Sclerotinia		
Field history, rotation & break crops	Sclerotinia		
Microbial bioprotectants	Sclerotinia		
Variety choice	Botrytis, Rust		

IPM Planning Tool Feedback

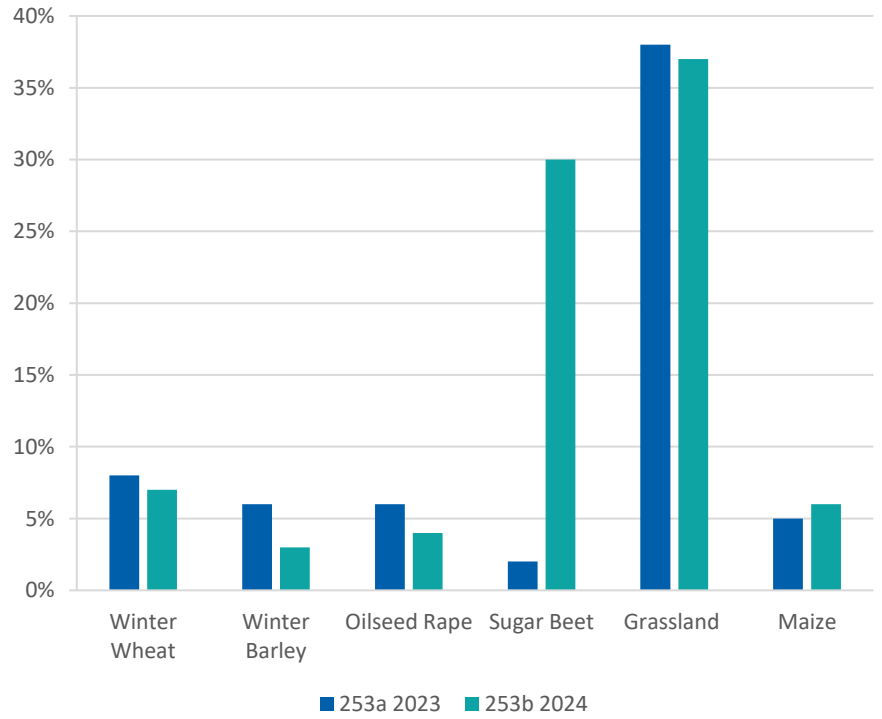
- 1 October 2024 IPM Tool 1096 user registrations with 1746 IPM plans completed.
- IPM Tool was typically completed in 1 to 2 hours depending on the number of crop types for which plans were created.
- The IPM planning, that resulted from using the IPM Tool, recorded substantial commitments to increase IPM actions compared to current practice.
- Participants overwhelmingly indicated that they would recommend to other farmers to consider using the online IPM Tool to help plan crop-specific IPM.

IPM Tool Degree of intention to adopt new IPM practices for diseases

Percentage of new IPM interventions committed to in IPM Tool



Percent of new IPM interventions as percentage of current practice



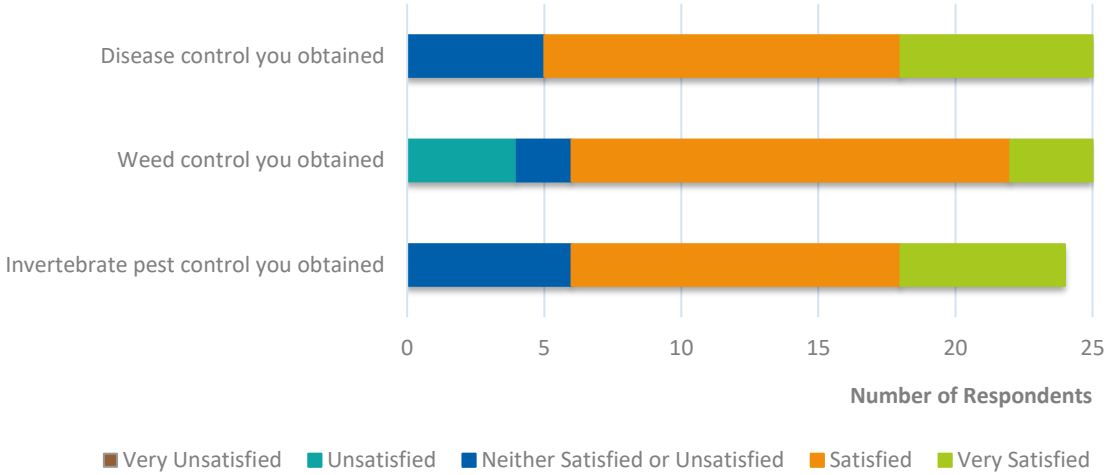
Project 253a sample size of 231 completed separate plans by 113 users: Wheat 91, Barley 27, OSR 33, Sugar Beet 11, Grassland 16, Maize 6.
Project 253b sample size of 75 completed separate plans by 48 users: Wheat 22, Barley 11, OSR 7, Sugar Beet 3, Grassland 18, Maize 8.

IPM Planning and Pesticide Usage

- 25 users who completed IPM Plans in 2023 were contacted to complete a detailed questionnaire to understand the impact of their IPM planning and pesticide usage.
- There was a high level of satisfaction with the level of invertebrate pest, weed and disease control obtained.
- Users felt that the levels of pesticide usage were justified by the degree of pest pressure seen over the season.
- The majority indicated they would use the IPM Tool to modify their IPM actions for the next growing season and create a new plan.

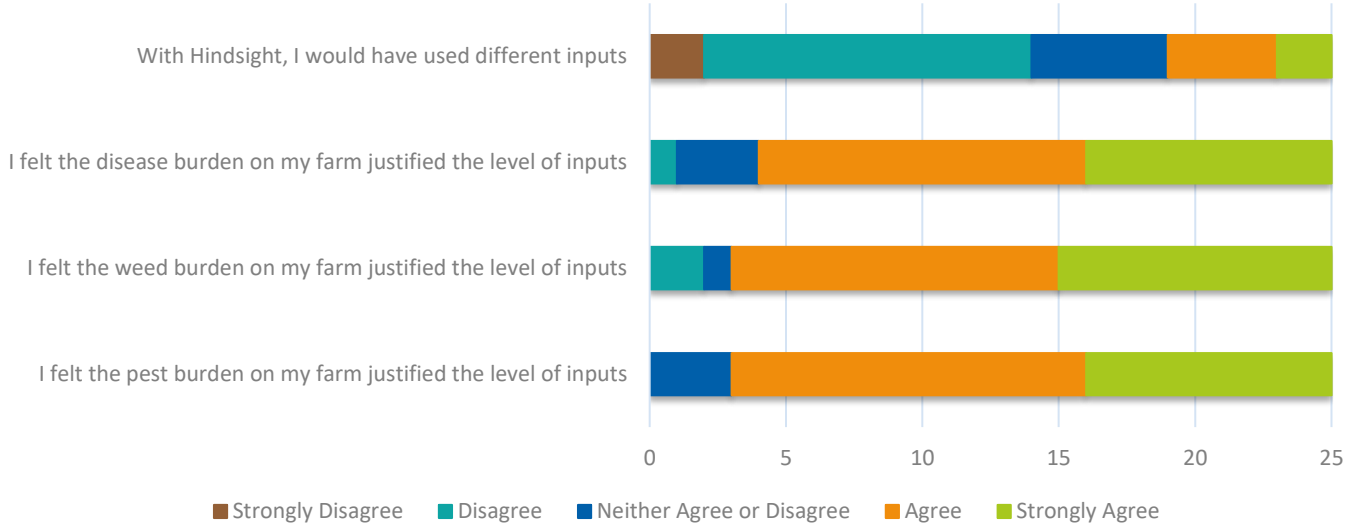
IPM Planning and Pesticide Usage

Responses to Q. Satisfaction with Level of control obtained over growing season.



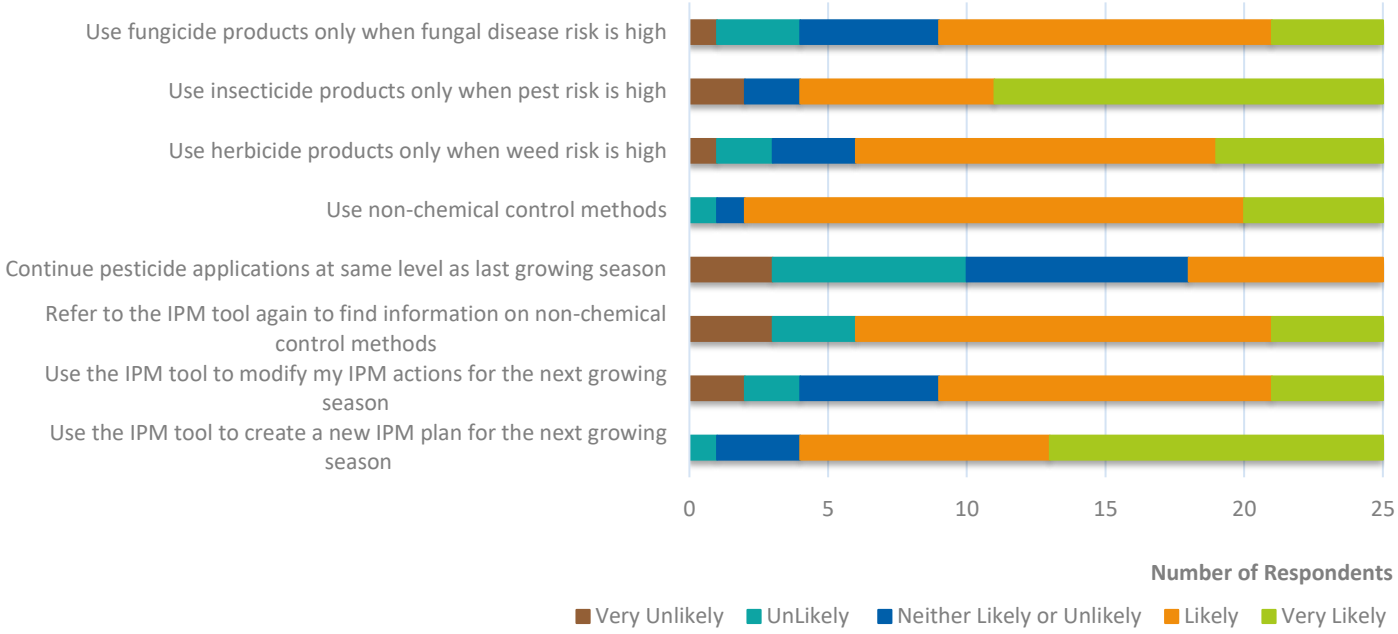
IPM Planning and Pesticide Usage

Responses to Q. *Please rate the following statements about your pesticide treatment need.*



IPM Planning and Pesticide Usage

Responses to Q. *Considering your pesticide treatment needs how likely are you to do the following.*



Farmer Attitude Surveys towards SFI IPM

- Evidence was gathered by 311 interviews/surveys with actively selected farmers, to determine farmer engagement with SFI IPM paid actions.
- Participants were generally positive about: (i) likely biodiversity benefits of SFI IPM paid actions, (ii) potential for pesticide use to be reduced by SFI, and (iii) the use of public funds being appropriate to increase IPM uptake.
- Participants were generally positive about: (i) committing to SFI IPM actions, (ii) committing to IPM in general, (iii) growing margins or strips for biodiversity, and (iv) creating an IPM plan.

Farmer Attitude Surveys towards SFI IPM

- Participants were more neutral about the role of SFI IPM paid actions providing sufficient pest control, and more negative about: (i) impact of SFI paid actions on food security, (ii) the effectiveness of IPM actions to fully manage pests in crops, and (iii) the level of payment available for SFI IPM paid actions.
- Over a quarter of farmers already practiced one or more of growing flowering margins, creating IPM plans and avoiding use of insecticide. Participants were generally neutral or negative about: (i) growing companion crops (low success rate and risk of pest issues) and (ii) committing to no use of insecticide (high risk on some crops).

Farmer Attitude Surveys towards SFI IPM

Responses to Q: Characterisation of the IPM actions covered.

Question	Totally disagree	Disagree	Neutral	Agree	Totally agree	I do not know
Managing **pests** in crops is completely possible using the actions currently included in the IPM standard	9%	24%	29%	21%	3%	13%
Biodiversity will increase on farms by implementing the actions currently included in the IPM standard	3%	9%	25%	47%	10%	6%
Pesticide use will be reduced on farms by implementing the actions currently included in the IPM standard	4%	13%	18%	51%	8%	7%
Food security in the UK will be improved by implementing SFI IPM actions	18%	30%	26%	15%	4%	7%
SFI IPM is the best way to maximise the uptake of IPM	3%	13%	30%	38%	4%	11%
IPM uptake requires the use of **public funds**	4%	17%	25%	35%	12%	8%
The current **payment** per IPM action is appropriate	13%	26%	24%	16%	1%	21%

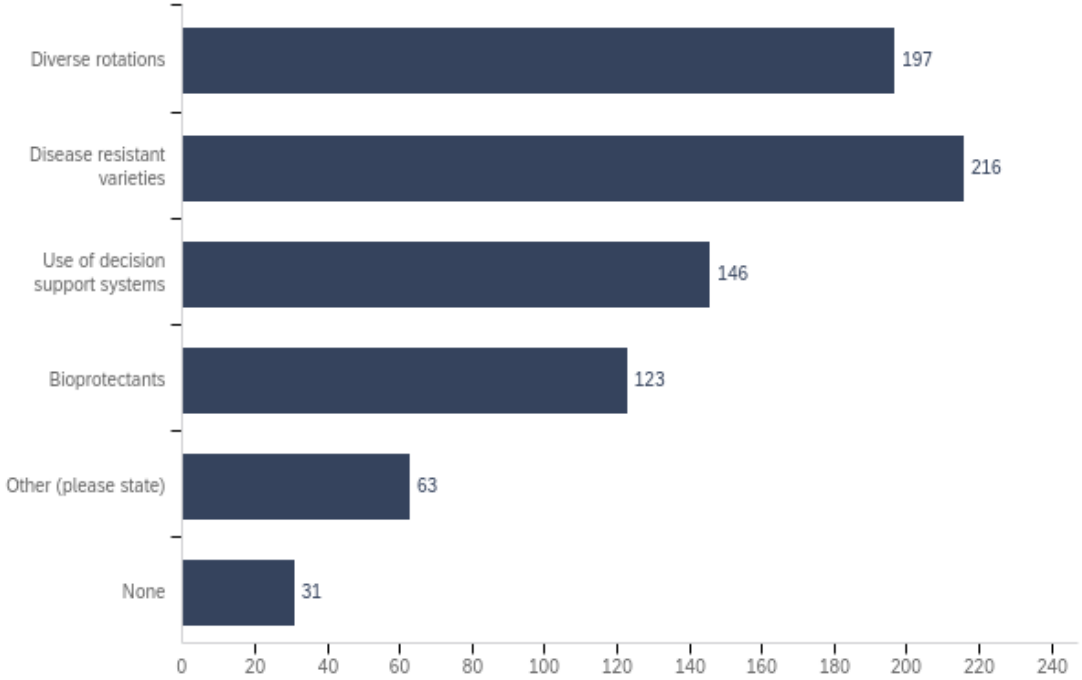
Farmer Attitude Surveys towards SFI IPM

Responses to Q: Based on what you know, how likely are you to.

Question	Very unlikely	Unlikely	Neutral	Likely	Very likely	I already do this.	I do not know what this is.
Commit to SFI	2%	4%	7%	**29%**	**36%**	**22%**	1%
Commit to IPM overall	4%	5%	**20%**	**30%**	**21%**	17%	4%
Grow wild flower rich margins, blocks or strips	9%	12%	12%	23%	15%	29%	0%
Create an IPM plan	3%	4%	12%	25%	27%	26%	4%
Grow companion crops	13%	19%	24%	19%	10%	13%	2%
Commit to not using insecticide	5%	16%	19%	21%	12%	27%	0%

Farmer Attitude Surveys towards SFI IPM

Responses to Q: What other IPM actions do you think should be supported.



Learning Points IPM Planning and SFI IPM

- IPM planning had positive impacts on the commitment to increase the use of Integrated Pest Management on farm.
- Pesticide usage is mostly driven by the burden of pest risk, but through IPM planning and increasing the use of IPM, farmers are considering whether they would use pesticides at the same levels in future seasons.
- Farmers were generally positive about some aspects of SFI IPM paid actions and commitment to IPM overall, however, they feel other areas need improvement.
- Farmers would be supportive of further paid actions for: (i) diverse rotations, (ii) disease resistant varieties, (iii) use of decision support systems (DSS), and (iv) use of bioprotectants / biopesticides.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for Environment
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AGRICULTURE & HORTICULTURE
DEVELOPMENT BOARD


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LINKING ENVIRONMENT AND FARMING


SRUC


ADAS


NATURAL
ENGLAND


Catchment
Sensitive
Farming
Working together for
a healthy environment


aic
agricultural
industries
confederation


The
Voluntary
Initiative
Promoting responsible pesticide use


AICC