

SFI IPM test & trials and farmer adoption of the scheme

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Farming is Changing

Updated in June 2021



Agri-environment schemes

Environmental land management schemes

We are introducing three new schemes that reward environmental benefits: the Sustainable Farming Incentive, the Local Nature Recovery schemes and the Landscape Recovery scheme.

Together, these schemes are intended to provide a powerful vehicle for achieving the goals of the 25 Year Environment Plan and our commitment to net zero emissions by 2050, while supporting our rural economy.

Through these schemes, farmers and other land managers may enter into agreements to be paid for delivering the following public goods:

- Clean and plentiful water
- Clean air
- Thriving plants and wildlife
- Reduction in and protection from environmental hazards
- Adaptation to and mitigation of climate change
- Beauty, heritage and engagement with the environment.

We are developing the scheme in partnership with farmers and the wider industry. So far, 3,000 farmers and land managers have been involved through the tests and trials. A 3-year pilot of the Sustainable Farming Incentive began in March 2021. Participants will be paid a competitive rate. We will publish further details in June 2021.

Working with farmers and land managers will help us design and deliver a scheme that works for its users, and achieves our goals for the sector, the environment, biodiversity and climate change.

Sustainable Farming Incentive

The Sustainable Farming Incentive will reward environmentally sustainable land management actions that all farmers can do. Actions will be grouped into simple categories to make it as easy as possible for farmers to identify the best suited to their land.

Our aim is to make it as easy as possible for everyone to take part, including the most vulnerable.

Recipients only – but, as the scheme opens to all farmers in 2024, it will be open to all farmers in 2024.

It will start with a core set of actions, which will be added incrementally.

At this point we will publish details of how to get involved in the scheme.

From 2022 and 2023. By 2024, it will be available to all farmers.

It will be able to apply for the scheme. It will be able to apply for the scheme.

- encourage uptake of IPM
- better recording of IPM

Environmental Land Management: Tests and Trials



Department
for Environment
Food & Rural Affairs

Proposal Development Form

This form will enable you to provide us with more detail about your proposal so we can consider how it will contribute to the development of the new Environmental Land Management (ELM) system.

The form collects information to help understand the following questions:

- What it is you will test or trial
- Whether this will be a test, trial or both, and the rationale for this
- How this will contribute to the design of the new ELM system
- How you propose to undertake your test or trial
- Who will be involved
- Timescales, including milestones of your test or trial
- How much it will cost and what funding you are seeking from Defra
- How you will monitor and evaluate your test or trial
- How you will monitor and evaluate your test or trial

Please read through the Funding and Reimbursement policy prior to completing this form.

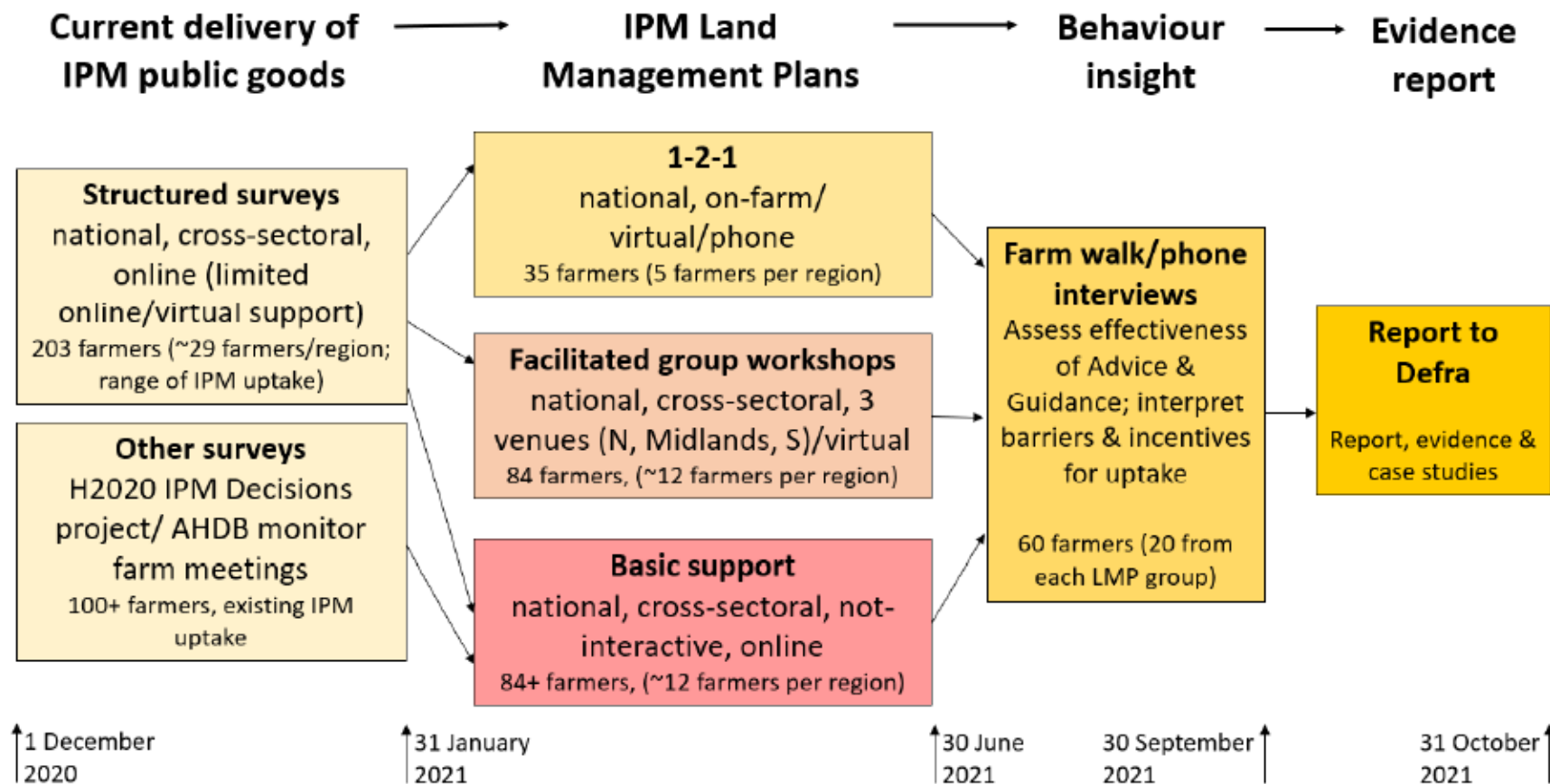
Proposal Ref:	253
Proposal Name:	NFU - Integrated Pest Management

- Effective IPM planning and recording
- Advice & guidance
- Payment mechanisms
- Drivers of behaviour



NFU SUPPORTED BY

NFU Mutual

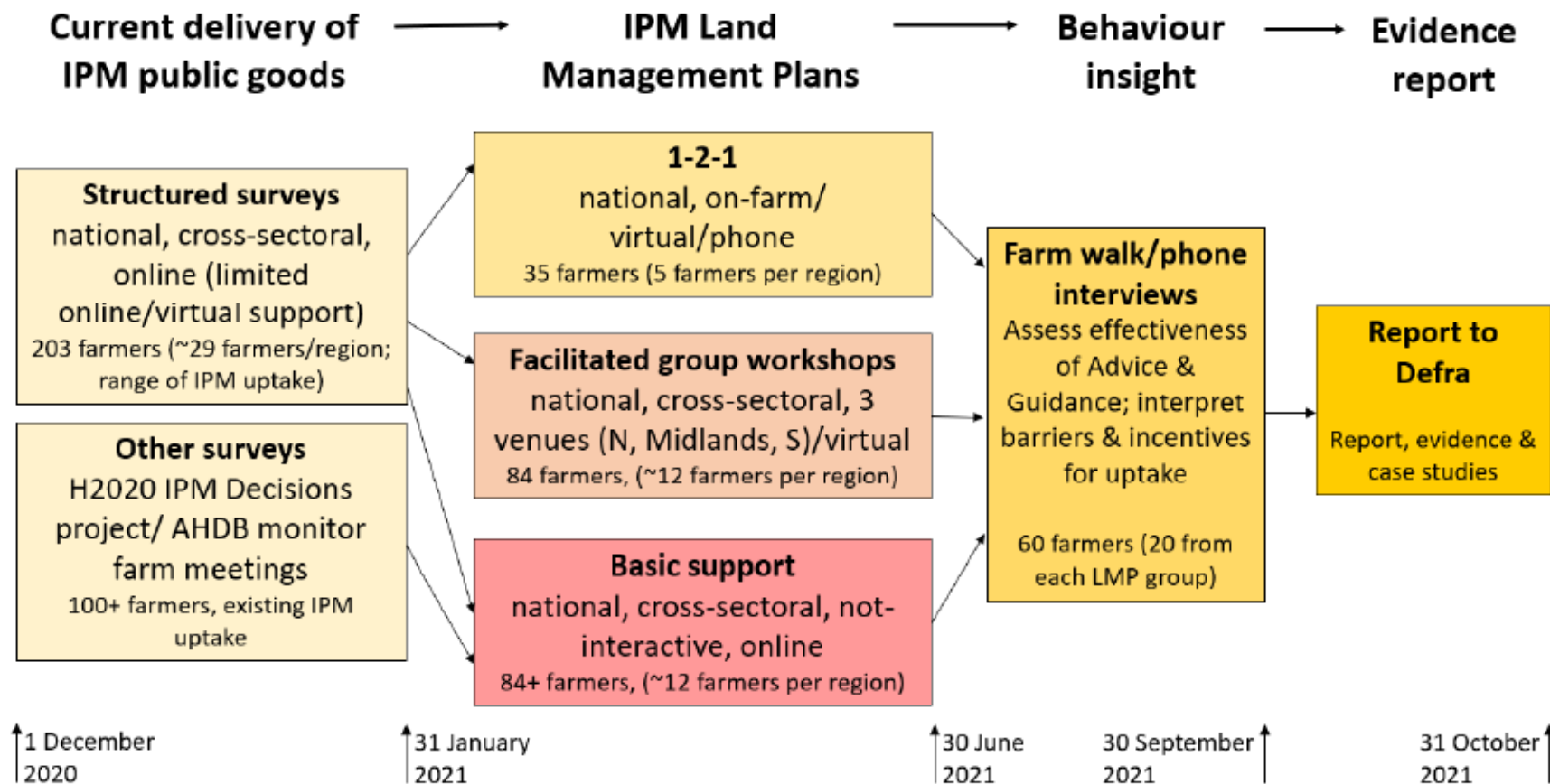


A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R		
		Pest Issues																	
		For pest identification guidance use https://ahdb.org.uk/pests																	
		BYDV aphid vectors	Cereal leaf beetle	Frit fly	Gout fly	Leatherjackets	QWBW	Saddle gall midge	Slugs	Summer aphids	Wheat bulb fly	Wireworms							
		https://ahdb.org.uk/pests/bydv-aphids					https://ahdb.org.uk/knowledge-library/how-to-identify-wheat-blossom	https://ahdb.org.uk/saddle-gall-midge	https://ahdb.org.uk/slugs	https://ahdb.org.uk/pests/summer-aphids	https://ahdb.org.uk/knowledge-library/how-to-manage-wheat-bulb-fly-risk-in								
		Slight Issue	No Issue	No Issue	No Issue	No Issue	Slight Issue	No Issue	Moderate Issue	Slight Issue	No Issue	No Issue	Links to Guidance						
Control Measure	Rotation / Other	Avoid following long-term ley		?		?	In Use	?				?	https://ahdb.org.uk/knowledge-library/soil-testing-compar						
		Break crops									In Use								
		Beetle banks																	
	Crop Establishment	Diverse field margins					?	Not Used	?		In Use		?						
		Soil analysis										?	?						
		Spatial separation										?	?						
		Drilling method	Direct drilling in dry conditions can maintain a consolidated seedbed and limit slug damage. However, in wet conditions it may produce slots that give slugs easy access to seeds. Depth of drilling can also have an impact on slug damage. Ideally wheat should be drilled at 30-40 mm to minimise damage. Sowing deeper than this will reduce establishment and increase susceptibility to slugs and other pests							In Use			?	?					
		Extra cultivations								Not Used			?	?					
	Increase seed rate to suit sowing date								In Use			?	?						
	Minimise trash/crop residues								In Use			?	?						
Seedbed quality								In Use			?	?							
Crop Management	Delayed sowing										?	?							
	Early Sowing										?	?							
	Varietal selection						?												
	Rolling soil post-planting								?										
	Decision Support Tools						Short	?	?	In Use	?								
	Link to Decision Support Tools	https://ahdb.org.uk/bydv								https://insecsurvey.com/aphid-									
	Monitoring	In Use	?	?	?	?	In Use	?	?	In Use	?	?							
	Planning pest management strategy	In Use	?	?	?	?	In Use	?	?	In Use	?	?							
Resistance Assessment	Do you suspect resistance to plant protection products used to control this issue?	No	?	?	?	?	No	?	No	No	?	?							
	Have you checked with IPAG if resistance has been reported in the UK?		?	?	?	?		?			?	?							
	Has Resistance been found?		?	?	?	?		?			?	?							
	Have you implemented a resistance management		?	?	?	?		?			?	?							

		Disease Issues								
		For disease identification please visit https://ahdb.org.uk/encyclopaedia-of-cereal-diseases								
		Septoria tritici leaf blotch	Leaf & glume blotch	Yellow rust	Brown rust	Mildew	Ergot	Fusarium Ear blight	Eyespot	
		For disease management guidance please visit https://ahdb.org.uk/cereal-dmg								
		Significant Issue	No Issue	Slight Issue	Slight Issue	No Issue	Moderate Issue	Slight Issue	Slight Issue	Links to Guidance
Control Measure	Rotation/ Other	Rotation & break crops							In Use	
	Crop Establishment	Control volunteers & weeds			In Use	In Use	?	In Use	In Use	In Use
		Delayed sowing	In Use	?		In Use	?			In Use
		Drilling method								In Use
		Early sowing					?			Not Used
		Ploughing in crop residue	Not Used	?	Not Used	Not Used	?			
	Resistant varieties	In Use	?	In Use	In Use	?	In Use	In Use		
	Crop Management	Appropriate nutrition			In Use	?	?			?
risk		In Use	?	In Use	In Use	?	In Use	In Use	https://ahdb.org.uk/knowledge-library/lib209-section-4-arable-crops	
Resistance Assessment		Do you suspect resistance to plant protection products used to control this issue?	No	?	No	No	?	No	No	No
		Have you checked with FRAG if resistance has been reported in the UK?		?			?			
		https://ahdb.org.uk/frag		?			?			
		Has Resistance been found?		?			?			
		Have you implemented a resistance management strategy?		?			?			

Weed Issues							
For weed identification please visit https://ahdb.org.uk/knowledge-library/the-encyclopaedia-of-arable-weeds							
Perennial grasses	Annual grasses	BLW - tap root	BLW - fibrous root				
For weed management guidance please visit https://ahdb.org.uk/arableweeds							
No Issue	Significant Issue	Slight Issue	Moderate Issue	Links to Guidance			
?	Not Used	Not Used	Not Used	https://ahdb.org.uk/cover-crops			
?	Not Used	Not Used	Not Used				
?	Short Term	Short Term	Short Term				
?	Short Term	Short Term	Short Term				
?	In Use	In Use	In Use	https://ahdb.org.uk/drainage			
?	In Use	In Use	In Use				
?	In Use	In Use	In Use				
?	In Use	In Use	In Use	https://ahdb.org.uk/arablesoils			
?	In Use	In Use	In Use				
?	In Use	In Use	In Use				
?	In Use	In Use	In Use				
?	Short Term	Short Term	Short Term				
?	In Use	In Use	In Use				
?	Not suitable	Not suitable	Not suitable				
?	Not Used	Not suitable	Not suitable				
?	?	?	?				
?	In Use	In Use	In Use				
No	Yes	No	No				
	Yes						
	No						





Findings – IPM tool

- 274 farmers completed VI IPM assessment plans
- mean IPM score = 68/100
- 88% would recommend IPM tool to other farmers
- completing IPM tool & creating report took 1-2 hours
- increase in IPM 12-38% for arable crops, 2-21% for grassland
- commitment to adopt new IPM measures similar across groups receiving different levels of support

Findings – Advice & Guidance

- 65% already had good understanding of IPM
- 25% of workshop participants, 17% of 1-to-1, 0% of self-completer's views on IPM changed by project
- 89% would continue to use IPM advice & guidance in future land management planning
- Preference for 'face-to-face' advice, & agronomist's involvement would be beneficial

Findings – Payment Mechanisms

- ‘economic’ & ‘environmental’ drives use of IPM advice
- ‘economic’, ‘lack of knowledge of IPM’, & ‘mindset or habits’ - key barriers to uptake of IPM practises
- 76% cited ‘economic’ factors as important enabler/reason to implement more IPM practises
- 50% cited ‘economic’ factors are biggest enabler, followed by ‘good advertisement of IPM’ & ‘education’
- £100 didn’t encourage ‘opt-ins’ to participate in this project

Conclusions – IPM tools & planning

- IPM tools needed for each key crop
- IPM tools focussed on effective evidence-based IPM actions
- Widespread use of IPM tool would
 - Enable farmers to create detailed IPM plans
 - Guide users towards effective IPM actions
 - Provide users with links to further guidance
 - Record current implementation of IPM
 - Record commitments to implement additional IPM



Conclusions – Advice & Guidance

- Guidance & support to complete IPM tool should include
 - Short written guidance
 - Online video presentations
 - Technical helpline (to resolve IT issues)
- Guidance could be strengthened with interactive virtual workshops
- Fill gaps in evidence of effectiveness of IPM actions
- Engage crop consultants to support farmers implementing SFI IPM actions



Conclusions – Payment Mechanisms

- VFM – IPM ELM should be focussed on key crops & key pests
- key crops & pests should reflect public good aims of IPM
- key crops & pests selected should be those where there is substantial & practically feasible opportunities for greater IPM
- how will environmental land management payments relate to SFI?

SFI IPM Test & Trial extension A

- Co-design of the SFI IPM Standard
 - checking paid actions against the evidence
- Incentive payment rates
 - farmer workshops – choice experiments
- Developing an online IPM Tool
 - user friendly online tool for expanded range of crops
- Advice and guidance
 - Written and video guidance enabling easier use of IPM tool



Conclusions

- Co-design of the SFI IPM Standard
 - In-field non-cropped areas +/-
 - Crop Rotation +/+
 - Precision application +
 - Biopesticides and low risk PPPs +/-
 - Use of decision supports systems +
 - Pest and disease resistant varieties +
 - Crop hygiene and prevention +/-



Conclusions

- Incentive payment rates
 - flexibility is key
- Online IPM Tool
 - Interactive online tool developed; covers winter wheat, oilseed rape, winter barley, winter beans, improved grassland, sugar beet, peas, maize, potatoes, winter oats, apples and brassicas; good user feedback; made publicly available
- Advice and guidance
 - Positive user feedback, but needs regular updates

2.5 SFI actions for integrated pest management

The SFI actions for integrated pest management are focused on:

- increasing knowledge and identifying opportunities for an integrated pest management (IPM) approach
- creating habitats for natural crop pest predators
- using companion cropping to suppress weeds, reduce diseases and provide protection from crop pests
- minimising use of insecticides

They include:

- IPM1: Assess integrated pest management and produce a plan
- IPM2: Flower-rich grass margins, blocks, or in-field strips
- IPM3: Companion crop on arable and horticultural land
- IPM4: No use of insecticide on arable crops and permanent crops

These actions should help with managing crop pests, diseases and weeds more sustainably to minimise use of pesticides.

This can help improve farm productivity by reducing costs and risks. The actions can also provide a range of environmental benefits, such as:

- increased biodiversity
- improved water, soil and air quality



£1129/year

£798/ha/year

£55/ha/year

£45/ha/year

SFI IPM Test & Trial extension B

- Engaging 'hard to reach' farmers and low IPM adopters
- Refining the online IPM Tool
- IPM planning...IPM implementation...desired public good outcomes



Farmer adoption of SFI IPM actions

- > 8,500 farmers applied to SFI
- > 6,000 agreement offers issued
- 35,000 live Countryside Stewardship agreements
 - 8,200 new agreements started in 2023
 - 8,600 agreements starting in 2024
- 8,000 HLS agreements





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.

How do I use the IPM Tool?

For a short video showing how to use the tool, click [here](#).

[Video guidance on using the tool →](#)

Introductory videos on IPM:

[Arable here →](#)

[Grassland here →](#)

[Horticulture here →](#)

Written guidance on IPM here:

[Apple →](#)

[Brassicas →](#)

[Improved Grassland →](#)

[Maize →](#)

[Oilseed Rape →](#)

[Peas & Beans →](#)

[Potatoes →](#)

[Sugar Beet →](#)

[Wheat, Barley & Oats →](#)

[Weeds →](#)

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.

