On a scale of 1-10 how do you rate the components of the IPM toolbox, in terms of their IMPORTANCE TO FARMERS?

- Advice: 8.3
- Peer to Peer Learning/Knowledge Exchange: 7.7
- Guidance: 7
- Formal Training: 5.8
- Decision Making Tools: 6.6
What can GOVERNMENT do to best support in the delivery of practical IPM solutions to farmers?

- Provide a free advisory service!
- Provide a range of case studies with emphasis on grower experiences
- Integrate more IPM into agronomist’s training
- Ensure regulations don’t disadvantage people using IPM.
- Fund IPM research and knowledge exchange
- Fund research into IPM options
- More on farm learning / KE sessions on IPM practices
- Fund unbiased farm advisors
- Give clear guidance on what methods have been shown to work
What can GOVERNMENT do to best support in the delivery of practical IPM solutions to farmers?

- Support farmer-led on farm trials, so that farmers can have a go at IPM tactics with reduced risk to their business.
- See what successful farmers are doing re IPM and learn from their experience.
- IPM is going to require on-going research to improve IPM practice for existing targets but also to develop new solutions for new pest, disease and weed issues that will arise.
- Provide better understanding on negative impacts of commonly used pesticides on your IPM strategy.
- Missed the role economics plays in decision making process.
- Encourage use of Independent Agronomy.
- Training, funding in research.
- Fund IPM research and dissemination of information.
- Provide an outlet for information that is free from bias. There is a dearth of independent institutes that provide unbiased advice, that is free, and therefore not associated with sales potential.
What can GOVERNMENT do to best support in the delivery of practical IPM solutions to farmers?

- Provide support for on-farm demonstrations and publicise this - demonstrate how this saves money. Provide advice based on this that is FREE to farmers at point of delivery.
- To support IPM practices in agri-environment & SFI
- Support demonstration of IPM working on farm
- Financial support for collaborative research projects with academics and stakeholders. AHDB funding lost needs to be replaced.
- Make a easily accessible and well publicised central hub for government information on IPM. And make it free!
- Support existing knowledge exchange routes e.g. AHDB
- Provide R&D and KT short project funding to growers to address specific topics
- Fund IPM research. To date much of the research has been on single measures e.g. varieties, pesticides, biologicals.
- Incentives to make changes
What can GOVERNMENT do to best support in the delivery of practical IPM solutions to farmers?

- ROI of IPM needs to be evidenced
- delink agronomy payments and chemical sales - it should be service-based
- Fund existing groups to provide extra KE above their normal activities
- Support joined up projects, research led from lab to farm, not lost on “big science” projects which do not carry on. I have seen project guidance written up not not proof read by the researcher involved and erroneous information supplied to industry
- Make it clear what government views as ‘doing IPM’
- Completely delink agronomy advice and product sales
- Provide funding to develop decision support tools that utilise specific local weather data and regional risk to manage crop pest & disease issues
- Subsidised advice (independent agronomists etc.)
What can GOVERNMENT do to best support in the delivery of practical IPM solutions to farmers?

<table>
<thead>
<tr>
<th>Blue</th>
<th>Make use of Agri-Tech innovation centres to deliver and provide solutions to IPM issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange</td>
<td>More &quot;carrot&quot; than &quot;stick&quot;. A lot more basic research is needed on beneficials, thresholds, etc; this will require funding. There is already a very well established Knowledge Exchange system in place, but it requires research to provide Knowledge</td>
</tr>
<tr>
<td>Brown</td>
<td>make use of specialised agronomists</td>
</tr>
<tr>
<td>Red</td>
<td>Funding for IPM research in collaboration with commercial companies who are developing solutions and wht regualtors.</td>
</tr>
<tr>
<td>Green</td>
<td>Organise a benchmarking system allowing to compare IPM-based cropping systems</td>
</tr>
<tr>
<td>Purple</td>
<td>Regulations on imports to ensure they are produced using IPM</td>
</tr>
<tr>
<td>Pink</td>
<td>Simplify regulations for testing and registration on biopesticides. Allow monitoring semio-chemicals for mass trapping with no or simplified registration process, support local production of bio-pesticides</td>
</tr>
<tr>
<td>Light Blue</td>
<td>Facilitate diversification of crop rotations, and support farmers looking to grow different crops</td>
</tr>
<tr>
<td>Cyan</td>
<td>the only SFI test &amp; trial has shown quite clearly that greatest barrier to uptake/driver to do more IPM is economic. Government needs to develop financial incentives to stimulate/de-risk further uptake. Also need to incentive better recording of IPM</td>
</tr>
</tbody>
</table>
What can GOVERNMENT do to best support in the delivery of practical IPM solutions to farmers?

| Encourage knowledge exchange between farmers | Funding to advance IPM, particularly in research and knowledge exchange. |
| Develop case studies on successful use of IPM so it becomes more attractive to farmers. | Fund long-term studies so that rotations can be taken into account in research and demonstrations. |
| Fund laboratory and on-farm IPM research | Engage with industry including food supply chain on acceptance of IPM methods. |
| Provide the research to back up the advice, encourage the correct measures happening on farm i.e. supporting the benefactors, apply insecticide tax. | Support links between researchers and farmers. |
| | Network of demo farms that are pushing the boundaries of IPM. |
What can GOVERNMENT do to best support in the delivery of practical IPM solutions to farmers?

Provide central funding for research into IPM practices and a central resource for information / guidance on best practices. Resource needs to cover all crops.

Clearly define the different pesticide categories. Research the efficacy of biologicals v agrochemicals in the field.

Ensure regulatory system allows novel products to be approved quickly and efficiently.

Consider all policy drivers in the round.

Pressurise others in the supply chain that represent barriers to IPM adoption e.g. retailers.

Promote case studies.

Demonstrate cost-efficiency of IPM-based strategies.

Provide/subsidise trainingMake biocontrol products easier/cheaper to register via CRD (adopt EPA type system). In the 1st question, training was seen as being less important than advice - but advisers will need training so they access & help with.

Support R&D so that there ARE options to give farmers to use! Some systems have few if any IPM options tested.
<table>
<thead>
<tr>
<th>Support IPM Knowledge exchange and demonstration trials</th>
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<tbody>
<tr>
<td>Firstly identify what knowledge exists in similar areas, climates, situations to ours, avoid wasting time when the solutions may already be out there. Don’t ignore the value of old research.</td>
</tr>
<tr>
<td>Develop strategic (not tactic) DSSs</td>
</tr>
<tr>
<td>Different business model, going from purchasing crop protection, to a less/non commercial knowledge intensive system. Needs support.</td>
</tr>
<tr>
<td>Ensure SFI IPM Standard payments are attractive and meaningful to growers!</td>
</tr>
<tr>
<td>Solid evidence on the financial implications of IPM (whether good or bad) so farmers have this knowledge before making decisions.</td>
</tr>
<tr>
<td>Need farming systems research</td>
</tr>
<tr>
<td>Free advice, to understand that not all farms are the same and appreciate that one plan won’t suit all.</td>
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<tr>
<td>Connect farmers in the UK with counterparts in other countries who are implementing IPM well, in potentially different ways, to spark innovation</td>
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</table>

What can GOVERNMENT do to best support in the delivery of practical IPM solutions to farmers?
<table>
<thead>
<tr>
<th>Proposal</th>
<th>Description</th>
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<tbody>
<tr>
<td>Make it more economic to use True IPM than not</td>
<td></td>
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<tr>
<td>Show knock on benefits to biodiversity - demonstrate this on farm.</td>
<td>Many farmers want to support wildlife - flora and fauna and IPM can help do this. So not just agronomic benefit but others as well.</td>
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<tr>
<td>train discussion group facilitators to encourage better peer</td>
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<tr>
<td>Acknowledge IPM is challenging, do not penalise if people try but</td>
<td>Support development of What Works centre for Agriculture and Horticulture as recommended in the National Food Strategy.</td>
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<tr>
<td>Greater funding of basic research to develop solutions free of</td>
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</tr>
<tr>
<td>Re introduce the old ADAS service specifically concentrating on IPM</td>
<td>A greater emphasis on IPM metrics and pesticide impact metrics.</td>
</tr>
<tr>
<td>No scientific evidence that IPM delivery differs whatever the source</td>
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</tbody>
</table>
What can GOVERNMENT do to best support in the delivery of practical IPM solutions to farmers?

- Focus funding on applied aspects; helping farmers access and implement existing IPM resources known to be effective
- Educate the public about why farmers do what they do and the consequences of not being able to manage pests adequately
- Use Farmer Clusters - facilitation funded and privately - to help peer to peer training
- We cannot carry out IPM in potatoes, we cannot! Because we do not have basic information on variety strengths and weaknesses. TRV is a classic case.
- IPM involves products with a very specific and narrow period of use within the product life cycle. Growers need technology tools often based on catches/weather to optimise efficacy
- Individual simple On Farm trials to demonstrate benefits of IPM
- Facilitate registration of IPM friendly pesticides
- More transparency in pesticide registration data so that full impact on non-targets is publicised
- How many farmers are on this call?
What can GOVERNMENT do to best support in the delivery of practical IPM solutions to farmers?

- Funding, advice through independent sources. Regional advice to target different systems, ie root crop areas, arable.
- Support farmers in developing long-term IPM strategies, that incur short term costs.
- Promote the holistic approach for IPM.
- Most IPM solutions are long term changes and require funding for longer term research than the current 3 year cycle.
- Don’t forget farms are businesses, the importance of economics to drive IPM should not be underestimated.
- Shift to a wider view on IPM, considering multiple pests/crops rather than focusing on each pest individually.
- IPM does carry greater risk for farmers - could government consider crop insurance schemes as per the US?
- To understand that not all farms are the same, advice to each individual set up may be more encouraging.
- Subsidy type funding for farmers that test alternatives and share knowledge?
What can GOVERNMENT do to best support in the delivery of practical IPM solutions to farmers?

- **Look at area-wide approaches rather than field by field approach to deliver better impacts of IPM**

- **Look at targeted use of pesticides use high tech pest identification & spot spray targeted areas**

- **Make sure government is aware of the trade-offs that IPM involves**

- **Government led/funded advisory service - at least to the advisers**
  - More cooperation between Defra/growers/advisers/research organisations
  - Multi agency R&D cooperation - avoid silo approach

- **Introduce incentives for farmers to adopt IPM practices**
  - Create a new independent extension service for research, development and dissemination of IPM techniques
  - Facilitate farmer-to-farmer learning on IPM
  - Fund the new IPM body through a pesticide tax

- **Once you show farmers the consequences of their pesticide use personally they often change behaviour organically - think this is under utilised, but requires individual interaction with farmers - so individual advice.**

- **Encourage knowledge exchange between farmers by funding farmers in demonstrating principles, and building regional collaborations**

- **Need research to update treatment thresholds as many out of date**

- **Identify priorities in IPM and get them funded by whatever means.**
What can GOVERNMENT do to best support in the delivery of practical IPM solutions to farmers?

- Continue engagement across industry more like today!
- De-risking pest control for farmers means using IPM products means greater awareness of pest life cycles. There is a requirement to invest in technology that can provide this information on a field basis.
- Link farmers and researchers to trial IPM strategies - helps the farmer to try IPM with reduced risk and data is more robust.
- Grower margins are tight. There is a requirement for Govt funding for technology decision making tools to maximise the efficacy for IPM products.
- All parties need to recognise that IPM cannot reduce economic viability of farms of all types. Recognise unintended consequences eg beneficials in crop can become contaminants at harvest. Involve multiples/packers ref fresh produce.