

# HGCA R&D Strategy

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**November 2009**

# Development of HGCA



- established in 1965 to improve marketing of cereals
- working for UK growers, traders & processors to improve the efficiency of the grain industry
- extended in 1989
  - include oilseeds
  - more R&D
  - export and home market development

HGCA's mission.....

***“to improve continuously the production, wholesomeness and marketing of UK cereals and oilseeds so as to increase their competitiveness in UK and overseas markets in a sustainable manner”***

# Market failure and the need for HGCA within AHDB

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- Radcliffe Report (October 2005) and consultation confirmed industry support for HGCA
- Independence of HGCA is greatly valued
- Ministerial decision in June 2006 that five statutory levy boards would be wound up and replaced by one new public body with six wholly-owned sector companies.

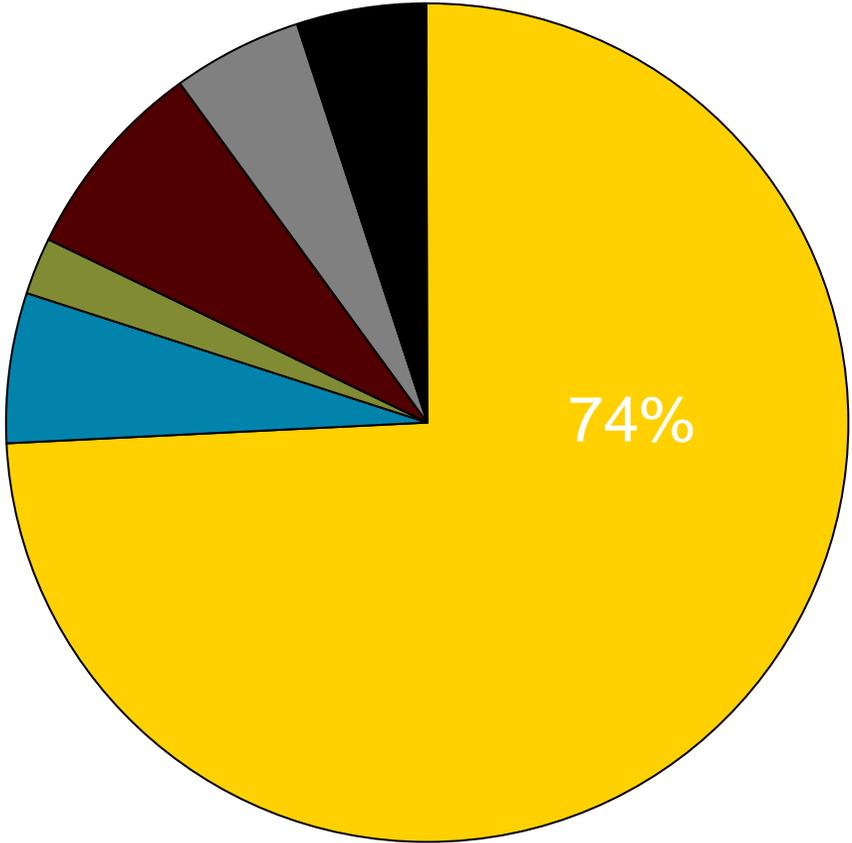
# HGCA - funded by industry



***Levy kept at 40p per tonne for 10 years***

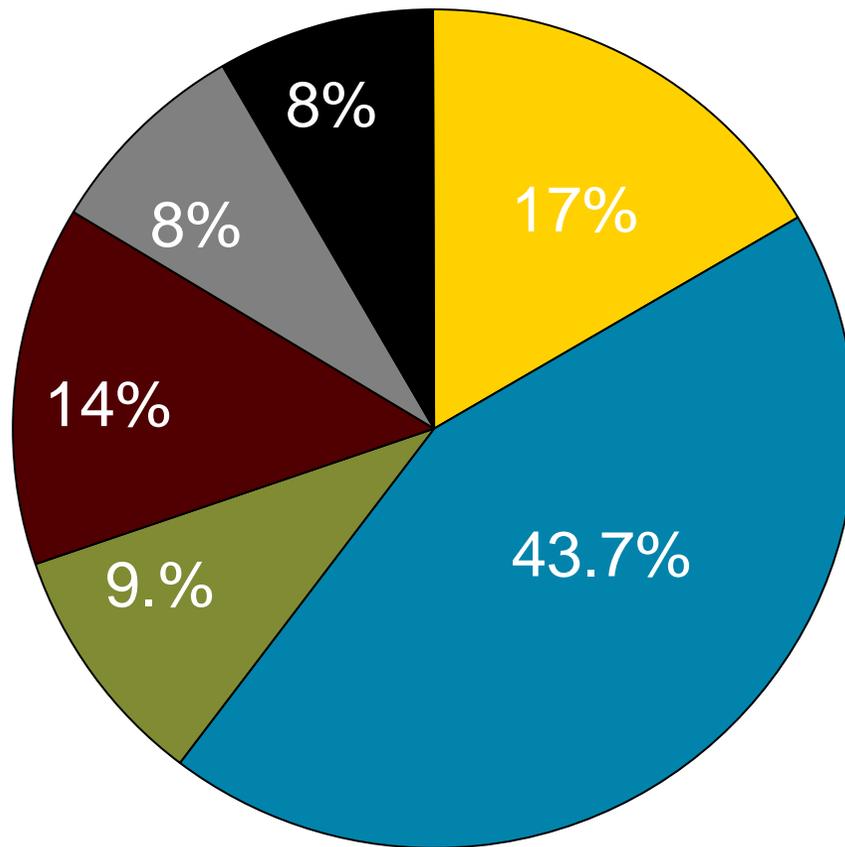
Cereal growers	<b>40 p</b>	<b>sold off farm</b>
Cereal dealers	<b>3.3 p</b>	
Cereals processors (millers, maltsters & industrial)	<b>8.25 p</b>	
Cereals processors (animal feed)	<b>4 p</b>	
Oilseeds growers	<b>65 p</b>	

# HGCA income - £10.25 million



- Growers
- Industrial
- Feed
- Grant aid
- Dealers
- Other

# HGCA expenditure



-  **Variety Evaluation**
-  **Strategic R&D**
-  **Market Services**
-  **Market Development**
-  **British Cereal Exports**
-  **Cereals Industry Forum**

# Key points about R&D

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- Applied, near-market research
- Robust and independent data
- Improve competitiveness of UK cereals and oilseed

# Assessing stakeholder needs



Home-Grown Cereals Authority



INCREASED COMPETITIVENESS



EQUIPPED FOR CHANGE



IMPROVED ENVIRONMENT



NEW MARKET OPPORTUNITIES

## HGCA R&D Strategy 2007–10

Providing independent technical information for a competitive and sustainable cereals and oilseeds industry

January 2007



*"The money I pay via the HGCA levy is one of the best investments for the continuing technical development of my farm."*

John Howkins  
Quality Assurance Manager,  
Gloucestershire farmer

# What the strategy contains



- 4 outcomes
  - Increased competitiveness
  - Equipped for change
  - Improved environment
  - New market opportunities
- 11 targets
  - Raise yields
  - Reduce costs
  - Realise quality potential
  - Prepare for the future
  - Achieve food safety standards
  - Comply with environmental regulations
  - Minimise adverse impacts
  - Improve farmland biodiversity
  - Reduce GHG emissions
  - Develop biofuels
  - Increase industrial use of crops

Knowledge transfer integral to strategy

# Matching targets to activities



## First priority for new investment

- Nitrogen management
- Phosphate management
- Disease management
- Soil management
- Weed management
- Product and process development

Activities	INCREASED COMPETITIVENESS			EQUIPPED FOR CHANGE			IMPROVED ENVIRONMENT		NEW MARKET OPPORTUNITIES			
	Targets	Raise yields	Reduce costs	Realise quality potential	Prepare for the future	Achieve food and feed safety standards	Comply with environmental regulations	Minimise adverse impacts	Improve farmland biodiversity	Reduce GHG emissions	Develop biofuels	Increase industrial use of crops
HGCA Recommended Lists	★	★	★	3	★		★				3	3
Breeding and genetics		3	3	2	★	3				3	★	3
Nitrogen management	1	1	★			1				1	1	
Sulphur/other nutrients	2											
Phosphate management						1						
Disease management	1	1		2	★							
Soil management	1	1				1				2		
Pest management			2	2			3	3				
Weed management				1			3	★				
Low input systems		2				2		3	2			
Contaminant surveillance					2							
Product and process development											1	1
Grain storage		3	★	3	3							
Pesticide application		2				3		3				
Precision farming		2	3			3			3			

1 First priority for new investment    2 Second priority for new investment    3 Third priority for new investment    ★ Subject of ongoing research and recognised as a priority

# Implementing the R&D strategy



Home-Grown Cereals Authority

INCREASED COMPETITIVENESS    EQUIPPED FOR CHANGE    IMPROVED ENVIRONMENT    NEW MARKET OPPORTUNITIES

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John Rowland  
production manager,  
Gloucestershire Farm

Knowledge transfer integral to strategy

# Research Projects commissioned against the 2007 R&D Strategy (As of 1 April 2009)



Activity	No. projects
HGCA Recommended Lists	1
Breeding and genetics	10
Nitrogen management	14
Sulphur and other nutrients	1
Phosphate management	3
Disease management	29
Soil management	1
Pest management	11
Weed management	3
Low input systems	3
Contaminant surveillance	14
Product and process development	12
Grain storage	2
Pesticide application	3
Precision farming	2
Activity-spanning projects	8
Additional to strategy	2
<b>Total</b>	<b>119</b>

# Recommended Lists



## HGCA Recommended List® Winter Wheat 2008/09

### MARKET OPTIONS AND GRAIN QUALITY



	C*					C					P2					P1					P2					C					*					C					*					*					P2					P1					P1					P2					*					C					*					P2					*					*					Average LSD (5%)				
	X19	Solstice	Mascot	Malacca	Hereward	Einstein	Battalion	Cordiale	Marksman	Soissons	Zebedee	Robigus	Deben	Claire	Nijinsky	Consort	Riband	Oakley	JB Diego	Duxford	Glasgow	Istabraq	Humber	Brompton +	Alchemy	Ambrosia	Gladiator	Timber &	Welford \$	Gatsby \$	Average LSD (5%)																																																																										

End-use group	nabim Group 1										nabim Group 2					nabim Group 3						nabim Group 4										
Scope of recommendation	East	UK	UK	UK	UK	UK	UK	UK	E&W	E&W	E&W	UK	UK	UK	UK	North	North	UK	UK	UK	UK	UK	UK	East	UK	UK	UK	Sp	Sp	Sp		
UK treated yield (% control, 10.1 t/ha)	103	100	97	93	91	102	102	101	100	88	103	102	101	99	98	98	-	108	106	106	105	104	104	104	104	103	103	102	102	101	3.3	

### Main market options (The specific attributes of varieties are different so, whenever possible, varieties should not be mixed in store)

UK bread-making	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
UK biscuit, cake-making	-	-	-	-	-	-	-	-	-	-	Y	Y	Y	Y	Y	Y	Y	-	-	-	-	-	-	-	-	-	-	-	-	-	
UK distilling	-	-	-	-	-	-	-	-	-	-	Y	Y	-	Y	Y	Y	-	-	-	Y	Y	-	-	Y	-	-	-	-	-	-	
ukp bread wheat for export	Y	Y	[Y]	B	Y	B	[B]	Y	[B]	Y	-	-	-	-	-	-	-	-	-	?	-	-	-	-	-	-	[B]	-	-		
uks soft wheat for export	-	-	-	-	-	-	-	-	-	-	Y	Y	-	Y	B	Y	-	-	-	Y	Y	-	-	B	Y	-	-	-	[Y]		
Year first listed	02	02	06	99	91	03	07	04	08	95	07	03	01	99	04	95	89	07	08	08	05	04	07	05	06	05	04	07	04	06	

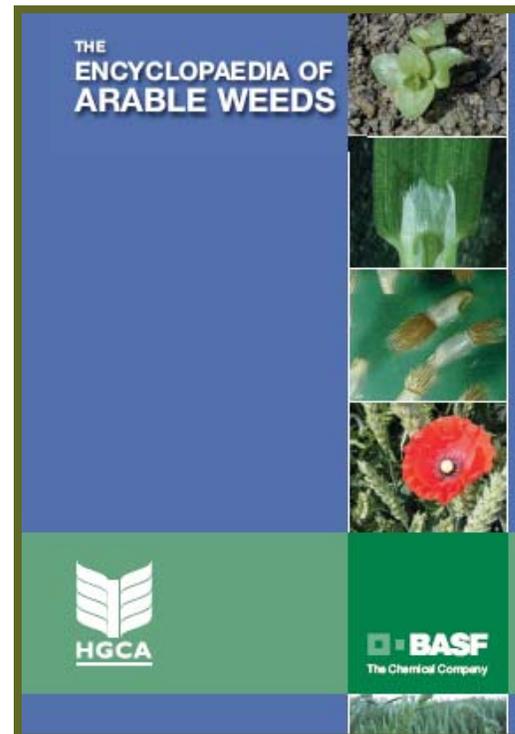
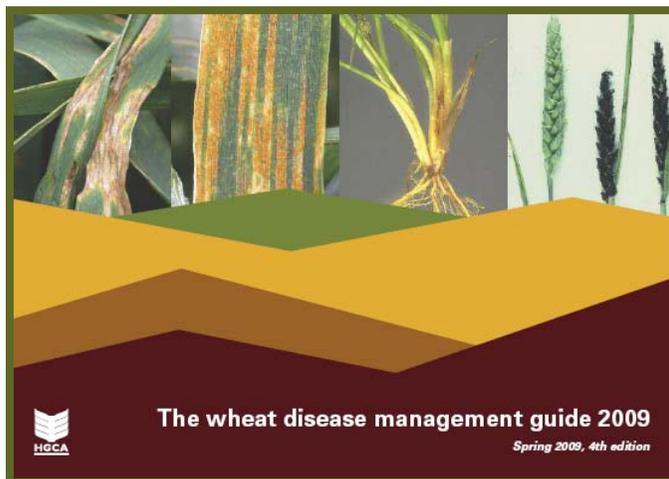
Grain quality	nabim Group 1										nabim Group 2					nabim Group 3						nabim Group 4										
Endosperm texture	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Hard	Hard	Hard	Soft	Soft	Hard	Hard	Soft	Soft	Hard	Hard	Hard	Soft		
Protein content (%)	11.8	12.3	12.6	12.5	13.2	12.2	12.4	12.6	13.0	13.0	11.6	11.8	11.4	12.0	12.0	11.8	11.8	10.9	11.3	11.4	11.4	11.2	12.0	11.7	11.8	11.9	12.0	12.6	11.8	11.8	0.2	
Hagberg falling number	274	272	278	312	238	266	248	304	247	249	264	206	204	242	219	226	200	165	292	266	179	207	288	219	247	190	263	249	261	236	18	
Specific weight (kg/hl)	75.9	78.4	77.3	75.3	79.0	77.2	76.0	79.3	77.0	79.3	74.4	76.5	75.7	76.3	74.7	76.8	74.3	75.5	77.4	76.2	76.5	78.2	76.8	73.6	77.3	76.8	77.1	77.5	74.4	76.6	0.6	
1000 grain weight (g)	51.8	50.5	[51.5]	45.7	48.4	50.7	[50.2]	47.5	-	46.4	[49.3]	45.5	53.0	47.6	47.2	50.7	53.0	[48.5]	-	-	[44.7]	49.5	[51.0]	50.0	[49.1]	[53.1]	46.8	[47.0]	43.5	[43.6]	4.4	
Zeleny volume	46.7	51.0	[51.7]	47.9	[58.1]	42.7	-	50.9	-	[59.3]	[22.6]	24.7	-	24.1	[29.2]	[23.5]	-	-	-	-	-	-	-	-	[12.2]	-	-	-	-	-	7.2	
Chopin alveograph W	178	189	[231]	217	254	171	177	239	290	296	86	101	125	96	106	112	[83]	[120]	[220]	173	85	73	[103]	[77]	55	[72]	95	184	78	[78]	29	
Chopin alveograph P/L	0.7	0.7	[0.7]	0.7	0.5	0.5	0.8	0.7	1.0	0.6	0.3	0.3	0.6	0.3	0.3	0.3	[0.4]	[0.5]	[1.8]	1.0	0.2	0.3	[1.0]	[2.1]	0.5	[0.3]	0.7	0.8	1.0	[0.4]	0.2	



# Publications

- APRs, Final Project Reports, Research Reviews  
~ 11,000 on 'technical mailing list'

## Guides & guidelines





# e-Services



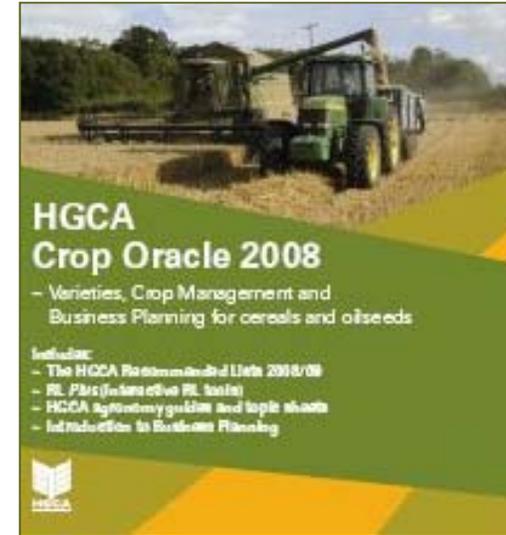
- Crop Oracle CD-ROM
- Crop Research e-Newsletter

~ 2,700 recipients

- Website

- calculators, fungicide performance tool, disease prediction etc
- Knowledge Centre
- User friendly 'shorts cuts'

e.g. [www.hgca.com/grainstorage](http://www.hgca.com/grainstorage)  
[www.hgca.com/currentprojects](http://www.hgca.com/currentprojects)

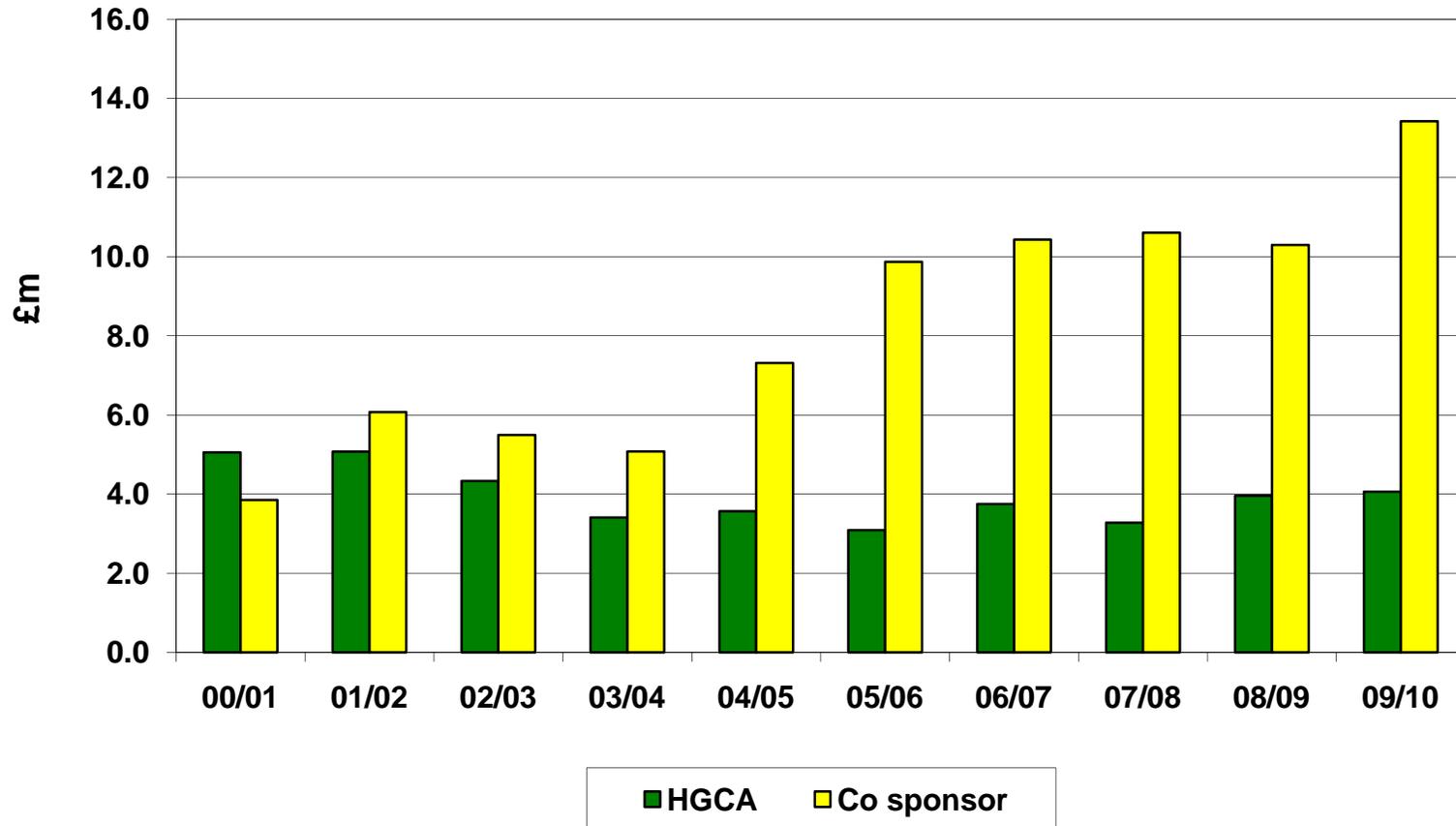
A screenshot of the 'HGCA Sclerotinia Decision Guide Tool' website. The page has a header with the title 'HGCA Sclerotinia Decision Guide Tool' and the HGCA logo. Below the header is a navigation bar with the text 'Home > Sclerotinia Decision Guide Tool > Decision Guide' and a search box. The main content area is divided into two columns. The left column contains a table of contents with links to 'Decision Guide', 'The Disease', 'Control', 'Fungicides', 'Growth Stage Guide', 'Glossary', 'Links', and 'Decision Tool'. The right column contains the title 'Decision Guide' and a paragraph of text: 'This guide was originally produced as part of a LINK funded project by CSL, ADAS, HGCA and ADGEN. It has been updated in 2008 with support from HGCA. If you have any comments please contact [webmaster@hgca.com](mailto:webmaster@hgca.com)'. Below this text is another paragraph: 'It is primarily intended to be used at flowering and relies on information being available for individual crops. When you enter your data the tool will calculate the potential risk for your crop.' At the bottom of the right column is a link: 'Click here to open the HGCA Sclerotinia decision guide tool'. A small image of a yellow field is visible in the bottom right corner of the screenshot.



# Co-funding for R&D



## Summary of R&D Project Investment 2000-2009



# HGCA R&D Strategy Revision 2010-2013



- Assessment of performance against current strategy
- Industry & contractor consultations – March & April
- Grower & Agronomist consultations – March & April
- Questionnaire – May
- Cereals interactive display – June
- Consultations – August
- Approval by HGCA Board – October
- Strategy launched – January 2011

Outcomes	INCREASED COMPETITIVENESS			EQUIPPED FOR CHANGE			IMPROVED ENVIRONMENT			NEW MARKET OPPORTUNITIES		
	Targets	Targets	Targets	Targets	Targets	Targets	Targets	Targets	Targets	Targets	Targets	
Activities	Raise yields	Reduce costs	Realise quality potential	Prepare for the future	Adhere to food and feed safety standards	Comply with environmental regulations	Minimise adverse impacts	Improve landward biodiversity	Reduce CO <sub>2</sub> emissions	Develop biofuels	Increase industrial use of crops	
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Sulphur/other nutrients	2											
Phosphate management						1						
Disease management	1	1		2	★							
Soil management	1	1				1				2		
Pest management			2	2			3	3				
Weed management				1			3	★				
Low input systems		2				2		3	2			
Contaminant surveillance					2							
Product and process development										1	1	
Grain storage		3	★	3	3							
Pesticide application		2				3		3				
Precision farming		2	3			3			3			

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# Thank you

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