The AHDB Horticulture Plan 2017 - 2020

Introduction

Following approval of the Horticulture strategy from 2017 to 2020, this document identifies the activities that will be undertaken in 2017/18 to deliver the strategy in the form of an annual plan. As such it provides a 'bridge' between the strategy document published in December 2016 and the detailed activity plan that has been produced by our functional teams.

The plan identifies the four AHDB strategic priorities, the horticulture strategic activities and specific tasks that will be delivered. The document recaptures the targets set out in the strategy document published for consultation and, where possible, key performance indicators that can be used to allow us to monitor progress.

These targets and KPIs are a new departure for the Horticulture Board. Further work is needed with colleagues to identify KPIs that enable the Board to measure performance against the targets set as part of the strategy. The Board is invited to comment on the most appropriate measurements and KPIs.

The document also provides the final draft budget for 2017/18 as well as indicative budgets up to 2020.

The AHDB Strategy

The overall AHDB Strategy 'Inspiring Success' provides the context in which the Dairy and other sector strategies will be implemented.

The AHDB vision is to be "A world class food and farming industry inspired by and competing with the best"

To achieve this, there are four strategic priorities;

- 1. Inspire British farming and growers to be more competitive and resilient
- 2. Accelerate innovation and productivity growth in line with competitors through coordinated R&D and knowledge exchange
- 3. Help our industry understand and deliver what consumers will trust and buy at home and internationally
- 4. Deliver thought leadership and horizon scanning

The Strategic Priorities for the AHDB Horticulture plan

The Horticulture Plan is made up of 14 Strategic Activities, each consisting of a number of programmes and actions. These are listed with their associated targets and KPI's at the end of this paper.

The final draft budget for the next three years is set out in the table overleaf.

As our most important priority, we will continue to build and strengthen our critically important technical work on crop protection and the minor uses of Plant Protection Products. We will explore, through new pathfinder initiatives, ways in which the threat posed by the rising cost and decreasing availability of labour can be mitigated by improving system and operator efficiency and facilitating industry uptake of robotics and automation technologies. We will maintain and when necessary refresh our programmes of technical work on soils and growing media, energy, nutrition, water, genetics and new crop production systems.

We will refresh our knowledge exchange work by consolidating existing and new knowledge in a best practice database, enhancing remote access through the development of mobile device applications, and improving the flow of information to levy payers through other knowledge providers.

We will build and manage our future technical work in the form of consolidated longer-term programmes, which will draw together all related research strands and associated knowledge exchange and communications activities, have the flexibility to address changing needs and priorities, and will be cost-effectively managed and administered. We will retain the ability to respond to genuine emergencies as and when these arise as we have done in the past, for example in dealing with alien pests such as western flower thrips, tobacco whitefly and spotted wing drosophila.

The AHDB Horticulture board, sector panels and programme steering groups will continue to be collectively responsible for advising AHDB Horticulture teams on industry needs and priorities and programme content to maximize impact, value and return on investment. The sector panels will draw advice from Grower Associations and Trade Associations. In work intended to produce marketable outputs, committed partners will be contracted to provide commercial exploitation.

Working in partnership with others, we will inform educators, careers advisors and others to enable industry to recruit talented young people who are currently unaware of the exciting career opportunities available in horticulture. We will engage with consumer-facing bodies to maximize appreciation of and demand for British edible and ornamental produce. Where genuine needs are recognized, we will draw on existing market development expertise in AHDB to help rebuild declining markets and facilitate access to new markets for edible and ornamental crops. We will also lead and participate in training initiatives to maximize capabilities across all sectors.

We will progressively reduce AHDB Horticulture's accumulated reserve in line with AHDB operating guidelines and will continue to identify and capture undeclared or under-declared levy.

Horticulture Budget

AHDB HORTICULTURE - BUDGET PLAN 2017/18	Corporate Plar £'000
Gross Levy	7,810
Direct Levy Collection Costs	0
Net Levy Income	7,810
Fee and Grant Income	515
Bad Debt	-50
TOTAL NET INCOME	8,275
DIRECT EXPENDITURE	
1.1 Generate EAMU applications and supporting data	-535
2.1 Exploiting best practice and new knowledge and technology from all parts of the world.	-638
2.2 Developing integrated crop management (ICM) systems to minimise the losses due to diseases,	-4,049
pests and weeds and the environmental impact of crop protection interventions	
2.3 Getting the best and most out of the industry's workforce and operational management processes	-144
2.4 Building soil health and fertility in horticultural rotations	-592
2.5 Making efficient use of energy, nutrients and water and securing control of supplies.	-475
2.6 Optimising the genetic potential of horticultural crops	-371
2.7 Understanding microbial contamination of edible produce	-32
2.8 Improving production systems	-445
3.1 Stimulating demand for edible produce grown in Great Britain	-75
3.2 Identifying and accessing domestic and overseas market opportunities	-32
4.2 Industry skills development	-362
TOTAL DIRECT EXPENDITURE	-7,750
SUPPORT	
Sector Specific Administration	-381
Central Support	-655
TOTAL SUPPORT EXPENDITURE	-1,036
TOTAL EXPENDITURE	-8,786
Operating Surplus/(Deficit)	-511
Non-operating items	5
Retained Surplus/(Deficit)	-506
Support Expenditure % of Income	12.5%
Central Support % of Income	7.9%
Reserves	
Opening General Reserves	4,556
Retained Surplus/Deficit	-506
Closing General Reserves	4,049







Central support costs are shared between sectors based on the relative use of services and are reviewed annually.

Delivery by Research Teams

Our Research teams will:

- 1. Manage the completion of existing projects and applications for Authorisations of Minor Uses (EAMU's) of Plant Protection Products;
- Work with the knowledge exchange team to build, procure and manage new integrated technical programmes with the inbuilt flexibility to deliver all strategic activities in AHDB Priority
 This will be based on advice and guidance received from the AHDB Horticulture Board, sector panels, grower associations, leading levy payers and relevant experts;
- 3. Apply for new EAMUs and generate supporting data required to meet industry needs as advised by sector panels;
- 4. Help direct the activities of the marketing and communications team;
- 5. Secure co-funding from other bodies as and when possible;
- 6. Work with the knowledge exchange and communications teams to respond swiftly to industry crises by contracting or doing emergency work in liaison with lead industry contacts as relevant.

Delivery by Knowledge Exchange Team

Our Knowledge Exchange team will:

- 1. Manage the completion of existing projects;
- Work with research teams to build, procure and manage new integrated technical programmes with the inbuilt flexibility to deliver all strategic activities in AHDB Priority 2, based on advice and guidance received from the AHDB Horticulture Board, sector panels, grower associations, leading levy payers and relevant experts;
- 3. Deliver a step change in technical outputs that de-fragment published outputs into coherent interactive digital best practice tools.
- 4. Work with research teams and our network of industry and technical contacts to develop an international intelligence-gathering programme promoting direct access to technical innovation relevant to key areas of the strategy.
- 5. Help direct the activities of the marketing and communications team;
- 6. Secure co-funding from other bodies as and when possible;
- 7. Work with the research and communications teams to respond swiftly to industry crises by contracting or doing emergency work in liaison with lead industry contacts as relevant.

Delivery by Marketing, Digital and Communications Team

The marketing and communications team will:

- Create and deliver output (digital, events, media and publications) for levy payers and other stakeholders as directed by the knowledge exchange and research teams and the Strategy Director Horticulture, based on advice, guidance and feedback received from the AHDB Horticulture Board, sector panels, grower associations, levy payers and key research providers;
- 2. Secure co-funding from other bodies as and when possible;
- 3. Work with research and knowledge exchange teams to respond swiftly to industry crises by contracting or doing emergency work in liaison with lead industry contacts as relevant.

AHDB Support for Delivery

Support services such as finance, HR, IT and office facilities are essential for the efficient running of any business. AHDB Horticulture will make a proportionate contribution to these and will also pay for the running of the AHDB Horticulture Board through the Sector Director and the six sector panels. Efficiency savings arising from the restructure and improved ways of working will be built into annual budgets.

AHDB Strategic Priority	1: Inspiring British	farming and growing to be	e more competitive and resilient

Horticulture strategic activity 1.1	Generate EAMU applications and supporting data. We will track the loss of actives and approvals, assess potential impact and agree sector panels. Whenever possible co-funding will be secured from manufacture exposure and crop safety data submitted in their support, will be held in a secure	ers. EAMUs approved by C		
Horticulture strategic	Target (2019/20)		KPI - year	
activity 1.1		1	2	3
	240 new EAMU applications have been generated in response to industry needs for control of diseases, pests and weeds.	80 new EAMU applications generated.	80 new EAMU applications generated.	80 new EAMU applications generated.
		Resulting EAMU's	Resulting EAMU's	Resulting EAMU's
	Resulting EAMU's are used by 50% or more of the growers affected.	used by 50% or	used by 50% or	used by 50% or
	Resulting LANIO'S are used by 50% of more of the growers anected.	more of growers	more of growers	more of growers
		affected.	affected.	affected.
Tasks to deliver activity				
1.1.1	EAMU applications			
1.1.2	Supporting data generation			
1.1.3	(FV 391b) Carrots: Further development of artificial inoculation techniques for car	vity spot		

Horticulture strategic activity 2.1	Optimise the productivity, resilience and sustainability of outdoor and protected horticultural crop production systems through innovative KE and R&D.					
2.1		and aviating inductor of	tworks to moviming in	duate aucropaga		
	We will refresh our approach to KE by making more innovative use of digital media and existing industry networks to maximise industry awareness and accelerate the uptake of new knowledge and technology by growers. We will consolidate R&D into thematic programmes to improve quality and minimise project administration costs. We will strengthen the role of Industry Coordinators to ensure the relevance and practicability of our work.					
Horticulture strategic activity	Target (2019/20)		KPI - year			
2.1		1	2	3		
			Four new scoping	Further scoping		
			studies underway	studies considere		
			and one new	and one new		
	Two programmes have been completed based on global horizon scanning and data mining, in which 20% of horticulture levy payers have participated, as a	Two new scoping studies underway.	programme	programme		
			completed, which	completed, whic		
			attracts 10% levy	attracts 20% lev		
	result of which 30% of participants have improved their production practices	studies underway.	payer participation	payer participatio		
	within 2 years of completion		and results in 20%	and results in 30		
			of participants	of participants		
			improving their	improving their		
			production	production		
			practices.	practices.		
			30% of technical	60% of technica		
			output delivered	output delivered		
	CONV of technical extent has been delivered through a serverideted disital martel	New digital portal in	through the	through the		
	60% of technical output has been delivered through a consolidated digital portal, which has resulted in a 10% increase in uptake of AHDB output as evidenced by	place capturing 10%	consolidated digital	consolidated digi		
	the levy payer satisfaction survey.	of technical output.	portal with a 5%	portal with a 109		
			increase in uptake	increase in uptal		
			of AHDB output by	of AHDB output l		
			users.	users.		

Tasks to deliver activity	
2.1.1 Enabling industry exploitation of knowledge captured by horizon-scanning and data-mining	
2.1.2	Enabling industry exploitation of new knowledge generated by AHDB research programmes
2.1.3	Enabling greater industry uptake of knowledge & technology using digital platforms
2.1.4	Enabling greater industry uptake of knowledge by more effective use of other knowledge providers

Horticulture strategic activity	Developing Integrated Crop Management (ICM) systems to minimise the losses due to diseases/pests/weeds and the environmental impac					
2.2	of crop protection interventions.					
	We will focus our KE and R&D work on the development of resilient	and sustainable ICM system	s utilising a diversity of	agronomic, behavior		
	biological, chemical and genetic control agents, supported by precision diagnostics and decision support tools. We will seek ways of sharing costs and creating new synergies by working closely with the Centre for Applied Crop Science (CACS) Innovation Centre and other global centres of excellence in crop protection.					
Horticulture strategic activity	Target (2019/20)		KPI - year			
2.2		1	2	3		
	45 new crop protection solutions have been generated for key diseases, pests and weeds before existing control measures become unusable.	15 new crop protection measures generated	30 new crop protection measures generated.	45 new crop protection measures generated.		
	45 IPM programmes for key diseases, pests and weeds of ten major horticultural crops have been made more resilient.	15 IPM systems strengthened.	30 IPM systems strengthened.	45 IPM systems strengthened		
	Annual environmental impact due to pesticide use has been reduced by 9% without increasing input costs or reducing yield or quality.	Baseline data on EIQ established.	EIQ reduced by 3% on baseline.	EIQ reduced by 6% on baseline.		
Tasks to deliver activity						
2.2.1	Integrated disease management programmes					
2.2.2	Integrated pest management programmes					
2.2.3	Integrated weed management programmes					

Horticulture strategic activity	Getting the best and most out of the industry's workforce and operational management processes.				
2.3	We will strategically benchmark production systems to determine the sco	ope to improve labour utilisation	٦.		
	We will use existing KE networks to cascade awareness of new automation and robotics opportunities to industry. We will seek ways of sharing costs and creating new synergies by working closely with the Agri-Epi Innovation Centre and other global centres of excellence in automation and robotics technologies.				
Horticulture strategic activity 2.3	Target (2019/20)		KPI - year		
		1	2	3	
		10% of levy payers	20% of levy payers	30% of levy payers	
		participated in KE	participated in KE	participated in labou	
	30% of levy payers have actively participated in KE activity on workforce and operational management and have achieved an	activities and	activities and	related KE activities	
	average increase in labour utilisation of 6%.	improved labour	improved labour	and improved labou	
		utilization by an	utilisation by an	utilisation by an	
		average of 2%.	average of 4%.	average of 6%.	
Tasks to deliver activity					
2.3.1	Enabling industry uptake of labour/system management tools including Champion and Lean				
2.3.2	Facilitating industry awareness and uptake of robotics and automation technologies				

Horticulture strategic activity	Building soil health and fertility in horticultural rotations.				
2.4	We will continue to drive improvements in soil management practice through cross	s-sector KE and R&D p	rogrammes including G	reat Soils. To enable	
	industry to comply with Government policy on the use of peat in horticulture. We will continue to work with industry on the use of responsibly sourced growing media in protected crop production.				
Horticulture strategic activity 2.4	Target (2019/20)		KPI - year		
2.4		1	2	3	
		Soil management	Soil management	Soil management	
	Soil management practices have been improved by 15% of field crop growers.	practice improved by	practice improved by	practice improved by	
		5% of levy payers.	10% of levy payers.	15% of levy payers.	
	Aggregate soil health indicators have been defined.			Aggregate soil health indicators defined.	
Tasks to deliver activity					
2.4.1	Enabling industry to improve long-term soil health and fertility				
2.4.2	Enabling industry to eliminate the use of non-renewable materials in growing me	dia			

Horticulture strategic activity 2.5	Making efficient use of energy, nutrients and water and securing control of supplies. We will continue to develop GrowSave and RB209 as our primary platforms for disseminating best practice guidelines on energy use and nutrition horticultural crops. We will collaborate with other sectors to develop best practice approaches for water management.				
Horticulture strategic activity	Target (2019/20)		KPI - year		
2.5		1	2	3	
	Industry use of unsustainable energy derived from non-renewable sources has been reduced by 6% without sacrificing yield or quality.	2% saving in energy input per unit output over 25% of the protected cropping sector without loss of yield or quality.	4% saving in energy input per unit output over 25% of the protected cropping sector without loss of yield or quality.	6% saving in energy input per unit output over 25% of the protected cropping sector without loss of yield or quality.	
	15% of growers have reduced mineral fertiliser use as a result of RB209 without sacrificing yield or quality.	5% of surveyed levy payers using 5% less fertiliser from non- renewable sources without loss of yield or quality.	10% of surveyed levy payers using 10% less fertiliser from non-renewable sources without loss of yield or quality.	15% of surveyed levy payers using 20% less fertiliser from non- renewable sources without loss of yield or quality.	
	Water use has been reduced by 6% per unit of production without sacrificing yield or quality.	30% of surveyed levy payers using 5% less water without loss of yield or quality.	30% of surveyed levy payers using 10% less water without loss of yield or quality	30% of surveyed levy payers using 20% less water without loss of yield or quality.	
Tasks to deliver activity					

2.5.1 Enabling industry to improve energy efficiency (Growsave and associated research projects)	
2.5.2 Enabling industry to optimize crop nutrition (RB209 and associated research projects)	
2.5.3	Enabling industry to optimize water use

Horticulture strategic activity 2.6	Optimising the genetic potential of horticultural crops We will continue to work with industry to ensure that the future trait complexes being developed by commercial plant breeders fully reflect the demands of the market, modern production systems and changing environmental conditions.				
Horticulture strategic activity 2.6	Target (2019/20)		KPI - year		
2.0		1	2	3	
	The productivity, resilience and sustainability of British horticulture has been improved through breeder uptake of 12 new varieties accounting for 12% of total production.	1 new soft fruit variety, 1 new pea variety, 1 new vegetable variety, 1 new cut flower variety and 1 new pot or bedding plant variety in commercial breeding trials.	2 new soft fruit varieties, 2 new pea varieties, 2 new vegetable varieties, 2 new cut flower varieties and 2 new pot or bedding plant varieties in commercial breeding trials.	3 new soft fruit varieties, 2 new pea varieties, 2 new vegetable varieties, 2 new cut flower varieties and 3 new pot or bedding plant varieties in commercial breeding trials.	
Tasks to deliver activity					
2.6.1	Enable industry to improve the productivity, resilience and sustainability of field varieties	l vegetable crop producti	ion through the exploitat	ion of new	
2.6.2	Enable industry to improve the productivity, resilience and sustainability of pea	and bean crop production	on through the exploitati	on of new varieties	
2.6.3	Enable industry to improve the productivity, resilience and sustainability of soft fruit crop production through the development of new varieties using state-of-the-art plant breeding and propagation techniques				

Horticulture strategic activity 2.7	Understanding microbial contamination of edible produce. We will review and periodically update contamination risk mitigation strategies and be	st practice guidelines.		
Horticulture strategic activity	Target (2019/20)	KPI - year		
2.7		1	2	3
	Microbial contamination risks are better understood and mitigated by 15% of British growers.	Microbial contamination risks better understood and mitigated by 5% of levy payers.	Microbial contamination risks better understood and mitigated by 10% of levy payers.	understood and mitigated by
Tasks to deliver activity				
2.7.1	Improve industry understanding of the causes of microbial contamination and uptake	of effective mitigation p	oractices	

Horticulture strategic activity 2.8	Improving production systems. We will work closely with the Agri-Epi Innovation Centre, Centre for Applied Crop Science and other global centres of excellence to evaluate nove production systems and technologies and facilitate their uptake by industry.				
Horticulture strategic activity	Target (2019/20)	KPI - year			
2.8		1	2	3	
	Growers have a substantially increased awareness and understanding of automation/robotics technologies and are increasing their take-up as a result of AHDB KE activities based on global horizon scanning and data mining.	Baseline understanding of UK use of automation/robotics achieved and KE	10% of levy payers participated in KE activities with 50% of delegates reporting	20% of levy payers participated in KE activities with 70% of delegates	
Tasks to deliver activity					
2.8.1	Enabling industry to improve crop production systems				
2.8.2	Enabling industry to improve crop harvesting systems				

2.8.3	Enabling industry to improve crop processing systems			
2.8.4	Enabling industry to improve crop storage systems			
Horticulture strategic activity 2.9	Building industry capacity. We will engage with careers advisors and teachers in schools a	nd FE/HE colleges to streng	then careers advice and e	ducational provision.
Horticulture strategic activity	Target (2019/20)	KPI - year		
2.9		1	2	3
	30% of British growers have acquired significantly greater professional and technical knowledge and capabilities by participating in AHDB-led training programmes.	Key training providers identified and engaged. AHDB Horticulture research findings and best practice made available to training providers. AHDB training programmes attended by 10% of British growers.	AHDB Horticulture research findings and best practice updates provided to training providers. AHDB training programmes attended by 20% of British growers.	AHDB Horticulture research findings and best practice updates provided to training providers. AHDB training programmes attended by 30% of British growers.
Tasks to deliver activity				
2.9.1	Facilitate improved engagement between the horticulture indust	ry and careers advisors and	educators in schools and	colleges

AHDB Strategic Priority 3: Helping the industry understand and deliver what consumers will trust and buy

Horticulture strategic activity Stimulating demand for British edible produce. 3.1 We will work collaboratively with these and other bodies to explore, and help industry exploit opportunities to stimulate consumption and demand for edible fresh produce.				
Horticulture strategic activity 3.1	Target (2019/20)	KPI - year		
		1	2	3
	Potential industry co-funding and delivery partners have been identified and engaged. Co-funded activities to stimulate consumption of and demand for edible fresh produce have been planned and delivered. The impact of co-funded activities has been assessed.	Options considered and activities planned. Targets and KPI's defined.	Planned activities initiated.	Planned activities completed. Impact assessed.
Tasks to deliver activity				
3.1.1	Enable key partners to improve consumer appreciation of and demand for British edible and ornamental produce			

Horticulture strategic activity 3.2	Identifying and accessing domestic and overseas market opportunities. We will work with industry to identify and develop champion products and exploit promising market development opportunities.			
Horticulture strategic activity 3.2	Target (2019/20)	KPI - year		
		1	2	3
	Potential market opportunities have been scoped and defined. Approved co-funded activities have been planned and delivered. The impact of co-funded activities on markets for British produce has been assessed.	Options considered and approved activities planned. Targets and KPI's defined.	Planned activities initiated.	Planned activities completed. Impact assessed.
Tasks to deliver activity				
3.2.1	Evaluate import displacement and export opportunities for British edible and ornamental produce			
3.2.2	Facilitate industry exploitation of import displacement and export opportunities for British edible and ornamental produce			

AHDB Strategic Priority 4: Delivering thought leadership and horizon scanning

Horticulture strategic activity 4.1	Risk assessment and mitigation planning We will monitor and assess potential commercial, financial, geo-political, reg opportunities to exploit horticultural metadata in collaboration with the Agri with grower associations, trade associations, leading suppliers and other bo	metrics Innovation Centre	and other centres of ex		
Horticulture strategic activity	Target (2019/20)	KPI - year			
4.1		1	2	3	
	Majority of British growers have been made aware by AHDB of how external challenges including Brexit might affect them and ways in which they might mitigate risks and exploit opportunities. 20% of growers are changing business practice to mitigate risks and exploit opportunities as a result of AHDB activity. The impact of AHDB activities on grower businesses has been assessed.	Options considered and approved activities planned. Targets and KPI's defined.	Planned activities initiated.	Planned activities completed. Impact assessed.	
Tasks to deliver activity					
4.1.1	Working group activities				
4.1.2	Risk analysis and mitigation planning				
4.1.3	Informing others				

Horticulture strategic activity 4.2	Industry skills development. We will work collaboratively to facilitate sharing of expertise and knowledge and will continue to support student bursaries, fellowships, Nuffield Scholarships, PhD studentships and professional and technical training programmes for industry.			
Horticulture strategic activity	Target (2019/20)	KPI - year		
4.2		1	2	3
	The knowledge and capabilities of young scientists and experts available to British horticulture have been significantly improved by supporting fellowships, postgraduate studentships, undergraduate bursaries, Nuffield Scholarships and short-term AHDB-industry placements or exchanges.	1 fellowship completed.	2 fellowships completed.	2 fellowships completed.
		2 supported PhD's completed.	4 supported PhD's completed.	6 supported PhD's completed.
		1 supported Nuffield Scholarship completed.	1 supported Nuffield Scholarship completed.	1 supported Nuffield Scholarships completed.
		1 short-term industry- AHDB placement completed.	1 short-term industry- AHDB placement completed.	1 short-term industry AHDB placements completed.
Tasks to deliver activity				
4.2.1	Bursaries			
4.2.2	Fellowships			
4.2.3	Nuffield Scholarships			
4.2.4	PhD studentships			
4.2.5	Professional and technical training programmes			