



HDC DIVISIONAL PLAN

2012 - 2015



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Introduction

The Agriculture and Horticulture Development Board (AHDB) is an independent levy board funded by the agriculture and horticulture industries through statutory levies collected under the provisions of The Agriculture and Horticulture Development Board Order 2008.

We are an evidence-based organisation with the duty to improve the efficiency and competitiveness of various agriculture and horticulture sectors in parts of the UK representing about 75% of total UK agricultural output. Our statutory functions encompass meat and livestock (cattle, sheep and pigs) in England; commercial horticulture, milk and potatoes in Great Britain; and cereals and oilseeds in the UK. The vision of AHDB is of a thriving and sustainable sector, responding effectively to change, whilst our mission is to provide to the agriculture and horticulture sectors cost-effective, relevant services, which support the sectors' long-term sustainability. Within this context, our corporate objectives are to:

- deliver value for money for levy payers in everything we do;
- improve efficiency and productivity in the industry to help levy payers have thriving businesses;
- improve marketing in the industry to help profitability and customer awareness;
- improve services that the industry provides to the community;
- improve ways in which the industry contributes to sustainable development.

The responsibility for setting and delivering strategies to deploy AHDB levy income to meet the corporate objectives is delegated to the executive boards of our six sector divisions. HDC (the Horticultural Development Company) is the division responsible for delivering the AHDB corporate objectives for the UK commercial horticultural industry.

The outlook for UK horticulture

UK commercial horticulture encompasses over three hundred crops and many diverse production systems, with a combined home-produced value of around £2.23 billion. The principal crop sectors cover soft fruit, tree fruit, field vegetables, hardy ornamentals and nursery stock, bulbs and outdoor flowers, protected crops (edible and ornamental) and mushrooms. In business terms, horticulture is characterised by relatively static demand (albeit with a few growth areas), low profitability, intense competition for market share and, in some cases, fragmented supply chains. Although each crop sector faces specific challenges related to its production methods, supply chain, customer base and profitability, there are also many common issues, often beyond the control of individual businesses that will shape the overall future direction of the industry in the UK. The common challenges that apply across horticulture fall broadly into four categories:

Production efficiency: the on-going fight for customers between the multiple retailers who dominate the market for horticultural produce (edibles and ornamentals) ensures that pricing for all horticultural commodities, including ornamentals, is kept tight in the face of increasing input costs – whether these are labour costs and land rents, or factors relating to resource use efficiency such as the cost and availability of energy, water and fertilisers etc. These factors clearly impact directly on business profitability, and emphasise the need for increases in production efficiency in often already lean businesses. These conditions make businesses risk-averse when considering novel crops or production approaches as low returns on investment could take businesses under. In addition, although horticulture does not contribute greatly to agricultural emissions of greenhouse gases (GHG), businesses will come under increasing pressure to show how they can reduce their carbon footprint to support their major customers' requirements for suppliers 'to be seen to be green'.

Crop protection products: the full impact of key elements of the EU Pesticides Thematic Strategy, in particular the Sustainable Use Directive (Directive 2009/128/EC, to be implemented by 14 December 2011) and the Plant Protection Products Regulation 1107/2009 (which came into force on 14 June 2011), are yet to be felt but are likely to have long-term, on-going consequences for the availability of crop protection products in all horticultural sectors. This will remain a key area of operation for HDC, both in terms of researching alternative control methods and in ensuring that existing products remain available (the issue of worker re-entry periods being of serious concern in the industry at the moment). It is an especially critical area for ornamental production as the emphasis on food security in the wider government agenda means that funding for developing recommendations and approvals specifically for ornamentals is becoming increasingly restricted, largely to HDC funds alone.

Legislative changes: as well as the new EU pesticide legislation, the implementation of the Water Framework Directive will also impact on the continued availability of some crop protection products in all sectors. The possible re-casting of the roles of the Advisory Committee on Pesticides (ACP) and the Pesticides Residue Committee (PRC) as expert committees may also restrict the ability of the industry to respond directly to regulators to legislative changes in the UK and Europe. As a result of the Natural Environment White Paper, growers in England are under severe pressure to find a replacement for English peat, widely used by ornamental plant producers, vegetable transplant producers, and as a casing material for mushroom production, as Defra try and implement a plan to phase out the use of English peat by 2030. While some research is ongoing, significantly more investment needs to be put in this area both independently and collaboratively with the substrate producers. Mushroom production is also impacted by classification of wastes. With nitrate, phosphate and wastes legislation it will become much more expensive to dispose of Spent Mushroom Substrate (SMS). This will reduce the profitability and competitiveness of the mushroom industry, and may stop it completely.

Labour: many sectors of horticulture remain highly dependent on non-UK seasonal labour to maintain efficient production operations. There is less fluidity within the labour market and the UK is less attractive to work in than it once was for non-UK nationals. This area is of great concern for the industry, particularly with the likely ending of the Seasonal Agricultural Workers Scheme (SAWS) in 2011. Continued development of automation will be essential to keep UK production competitive, and this is an area where HDC will need to invest more.

Problem-solving for specific crops: addressing the overarching challenges will form an increasingly important part of HDC's work over the next three to five years. However it is also essential, given the breadth of interest of the levy payer base, for HDC to retain the ability to address immediate tactical issues (e.g. control of new pests and diseases) that are short-term and specific to particular crops.

Ultimately all these drivers impact on business viability and sustainability, either through impacting on the tools which businesses need to function technically, or through their effects on profitability. Profitability is heavily affected by prices, and in this respect, the dominance of the multiple retailers in determining the returns to growers is a key-overriding factor for many businesses.

Notwithstanding these general issues, the outlook for UK horticulture is bright. Although it occupies only 3.7% of non-grass cropped land in the UK, horticulture offers the prospect of increasing sustainable output significantly. Climate change may also benefit domestic production through longer growing seasons and the prospect of growing a greater variety of crops. Increased output from UK horticulture would also offer benefits in terms of healthy eating, local food production, import substitution, and job creation. The role of the ornamentals industry in providing green living landscapes which can aid in climate change mitigation and

improve quality of life in our communities is also a vital component of the contribution that horticulture makes to the well-being of the UK population. All of these benefits are in line with current government policy.

However, to realise these benefits, the commercial horticulture sector as a whole is in need of continued investment in research and knowledge transfer. This needs to occur both at the applied end of the research and development (R & D) spectrum where HDC operates, and through effective links into the academic science base, principally through the Biotechnology and Biological Sciences Research Council (BBSRC). This will help ensure that new science and innovation is brought forward for the benefit of UK horticulture. This need has been particularly highlighted by the National Horticultural Forum (2011), who have argued that over the last three years, there has been a substantial body of analysis demonstrating that the level of R & D supporting agriculture and horticulture needs to be increased in the UK and elsewhere to support increased food production and climate change mitigation (e.g. Commercial Farmers Group (2010), GO Science (2011), Royal Society (2010), Food Research Partnership (2010), The Taylor Review (2010)). Yet at the same time, the applied research base and associated knowledge transfer on which the industry has depended for much of the last 25 years is now under serious threat as funding for applied research becomes squeezed, and the depth of expertise in key areas such as entomology, plant pathology, weed science, agronomy and soil science has become perilously shallow.

A process of change

In last year's Divisional Plan, we indicated that HDC needed to change to reflect the radically changing political and technical climate, particularly with regard to changes in funding structures such as the ending of the HortLINK programme and the inception of the Technology Strategy Board's (TSB) Sustainable Agri-Food Innovation Platform (SAF-IP). Over the last 12 months, a considerable amount of work has gone into strategy development within HDC, and the priority for the coming year (2012/13) is to start to implement the changes that are a consequence of this strategy review process.

In introducing new approaches to the way in HDC delivers for the industry, we recognise fully the need to keep the industry engaged with HDC, and to ensure that we communicate effectively with all our stakeholders on how we are changing and the reasons changes are necessary. Critically, we wish to draw key players in the industry more into helping HDC shape the future direction of its research and knowledge transfer programme.

This aim of this Divisional Plan is to set out a new purpose for HDC in this changing World and to outline the strategy we will adopt to achieve it. This strategy also implicitly ensures that HDC will deliver its commitments to the 2012-15 AHDB Corporate Plan, the purpose of which is to ensure that the industries we serve are able to remain competitive and sustainable.

HDC vision and purpose

HDC Vision

The vision for HDC is for it to:

1. Provide the horticultural industry with leadership in providing tactical solutions to **current** technical problems
2. Become a pivotal facilitator in helping UK horticulture meet **future** technical challenges
3. Ensure that HDC funded-work has real **impact** on the horticultural industry through relevant work and excellent communication.

HDC Purpose – the ‘5 HDC Pillars’

In achieving the vision, the challenge for HDC is to balance as intelligently as we can the many often competing interests, issues and perspectives in the UK horticultural industry. Fundamentally, the *purpose* of HDC, from a levy payer’s perspective, can be split into a dynamic balance between five ‘pillars’ of activity. These are:

The 5 HDC Pillars

Pillar 1: finding tactical solutions to specific problems on individual crops, including producing SOLAs and dealing with other pesticide-related problems, to ensure that the industry is equipped with the tools to deal with on-going and short-term problems.

- **Message for levy payers:** it’s about solving specific problems on your crops so you can *continue to operate efficiently*.

Pillar 2: finding tactical solutions to common problems faced by several crop sectors based on an overview of industry issues and using the combined spending power of more than one Sector panel.

- **Message for levy payers:** it’s about answering problems that apply to more than one crop with a collective approach (i.e. more bang for your buck) to ensure *you can improve what you do*.

Pillar 3: working with and exploiting the work of others in the UK and overseas by linking up with other funders (e.g. AHDB, BBSRC, EU) and mining global horticultural research output – maximising opportunities for match/co-funding and giving us access to all relevant knowledge and technology, to give HDC levy payers the best possible value for money.

- **Message for levy payers:** it’s about linking our money with others to help drive new ideas and innovation into horticulture and drawing on what else is being done elsewhere in the World, *so you get added value from your levy*.

Pillar 4: helping the industry to identify, think about and tackle future challenges over the next 5, 10 and 20 years, working with strategic leaders in the industry and science community to help make the HDC appropriately forward-looking and strategic in its approach.

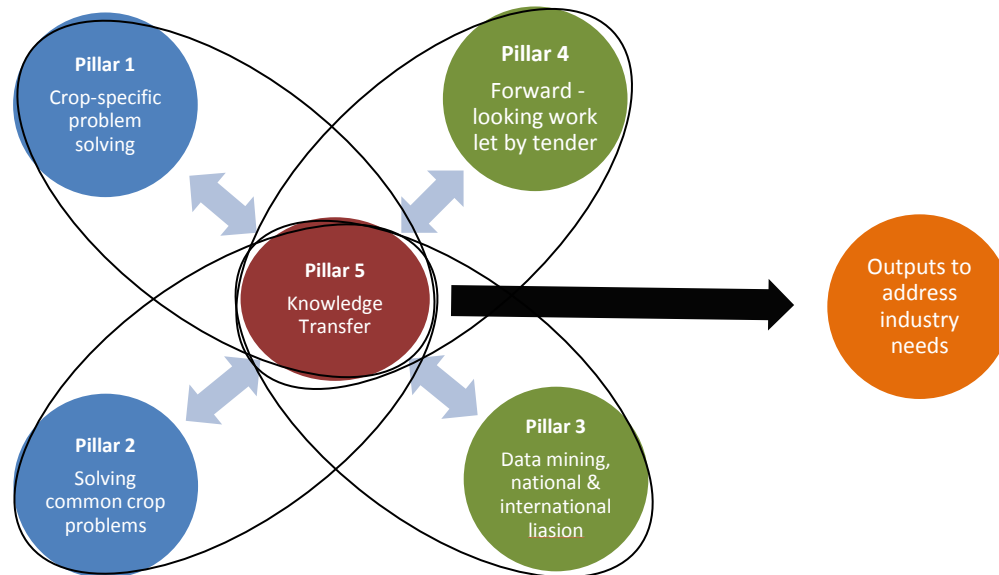
- **Message for levy payers:** it’s about identifying and starting to deal with the bigger issues that affect all crops and sectors *so you are in a better position to face the future*.

Pillar 5: communicating the benefits of HDC work to levy payers better by ensuring our communications outputs meet the needs of levy payers and are correctly targeted at those to whom they are of value.

- **Message for levy payers:** it’s about supplying you with the technical know-how *to make your business work better*.

It is important to realise that these Pillars are not mutually exclusive but are intimately linked and need to feed off each other. In particular, communication and knowledge transfer work encompassed by Pillar 5 is at the core of everything that we do. This is because we want HDC to develop a much greater role as a recognised knowledge hub for the UK horticulture industry. Conceptually, therefore, the first 4 ‘Pillars’ can be viewed as spokes of a wheel with Pillar 5 as the ‘hub’ (Figure 1).

Figure 1. The concept of the HDC 'Knowledge Hub'.



Strategy

Aims

The aims of this strategy are to make HDC fit for the future by:

- Defining how HDC will organise and balance its resources in order to deliver the '5 HDC Pillars' in a way that allows levy payers to derive maximum benefit from their levy investment, and thus maintain or enhance their competitiveness and sustainability.
- Defining how HDC will develop its overarching technical strategy in a way that ensures our work programme is fully aligned with the needs of the industry.

These aims are entirely consistent with the corporate purpose of AHDB which is '*to help our industries to be more competitive and sustainable*', including being a catalyst for change, an evidence-based knowledge house, a communicator to and on behalf of our industries, and a commitment to deliver greater value from our levies than individuals can achieve acting alone.

Mapping the HDC 'Pillars' onto AHDB Corporate Objectives

In describing the work of HDC in terms of the '5 Pillars', it is important to realise how these are directly related to HDC meeting AHDB's corporate objectives, and how in strategic terms, the balance of effort (broadly measured in terms of financial resource and staff time) will be set in achieving them during the 2012/13 financial year. Prioritisation of effort is important as HDC has limited resources to address the many challenges that our levy payers face. These interactions are summarised in Table 1. Although not shown in Table 1, the direction of travel of the strategy when compared to the 2010/11 year is to devote comparatively less effort to Pillar 1 work, and to increase substantially the effort going into Pillar 2 and particularly Pillar 4 work.

Table 1. Relationship between the '5 HDC Pillars' and AHDB Corporate Objectives.

			AHDB Corporate Objectives				
			1	2	3	4	5
			Deliver value for money for levy payers	Improve efficiency and productivity	Improve marketing in the industry	Improve services that the industry provides to the community	Improve industry contribution to sustainable development.
HDC	Pillar 1	Solving immediate single crop problems	High	High	None	None	High
	Pillar 2	Solving problems common to several crops	High	High	None	None	High
	Pillar 3	Data mining, national & international liaison	Medium	Medium	Low	Low	Medium
	Pillar 4	Helping horticulture be fit for the future	High	High	None	Low	High
	Pillar 5	Communications and knowledge exchange	High	High	Low	Low	High

Effort

High
Medium
Low
None

HDC: delivering the '5 Pillars'

Pillar 1 - solving current individual crop problems

This is HDC's traditional area of operation and will continue to be a vital strand of our work. The work will be delivered via research projects commissioned via our Crop Sector Panel system. However, to ensure this is done efficiently and with an eye to ensuring all cross-crop opportunities are exploited (Pillar 2, see below), we will review how our crop sector Panels operate with a view to introducing new working methods to ensure effective and efficient operation by the end of March 2013. This needs to be done in such a way that smaller crop sectors keep a voice in priority setting for Pillar 1 projects – either via the Panels themselves, relevant Grower Associations or directly with HDC staff. We are also realigning our knowledge transfer/knowledge exchange team to ensure that greater focus is put on delivering key crop-related messages arising from our research programme in a more targeted way, as well as supplying any other technical messages or training materials that may be required.

Pillar 2 - dealing with similar problems affecting several crop sectors

Our strategy review during 2011 has emphatically shown that in the past, HDC has lost the opportunity to conduct work more cost-effectively and in a shorter time-scale by dealing with issues in isolation on a crop-by-crop basis, rather than grasping the opportunity to address the issue collectively across a number of crop sectors. During 2012, we will strengthen the strategic role of the HDC Board, which, among other roles (see Pillar 4 below), will be tasked with ensuring that cross-crop opportunities are identified and evaluated. The HDC Board will have a budget that will enable it to fund Pillar 2 projects if required.

Pillar 3 - working with others

We will continue to build links with the fundamental research base (largely BBSRC-funded) and other funders (Defra, East Malling Trust for Horticulture, TSB, European Union) with a view to ensuring that their work programmes take better account of the longer-term research needs of the horticultural industry. In particular, we will seek to help the industry engage positively with the proposed BBSRC Horticulture and Potatoes Crop Improvement Research Club, including funding industry contributions if necessary. We will also seek to develop links and foster collaborations with overseas organisations in Europe and beyond to ensure that information exchange for the benefit of UK levy payers is achieved.

Pillar 4 - helping prepare horticulture for the future

This is a major challenge for HDC as it represents a fundamental shift in the way that HDC has traditionally operated as it requires HDC to generate a forward view of where the horticultural industry is going and what its applied research needs are likely to be to meet the challenges required to move the industry forward. It is also important that the processes we use to decide on research prioritisation are, as far as possible, linked to what other research funders (BBSRC, Defra, TSB, other AHDB sectors) are doing. This will allow easier read-across of priorities from different organisations and allow co-funding opportunities to be identified more easily.

Strategy Development Framework

We have taken the view that we should use a Strategy Development Framework (SDF) that formalises the process by which the detailed strategic needs of the horticultural industry are assessed. The SDF will be based around the crop production cycle as this is intuitively a

relatively easy concept for everyone to grasp. The headline topics to be considered by the SDF are summarised as:

1. Genetic resources (species, cultivars, related genetic technologies)
2. Substrates (soil and other extracted media)
3. Crop inputs (energy, labour, nutrition, water)
4. Crop Protection (Integrated pest, disease and weed management, SOLAs)
5. Cropping Systems (engineering, process management)
6. Output utilisation (post-harvest processes, waste).

We intend to develop mini-teams (working groups) within the HDC executive responsible for dealing with each of the 6 headline areas. These teams will draw in additional industry input and scientific expertise as much as possible – including consultation with grower associations. The HDC Board (see below) will have the task of assimilating and prioritising the output from these mini-teams, and will make recommendations on what work should be considered for funding.

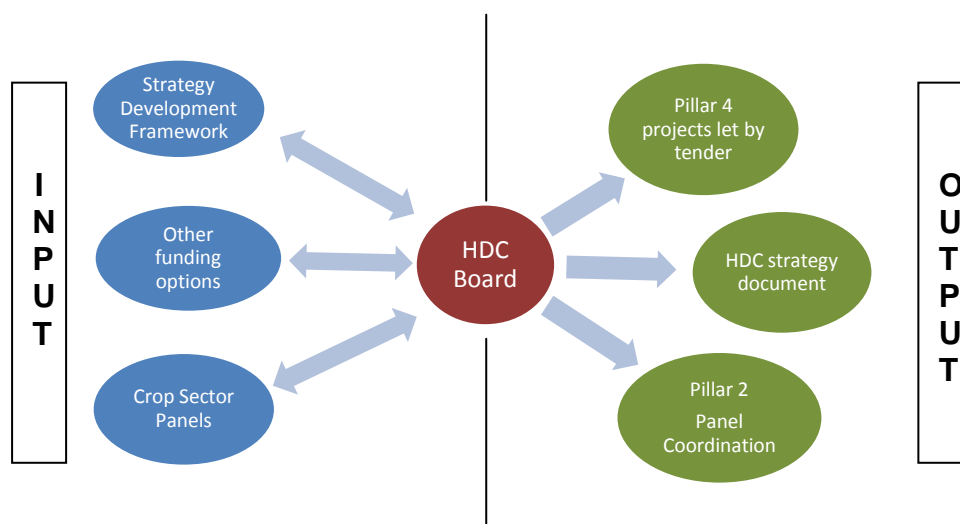
Strengthening the strategic role of the HDC Board

The HDC Board will have a pivotal role in steering the development of HDC research strategy, ensuring that the problem-solving (Pillar 2) work is efficiently joined-up as required, and ensuring that opportunities for linkage where necessary with the priorities of other funders are assessed. The HDC Board will:

1. Take the lead in providing oversight and guidance to the Strategy Development Framework (SDF), and thus will take the lead in assimilating and prioritising the strategic challenges for horticulture that emerge from the SDF.
2. The HDC Board will have the authority and budget to identify and commission by tender cross-sector projects that address specific research or knowledge transfer needs identified via the SDF.
3. The HDC Board will also consider on the behalf of HDC any proposals that are received that are requesting joint-funding with other sectors of AHDB. Similarly, the HDC Board will also be responsible for considering or proposing project ideas for work with other external funders (Defra, BBSRC, commercial, European Union etc).

Conceptually, the strategic role that the HDC Board will play is shown in Figure 2.

Figure 2. Conceptual strategic role of the HDC Board.



Pillar 5 – Communicating the benefits of HDC work

This will be addressed in detail via a separate Strategic Communications Plan which the Head of KT & Communications will have the prime responsibility for developing and implementing. The core principles involved are:

1. HDC knowledge transfer and communications activity must support the delivery of HDC's vision and the AHDB corporate objectives.
2. Knowledge transfer outputs must be targeted precisely on those levy payers for whom the work could have the most significant beneficial impact. This will be done through proper segmentation (in terms of sector and levy payer size) of our levy payer base. This should also ensure that the benefits of HDC work to gain positive exposure with a greater proportion of our client base.
3. Knowledge transfer and communications activity must be integrated with the development of the research programme and be focused on ensuring that the benefits of HDC's investment in research are communicated directly to levy payers or via other stakeholders using the most appropriate media.
4. HDC outputs must allow levy payers and associate members to increase their technical skills, knowledge and awareness of developments.
5. HDC communications **MUST** be of a high quality in scientific, technical and presentational terms, conforming to good scientific and communication principles, including consistent brand identity.
6. We present a professional approach when addressing our broader stakeholder community, including offering an enhanced electronic offer which will include launching a completely revised HDC website during 2012.

HDC: delivering AHDB corporate objectives

HDC is an integral part of AHDB and therefore the way in which we address our levy payers via the '5 Pillars' must also relate very closely to delivering the five corporate objectives of AHDB. Table 1 show in general terms how the two map across to each other. The following sections indicate specifically what we will do to address AHDB corporate objectives and how these relate back to the '5 Pillars'

Corporate Objective 1: value for money

To achieve value for money for levy payers we have to ensure that the research we procure is relevant to the needs of the industry (whether strategic or tactical), is managed effectively and delivers scientifically-valid and useful outcomes to our client base. We will do this by:

1. Seeking wherever reasonably possible to tender out defined areas of work to ensure that work is done by the most appropriate consortia or individual organisations at the most cost-effective price (*Pillars 1 & 2*).

Example 1: strategic and tactical work on fresh legumes (vining peas, broad beans, other fresh legumes) to be let as one contract during 2012/13.

Example 2: continue to manage the SCEPTRE crop protection HortLINK project which draws together cross-sector crop protection issues in edible crops and addresses them within a strategic framework rather than in a piecemeal fashion.

2. Working with BBSRC, RERAD, Defra, TSB and the East Malling Trust for Horticulture to ensure proper cross-fertilisation between the basic science base and the type of applied work funded by HDC (*Pillar 3*).

Example 1: continue to work with TSB to facilitate the development of consortia able to capitalise on horticultural opportunities for collaborative research arising from the Sustainable Agriculture and Food Innovation Platform (SAF-IP).

Example 2: engage positively with BBSRC and the industry to ensure that the proposed BBSRC Horticulture and Potatoes Crop Improvement Research Club is a success.

3. Seeking to build international links and draw on international work, explore opportunities to capitalise on the Intellectual Property (IP) generated by HDC projects, and to leverage HDC funds with co-funding schemes wherever possible (*Pillars 3 & 4*).

Example 1: use internal HDC expertise to 'mine' data on relevant projects from other organisations, including CAFRE in northern Ireland and Teagasc in Eire, to ensure that we do not repeat work that has already been funded elsewhere.

Example 2: we will (via our Business Development Manager) seek to key into funds that may be available via the European Union to further the development of horticulture in the UK.

4. Ensuring that our research and knowledge exchange outputs are correctly targeted on the right clients and communicated in a form that they can understand and assimilate (*integrating Pillar 5 with all other Pillars*). .

Example 1: as part of HDC's strategic development, we will realign our communications/knowledge transfer team and develop a communications strategy that enables improved targeting of outputs on key segments of our client base and integrates the communications activity more closely with the research commissioning and delivery process

Example 2: we will actively research and develop links with extension organisations world-wide to ensure that relevant work and best practice in communication is embedded within HDC's culture.

Corporate Objective 2: increasing efficiency and productivity

A profitable, expanding horticulture sector within the UK is essential given the challenges likely to be faced in providing the UK (and the global population) with enough healthy, fresh food over the next 30 to 50 years as well as providing essential 'quality of life' ingredients through the production of ornamental plants. HDC can contribute to this by ensuring that horticultural businesses produce crops as efficiently and effectively as possible, increasing crop production per unit area (of land or glasshouse) with no loss of crop quality. Increased efficiency will also lead to reduced carbon emissions per tonne or production. We will do this in 2012/13 by:

1. Continuing to support the production of crops to high standards (*Pillar 2*)

Example: continuing to input into the AHDB-wide support of the Red Tractor scheme via Assured Food Standards.

2. Continuing to support research into improved methods of crop production (*Pillars 1, 2 & 5*).

Example: continue to deliver production-related research projects addressing key agronomic concerns, for example: developing breeding and selection tools to reduce

spoilage of soft fruit and wastage in the supply chain (HortLINK) (HDC project SF 106); evaluation and development of new rootstocks for apples, pears, cherries and plums (TF 172); funding the National Cut-Flower Trials Centre Programme for 2010 – 2012 (PO/BOF 002); and identifying critical soil P (phosphorous) levels in vining pea crops (FV 380).

3. Continuing to ensure that the tools growers require for effective crop protection remain available (*Pillars 1, 2, 3 & 5*)

Example 1: continue to work with the industry and the agrochemical industry to develop Specific Off-label Approvals (SOLAs) for key crop protection products.

Example 2: continue to deliver a targeted knowledge exchange programme aimed at disseminating best practice and increasing the skill level of those working in the industry:

4. As part of HDC's strategic development, in 2012/13 we will review the number of current crop Panels and introduce a 'Horticultural Science Panel' that will have responsibility for identifying programmes of work that simultaneously address the needs of several crop sectors (*Pillar 4*).

Example: develop a work programme on key diseases affecting horticultural crops.

Corporate Objective 3: improving industry marketing

This is a new area for HDC and one where identifying specific industry needs in a very diverse environment is extremely difficult. Nonetheless, this corporate planning cycle we will continue to develop links with organisations that collect horticultural market intelligence (e.g. Defra, HTA, PVGA) with a view to seeing whether HDC may have a role in collating data from a range of sources for the benefit of the wider horticultural industry. The funding of specific promotional campaigns may be considered on a case-by-case basis, but only where a clear route exists for these to become self-funding.

1. Build collaborative links with organisations collecting horticultural market intelligence (*Pillars 3 & 5*).

Example 1: explore the possibility of producing a 'Horticultural Statistics Digest' with HTA, Defra and PVGA.

Corporate Objective 4: improving industry services to the community

Commercial horticulture is not currently seen as a good career choice for graduates, and for those working at largely manual tasks in the industry, the opportunities for skills development are considerable. Although HDC does not see its primary role as being a training organisation, we can work with others within AHDB and external stakeholders to provide skills training as well as encouraging post-graduates to consider a career in horticulture. A thriving horticulture sector also makes an essential contribution to the health and well-being of the nation, through fruit and vegetable consumption and provision of green amenity and garden landscapes

We will do this by:

1. Providing post-graduate and post-doctoral training opportunities (*Pillars 3, 4 & 5*).

Example 1: we will continue to fund studentships in horticultural topics and support the recipients in understanding the employment opportunities in the industry.

Example 2: we will continue to monitor the progress of the Fellowship scheme introduced in 2011 aimed at supporting key post-doctoral expertise in the applied horticultural research base and to encourage the development of 'successor' scientists.

2. Continuing to assist with skills development and vocational training for key horticultural sectors (*Pillar 5*).

Example 1: continue to run training workshops (e.g. weed control, biological control) for growers as appropriate to the needs of the industry.

Corporate Objective 5: improving sustainable development

Although horticulture does not contribute greatly to the overall greenhouse gas (GHG) production by agriculture and horticulture, carbon footprinting and life-cycle analysis remains an important issue for horticultural businesses. To be able to reduce crop's carbon footprint while maintaining similar or greater productivity in field and protected crops is a serious challenge. Ornamentals production also has a significant contribution to make to climate change mitigation and biodiversity through planting in public spaces and gardens. Other issues of sustainability are also critical, particularly relating to energy and water use and crop protection as the full implementation and effect of the EU Pesticides Thematic Strategy and Water Framework Directive come into force. We will assist the horticulture industry by:

1. Continuing to work with key stakeholders to ensure that growers achieve a better understanding of the issues surrounding climate change, and the necessary adaptation and mitigation that follows (*Pillars 2, 3 & 5*).

Example: continue to support our Growsave campaign on efficient energy use in protected crops, linking with other organisations (e.g. the Carbon Trust) where appropriate.

2. Continuing to monitor closely the current and likely future impacts of the implementation of the EU Pesticides Thematic Strategy and the Water Framework Directive on the availability of crop protection products and to mitigate these where possible (*Pillars 1, 2 & 5*).

Example 1: continue to do work on key crop protection issues across the range of horticultural crops covered by our clients to ensure that new methods of control become available, for example: the time of infection of overwintered cauliflower and Brussels sprout by Turnip yellows virus (TuYV) and the potential of insecticides to control the virus (FV 365a); Container Grown nursery stock: further crop safety screening of Dual Gold (s-metolachlor) and Sumimax (flumioxazine) (HNS 139a); evaluating new IPPM systems for spider mite control in tomato and cucumber (PC 299); Column stocks : An Investigation into the cause(s) of poor establishment, growth and flower uniformity in commercial crops. (PO 005); and the development of temperature day-degree-based models to predict pest development on strawberry for optimisation of control strategies (SF 114).

Example 2: work with the Chemical Regulation Directorate (CRD) to ensure that the assessment of worker re-entry intervals for key crop protection products are based on realistic data to ensure that re-entry periods do not jeopardise the sustainability of particular crops.

2. As part of HDC's strategic development, in 2012/13 we will use our Strategy Development Framework to identify, on a cross-sector basis, which issues are likely to impact most on the sustainability of UK horticulture on short, medium and long time-scales (*Pillar 4*).

Example: we will review and implement the key recommendations from the HDC strategic review of water use in horticulture (completed in 2009).

Levy rate for 2011/12

We do not propose any increase in the horticulture levy rate (currently 0.5% of eligible turnover) for 2011/12.

Outcomes & Key Performance Indicators (KPIs)

Examples of outcomes set against AHDB Corporate Objectives are described in Table 2 below.

Table 2. Key Performance Indicators (KPIs) set against Corporate Objective outcomes.

Corporate Objective	Outcomes	KPI
Value for money	Tendering introduced as a means of ensuring value for money for levy payers from HDC commissioned research; links developed or improved with BBSRC, RERAD and Defra to help map HDC strategic activity onto outcomes of basic research programmes to the benefit of levy payers.	At least three research areas let by tender by March 2013; HDC funds committed to BBSRC Horticulture & Potatoes Crop Improvement Research Club by March 2013.
Increasing efficiency & productivity	Crop production per unit area of land increased for key field crops with no loss of crop quality; profitability of horticultural businesses measurably increased	Increase (using Defra statistics) in output adjusted by crop area in some horticultural crops by March 2014 using 2011 data as a baseline.
Improving industry marketing	Scope for collaboration with other organisations on the collection of horticultural market intelligence completed	Produce a draft combined 'Horticultural Data' booklet by July 2012.
Improving industry services to the community	Employment opportunities in horticulture improved for graduate/post-graduate entry; better opportunity for skills development and vocational training for staff without graduate level qualifications.	50% of students completing HDC-funded positions in 2012/13 employed in horticulture-related businesses by March 2013. At least five successful horticultural summer school' placements completed via HDC/EMT/HTA Fellowship funded at Harper Adams University
Improving sustainable development	Reduced carbon footprint for similar or greater productivity in field and protected crops as compared with available benchmarks set in 2010; alternative crop protection methods in place to replace those made vulnerable by the EU Pesticides Thematic Strategy and Water Framework Directive; recommendations from HDC strategic water review implemented.	At least 10% reduction of carbon footprint of horticultural business by March 2014; improved methodology for assessing re-entry intervals agreed with CRD (HSE) by September 2012; at least five crop protection product gaps identified by SCEPTRE project filled by March 2013.

Appendix 1. Provisional HDC Budget 2012/13 to 2014/15

	FULL YEAR £'000					
	10/11 Actual	11/12 Forecast	12/13 Budget	13/14 Budget	14/15 Budget	12/13 vs 11/12
INCOME						
Gross levy	6,198	6,420	6,250	6,375	6,503	-170
Less bad debt	-126	0	-50	-50	-50	-50
Fee and grant income	180	228	125	128	130	-103
Commercial Services Income	0	0	0	0	0	0
Non-levy income	180	228	125	128	130	-103
TOTAL INCOME	6,252	6,648	6,325	6,453	6,583	-323
EXPENDITURE						
DIRECT						
R&D and Knowledge Transfer	-3,747	-3,962	-4,831	-4,992	-5,157	-869
Trade Development	0	0	0	0	0	0
International	0	0	0	0	0	0
Supply Chain Integration	0	0	0	0	0	0
Market Intelligence	0	-21	-22	-23	-23	-1
Communications	-782	-989	-1,102	-1,124	-1,147	-113
Commercial services	0	0	0	0	0	0
TOTAL DIRECT EXPENDITURE	-4,529	-4,972	-5,955	-6,139	-6,327	-983
SUPPORT						
Sector Specific Administration	-407	-349	-237	-242	-247	112
HR and Corporate Services						
HR & Legal / Payroll	-34	-42	-47	-47	-47	-5
Facilities	-102	-135	-138	-127	-116	-4
Finance and Business Services						
Finance	-92	-79	-71	-69	-67	8
Levy Collection	-39	-43	-43	-41	-40	0
Procurement	-13	-16	-16	-16	-16	0
IT	-46	-54	-51	-48	-48	3
Main Board / Advisory	-57	-52	-52	-52	-52	0
Corporate Communications	-28	-28	-31	-32	-33	-3
R&D	-35	-30	-49	-50	-53	-19
TOTAL SUPPORT EXPENDITURE	-853	-826	-735	-724	-719	91
TOTAL EXPENDITURE	-5,382	-5,798	-6,690	-6,863	-7,046	-892
Operating Surplus/(Deficit)	870	850	-365	-410	-463	-1,215
NON-OPERATING ITEMS						
Income	0	0	0	0	0	0
Interest receivable	2	1	0	0	0	-1
Interest payable	0	0	0	0	0	0
Taxation	-166	0	0	0	0	0
Exceptional reorganisation expenditure	-59	-27	-16	-11	0	11
Other non-operating costs	0	0	0	0	0	0
Net FRS17 Entries	0	0	0	0	0	0
Share of Commercial Services Returns	0	0	0	0	0	0
TOTAL NON OPERATING ITEMS	-223	-26	-16	-11	0	10
Retained Surplus/(Deficit)	647	824	-381	-421	-463	-1,205