

# The AHDB Cereals & Oilseeds Plan 2017 - 2020

## Introduction

The cereals and oilseeds industry continues to face physical and financial challenges that must be managed to remain sustainable. In general terms we can categorise the challenges, and indeed opportunities, into four broad areas that do interact with one another.

## The AHDB Strategy

The overall AHDB Strategy provides the context in which the Cereal & Oilseed 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 C&O plan

### Encouraging productivity

The UK produces about 1% of the world's grains and oilseeds which means that it has no ability to affect global prices. Only local price premiums for quality and slightly higher domestic prices for logistical reasons create any deviation from global prices.

AHDB's Monitor Farm programme demonstrates that profitable and sustainable growers tend to be those who are on top of their costs and who use that information to make informed decisions. They also have good access to the right machinery, well thought through marketing plans and a good understanding of what their supply chain customers need.

AHDB believes that there is greater opportunity for growers to improve regardless of their current productivity level. AHDB's focus will remain on the key areas of managing resources efficiently, realising genetic potential, driving precision technology into practice, honing business and technical skills and building sustainable plant health.

## **Stimulating competitiveness**

There is growing evidence to suggest UK grain is less competitive than it could be in both the international and domestic market. The industry needs to have a good understanding of UK competitiveness at the headline level, but then also within different production cost centres such as labour, machinery, inputs etc. This is invaluable as it will inform where efforts need to be made to improve competitiveness at the production cost level.

Other industries have improved their competitiveness by ensuring their supply chains are aligned and 'waste' is removed wherever possible. Supply chain businesses also need to understand the limitations on growers and manage their chains to accommodate that.

Well operated supply chains not only increase the profitability and sustainability for the member businesses but are also much more able to deal with volatility and resilience in the light of diminishing direct support payments. Alignment in supply chains is a new priority for AHDB Cereals & Oilseeds.

## **Raising demand**

Brexit may mean the industry needs to focus on more international market development. AHDB has a role to play in removing hurdles to trading with new markets, keeping existing markets informed of harvest progress and providing some support to UK exporting companies where relevant.

In a domestic market which uses well-established consumer brands for cereals and oilseed products, AHDB can best add value in work areas such as educating the next generation of consumers, countering negative health claims and supporting the industry in dealing with specific consumer issues such as contaminants.

## **Driving value from volatility & resilience**

Cereal and oilseed markets have just come through a decade of extreme volatility and the industry should expect to continue to see annual variation in price, cost and margin throughout the supply chain over the next 10 years.

Direct payments and underlying assets have traditionally offered resilience, but going forward these two avenues may be less useful to the industry as a whole.

AHDB can support the industry to take a long term business view in a physical sense in terms of management of rotations and crop production, and in a financial sense through the provision of better data and information.

## **Key priorities and what's new**

Below are the 5 priorities identified over the next 3 years for AHDB Cereals & Oilseeds.

**Deliver a step change** in driving productivity through a greatly enhanced Knowledge Exchange programme

**Ramp-up the information available to growers** on break crops and focusing on rotations in the light of diminishing access to chemical pest, weed and disease control

**Focus on whole supply chains to improve their efficiency** for the benefit of levy payers, with a particular spotlight on feed chains

**Identify and provide access to alternative export markets post Brexit**

**Ensure industry has sufficient data for planning needs** in the light of Defra withdrawing from this area

In delivering the objectives highlighted below, AHDB will be embarking on some areas of activity that it has not been engaged in recently. These include:

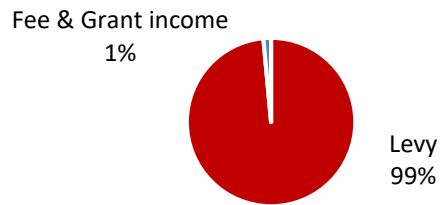
- On-farm/field scale trialing of research outputs to demonstrate their value to the industry
- Coordination of UK KE delivery and wider use of non-AHDB R&D data in its KE
- Increase the influence AHDB has on the direction of R&D on behalf of the levy payer
- Engage supply chains to remove waste for the benefit of levy payer profitability
- Focus on feed supply chain to promote the production of the 'right' grains and oilseeds
- Drive value from volatility, not just minimise the negative impact
- Understand sustainability, particularly soil health and encourage it in grower planning

**C&O Budget**

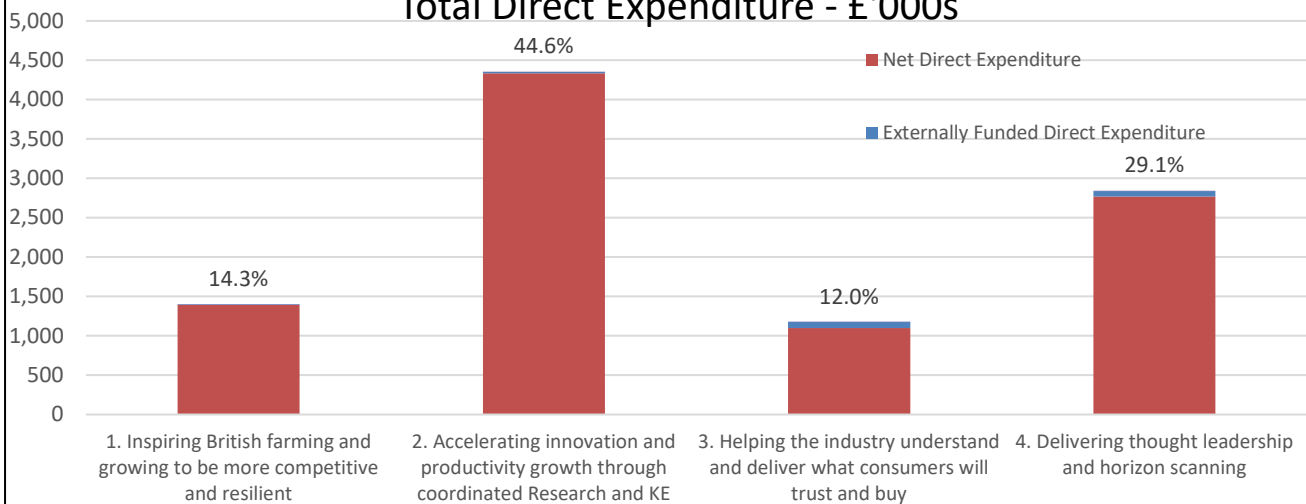
| AHDB CEREALS & OILSEEDS - BUDGET PLAN 2017/18  | Corporate Plan<br>£'000 |
|--|-------------------------|
| <b>Gross Levy</b>  | 11,950                  |
| Direct Levy Collection Costs   | -432                    |
| <b>Net Levy Income</b>   | <b>11,518</b>           |
| Fee and Grant Income   | 171                     |
| Bad Debt   | 0                       |
| <b>TOTAL NET INCOME</b>  | <b>11,689</b>           |
| <b>DIRECT EXPENDITURE</b>  |                         |
| 1.1 Collect data on the cost of production and delivery for wheat, barley and maize in key competitor countries  | -23                     |
| 1.2 Actively encourage more communication across businesses within supply chains, to improve the international performance of the UK industry                    | -456                    |
| 1.3 Improve communications in the feed supply chain to help growers understand feed-specific requirements  | -60                     |
| 1.4 Improve grower understanding and use of specific buying/growing contracts  | 0                       |
| 1.5 Actively drive value from volatility by demonstrating how this and managing risk can be included in business planning  | -118                    |
| 1.6 Demonstrate the value of individual agri-chemical products and the likely impacts of their loss  | -624                    |
| 1.7 Demonstrate oilseed rape's agronomic potential of the following cereal crop through the collection and use of farm performance data.                         | -68                     |
| 1.8 Research into drivers of spring barley quality and provide more data to growers on suitability for the farm and market.                                      | -53                     |
| 1.9 Assess and address the extent of the need to rebalance regional grain markets in the UK  | 0                       |
| 2.1 Build growers' business profitability and resilience through good business planning  | -1,262                  |
| 2.2 Introduce on-farm/ farm scale trialling as part of the KE programme  | -166                    |
| 2.3 Continue to develop the Recommended Lists to deliver to grower needs   | -2,119                  |
| 2.4 Drive greater awareness of variety choice through more regional and local activity in conjunction with the Recommended Lists                                 | -236                    |
| 2.5 Collect more financial and yield information on rotational crops and communicate in ways to support grower choice.   | -94                     |
| 2.6 Continue to develop AHDB's fungicide performance programme   | -55                     |
| 2.7 Monitor crop diseases during the growing season and inform the industry  | -420                    |
| 3.1 Deliver reputation and issues management for the industry by maintaining an issues management capability   | -309                    |
| 3.2 Raise awareness of food production with the next generation of consumers through AHDB's existing cross-sector education and nutrition programmes             | -465                    |
| 3.3 Raise awareness of quality milling wheats and malting barleys in existing and potential overseas markets to differentiate the UK's offering from competitors | -107                    |
| 3.4 Deliver competitive market advantages for commodity traded exports by identifying the benefits of buying from the UK   | -84                     |
| 3.5 Facilitate access to potential overseas markets  | -209                    |
| 4.1 Drive KE through coordination of national delivery and fast implementation of R&D outputs  | -1,467                  |
| 4.2 Facilitating greater industry involvement in R&D and KE projects by acting as a conduit for the needs of industry back to delivery bodies                    | -554                    |
| 4.3 Replace some trade and usage data collection which Defra could potentially reduce  | -365                    |
| 4.4 To help facilitate change, move AHDB's Cereals and Oilseeds market intelligence into thought leadership  | -454                    |
| <b>TOTAL DIRECT EXPENDITURE</b>  | <b>-9,768</b>           |
| <b>SUPPORT</b>   |                         |
| Sector Specific Administration   | -522                    |
| Central Support  | -1,007                  |
| <b>TOTAL SUPPORT EXPENDITURE</b>   | <b>-1,529</b>           |
| <b>TOTAL EXPENDITURE</b>   | <b>-11,297</b>          |
| <b>Operating Surplus/(Deficit)</b>   | <b>392</b>              |
| Non-operating items  | -76                     |
| <b>Retained Surplus/(Deficit)</b>  | <b>316</b>              |
| Support Expenditure % of Income  | 13.1%                   |
| Central Support % of Income  | 8.6%                    |
| <b>Reserves</b>  |                         |
| Opening General Reserves   | 5,270                   |
| Retained Surplus/Deficit   | 316                     |
| Closing General Reserves   | 5,586                   |

## Cereals & Oilseeds Budget Plan Net Income £'000s

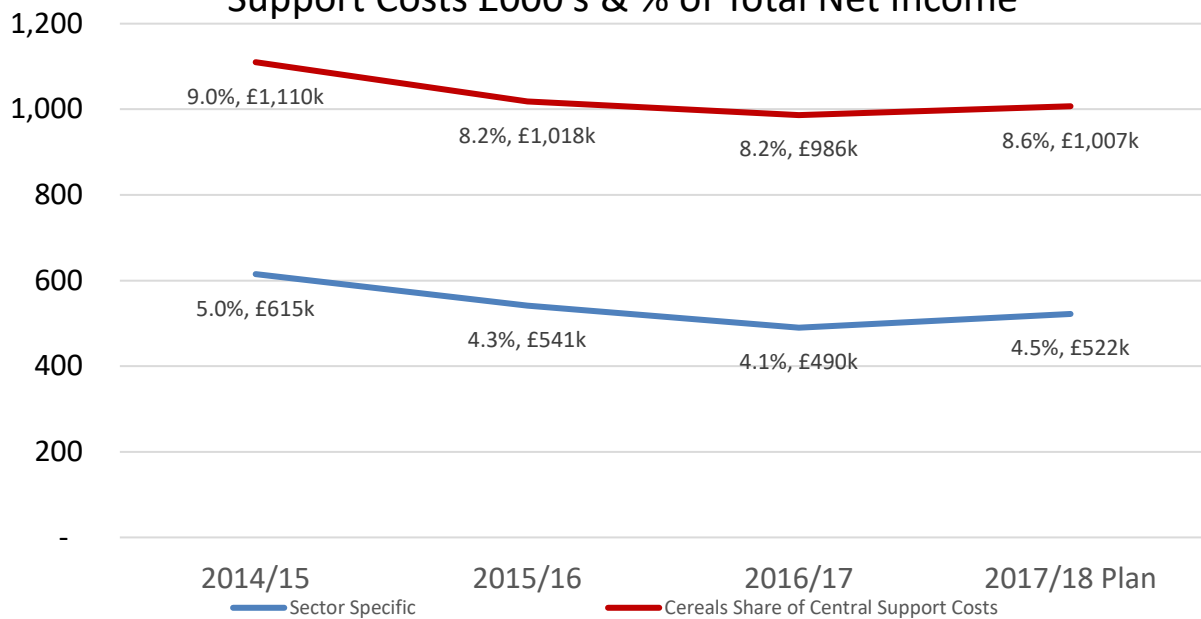
Total: £11,689



## Total Direct Expenditure - £'000s



## Support Costs £000's & % of Total Net Income



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

## Delivery by Knowledge Exchange Team

The major change in emphasis for the Cereals & Oilseeds Team over the next 3 years is the greater focus on knowledge exchange. This supports a desire by the Board to see:

- A far faster uptake of research knowledge into everyday practice
- A greater linkage between technical improvements and financial benefits for the farm enterprise
- Stronger feedback from growers and the other parts of the supply chain of the type of technical improvements needed
- Growers maximizing their returns through better management of their businesses
- The ability for growers to make fully informed decisions when planning their businesses
- Growers more easily coping with changes to their operating environment as policy adjusts to political and consumer demands
- An ability to identify where our competitors find competitive advantage so that we too can focus on improving those areas.

To achieve these 2 aims we need to

1. Access the information to assess where we sit against our competitors and where they are most likely to improve. To do this we intend to join in international benchmarking programmes and collect data from competitor countries. We also need to continue to encourage UK farmers to see the value of knowing their costs, benchmarking against others to identify where improvements could be made and using this information to plan their businesses to maximize their profits.
2. We have already started to communicate the benefits of better business practice through the Monitor Farm Programme focusing on costings and the Arable Business Groups focusing on benchmarking and business planning. To date this has utilized CropBench and during the year a new product, Farmbench will be launched that takes into account the wider farm business. However, we are not precious about the tools used by growers to cost and benchmark their businesses. There are plenty of commercial products available and our aim is to encourage the use of any tool that improves the growers business planning skills. The work to date will be replaced by a new Farm Excellence Programme that takes this activity to a new level.

The AHDB Monitor Farm programme has been hugely successful. It addresses the well-known fact that many growers learn more easily from other similar businesses. The Monitor farm programme will continue to form the core of our KE activity.

If growers are to be encouraged to incorporate improvements into their businesses, the way the improvements are presented is critical. It is our intention to identify the cost and financial benefit of an idea wherever we can. We will road-test some of the new ideas in practical farm situations to demonstrate their value. New Strategic Arable Farms are to be established.

The focus on greater yields will remain and be driven through the Yield Enhancement Network, and during the year we will undertake some major discussions about our balance of work between yield, pest and disease resilience and economic factors.

The industry will be well aware that RB209 is to be replaced. The new Crop Nutrient Programme (replacing RB209) will be launched during the year.

AHDB believes that a key element of the success of farm businesses is the supply of the correct skills and labour for the job. Our work in up-skilling (Agriskills), in Apprenticeships (Trailblazers) and careers in agriculture (BrightCrop) has been moved into KE to ensure that it links with business planning.

Precision farming and new digital-based technology provides huge benefits in productivity and sustainability. However, by its very nature it generates large quantities of data and the individual ability to assimilate this is limited. We look at the whole area of processing *Big data* and how it can be used to benefit growers and the rest of the supply chain.

Finally, the C&O Board are concerned that there are many, possibly too many organisations and individuals promoting KE. Some of this is un-aligned and possibly confusing or holding back the grower from adopting new ideas. AHDB will seek to try and coordinate these offerings to ensure that the KE industry's effectiveness and efficiency gives the best value to the levy paper and the rest of the supply chain.

### Delivery by Research Team

The Research team will continue to split its time between managing research programmes and delivering high quality services. The research will continue to fill gaps in knowledge, increasingly both in partnership with industry and driven by the feedback from the KE team.

The key areas will continue to be

- Pest and crop diseases
- Nutrition
- Soil health

There is likely to be greater focus on some key areas in the next 3 years,

#### **Pest and crop diseases**

- Determine the economic importance of certain diseases
- Monitor new information on resistance to herbicides and cross-resistance
- Understanding the risks of severe phoma stem canker by *Leptosphaeria biglobosa*
- The impact of Ramularia
- Current and new fungicides
- Light Leaf Spot
- Monitoring crop pests in OSR, focusing on CSFB
- Evaluating pesticides, building a Sclerotinia model and providing support to those seeking to maintain usage of certain pesticides
- Looking at alternative agronomy where certain pesticide usage may be at risk

## **Nutrition**

- Supporting the delivery of the new Crop Nutrient Programme (replacing RB209)
- Looking at what impacts on specific weights in barley

## **Soil health (including nutrition and weed control)**

- Developing a greater understanding of soil biology
- Understanding further the impact of rotations on main crop production (including the economics)
- Assessing the value of cover crops

In addition the Research team will continue to manage key services such as

- Evaluating new fungicides and herbicides
- The Pathogen virulence survey (UKCPVS)
- Disease and pest surveys
- The Pest and Disease Monitoring Programme

The Recommended List will continue to be a major service for growers and the rest of the supply chain.

In addition to its normal role we will seek to address key issues facing the supply chain as well as maximising the use of the data and facilities. One such area is to see whether the Lists provide sufficient guidance for growers of feed grains.

The work already started to provide users with greater access to the data and in a more regional manner, will continue. The trial sites have already been used for demonstration work and will continue to be developed for that purpose.

### **Delivery by the Levy Payer Communications Team**

The challenge for the Communications Team is to take the messages emanating from our research and KE activities and get them used by the wider audience. Whilst attendees of our Monitor Farm and other events has grown considerably since the move from HGCA, it still represents only a small proportion of UK cereal and oilseeds growers. The role of the team is both to create noise around our activities to alter growers and others to our work, but also to attract them to our outputs. The team will continue to deliver the main communication channels which include:

- Press activity
- Publications
- Digital media
- Events
- Issues management



We will continue to run events both of our own and in partnership with others. The relative costs of these events will be monitored in respect of the value to the levy payer, but in many cases they are the hook on which to hand much greater press and other communications activity. Most of the grower facing communications will be delivered alongside KE, maximizing the spread of information emanating from the Monitor Farm Programme.

In addition to grower focused events at a regional level such as the Agronomy Workshops, we will run national events for agronomists and new agronomists and the Monitor Farm Conference. We will also run the Grain Market Outlook Conference, mainly for the post-farmgate businesses.

Publications continue to be read in hard-copy format. Whilst this remains a high cost to the business, we know that many levy payers are not yet ready to read more detailed outputs on line. Therefore we have pulled back a little on the speed to move to digital and make more hard copy publications available. Distribution represents a very high cost and alternative ways of delivery will be sought.

This team will continue to drive our work on assessing our impact on our target audiences and run surveys to achieve this.

We will retain our issues management capability so that we can respond to negative coverage of our products and industry. We will pull together experts on the target topics and support businesses and organisations in the front line. Likely topics will be GM, glyphosate, pesticides and food contaminants as well as free-from products such as gluten.

### **Delivery by the Market Intelligence Team**

The MI team will continue to deliver its full range of data collection, analysis and publications and other communications along with providing economic support to other teams, especially KE. The aim will continue to provide the supply chain with sufficient knowledge and understanding for them to plan their businesses to best effect.

The main changes are:

- That Defra has already indicated that it will run down its own collection of vital data, which it will pay AHDB to manage. In a post-Brexit scenario the change in legal pressure on Defra to collect any data might well decline, and if the industry continues to want the data, AHDB will consider how to replace it.
- The team will endeavor to provide greater insight to accompany the data it communicates so that the supply chain can gain greater value from it
- Volatility will be placed at the heart of what we do to help supply chains manage it effectively
- Look at the role of contracts and assess their value in terms of creating benefit for growers
- To consider the regional balance or imbalance in rain production and consider whether it is possible to manage it better
- Support AHDB's work on Brexit, considering those issues specific to cereals and oilseeds.

## Delivery by the Market Development Team

The work of the Marketing Team falls into 3 key areas:

- The export markets
- Supply chain development
- Education and health

### **The Exports team**

Exports remain a challenge for the UK is so far as the trade generally only takes place when the country has an excess of grain. Much of that grain has up to now been of feed quality and tends to be exported as a commodity. Price, strongly influenced by the position of sterling is the main driver of exports, followed by availability. In a post-Brexit scenario there may be an opportunity to separate exports of quality grains for milling and malting from feed grains.

AHDB will continue its work on identifying potential new markets, looking at what is needed to access them and supporting this, increasing buyer awareness of the availability of UK grain and keeping the UK export industry informed. The team will no longer run export missions for exporters to overseas markets but will attend events such as the European Bourse.

The team will continue to manage ukp and uks as these help overseas buyers to identify the quality of grain they are looking for.

### **The Supply Chain Development Team**

To date the work on eGrain Passport has been the main area of activity involving whole supply chains. It is intended to now explore where AHDB may help improve supply chain efficiency to the benefit of its levy payers. This will include identifying activity which helps ensure that the products grown are those needed for the products processed for the end market and that waste is minimised. We intend to focus on the animal feed supply chains in the first instance as there are examples of where growers are not always sure what varieties to grow. The second area to focus on is the flow of information up and down supply chains. These can be more advanced in non-agricultural supply chains and we will assess what value improved communications offers our supply chains.

### **Education and Health Teams**

Educating the next generation of consumers about the source and nutritional benefits of their food will continue to be an element of our work. For input into schools we will continue to run the Grain Chain initiative. Outside the school environment we will support Open Farm Sunday, Countryfile Live and Countryside Classroom.

On health we will continue to work on the Whole Grain Goodness campaign and identify and communicate to opinion formers the health benefits of cereals and oilseeds.

## **AHDB Support for Delivery**

A range of support services are essential for the efficient running of any business. AHDB Cereal & Oilseed will share the cost of services such as finance, HR, IT and office facilities.

Efficiency savings arising from the restructure have been identified and were discussed with the Cereal & Oilseed Board in early 2016. These efficiency savings will continue to be built into budgets over the next three years.

## Objective 1

To improve the international performance of UK industry through supporting the development of more competitive supply chains

Overall target: 50% of growers have a significant part of their business linked to discernible supply chains by 2020.

### Notes on Targets

(\*1) – MF grower community. It is not realistic or reasonable to routinely survey the whole grower community. For a more meaningful measure of AHDB's progress and impact, the Monitor Farm grower community is both more accessible and more aware of AHDB's activities. It is therefore proposed to use surveys on the MF Community to gauge AHDB's progress and effectiveness. An annual Monitor farm survey is already in operation.

|  |   |                   |                    |                    |
|--|---|-------------------|--------------------|--------------------|
| <b>Cereal &amp; Oilseed strategic activity 1.1</b> | <b>Collect data on the cost of production and deliver for wheat, barley and maize in key competitor countries.</b>  |                   |                    |                    |
| <b>Cereal &amp; Oilseed strategic activity 1.1</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b> |                    |                    |
|  |   | <b>1</b>          | <b>2</b>           | <b>3</b>           |
|  | <i>Deliver a set of data which identifies where our competitors gain advantage over the UK, and demonstrate that the knowledge is being used to improve both AHDB's programme of activities and wider industry planning</i> | Purchase data     | Inform AHDB/others | Demonstrate impact |
| Tasks to deliver activity                          |   |                   |                    |                    |
| 1.1.1  | Purchase cost of production data from FEA and compare to a range of typical UK farms.   |                   |                    |                    |
| 1.1.2  | Feed this information into industry planning discussions within AHD and externally  |                   |                    |                    |

|  |  |                   |                     |                    |
|--|--|-------------------|---------------------|--------------------|
| <b>Cereal &amp; Oilseed strategic activity 1.2</b> | Actively encourage more communication across businesses within supply chains to improve the international performance of the UK industry.                  |                   |                     |                    |
| <b>Cereal &amp; Oilseed strategic activity 1.2</b> | <b>Target (2019/20)</b>  | <b>KPI - year</b> |                     |                    |
|  |  | 1                 | 2                   | 3                  |
|  | <i>Deliver a set of best practice examples of where, with AHDB support, supply chains can demonstrate the benefits of improved communications.</i>         | Recruit 5 chains  | Finish improvements | Demonstrate impact |
| Tasks to deliver activity                          |  |                   |                     |                    |
| 1.2.1  | Recruit 5 supply chains that are will to work with AHDB to identify how improved communications can benefit all businesses in the supply chain.            |                   |                     |                    |
| 1.2.2  | Project manage the delivery of eGrain Passport.  |                   |                     |                    |
| <b>Cereal &amp; Oilseed strategic activity 1.3</b> | Improve communication in the supply chain to help growers understand feed-specific requirements  |                   |                     |                    |
| <b>Cereal &amp; Oilseed strategic activity 1.3</b> | <b>Target (2019/20)</b>  | <b>KPI - year</b> |                     |                    |
|  |  | 1                 | 2                   | 3                  |
|  | <i>To have agreed with the feed industry a best practice protocol 'Growing for the Feed Industry', and made available to all those who wish to use it.</i> | Initiate Work     | Finish improvements | Sell to Industry   |
| Tasks to deliver activity                          |  |                   |                     |                    |
| 1.3.1  | Undertake a communications exercise with feed compounders to understand their needs.   |                   |                     |                    |
| 1.3.2  | Look at what additional information growers meet to produce feed grain requirements  |                   |                     |                    |

|  |   |                   |     |     |
|--|---|-------------------|-----|-----|
| <b>Cereal &amp; Oilseed strategic activity 1.4</b> | Improve grower understanding and use of specific buying/growing contracts   |                   |     |     |
| <b>Cereal &amp; Oilseed strategic activity 1.4</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b> |     |     |
|  |   | 1                 | 2   | 3   |
|  | <i>Raise awareness of both the benefits of contracts where applicable and how to maximize the returns from them in 50% of the MF grower community (*1).</i> | 0%                | 10% | 50% |
| Tasks to deliver activity                          |   |                   |     |     |
| 1.4.1  | Identify the benefits seen by those using contracts, the reasons for them and the situations where they are most beneficial.                                |                   |     |     |
| 1.4.2  | Communicate the information to industry.  |                   |     |     |

|  |   |                   |               |                    |
|--|---|-------------------|---------------|--------------------|
| <b>Cereal &amp; Oilseed strategic activity 1.5</b> | Actively drive value from volatility by demonstrating how this and managing risk can be included in business planning   |                   |               |                    |
| <b>Cereal &amp; Oilseed strategic activity 1.5</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b> |               |                    |
|  |   | 1                 | 2             | 3                  |
|  | <i>Complete the work on volatility, provide the industry with a working output that has tangible benefits and raise awareness in 50% of the MF grower community (*1).</i> | Progress work     | Complete work | Complete awareness |
| Tasks to deliver activity                          |   |                   |               |                    |
| 1.5.1  | Support the work of the AHDB Volatility Forum to identify how to maximize advantage from price volatility   |                   |               |                    |
| 1.5.2  | Discuss managing volatility benchmarking feedback meetings with Monitor Farms and Arable Business Groups  |                   |               |                    |

|  |   |                   |     |     |
|--|---|-------------------|-----|-----|
| <b>Cereal &amp; Oilseed strategic activity 1.6</b> | Demonstrate the value of individual agri-chemical products and the likely impact of their loss  |                   |     |     |
| <b>Cereal &amp; Oilseed strategic activity 1.6</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b> |     |     |
|  |   | 1                 | 2   | 3   |
|  | <i>Meet the lobbyist's satisfaction (95% as good or excellent.) in providing the information required for them to achieve their desired outcomes. Measured through annual satisfaction survey of relevant Trade Associations (to be agreed with NFU).</i> | 80%               | 95% | 95% |
| Tasks to deliver activity                          |   |                   |     |     |
| 1.6.1  | Evaluate new fungicides and herbicides  |                   |     |     |
| 1.6.2  | Determine the economic importance of key diseases   |                   |     |     |
| 1.6.3  | Monitor new information on resistance to herbicides and cross-resistance  |                   |     |     |

|  |  |                   |    |     |
|--|--|-------------------|----|-----|
| <b>Cereal &amp; Oilseed strategic activity 1.7</b> | Demonstrate the agronomic and economic potential of a balanced rotation through the collection and use of farm performance data                |                   |    |     |
| <b>Cereal &amp; Oilseed strategic activity 1.7</b> | <b>Target (2019/20)</b>  | <b>KPI - year</b> |    |     |
|  |  | 1                 | 2  | 3   |
|  | <i>Identify the potential of a balanced rotation and raise awareness of the potential in 95% main growers in the MF grower community (*1).</i> | 0%                | 0% | 95% |
| Tasks to deliver activity                          |  |                   |    |     |
| 1.7.1  | Use CropBench/Farmbench data to try and establish the agronomic and economic potential of a balanced rotation                                  |                   |    |     |
| 1.7.2  | Monitor crop pests in OSR and building a Sclerotinia model   |                   |    |     |
| 1.7.3  | Evaluate the impact of diseases on OSR production, understanding risks of severe phoma stem canker caused by <i>Leptosphaeria biglobosa</i>    |                   |    |     |

|  |  |                   |    |     |
|--|--|-------------------|----|-----|
| <b>Cereal &amp; Oilseed strategic activity 1.8</b> | Research into drivers of Spring barley and provide more data to growers on suitability for the farm and market |                   |    |     |
| <b>Cereal &amp; Oilseed strategic activity 1.8</b> | <b>Target (2019/20)</b>  | <b>KPI - year</b> |    |     |
|  |  | 1                 | 2  | 3   |
|  | <i>Deliver a best practice protocol to 50% of the MF grower community.</i>                                     | 0%                | 0% | 50% |
| Tasks to deliver activity                          |  |                   |    |     |
| 1.8.1  | Evaluate the current state of knowledge driving Spring barley quality  |                   |    |     |
| 1.8.2  | Assess the impact of Ramularia   |                   |    |     |
| 1.8.3  | Understand what impacts on specific weight   |                   |    |     |

|  |   |                   |                     |                   |
|--|---|-------------------|---------------------|-------------------|
| <b>Cereal &amp; Oilseed strategic activity 1.9</b> | Assess and address the extent of the need to rebalance regional grain markets in the UK   |                   |                     |                   |
| <b>Cereal &amp; Oilseed strategic activity 1.9</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b> |                     |                   |
|  |   | 1                 | 2                   | 3                 |
|  | <i>Production of an assessment of the need to rebalance the market, agreed with industry, and the completion of protocol leading to its rebalancing</i> | Finish assessment | Agree with industry | Complete protocol |
| Tasks to deliver activity                          |   |                   |                     |                   |
| 1.9.1  | Look back at the supply and demand for grain across the UK on a regional basis and assess the degree of imbalance.                                      |                   |                     |                   |
| 1.9.2  | Discuss with the trade to what extent any imbalances can be addressed   |                   |                     |                   |



## Objective 2

Improve grower management of costs of production and marketing returns

Overall target: 50% of growers knowing what it costs them to produce a tonne of gain or oilseed by 2020.

|  |   |                   |     |     |
|--|---|-------------------|-----|-----|
| <b>Cereal &amp; Oilseed strategic activity 2.1</b> | Building growers business profitability and resilience through good business planning   |                   |     |     |
| <b>Cereal &amp; Oilseed strategic activity 2.1</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b> |     |     |
|  |   | 1                 | 2   | 3   |
|  | <i>50% of the MF grower community (*1) are recording their costs and attempting some sort of benchmarking.</i>  | 20%               | 35% | 50% |
| Tasks to deliver activity                          |   |                   |     |     |
| 2.1.1  | Run specific grower events such as the Monitor Farm conference and attend 3rd party events  |                   |     |     |
| 2.1.2  | Develop the Farm Excellence Platform. This is a regional based activity and includes the Monitor Farm programme, associated study tours and the agronomy events. There is a major network building element and skills delivery. |                   |     |     |
| 2.1.3  | Manage the Arable Business Groups programme   |                   |     |     |
| 2.1.4  | Run the Pest and Disease Monitoring programme   |                   |     |     |
| 2.1.5  | Run the Farmbench benchmarking programme  |                   |     |     |
| 2.1.6  | Input into Agriskills, Trailblazer (apprenticeships), AHDB's Professional Management Development Scheme, breaking down barriers to training and identification of good training practice  |                   |     |     |
| 2.1.7  | Manage the Crop Nutrient Management programme (replacing RB2019)  |                   |     |     |
| 2.1.8  | Input into AHDB's careers in agriculture programme (formally Brightcrop)  |                   |     |     |

|  |  |                     |                     |                     |
|--|--|---------------------|---------------------|---------------------|
| <b>Cereal &amp; Oilseed strategic activity 2.2</b> | Introduce on-farm/farm-scale trialing as part of the KE programme.   |                     |                     |                     |
| <b>Cereal &amp; Oilseed strategic activity 2.2</b> | <b>Target (2019/20)</b>  | <b>KPI - year</b>   |                     |                     |
|  |  | 1                   | 2                   | 3                   |
|  | <i>Successfully have demonstrated to the industry the value of AHDB moving into this area (by Trade Association survey).</i> | Establish programme | Meet target numbers | Demonstrate to TA's |
| Tasks to deliver activity                          |  |                     |                     |                     |
| 2.2.1  | Establish the Strategic Arable farms programme, linked to research delivery partners   |                     |                     |                     |
| 2.2.2  | Participation in the Yield Enhancement Network (YEN)   |                     |                     |                     |
| 2.2.3  | Processing large data sets – Big data  |                     |                     |                     |

|  |   |                   |     |     |
|--|---|-------------------|-----|-----|
| <b>Cereal &amp; Oilseed strategic activity 2.3</b> | Continue to develop the Recommended Lists to deliver to grower needs  |                   |     |     |
| <b>Cereal &amp; Oilseed strategic activity 2.3</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b> |     |     |
|  |   | 1                 | 2   | 3   |
|  | <i>Demonstrate that the RL meets 90% satisfaction levels (as good or excellent) with growers and processors through a satisfaction survey of Trade Associations.</i>  | 80%               | 85% | 90% |
| Tasks to deliver activity                          |   |                   |     |     |
| 2.3.1  | Review the RL in light of grower and processor needs, focusing on the feed chain, and new genetic technologies  |                   |     |     |
| 2.3.2  | Carry out trials and tests for annual Lists. Analyse data cross sites and years for tables. Publish the RL including web-based tools. Utilise data for R & KE         |                   |     |     |
| 2.3.3  | Understand the genetics of wheat yield to deploy high and stable yielding wheat varieties across UK environments (PhD)  |                   |     |     |
| 2.3.4  | Enhance pollen production in hybrid wheats, developing systems to control male fertility in wheat for hybrid breeding, enhanced pollen production and increased yield |                   |     |     |

|  |   |                   |     |     |
|--|---|-------------------|-----|-----|
| <b>Cereal &amp; Oilseed strategic activity 2.4</b> | Drive greater awareness of variety choice through more regional and local activity in conjunction with the Recommended Lists        |                   |     |     |
| <b>Cereal &amp; Oilseed strategic activity 2.4</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b> |     |     |
|  |   | 1                 | 2   | 3   |
|  | <i>30% of recipients of the RL Book to have tried the on-line web variety tools.</i>  | 2%                | 15% | 30% |
| Tasks to deliver activity                          |   |                   |     |     |
| 2.4.1  | Use monitoring and variety data to develop web tools  |                   |     |     |
| 2.4.2  | Maintain weather station network and ensure data is live via web tools.   |                   |     |     |
| 2.4.3  | Gain access to seed stats for RL  |                   |     |     |
| 2.4.4  | Focus on varietal resistance, resilience and demonstrate at events  |                   |     |     |
| 2.4.5  | Carry out trials and tests for annual Lists. Analyse data cross sites and years for tables. Publish the RL. Utilise data for R & KE |                   |     |     |
| 2.4.6  | Give professional representations   |                   |     |     |

|  |  |                   |                  |                 |
|--|--|-------------------|------------------|-----------------|
| <b>Cereal &amp; Oilseed strategic activity 2.5</b> | Collect more financial and yield information on cover crops and communicate in ways to support grower choice   |                   |                  |                 |
| <b>Cereal &amp; Oilseed strategic activity 2.5</b> | <b>Target (2019/20)</b>  | <b>KPI - year</b> |                  |                 |
|  |  | 1                 | 2                | 3               |
|  | <i>For AHDB to include information on cover crops in Farmbench and identify the pros and cons of rotations available for agronomists and growers</i>                         | Identify data     | Modify Farmbench | Review progress |
| Tasks to deliver activity                          |  |                   |                  |                 |
| 2.5.1  | Increase understanding of the impact on productivity of cover crops in different rotation patterns (this is likely to require 6 years of Farmbench data for robust analysis) |                   |                  |                 |
| 2.5.2  | Establish Research Partnership Soils and Water focusing on Rotations   |                   |                  |                 |
| 2.5.3  | Facilitate new PhD projects starting 2017/18 - Soil and Crop Associations developing Rhizo-biological efficiency (SOIL CADRE)  |                   |                  |                 |

|  |   |                   |         |      |
|--|---|-------------------|---------|------|
| <b>Cereal &amp; Oilseed strategic activity 2.6</b> | Continue to develop AHDB's fungicide performance programme  |                   |         |      |
| <b>Cereal &amp; Oilseed strategic activity 2.6</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b> |         |      |
|  |   | 1                 | 2       | 3    |
|  | <i>Establish a baseline satisfaction score among agronomists for the programme and agree targets for years 2 and 3 as good or excellent (provisionals suggested).</i> | Base%             | +10% *2 | +20% |
| Tasks to deliver activity                          |   |                   |         |      |
| 2.6.1  | Evaluate current & new fungicides   |                   |         |      |
| 2.6.2  | Understand changes in fungicide performance to aid resistance understanding & inform growers  |                   |         |      |

\*2 depending on baseline level

|  |  |                   |     |     |
|--|--|-------------------|-----|-----|
| <b>Cereal &amp; Oilseed strategic activity 2.7</b> | Monitor crop diseases during the growing season and inform the industry  |                   |     |     |
| <b>Cereal &amp; Oilseed strategic activity 2.7</b> | <b>Target (2019/20)</b>  | <b>KPI - year</b> |     |     |
|  |  | 1                 | 2   | 3   |
|  | <i>Establish a baseline satisfaction score among agronomists for the programme and agree targets for years 2 and 3 as good or excellent. (provisionals suggested).</i> | Base%             | 60% | 80% |
| Tasks to deliver activity                          |  |                   |     |     |
| 2.7.1  | Monitor crop diseases and provide alerts and understand disease epidemics (e.g. UKCPVS)  |                   |     |     |
| 2.7.2  | Understand better the biology of the host versus the pathogen, especially with Sclerotinia, Stem Borer, new races of Yellow Rust.                                      |                   |     |     |
| 2.7.3  | Understand biology of host x pathogen to implement IPM   |                   |     |     |
| 2.7.4  | Improve the understanding of changes in plant pathogen populations and detailed molecular techniques to characterise pathogen isolates collected from field            |                   |     |     |
| 2.7.5  | Co-ordinate UK Cereals Pathogen Virulence Survey (UKCPVS) and inform industry of latest developments in variety breakdown and new rust races                           |                   |     |     |
| 2.7.6  | Facilitate a PhD looking at improved management of light leaf spot in brassica by exploiting resistance and understanding pathogen variation                           |                   |     |     |
| 2.7.7  | Run the Disease and Pest survey  |                   |     |     |

### Objective 3

Maximise the demand for UK cereals and oilseeds overseas

Overall target: Access enabled to all relevant markets and awareness of UK cereals and oilseeds by the main buyers in those markets.

|  |   |                      |                  |                  |
|--|---|----------------------|------------------|------------------|
| <b>Cereal &amp; Oilseed strategic activity 3.1</b> | Deliver reputation and issues management for the industry by maintaining an issues management capability.   |                      |                  |                  |
| <b>Cereal &amp; Oilseed strategic activity 3.1</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b>    |                  |                  |
|  |   | 1                    | 2                | 3                |
|  | <i>Maintain an 80% satisfaction score (as good or excellent) with Trade Associations on AHDB's preparedness to deal with issues</i>   | Establish/test panel | 60% satisfaction | 80% satisfaction |
| Tasks to deliver activity                          |   |                      |                  |                  |
| 3.1.1  | Continue to develop greater links with the press  |                      |                  |                  |
| 3.1.2  | Retain and develop an issues management programme including gluten-free, glyphosate, GM and contaminants. Keep TA's, Government etc. informed. Train staff to deal with issues. |                      |                  |                  |
| 3.1.3  | Establish the AHDB Food Expert Panel  |                      |                  |                  |
| 3.1.4  | Monitor contaminants and keep industry informed   |                      |                  |                  |



|  |   |                     |                  |                  |
|--|---|---------------------|------------------|------------------|
| <b>Cereal &amp; Oilseed strategic activity 3.2</b> | Raise awareness of food production with the next generation of consumers through AHDB's existing cross-sector education and nutrition programmes.   |                     |                  |                  |
| <b>Cereal &amp; Oilseed strategic activity 3.2</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b>   |                  |                  |
|  |   | 1                   | 2                | 3                |
|  | <i>Maintain an 80% satisfaction score (as good or excellent) with Trade Associations on AHDB's single approach to schools (to be confirmed following publication of AHDB's Education Plan</i> | Establish programme | 60% satisfaction | 80% satisfaction |
| Tasks to deliver activity                          |   |                     |                  |                  |
| 3.2.1  | Run food production education campaigns jointly with AHDB – the next generation, Open Farm Sunday, Countryfile Live, Countryside Classroom and the Grain Chain                                |                     |                  |                  |
| 3.2.2  | Run nutrition campaigns   |                     |                  |                  |

|  |   |                   |                     |               |
|--|---|-------------------|---------------------|---------------|
| <b>Cereal &amp; Oilseed strategic activity 3.3</b> | Raise awareness of quality grain in existing and potential overseas markets to differentiate the UK's offering from competitors.        |                   |                     |               |
| <b>Cereal &amp; Oilseed strategic activity 3.3</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b> |                     |               |
|  |   | 1                 | 2                   | 3             |
|  | <i>Production of a plan agreed with industry to include the processed products of quality UK grain.</i>                                 | Draft plan        | Agree with industry | Roll-out plan |
| Tasks to deliver activity                          |   |                   |                     |               |
| 3.3.1  | Draft a programme of activity identifying alternative markets and the needs to access them in the light of the loss of EU market access |                   |                     |               |
| 3.3.2  | Run specific events such as the Baking Workshop – to be held overseas.  |                   |                     |               |

|  |   |                       |          |   |
|--|---|-----------------------|----------|---|
| <b>Cereal &amp; Oilseed strategic activity 3.4</b> | Deliver competitive market advantages for commodity-traded exports by identifying the benefits of buying from the UK.                   |                       |          |   |
| <b>Cereal &amp; Oilseed strategic activity 3.4</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b>     |          |   |
|  |   | 1                     | 2        | 3 |
|  | <i>Identify and promote the USP of UK commodity grains in international markets</i>   | Agree plan with trade | Set KPIs |   |
| Tasks to deliver activity                          |   |                       |          |   |
| 3.4.1  | Draft a programme of activity identifying alternative markets and the needs to access them in the light of the loss of EU market access |                       |          |   |
| 3.4.2  | Run specific events such as the Baking Workshop – to be held overseas.  |                       |          |   |

|  |  |                   |     |     |
|--|--|-------------------|-----|-----|
| <b>Cereal &amp; Oilseed strategic activity 3.5</b> | Facilitate access to potential overseas markets.   |                   |     |     |
| <b>Cereal &amp; Oilseed strategic activity 3.5</b> | <b>Target (2019/20)</b>  | <b>KPI - year</b> |     |     |
|  |  | 1                 | 2   | 3   |
|  | <i>Maintain an 80% satisfaction score (as good or excellent) with exporters (through an annual survey) on AHDB's export programme</i>  | 50%               | 60% | 80% |
| Tasks to deliver activity                          |  |                   |     |     |
| 3.5.1  | Continue to investigate and understand potential new markets for UK grains.  |                   |     |     |
| 3.5.2  | Support AHDB's work on identifying opportunities in the post-Brexit arena, inform the trade and potential overseas customers.  |                   |     |     |
| 3.5.3  | Provide the AHDB trade stand at European Bourse to promote UK cereals, our brands and export potential   |                   |     |     |
| 3.5.4  | Deliver effective industry communications on multiple platforms to inform on export market opportunity and harvest quality and quantity<br>Continue to support the AHDB Beijing Office |                   |     |     |
| 3.5.5  | Continue to support the AHDB Beijing Office  |                   |     |     |
| 3.5.6  | Continue to manage and develop the ukp/uks scheme ensuring it is relevant to UK export trade   |                   |     |     |

#### Objective 4

Knowledge generation becomes totally focused on relevant industry needs and takes industry engagement with AHDB to a new level

Overall target: AHDB's programme of good farm business management affords the same status within the C&O industry as the current RL of crop varieties.

|  |   |                   |     |     |
|--|---|-------------------|-----|-----|
| <b>Cereal &amp; Oilseed strategic activity 4.1</b> | Drive KE through coordination of national delivery and fast implementation of R&D outputs.  |                   |     |     |
| <b>Cereal &amp; Oilseed strategic activity 4.1</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b> |     |     |
|  |   | 1                 | 2   | 3   |
|  | <i>80% of the MF grower community (*1) and agronomists view AHDB's KE programme as good or excellent.</i>   | 60%               | 70% | 80% |
| Tasks to deliver activity                          |   |                   |     |     |
| 4.1.1  | Develop, plan and deliver cereal and oilseeds KE technical events<br>Manage a range of other communications channels including publications and events. The main focus will be in crop health and protection, crop production systems, resource management and business performance improvement. Events will include AgriScot, the Agronomist Conference, Grain Market Outlook and Cereals 2017 (with a major appraisal for the attendance at Cereals 2018) |                   |     |     |
| 4.1.2  | Attend R&D workshops to identify innovative ideas and ring them back to the KE team   |                   |     |     |
| 4.1.3  | Focus on improved practices including Light Leaf spot, Clubroot, Rhizoctonia, nitrate and water management, phosphorus, sulphur and N use and cover crops. Monitor insecticide and herbicide resistance and communicate to the supply chain.  |                   |     |     |
| 4.1.4  | Update the growth guides for wheat and barley   |                   |     |     |
| 4.1.5  | Develop programmes for managing and exploiting the data from precision agriculture activity   |                   |     |     |
| 4.1.6  | Improve communications to levy payers and others in the supply chain through improved digital communications including an enhanced website, greater use of videos and on-line training tools  |                   |     |     |

|  |   |                   |     |      |
|--|---|-------------------|-----|------|
| <b>Cereal &amp; Oilseed strategic activity 4.2</b> | Facilitate greater industry involvement in R&D and KE projects by acting as a conduit for the needs of industry back to delivery bodies.  |                   |     |      |
| <b>Cereal &amp; Oilseed strategic activity 4.2</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b> |     |      |
|  |   | 1                 | 2   | 3    |
|  | <i>Every R&amp;D and KE project should have an industry business champion.</i>  | 30%               | 50% | 100% |
| Tasks to deliver activity                          |   |                   |     |      |
| 4.2.1  | Circulate and seek feedback on publications such as Think Soils, Great Soils and the new nutrient management guide replacing RB209.   |                   |     |      |
| 4.2.2  | Seek engagement and feedback on AHDB activities at such events and Grassland and Muck and the Farm Excellence Platform  |                   |     |      |
| 4.2.3  | Establish partnerships with key businesses where appropriate such as the GIN network  |                   |     |      |
| 4.2.4  | Use personal contact with levy payers and other stakeholders, plus regional KE activity, to collate, record and disseminate feedback on AHDB research & KE, plus insight and intelligence to help inform strategy |                   |     |      |

|  |   |                   |     |     |
|--|---|-------------------|-----|-----|
| <b>Cereal &amp; Oilseed strategic activity 4.3</b> | Replace some trade and usage data collection, which Defra could potentially reduce.   |                   |     |     |
| <b>Cereal &amp; Oilseed strategic activity 4.3</b> | <b>Target (2019/20)</b>   | <b>KPI - year</b> |     |     |
|  |   | 1                 | 2   | 3   |
|  | <i>Achieve an 80% satisfaction (as good or excellent) through an annual survey of key user businesses.</i>  | 70%               | 75% | 80% |
| Tasks to deliver activity                          |   |                   |     |     |
| 4.3.1  | Manage the replacement Defra trade and usage surveys  |                   |     |     |
| 4.3.2  | Purchase GTA data   |                   |     |     |
| 4.3.3  | Run grower surveys, collection, analysis and output<br>FOB prices – weekly<br>NI delivered prices – weekly<br>Imported prices – weekly<br>Delivered cereals prices – weekly<br>Delivered oilseed prices – weekly<br>Winter planting results – published beginning of March<br>Planting & Variety Survey results – published beginning of July<br>Cereal Quality Survey Results –Provisional published mid-September, second provisional start-October, final start-November<br>Early Bird Survey – published November |                   |     |     |
| 4.3.4  | Respond to queries  |                   |     |     |

|  |  |                   |     |     |
|--|--|-------------------|-----|-----|
| <b>Cereal &amp; Oilseed strategic activity 4.4</b> | To help facilitate change, move AHDB Cereals & Oilseeds Market Intelligence into thought leadership.   |                   |     |     |
| <b>Cereal &amp; Oilseed strategic activity 4.4</b> | <b>Target (2019/20)</b>  | <b>KPI - year</b> |     |     |
|  |  | 1                 | 2   | 3   |
|  | <i>80 satisfaction (as good or excellent) on the thought leadership among a virtual audience panel of businesses, Trade Associations and economists.</i>   | 60%               | 70% | 80% |
| Tasks to deliver activity                          |  |                   |     |     |
| 4.4.1  | Collect consumer attitude and performance data to assist industry and AHDB in longer term planning   |                   |     |     |
| 4.4.2  | Monitor, assess and publish market information. Use the MICC to sense –test the balance sheet with industry. Constantly seek ways to improve the communication of the MI information. Provide commentary with the information that helps growers and supply chains plan their businesses |                   |     |     |
| 4.4.3  | Understand and analyse policy issues providing likely impact scenarios for industry discussion   |                   |     |     |
| 4.4.4  | Contribute to the AHDB Brexit programme  |                   |     |     |
| 4.4.5  | Start to build skills in handling Big Data   |                   |     |     |