Improved productivity underpins the dairy sector's ability to compete, grow and become sustainable.



AHDB Dairy

The long term global dairy outlook remains positive with demand expected to grow by approximately 19bn litres per year until 2025. However, dairy markets are expected to remain volatile.

Stimulating competitiveness and building resilience

The majority of businesses are more exposed to global commodities than they have ever been. This exposure, alongside the removal of quota restrictions in the EU, and the UK's plans for Brexit, leaves the British dairy industry needing tools and skills to build resilience to volatile markets.

To thrive in a more competitive, volatile market environment will require dairy farming businesses to have a combination of business acumen, excellent technical performance and leadership skills. The control of production costs remains the most important priority to better withstand the shocks of market price fluctuations. At the same time, businesses will need to meet consumer expectations in terms of animal welfare and the environment.

British dairy farmers already possess some competitive advantages with relatively low costs of production compared with many other EU countries. However, there is a wide variation in costs of production and net margin on British farms.

Accelerating productivity growth

Improved productivity underpins the sector's ability to compete, grow, and become more sustainable. There are

a number of opportunities for dairy farmers to optimise their performance:

- Poor health status reduces productivity, compromises animal welfare, and increases inefficiency and wastage in the use of expensive resources. Genetic improvement underpins the productivity and efficiency of the national herd.
 The use of genomics can increase the accuracy of selection and ultimately accelerate the speed of genetic gain.
- The performance of the top and bottom 25% herds can largely be accounted for by four cost areas: herd replacement, feed and forage, labour and power and machinery.
 Feed costs constitute approximately 75% of the total variable costs for milk production and therefore are one of the most important factors determining farm profitability.

Optimising demand

Dairy products such as milk, cheese and yogurt are naturally nutrient rich foods. Dairy products are the main source of calcium in the UK diet. With strong nutrition and environmental credentials supported by traceable and high standards of welfare, quality British dairy products have a strong story to tell at home and overseas.

Dairy products can be found in almost every household in the country. This gives the dairy industry one of the highest degrees of market penetration of any consumer product and makes dairy foods extremely important to the health and well-being of the nation.

Nonetheless, changing consumer eating habits, reduction of usage occasions and falling consumption in younger consumers present risks for dairy consumption. At the same time, the nutritional qualities of dairy products face persistent challenges and need to be bolstered. The dairy industry must also address reputational risks arising from antimicrobial use, perception of some farming practices and its contribution to climate change.

Britain is a net importer of dairy products, which presents a fantastic opportunity to increase domestic market share. In addition, there are growing opportunities for British dairy companies to exploit markets overseas.

Exports provide alternative outlets helping address market balance issues and mitigating the impact of market volatility.

Horizon scanning

The consequences of Brexit for the industry remain unknown, but are likely to see the UK dairy industry exposed to greater international competition while affording new overseas market opportunities.

Agriculture, along with other industries, is expected to reduce its contribution to emissions of greenhouse gasses and ammonia, so the UK can meet its obligations under internationally binding agreements. Similarly, there is pressure to reduce loading of nitrogen and phosphorus from livestock farms to ground/surface water, and to maintain or enhance biodiversity. The Dairy Roadmap, which will be next updated in 2017, provides an opportunity to capture and report on the benefits of improved efficiency measures and the adoption of more targeted approaches to inputs.

In terms of specific issues, there is a pressing need to better quantify current usage patterns of antibiotics. We must work across industry to achieve this and to promote preventive approaches to disease management, demonstrating responsible use of medicines, consistent with good animal welfare. This approach will help underpin consumer confidence, and support for milk production at home and abroad. The dairy industry must play its part in countering the global threat posed by antimicrobial resistance, especially with regard to those antibiotics deemed critically important for human health.

Key priorities

Accelerate productivity growth to improve our competitive position with a narrowing of our focus on the areas in which we can deliver the biggest impact

Enhance our genetics and genomics evaluation offering with particular focus on driving efficiency gains through new disease resistance evaluations, improved carcase qualities and leading the breeding world with novel feed intake evaluations

Strengthen skills, capabilities and professionalism in the industry by providing tools and services and market intelligence to support decision making **Build trust in our products at home and overseas** by undertaking market development activity which in turn will help optimise demand for milk produced in Britain.

A major focus of this strategy, in common with the rest of AHDB will be to deliver a step change in KE activities. This will focus on industry outcomes and work with third parties and other regional knowledge and information providers on delivery.

Knowledge exchange has been a cornerstone of our strategy in dairy in recent years, however we feel we can be even more effective by changing our focus. Working collaboratively with industry we will provide a network of sites and commercial farms to promote farmer to farmer learning, facilitate access to innovation and best practice, and create a stronger link between science and application.

It is vital the dairy industry educates domestic consumers on the nutritional benefits of dairy and promotes the excellence of our dairy products in key export markets. We have increased our investment in market development to reflect this in our strategy.

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

AHDB Dairy's objective is to improve business resilience, decision making and professionalism in dairying.

This is in order to have a competitive and long term sustainable industry.

Target: To improve the performance of British dairy farming relative to our main international competitors.

Activity 1.1: Improve understanding and management of cost of production, underpinned by enterprise and whole farm benchmarking

To have a long term competitive and sustainable industry, farmers require a detailed understanding of all components of business costs and how they relate to key drivers of efficiency and productivity. Around 40% of dairy farmers do not benchmark, therefore scope exists to significantly improve the overall industry position.

We will accelerate understanding and management of production costs through the provision of benchmarking support tools and KE services.

Activity 1.2: Stimulate greater international competitiveness

Stimulating supply chain improvements and efficiencies is supported by being able to compare domestic and global performance pre and post farm gate to learn from the best in the world. This will enable the industry to better understand its competitive position, and where to target collective effort, in order to compete in a post-Brexit environment.

We will continue to play a key role in the IFCN international network and establish new international collaborations for global data sharing and benchmarking on cost of production.

Activity 1.3: Define systems of production and associated key performance indicators (KPIs)

Production economics data show farms that focus on a clearly defined system of production tend to be more profitable, have clarity of purpose, and a better understanding of business drivers. They are better able to use system-specific KPIs to manage performance, and to compare relative competitiveness with their peers at home and abroad.

We will facilitate a common system of KPI classification, relevant to national and international dairy production, which can then be embedded into insight, analysis and messaging to accelerate uptake of best practice and improved business performance.

Activity 1.4: Improve understanding of market dynamics, milk contracts and business risk mitigation strategies

Volatility will continue to have a significant impact on British dairy farming businesses, particularly for those suppliers most exposed to global market forces. We will continue to play an important role assisting farmers to undertake long term planning, better matching supply and market need, to help mitigate risks and improve returns. We will accelerate uptake of AHDB market intelligence and support tools through KE and digital communications.

Activity 1.5: Develop business acumen via participation in AHDB-facilitated business/skills themed events.

Improved business skills, a broader range of management competencies and greater professionalism on-farm have been identified as key development needs for the sector.

We will undertake KE activities to drive improved competitiveness and business resilience, placing businesses in a better position to respond to future threats and opportunities. This skills investment will help accelerate the uptake of innovation, and ensure better decision-making in relation to the management of staff and resources.

AHDB Strategic Priority 2: Accelerating innovation and productivity growth through coordinated R&D and KE.

AHDB Dairy's objective is to improve farm productivity and optimise cow performance.

Improved productivity underpins the sector's ability to grow, cope with volatility and respond to sustainability drivers.

Target: A sustained improvement in animal lifetime productivity from a baseline to be established from national herd data in 2017.

Activity 2.1: Identify and lead on promoting best practice in calf, heifer rearing and fertility management

Herd replacement costs offer one of the biggest areas for improvement on the farm. Calving heifers over 24 months increases rearing costs by £2.87 per day - an extra £344 per heifer calving at 28 months. The drivers farmers can influence the most are age at first calving and herd replacement rate, along with targeting best practice in fertility management.

We will undertake a series of activities to accelerate uptake of knowledge to drive improvements in this area.

Activity 2.2: Lead the promotion and development of innovative genetics and genomics tools and services

Genetic improvement underpins the productivity and efficiency of the national herd. The use of genomics increases the accuracy of selection, particularly for hard to measure traits. This can aid herd replacement strategies and ultimately accelerate the speed of genetic gain.

We will lead in the development of an expanding set of selection indices, exploiting the revolution in phenotypic data capture, which will balance production with health, fitness and environmental objectives. This will include new breeding indices for lameness and mastitis, and investigating new traits related to feed efficiency.

Activity 2.3: Promote the uptake of best practice in herd health and disease control

Poor health status reduces productivity, compromises animal welfare, and increases wastage and inefficiency in the use of expensive resources. The combined economic costs of mastitis and lameness alone to the British dairy herd is estimated to be approximately £300m per annum. A preventive approach to disease management is also the first line of defence against the development of antimicrobial resistance.

We will continue our research partnership with Nottingham University on Health, Welfare and Nutrition to provide a base for R&D to target a reduction in production and culling losses due to mastitis, lameness and Johne's Disease. We will work with the industry to underpin initiatives for the eradication of BVD, the management of Johne's disease, the Mastitis Control Plan and Healthy Feet Programme.

Activity 2.4: Improve whole farm feed efficiency

Feed costs constitute approximately 75% of the total variable costs for milk production and therefore are one of the most important factors determining farm profitability.

In pasture-based systems, milk output from forage is a main driver of profitability and production costs. There is a large variation in concentrates fed at any given yield level. Gains in feed efficiency translate into lower costs of production, reduced loss of nutrients to the environment and less reliance on imported feed.

We will work through third parties and encourage peer-to-peer learning to improve industry performance. We will invest in targeted R&D, benchmark industry performance and promote the uptake of best practice and precision technologies.

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

AHDB Dairy's objective is to enhance the reputation of, and optimise demand for, British milk and dairy products.

High imports, commodity exports and reduced domestic per capita consumption are challenges for dairy. However milk and milk products remain an essential part of the consumer's dietary needs. They have inherent trust values which should be capitalised on in order to reverse these trends.

Target: To positively influence consumer attitudes and propensity to purchase on domestic and international markets. New targets to be established by Spring 2017 for improving consumer attitudes towards dairy.

Activity 3.1 Upholding the place of dairy products in a sustainable diet

Changing consumer eating habits, reduction of usage occasions and falling consumption in younger consumers are risk factors for dairy. Britain is a net importer of dairy products and so has an opportunity to increase market share.

We will work with the processing sector to build trust in British milk supply, halt these trends and re-position dairy products as healthy, nutritious and sustainable.

Activity 3.2 Grow dairy exports in volume and value by developing current and opening new markets

Securing market access and facilitating export markets will help drive value, optimise returns from the market, and encourage business development. Exports can help provide alternative outlets, address market balance issues (especially for products with low structural demand on the domestic market), tighten domestic supply, mitigate effects of market volatility and increase opportunities to add value.

We will work with the processing sector to exploit new export market opportunities by using AHDB's expertise and presence in international markets.

Activity 3.3 Develop the evidence base to underpin consumer expectations of dairy production systems

Long-term sustainability of milk production depends on being able to balance requirements for sustainable intensification with care for the environment and meeting welfare and behavioural needs of dairy cows. This has to be done across a range of production systems. Any regulation and policy development also needs to be proportionate and evidence-based.

We will undertake a programme of R&D on optimising management of dairy cow housing and produce a revised Dairy Roadmap in conjunction with industry stakeholders.



AHDB Strategic Priority 4: Delivering thought leadership and horizon scanning

AHDB Dairy's objective is to improve the relevance of knowledge generation to meet the needs of the best in class.

Better informed businesses are able to respond to both opportunities and threats more quickly, driving improved resilience and greater efficiency in the sector.

Target: Improved satisfaction ratings for AHDB Dairy products and services.

Activity 4.1: Ensuring a competitive dairy supply chain

For the dairy industry to be competitive it is essential the whole supply chain optimises its efficiency and maximises value. Previous studies by the Food Chain Centre highlighted the extent of waste and inefficiency in the dairy supply chain. We will produce thought-provoking analysis into the competitive drivers of the whole

dairy supply chain and capture dairy product innovation opportunities to exploit at home and abroad.

Activity 4.2: Increase integration and exploitation of new and existing industry data

There is a significant amount of data being collected across the industry which is not currently being shared. Other countries have been able to develop programmes and policies from informed datasets which drive their industries forward. Better, more integrated data will lead to better decision making on farm, improve the efficiency of monitoring trends and feedback mechanisms and improve data handling along the supply chain. In time it will allow industry to develop benchmarks for key parameters of technical performance, health and welfare status, or antimicrobial use.

We will develop a livestock industry data exchange hub with stakeholders to ensure greater integration of existing data sets and exploitation of new ones.

Activity 4.3: Issues management

It is essential the industry takes a proactive approach to protect and promote the reputation of the industry. This underpins market development activity and long term sustainability and trust in the sector.

We will provide industry with early warnings of emerging challenges and lead the planning and coordination of industry responses.

We will maintain an issues management capability and be proactive in preparing issue statements and dossiers on likely issues for the industry to access.

Activity to phase out, divest or reduce investment in for 2017 - 2020

Activity: Drive efficiencies in KE and communications

There is a need to speed up the uptake of innovation, the outputs from research and reduce duplication in KE by seeking to coordinate existing delivery from industry and commercial companies. Without compromising AHDB's independence, we will work with third parties to coordinate our KE and communications to help ensure our outputs are fit for purpose. There is also a great opportunity to have greater collaboration across AHDB sectors and to have a 'digital first' approach to communications where appropriate.

Activity: Reduction in own funded R&D

This will be delivered through greater collaboration with emerging research providers and programs such as the UK Agri-Tech centres – particularly the Centre for Innovation Excellence in Livestock (CIEL) and Agri-Epi Centre. Greater influence on public and private funding will be driven through strategy discussions with the Biotechnology and Biological Services Research Council (BBSRC) and Innovate UK.

How AHDB Dairy will invest

The proposed budget comprises the percentage allocation of total AHDB Dairy levy income across the AHDB delivery functions.

The allocation of levy funds seeks to support AHDB Dairy's strategic direction. The major shift is to support the enhanced activity in market development both at home and overseas through reduced expenditure in R&D and KE.

Support for market intelligence will increase to better understand potential for supply chain efficiencies, of domestic and global market trends, innovation and development opportunities. These charts are indicative and show how expenditure will change over the next three years. Levy rates will stay the same for 17/18 and there is no intention for levy rates to change in the final two years of the strategy. Any changes to levy rates would be subject to industry consultation. Current levy rates can be found on page 88.



European Union relating to the Euro Dairy project, which is 9% of total

expenditure. This project is completed during 2018/19

