



Meeting the challenge:

Greenhouse Gas Action Plan

Of the Agriculture Industry in England

Progress report and
Phase II Delivery
April 2012



"We offer this Plan as a serious statement of intent and a commitment to reduce our industry's GHG emissions" (2011)

Meeting the challenge

Over the next 40 years, the global food system will have to feed more people with less environmental impact across a range of scales from the local to the transnational. This will mean providing a higher quality diet whilst dealing with greater competition for land, water and energy and the economic and political pressures of globalisation as the climate changes. Our British farmers and growers will need to adapt to the changing conditions at the same time as reducing greenhouse gas emissions. Greenhouse gases are an inevitable consequence of food production, and the challenge of reducing them whilst increasing food production is huge.

Our coalition of agricultural industry partners launched a Greenhouse Gas Action Plan last year to meet the climate change challenge without compromising domestic production. It's too simple a solution to produce less and import more. This simply "exports" our emissions to other parts of the world. So our Plan has focused on how farmers, across all sectors and farming systems, can become more efficient to help reduce greenhouse gas emissions and make cost savings per unit of production. It is one of a range of voluntary initiatives helping farmers to produce more food and fuel with less environmental impact.

Agriculture can also make a big contribution to mitigating climate change by storing carbon in soils and vegetation and by generating renewable energy. We have been set a target of reducing our emissions by three million tonnes of CO₂ equivalent by 2020. Our estimates suggest that the emissions reduction potential of renewable energy within our industry could outweigh this target by a factor of six. We know that farming is part of the solution.

This is not only about farmers looking to modify what they do. We, the partners sitting on the GHGAP Steering Group, also have a role to play. During this initial phase of our long-term commitment to delivery and action we have concentrated on how we can work more effectively together and with others. We considered it important to lay these foundations so the industry is better equipped to meet the more ambitious challenges posed by climate change in the future, and in doing so complement actions to improve the sector's competitiveness and resilience.

We know that agriculture has a unique emissions profile and we believe that there is a limit beyond which it may not be biologically possible to make further emissions reductions. However in order to build on our early momentum we propose key actions for the next phase of delivery to 2015 in the spirit that we offered the first Delivery Plan – that despite the challenges and uncertainty, there are a suite of actions that can be implemented on-farm to deliver improved efficiency of production and a reduction of emissions per unit production

This first year has demonstrated vividly that our response is anything but "business as usual". We have worked at taking a strategic approach and have started down the long road of enhancing the way that important messages, technical advice and information are delivered to farmers and growers. This will not be a short journey but we have set off at a good pace and are travelling in the right direction.



Executive summary

The Greenhouse Gas Action Plan (GHGAP) is the principal mechanism for delivering the farming industry's commitment to a reduction in annual emissions from agriculture in England of three million tonnes CO₂-equivalent (Mt CO₂e) as set out in the Low Carbon Transition Plan by the third carbon budget period (2018 – 2022). Our robust partnership established in 2010 aims to improve awareness amongst farmers and growers of GHG emissions and drive the implementation of on-farm practices that reduce GHG emissions per unit of production, thereby reducing the need for regulation or taxation.

Food production involves natural biological processes that inevitably release GHGs and which require a wide range of mitigation actions; there is no “one size fits all” solution. Nevertheless total GHG emissions from UK agriculture have fallen by 19% since 1990. The GHGAP is focussed on improving efficiency of production, across all farming systems, recognising that the environmental challenge is multi-faceted and that difficult “trade-offs” between mitigation and other priorities will need to be addressed. It is critically important that domestic production should not be compromised.

Agriculture continually evolves, greatly influenced by weather, world-wide economic events and new technology. Priorities and business plans including investments change as a result; thus to be effective any action programme has to include an element of foresight and be responsive. In addition, the long term nature of agricultural systems means that change will not happen overnight. Consequently the GHGAP is a living document, responsive to changes in policy and knowledge, requiring regular refinement over time. As more data is generated, the scale of abatement potential and actions that are most feasible and likely to bring about the greatest impact will become more clearly defined.

The story so far (2010-2012)

The strength and value of the GHGAP has been clearly demonstrated over the past two years. In this first phase we have focussed our efforts on giving advisers the tools and knowledge to help farmers in the identified priority areas and adding value to work that is already going on. We believe that consistency of message and providing easy access to the latest guidance and science is critical to ensuring that our industry makes the link between improving production efficiency, land management decisions, and the associated benefits for farm profitability, and for greenhouse gas reduction. We have begun to work with government and its agencies and with the supply chain to create consensus, unity and authoritative influence in the industry.

We established early on that it was important to demonstrate leadership to the farming community and the commitment of the industry to tackling this challenge; hence the GHGAP Steering Group is chaired by the vice presidents of the NFU and CLA. The ownership generated amongst the members of GHGAP has created a robust partnership.

The GHGAP is taking the first steps to promoting integration - of messaging, advice, demonstration *etc* - across the Steering Group and the wider supply chain. Although focussed on GHG mitigation, the GHGAP believes that in the longer-term its activities could provide the catalyst for change across the entire industry - in the way that it communicates and delivers shared messages. Our pilot Farm Efficiency Hub is a key component in this vision. Its electronic repository of information will provide easy access to the latest guidance

and science in an integrated way for advisers and farmers. It is difficult to imagine the delivery of an initiative as transformational and innovative as the Farm Efficiency Hub in such a short timescale in the absence of the GHGAP. This would support the current thinking amongst the industry of the need for closer cooperation and integration of the range of industry-led partnerships that promote environmentally beneficial management practices alongside increasing food production e.g. Campaign for the Farmed Environment, Voluntary Initiative on Pesticides, Tried & Tested and the GHGAP.

Our partnership has been the catalyst for collective action. In taking a strategic approach to the delivery, we have sought to avoid duplication and add value. Sharing work programmes has already produced short and long-term benefits including piggy-backing on planned activities to extend penetration and facilitating collaborative relationships for future co-operation. The sector Roadmaps have gained respect for their approach of focussing on tangible gains for the farmer through improved productivity and for their engagement with the supply chain. The AHDB sector boards are now making clear connections between the Roadmaps and the range of actions the GHGAP aims to deliver.

For our first phase Delivery Plan we carried out a strategic assessment of agricultural emissions to identify the principal sources and mitigation options. As a result we identified a suite of actions to be implemented at farm level in order to achieve production efficiencies and thereby reduce emissions per unit of production. The collective expertise of the Steering Group proved invaluable in identifying the actions, which are fundamental to consistent messaging across the partnership and beyond. Our GHGAP logo, designed to echo these actions, is an important achievement; providing a clear demonstration of the collective, integrated activities that the partnership is and will be delivering.

We have committed to reporting on progress so that farmers and land managers can be confident that their changes in farm practice are leading to lower emissions. We have worked closely with the GHG Platform as it seeks to source data to improve the agricultural inventory. However we believe that much work still need to be done in identifying robust indicators of progress. Our experience over the past year and in writing this report reinforces our belief that monitoring the impact of the GHGAP's activities and hence changes in on-farm practice remain a challenge for both the GHGAP and for Government. We will take this up during the next phase of delivery.

Next steps of delivery (2012-2015)

We have proposed key actions for the next phase of delivery to 2015 when the revised agricultural GHG inventory is published, in the spirit that we offered the first Delivery Plan:

“The complexities and challenges should not delay progress in taking steps to increase the implementation of on-farm actions to reduce GHG emissions. It is acknowledged that there is uncertainty about GHG emissions, and that technical solutions to their reduction in food production systems will take time and investment to deliver in the longer term. Nevertheless, there are a suite of actions that can be implemented on-farm to deliver improved efficiency of production and a reduction of emissions per unit production.”

By 2015 we aim to have achieved the following:

Priority area	Proposed action	Target date
Strategic co-ordination (and reporting)		
Steering Group action 1	Consider options for funding a GHGAP co-ordinator in the context of greater integration between industry-led initiatives, the role of Farm Efficiency Hub (FEH) and plans for overall funding and management.	By end 2012
Steering Group action 2	Maintain oversight of mitigation activity to identify gaps in action or progress in collaboration with others e.g. Defra's Research Platform Policy Group, as appropriate	Throughout phase II
Steering Group action 3	Evaluate and agree key indicators of activity and progress for the GHGAP with the GHG Platform and Defra Statistics team in order to better report on progress	Throughout phase II
Steering Group action 4	Test Farm Efficiency Hub (FEH) with adviser focus groups and collate feedback	By end 2012
Steering Group action 5	Convene high profile workshop with senior Defra officials to exhibit the FEH and present the case for wider ambition in support of co-ordinated (integrated) advice delivery and industry-led initiatives	By April 2013
Communication		
Steering Group action 6	Continue to identify opportunities for collaboration in communications within the GHGAP, with other farming organisations and service providers and the supply chain, and investigate the opportunities for greater exposure in the trade press	On-going
Steering Group action 7	Subject to Steering Group approval, initially assess the usefulness of social media as a form of communication	From 2013 to 2015
Steering Group action 8	Review the on-farm actions to take into account new knowledge and policy.	In 2013
Management skills and advice		
Steering Group action 9	FACTS Qualified Advisers continue to undertake new training	By end 2014
Steering Group action 10	AIC to draft plans for a register of feed advisers consulting with members, with BSAS, AHDB livestock sectors and others on administration and a standard of training for eligibility to remain on such a register. Agreed plans to be resourced and implemented.	By Sept 2012 By mid 2013
Steering Group action 11	Use Tried & Tested campaign (guidance and tools) to help raise the skills and understanding of farmers in the benefits of integrating animal feeding planning and crop nutrient planning on livestock farms	By end of 2013 then on-going

Steering Group action 12	Continue to promote the benefits of improving skills and training e.g. Continuing Professional Development schemes by AHDB livestock sectors	On-going
Steering Group action 13	<p>Continue to support “carbon footprinting” through</p> <ul style="list-style-type: none"> initiatives such as the development of a tool for the cereals and oilseeds sector (HGCA to lead) considering options to meet the range of farmers’ needs of “carbon footprinting” 	<p>Throughout Phase II</p> <p>By end 2013</p>
Crop nutrient management		
Steering Group action 14	Continue to promote the Tried & Tested nutrient management plan, website and tools and the benefits of professional advice, and soil analysis, with a continuing focus on the needs of the livestock sector	On-going
Steering Group action 15	Sub-group of GHGAP and Tried & Tested partners to plan how best to promote the benefits of accurate nutrient application and the services available considering different sector needs	By mid 2013, then through to 2015
Steering Group action 16	Promote strong linkages between nutrient and soil management activities e.g. between Tried & Tested and HGCA nutrient and soil management events	Throughout Phase II
Soil and land management		
Steering Group action 17	Look for opportunities to promote the benefits of soil management and soil organic matter e.g. AHDB-HGCA, CSF project - running 70 farm events	Throughout Phase II
Steering Group action 18	Conduct further evaluation of Defra surveys in conjunction with the Defra Statistics teams to help identify the most reliable means of indicating progress in soil sampling	By end 2014
Steering Group action 19	Evaluate contribution of CFE measures (including farm stewardship) to GHG mitigation	By April 2014
Livestock nutrition		
Steering Group action 20	Create a new guide and tool – a Tried & Tested Ruminant Feeding Plan with balance sheets and showing the link between feeding practices and animal health and also the integration between grass & forage nutrition and feed management	By end 2012
Steering Group action 21	Promote the new plan through the Tried & Tested nutrient management network, and through the supply chain for milk and beef products	Through to 2015
Livestock health and fertility		
Steering Group action 22	Build on the early success of established programmes e.g. DairyCo’s Mastitis Control Programme, and take	Throughout Phase II

	opportunities to collaborate with animal health professionals	
Steering Group action 23	Work with the Cattle and Sheep Health and Welfare groups to tackle critical health issues relevant to the beef, dairy and sheep sector.	On-going
Energy efficiency and renewables		
Steering Group action 24	Continue to provide information on energy efficiency and technology through existing e.g. GrowSave, and the new initiatives e.g. Pig Improvement by Information Technology (PIVIT) project	On-going
Steering Group action 25	Continue to support and make the case for renewables and AD in particular because of its mitigation potential and other environmental benefits including contributing to the Voluntary code of practice/Best practice guidelines for AD crop feedstocks	On-going