

Partnership Working for a Better Environment

Prosperity Agreement Progress Report 2019 and 2020



Sustainability at the heart of a living, working, active landscape valued by everyone.





Prosperity Agreement Progress Report 2019 and 2020

Foreword

The last few years have been challenging for all of society. We have been preparing for the UK to leave the EU and in 2020 we have faced a global pandemic as a result of Covid-19, the impacts of which we are still dealing with. Because of this we have merged the 2019 and 2020 Prosperity Agreement Progress Report.

I am pleased that despite the challenging landscape, Northern Ireland companies continued to make positive progress on environmental issues.

Since the last progress report was published in spring 2017, we have signed agreements with a further 5 companies. We have also signed



a second agreement with a business for the first time and we continue to work collaboratively with all these businesses on positive environmental outcomes, which can also support their competitiveness.

Given the importance of the Dairy sector to the Northern Ireland economy we are delighted to have both Lakeland Dairies and Dale Farm on board. Their influence with approximately 2,000 dairy farmers across the country is a powerful force for good in promoting exemplary environmental performance and good practice.

We also recruited some smaller companies to the Programme during this period, with a focus on the circular economy. Usel aim to ensure materials that can be re-used and recycled are captured effectively and efficiently, in ways that generate prosperity and well-being, as well as meeting environmental considerations. I was also delighted to have a signed a very far-reaching and ambitious Prosperity Agreement with Belfast Harbour in May 2021. I look forward to seeing the outcomes of the combined efforts of Belfast Harbour and my Department.

I commend the companies profiled in this document for their ongoing commitment to addressing environmental challenges in this positive and collaborative way and I look forward to further successful partnership opportunities to help both business and government deliver for the people of Northern Ireland.

To meet our Programme for Government and New Decade New Approach commitments to reduce emissions and tackle climate and environment challenges, I have prioritised the development of cross-cutting Green Growth Strategy which my Department is leading on, on behalf of the Executive. The Green Growth Strategy will map out the actions we must take to meet sector-specific greenhouse gas emission targets which will deliver a cleaner environment, more efficient use of our resources within a circular economy and will provide more green jobs.

With the UK hosting COP26 in Glasgow in the coming months, the focus for UK government is to accelerate action towards achieving the goals of the Paris agreement and it is companies like those highlighted in this document that are leading the way."

EDWIN POOTS MLA

Minister of Agriculture, Environment and Rural Affairs

What are Prosperity Agreements?

NIEA uses a range of regulatory tools to ensure we protect the environment whilst also supporting businesses. Prosperity Agreements were initiated as a means of working in partnership with regulated businesses, in an innovative way to find opportunities for step change in environmental performance and to secure positive business growth and development.

Prosperity Agreements are voluntary agreements, signed between NIEA and a company/organisation. The agreements contain commitments from both NIEA and the company/organisation which will deliver significant environmental benefits, beyond legal requirements, develop a more strategic approach between business and regulator and to help business realise environmental gains which will increase their competiveness.

To be eligible for an agreement a company/organisation must:

- not have any major non-compliances with environmental regulatory requirements in permits held on the site(s) for which the agreement will apply;
- have no Health & Safety, Animal Welfare, Environmental convictions within the last 3 years;
- demonstrate a clear appetite and desire to seek innovative solutions to go beyond compliance and achieve positive environmental outcomes.

More information including a Prosperity Agreement Eligibility Form can be downloaded here: https://www.daera-ni.gov.uk/articles/prosperity-agreements

Since the commencement of the Prosperity Agreement Programme we have signed agreements with 9 Northern Ireland businesses. In 2019, 6 of these agreements were active and in 2020, 5 agreements were active. In 2020 we signed a second agreement for the first time, with Coca-Cola HBC. We have maintained a good relationship with our other PA Holders and are in discussions regarding getting second agreements signed with a number of these organisations.

Live Agreements in 2019	Live Agreements in 2020
Coca-Cola Hellenic Bottling Company Ltd (expired Feb 2019)	Coca-Cola Hellenic Bottling Company Ltd (second agreement signed in Feb 2020)
Dale Farm	Dale Farm
EP Kilroot and EP Ballylumford (formerly AES UK & Ireland)	Granville Ecopark Ltd (expired September 2020)
Granville Ecopark Ltd	Lakeland Dairies
Lakeland Dairies	Ulster Supported Employment Ltd (Usel)
Ulster Supported Employment Ltd (Usel)	

Progress and achievements are detailed in this publication. Beyond these tangible outcomes, there have been a wide range of additional benefits such as building on positive working relationships. These create opportunities to engage with the businesses on strategic issues, which help contribute to the broader DAERA and Executive objectives.

If you have an interest in securing a step change in the approach to environmental and economic challenges, and think you can meet the key criteria outlined above or you would like to find out more about Prosperity Agreements, then please contact the team at:

prosperityagreements@daera-ni.gov.uk



14% Reduction in Carbon Emissions

Since signing their Prosperity Agreement in 2015, Thompsons have reduced their energy use (kWh) by 13.1% and in turn reduced CO₂ emissions (t CO₂e) by 14% through a variety of initiatives including process efficiencies, equipment upgrades and dual fuel certification for the site Combined Heat and Power plant (CHP); enabling use of both Natural & Bio gas.

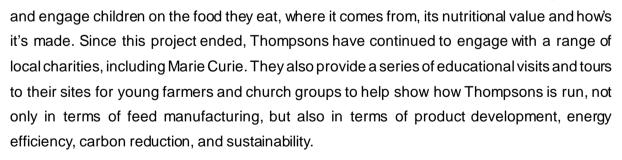
26% Reduction in Waste Production

Thompsons have increased waste recycling by 58 tonnes and reduced waste tonnage by 74 tonnes over the lifetime of their Prosperity Agreement.

This has been achieved through change in packaging composition, optimisation of buying processes, identification of new recyclable waste streams and general good housekeeping.

Positive Community Engagement

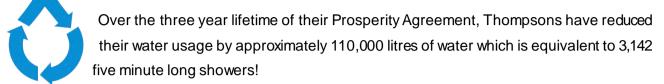
When Thompsons first signed their Prosperity Agreement, they were partners in a large scale project for the Northern Ireland Agri-Food Industry – Project Daire. This project involved working with primary and pre-schools in the Derry City and Greater Derry City area to educate



Thompsons have also taken part in tree planting initiatives in West & South Belfast and contributed to the Belfast Hills Partnership. The Thompsons Sales & Technical Team have completed their Field Advisors Training and registration. This is an UK Feed Industry environmental scheme, which provides feed advisors with the knowledge to discuss with farmers in NI and advise on the role feed and nutrition can play on environmental impact of the farm. Thompsons have also been a key stakeholder in developing a similar local Northern Ireland specific scheme. Thompsons also participate in a Volunteer Grant Scheme run by their

parent company. This scheme matches funding raised by employees, with organisations such as BARN Animal Rescue and NI Hospice benefitting from staff efforts.

16% Reduction in Water Usage



Investment in Innovation and Research Projects

Thompsons continue to lead the way in feed efficiency research and projects which seek to address strategic environmental concerns through their partnerships with AFBI and the Agri-food Quest Competency Centre. Thompsons have pioneered a newly formulated lower protein diets which when introduced to pig finishing diets have been shown under trial conditions to reduce ammonia emissions by up to 49%, reduce water consumption by 25%, reduce slurry output by 38% and although not statistically significant reduce odour offensiveness by 19%. The success of their work on pigs has now encouraged Thompsons to see if similar environmental benefits can be achieved in dairy cows via nutritional manipulation and improved feed efficiency. In an AFBI led project under the DAERA Directed Agri-Food and Biosciences Institute Research Work Programme 2019/2020 and in partnership with Trouw Nutrition the team are investigating the environmental, scientific and commercial implications of "Reducing Nitrogen excretion from dairy cows through dietary manipulation" (Evidence and Innovation Project, 19/1/16).

Supply Chain Initiatives

As part of their protein efficient pig finisher diets, Thompsons have been able to reduce their requirements for soya by over

9000 tonnes per annum. Some calculations predict that this equates to approximately a 16% reduction in Greenhouse Gas Emissions per kg of pig meat. Thompsons have also committed, in conjunction with a number of larger integrated customers, to source RTRS Soya (Round Table on Responsible Soya), a fully audited and accredited scheme ensuring sourcing of sustainably farmed soya. In 2020 Thompsons also celebrated 150 years as a local business supporting local agriculture. Rebranding their website this year to mark this milestone and "Part of the Landscape" reflecting their approach to sustainable agriculture in Northern Ireland.



Coca-Cola HBC Ireland and Northern Ireland

Coca-Cola HBC is a bottling partner to The Coca-Cola Company and operates across the island of Ireland. The Dow Jones Sustainability Indices ranked Coca-Cola HBC Group the world's No.1 sustainable beverage company. This is the 5th time in the last 7 years that they have been recognised as the global beverage industry leader and the 10th year in a row that they have been ranked as one of the top three companies. Locally, Coca-Cola HBC achieved platinum status in the Business in the Community Northern Ireland Environmental Benchmarking Awards for the 5th consecutive year.



Reduction in Energy Use

Coca-Cola HBC have reduced carbon emissions by 60% (per litre of beverage produced) since 2010. 100% of electricity at the Coca-Cola HBC site is sourced from a clean and renewable source and since 2016, Coca-Cola HBC have continued to invest in reducing energy consumption and associated emissions, achieving an overall energy reduction of 25% since 2010; a saving of more than 43.3 million mega joules.

Furthermore 85% of total energy in Coca-Cola HBC's Knockmore Hill facility is now sourced via an onsite combined Heat and Power Plant and 100% of forklifts used on site are biogas-powered.

Reduction in Water Use

Coca-Cola HBC work to ensure the sustainability of water sources and ecosystems and have comprehensive water risk assessments and source water protection plans for their manufacturing site. Coca-Cola HBC have successfully reduced their water ratio by 20% since 2010; improving usage from 1.86 to 1.49 litres of water to produce 1 litre of their beverages. In addition, their manufacturing is certified to Gold standard in the European Water Stewardship scheme, meaning they meet independently accredited standards for sustainable water management.

Resource Efficiency and Circular Economy



All bottles and cans sold by Coca-Cola HBC are 100% recyclable. Since 2018 they have increased the proportion of recycled materials used across their plastic portfolio to more than 45%, eliminating almost 3,340 tonnes of virgin PET from the supply chain annually. They have invested in recycled plastic (rPET), with their Deep RiverRock brand being 100% rPET from 2019

and On-the Go Packs now contain 50% rPET and Take-Home Packs contain 25% rPET. In 2020 their SmartWater also moved to 100% rPET.

The amount of plastic used in the manufacture of its plastic bottles has also been reduced by more than 10% since 2018 through light-weighting of packs and the introduction of a smaller closures. By the end of 2020, their light weighting initiatives reduced plastic use by 1,000 tonnes annually. None of their primary packaging contains non-recyclable components and have even switched their Sprite bottles from green to clear, making them easier to recycle. In 2020 they moved to innovative 'Keel Clip' cardboard packaging for their 4, 6, and 8 multi-pack cans, and in April 2021 switched to cardboard packaging called Q-Flex for larger multi-pack cans, a move that removes over 500 tonnes of unnecessary plastic each year!

Zero Waste to Landfill

Coca-Cola HBC continue meet their waste to landfill target with over 99% of waste produced in the manufacturing process being recovered or recycled. Their most recent annual non hazardous waste tonnage results break down as 18 tonnes recovered, 130 tonnes recycled, 32 tonnes reused and 0 tonnes disposed. They also continue to partner with waste management company to drive efficiencies in the way they handle and process waste. All waste sugar, syrups and product go for anaerobic digestion at the plant, generating gas, and in turn putting electricity back into the grid. Furthermore, as part of a commitment to reduce food waste, Coca-Cola HBC began working with Fareshare and Simon Community foodbanks

in 2017, to ensure that surplus drinks are put to the best possible use. On average over 200,000 bottles of water and soft drinks are donated annually.

Successful Community Engagement Initiatives

Coca-Cola HBC have proudly partnered with a number of leading NGO's, to remove litter from beaches, lakes and rivers. In 2018, as part of the Big Beach Clean, 400+Coca-Cola HBC employees took to the beaches across the island of Ireland, including Portavogie beach, Co. Down to support the volunteering effort.



55% Reduction in Energy Use, saving 922 tonnes of Carbon.

Through the implementation of energy efficient lighting and other process efficiencies across the process, AES has made significant savings. This is complemented by a £200,000 investment in plant efficiency monitoring and predictive modelling software to maintain lower emissions at Ballylumford. Off Load optimisation at Kilroot has saved 1500 tonnes of heavy fuel oils and reduced CO₂ emissions by 8.4 kT.

Successful Community Engagement Initiatives

EP Kilroot and EP Ballylumford (formerly AES UK & Ireland) have delivered their Environmental Leadership Programme in 7 local schools with 326 pupils taking part in the programme. They have also provided an Energy in Nature programme, alongside a help to read initiatives in local primary schools. They have also taken part in beach cleans with CitiGroup.

Waste Reductions and Circular Economy Initiatives



EP Kilroot and EP Ballylumford (formerly AES UK & Ireland) have implemented a number of successful projects to engage staff in waste issues. Key staff members have participated in the WasteSmart Foundation course, staff are briefed monthly on waste and recycling initiatives, the canteen now recycle all packaging and food waste, and staff are encouraged to recycle by the removal of desk bins and replacing with recycling stations around the office.

Positive Impact on Biodiversity

EP Kilroot and EP Ballylumford (formerly AES UK & Ireland) are platinum members of Ulster Wildlife and have delivered improvements in habitats and species diversity on site through the implementation of their 5 year biodiversity plan.



55% Reduction in Water Use resulting from efficiencies during off load optimisation.



34% Increase in Energy Generated

Since January 2017 Granville has increased the volumes of material processed through their enhanced AD process to enable a significant increase in energy production, resulting in renewable electricity for the Grid from their own engines and Sustainable Bio methane fuel for distribution to other users. In the two year period between January 2017 and December 2019, electricity created on site has increased by 29.45% and electricity generated off-site by transporting the renewable fuel has increased by 46.64%. In 2019 and 2020 combined they produced total of 75,140 MWh; the equivalent of powering over 20,000 average homes (a large town) in N.I. Unfortunately, electricity generation was lower in 2020 due to the shutting down of the hospitality sector, which reduced the feed stock intake of the plant.

Reduction in Carbon Emissions



By December 2020 30% of Granville Ecopark staff are driving renewable fuel cars; reflecting the sustainable ethos of the business and its employees. This includes all vehicles in the company fleet used for commuting and business. The vehicles are a combination of renewable electricity powered EV's and biomethane powered Compressed Natural Gas vans.

In 2018 equipment installed to sustainably redirect heat from the engines back into the process, has resulted in a 79% decrease in the use of diesel in the plant process during 2019-2020, in comparison to the previous 2 years.

Redirection of food waste from landfill over the past 2 years has saved approximately 82, 000 Tonnes of CO₂ from entering the atmosphere (diverting food waste from landfill creates a CO₂ saving of 523kg/tonne).

In 2020 they introduced a new Biomethane fuel filling station on site, used by customers and the plants own CNG lorries and vans. Biomethane use in 2019-20 has so far replaced approximately 13,000Ltrs of diesel for transport, leading to a further CO₂ reduction of 97 tonnes. They expect this to be greater in the coming years.

14.16% increase in Waste Processed

2019-20 saw the plant treat 157,103 tonnes of food waste, a 14.6% increase on 2017-2018, helping Northern Ireland meet landfill diversion targets, reduce carbon emissions from landfill gas and facilitate the recovery of energy and fertiliser from a variety of food waste streams.

37% Reduction in Overall Water Usage

After installing the borehole in 2018, collecting storm drain water and effectively utilising feedstock, the overall water usage on the site has reduced by 37% on the previous 2 years. Significantly reducing their dependency on the mains water utility system by 55%.

Supply Chain Initiatives

Quality digestate from Granville's process is supplied to farms across N.I. and Granville are working with 220+ approved and selected farmers who are reducing their usage of chemical fertiliser. The digestate is improving crop and grass yields by 18-30% compared to traditional slurry chemical fertilisers treatments.

The introduction of the "Smart Loop" in 2020 has opened doors to customers to enable them to be a part of a closed loop of recovery, for example, food waste can be collected by CNG vehicles that are fuelled by Biomethane, created as part of the food waste treatment process, nothing goes to waste.

Positive Impact on Biodiversity

Granville Ecopark Ltd are signatories to the All-Ireland Pollinator Plan and have invested in the provision of an 86m³ bee habitat. Since creating their onsite "Bee Garden" at Granville EcoPark in 2018, the space has truly flourished. Their long-flowering meadow seeds and pollinator friendly tulip bulbs have bloomed, plus they have created a raised flower & herb bed by upcycling old pallets and delivery boxes. Their small bee

hotel/B&B and bee baths are being utilised and they also now have a sitting area for employees to enjoy the garden. The furniture was created by recycling delivery boxes & empty electrical spool reels.

Community Engagement Initiatives

Granville staff regularly take part in community outreach activities having visited 5 local schools to promote recycle week in October 2018 and welcomed students from South West College to tour the plant. January 2020 saw the beginning of Granville Ecopark working with



Eco-Schools N.I. in the YRE Initiative and supporting a school in their project based on plastics. In February 2020 a competition commenced with six schools in Mid-Ulster District, focusing on the use of food caddies and the importance of separating food waste – however due to the COVID-19 pandemic this has been put on hold. They also accommodated students from CAFRE who will be working on a project enhancing food waste collection along-side Fermanagh and Omagh District Council.

Future Projects

They have introduced Northern Irelands first Compressed Natural Gas (CNG) powered HGV lorries, fuelled with 100% renewable bio methane fuel. The lorries give an 85% reduction in emissions compared to standard diesel versions, they are also much cheaper to run and have lower noise emissions. It is hoped this will instigate the market for other companies to make the move away from diesel.



Granville Ecopark are also working on some innovative Digestate/organic fertiliser and Carbon sequestration projects.



15% Reduction in Carbon Emissions

Since they signed their agreement in June 2018, Lakeland Dairies have reduced their CO₂ emissions by 15%, through the use of gas from Granville Ecopark and by improving process efficiencies.

Zero Waste to Landfill



Lakeland Dairies have achieved this through a variety of initiatives including diverting useable products to food banks, process efficiencies, a partnership with Granville Ecopark to process off-spec products into biogas.

Supply Chain Initiatives

Lakeland farm advisors have been working with NIEA inspection teams to provide their 800+ farmers with guidance on climate change adaptation, nutrient management, ammonia abatement



and issue a monthly newsletter to ensure their farmers are up to date on the latest regulatory requirements and good practice in pollution prevention. Lakeland Dairies attended the Ammonia Abatement in Practice Study Tour to the Netherlands in 2019, part of CAFRE's Farm Innovation Visits Programme. Following the visit, Lakeland Dairies shared the lessons from the visit with their milk suppliers. Lakeland Dairies provide a subsidised soil testing programme for their famers and in 2019 they started providing Urea milk tests to all of their milk suppliers to ensure the optimal amount of protein is fed to their cows, reducing ammonia emissions.

Positive Impact on Biodiversity

2017 saw Lakeland partner with Ulster Wildlife to deliver a tractor cab guide to Northern Ireland wildlife, helping farmers across NI identify key plant and animal species and better understand their habitat requirements. Additionally, 4.8 acres of Lakeland property is managed to support pollinators and Lakeland are signatories to the All-Ireland Pollinator Plan.

Packaging and Single Use Plastics

Lakeland have joined the WRAP plastics pact, committing to seeking alternatives to single-use plastics. 2019 saw the removal of plastic straws from the Lakeland product range and their substitution with paper straws.



Community Engagement

Lakeland have facilitated 10 visits from young farmers and third level education establishments, including a sustainability leadership element.

Investment in Innovation

 Lakeland are continually seeking to improve their facilitates and process and in the short time since joining the programme have invested £1M in new milk reception infrastructure to improve resource efficiency and reduce waste.



2% Reduction in Energy and Water Consumption

Despite being a relatively small scale social enterprise operation, Ulster Supported Employment Limited (Usel) have managed to cut 2% from their energy consumption and 2% from their water consumtion over the period of their agreement through energy efficiency initiatives including LED lighting, 'A' rated equipment and other measures. This is despite expanding their operations.

Community and Social Engagement

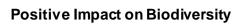
This is the area where Usel excels, providing 50 living- wage supported employment positions for those in long term unemployment, disabled people and those with learning difficulties. Additionally they are providing access to employment support programmes for 1,200 people. For every £1 invested in Usel services, there is a social return of £15.

Over 1,000 Tonnes of Waste Diverted from Landfill

Usel have increased their mattress recycling levels by 108% in 2019 and diverted over 60,000 mattresses from landfill in 2019/20 and a further 10,000 between April and September 2020 despite the impact of Covid-19



restrictions. They have reclaim furniture items for recycling and re-use and their expansion into carpet and office furniture recycling is anticipated to yield further materials for the circular economy and landfill savings. They produced face coverings to combat Covid-19 and were awarded an NICS paper-shredding contract in 2020. Usel were jointly awarded the Circular Economy Leadership award at the Sustainable Ireland Awards in November 2018 in recognition of these efforts. In October 2020, Usel were visited by the DfE and DAERA Ministers who praised them for their ongoing social enterprise and circular economy achievements despite the Covid-19 Crisis.



100 m² area adjacent to the current depot identified for possible wildlife and sensory garden. Options for Usel to increase biodiversity are limited due to their urban setting.



Reducing Carbon Emissions

The 37 acre, 5MW solar farm beside their site at Dunmanbridge, Cookstown is monitored daily and in 2019 it provided 827,480KWh – saving the equivalent of 1554 tonnes CO₂e. During the calendar year 2020 it provided 3,839,430KWh and at peak solar production at times during May the Dunmanbridge plant has run entirely on solar power.

Gas conversion has been completed at Dunmanbridge and United Feeds Dungannon. The conversion of combustion boilers to natural gas at Dunmanbridge has reduced carbon emissions by 28% and recently installed gas Flue economisers anticipated to reduce carbon emissions by a further 3%. During 2020 the CO₂ emissions from combustion activities at the Dunmanbridge site reduced by 6,000 tonnes. All effluent sludge goes to AD plants to be turned into biomethane.

Dale Farm are sponsoring a joint project with Agrisearch, UFU, CAFRE and the University of Ulster – Intelligent Total Energy Monitoring in Dairying (iTEMiD). This examines energy use and efficiency within the dairy farm with the first report due in 2021. They are also using the carbon calculator used by EC02 to monitor the CO2 produced by individual N.I. dairy farm production systems. In partnership with Flogas they are promoting high efficiency gas water heaters to their farmers which are capable of running on biogas. Dale Farm have also signed up with Ecovatis to receive an action plan based on an assessment of their environmental, procurement sustainability and ethical performance.

Dale Farm are currently working with logistics consultants to maximise the efficiency of the routes their milk tankers take and almost all of their farmer suppliers are on every other day milk collections which reduces the length of time their lorries are on the road.

Packaging and Single Use Plastics

As part of their Prosperity Agreement, Dale Farm have multiple plastic reduction projects in progress including the replacement of plastic straws with paper versions in their Sukie drinks by June 2021. They are also conducting three further "light weighting" trials to reduce the amount of plastic used in their packaging and are working to remove zip packaging from cheese.

Improved water quality and reduction in water use

A £1m investment at the Dromona plant brought a new effluent treatment plant online and a £2.5m water treatment plant is being implemented at Dunmanbridge which will reduce reliance on treated mains water and recover 200 cubic metres of water per day by treating evaporator condensate to potable standards. Anumber of Dale Farm producers participated in a Colebrooke catchment initiative.

Supply Chain Initiatives

Dale Farm are the largest UK farmer-owned cooperative, owned by 1,300 UK farmers. They support their farmer suppliers in complying with the Red Tractor Standard and their



suppliers are 100% certified. The Red Tractor Standard includes requirements on avoiding nutrient run off into waterways including best practice in silage, organic and inorganic nutrient management including a nutrient management plan. Several Dale Farm suppliers participate in the Dairy-4-Future Interreg funded project which aims to improve the sustainability of dairy farming in the Atlantic region of Europe. This includes detailing the greenhouse gas emissions (GHG) per kg of milk for the local farms participating in the project.

Three Dale Farmers have featured in the EU Dairy Sustainability Programme which aims to disseminate facts and solutions on how to create a sustainable dairy sector in Europe. Dale Farm has circulated information about the Environmental Farming and Farm Business Improvement Schemes to their farmer suppliers. They have also issued guidance on and provided regular environmental updates from CAFRE and AFBI on ammonia abatement, soil management, water quality, correct slurry application and climate change. To date 130 farms have participated in the Dale Farm soil testing and nutrient management program, with future plans to provide advice from agronomists on soil structure, biology and further chemical analysis.

Improved Biodiversity

Dale Farm have signed up to the all-Ireland pollinator plan. They have planted 10 alder trees and a batch of 50 mixed trees along the bank of the Lissan Water at Dunmanbridge and a plan is being developed for the Dromona site. They are investigating the treatment of Giant hogweed at Dunmanbridge (an invasive species). Dale Farm is working with DAERA as a key stakeholder to develop an Ammonia Emissions strategy for NI.