

1. Agri-Environment Climate Scheme and Greening

Organic farming, wildflower margins, connected hedgerows and other nature-friendly farming practices encourage biodiversity and are supported through the voluntary SRDP Agri-Environment Climate Scheme (AECS). Nature-friendly practices also improve soil health and water quality, increase ecological connectivity, manage flood risk and mitigate against climate change. We delivered a series of events focusing on AECS to show how nature-friendly farming can be good for both business and biodiversity; and a series of interactive evening talks on how to add business and wildlife value to the mandatory Greening rule options.

Farming with Nature delivered events aimed at farmers interested in AECS options and how managing their land differently could impact on production. The events looked at 'win-win' situations where agri-environmental management can benefit both wildlife and production e.g. field margins increasing the number of insects, which pollinate plants or compete with pests, thereby boosting yield. Time was also spent exploring some of the practicalities and challenges associated with applying for and managing land under AECS.

Getting to Grips with Agri-Environment Schemes

9th March 2017: St Andrews, Fife

30th September 2017: Ullapool, Ross-shire

29th November 2017: Blair Atholl, Perth & Kinross

30th January 2018: Lamancha, Scottish Borders

The Fife event speakers included Hwyl Maggs (RSPB Scotland) and Stephen Melville who manages Cuplahills Farm and is also an agricultural consultant. Stephen spoke with farmers at the event about AECS and showed them around his farm which has benefitted from various AECS options including habitat mosaic management, pond creation and drystone dyke restoration. The speakers and the information they imparted at the event attracted excellent feedback. Participants said that after attending the event that they would consider how they could use agri-environment measure on their land and four said that they would be likely submit/resubmit an AECS application.



Left: morning presentation at Cuplahills Farm for Getting to Grips with Agri-Environment Schemes event.
Right: species-rich grassland at the Cuplahills farm

Sample comments from event participants

- *It was a fantastic day and I submitted an AECS application after the event with alterations made due to the advice received at the event – excellent speakers and great to involve RSPB. Soil assessments have also been carried out this year.*
- *A well-run event – keep up the good work Joined the monitor farm group*
- *Beneficial to see a scheme in place and underway helps show how things work on the ground*
- *Great farm walk. Nice to visually see the different AECS options*
- *As a result of attending might try woodland/hedges*

The Ullapool event was held on a working croft overlooking Little Loch Broom in the North-West Highlands on a Saturday to accommodate the needs of crofters who work off-croft. The principal speaker was Gillian McKnight (SAC Consulting). The event examined AECS in detail, firstly by having a walk and talk session around the croft, led by SAC Consulting's conservation specialist. After lunch participants worked through a draft AECS plan including a grazing plan and how to collaborate. We had a very engaged group of crofters who were keen to share their experience and talk about their next steps for implementing environmental plans on their crofts.

Sample comments from event participants

- *Vast subject material/topics good to have free discussion on personal experience and great to have all the supplemental info to take away – many thanks!*
- *As a result of event might try lots of things. It was great to do the croft walk*
- *Very informative, good discussions. Good to understand what's available*
- *I am just going to be more confident and proactive/less daunted: organise, plan and have a timeline*
- *Everything was useful. Enjoyed the sharing by experts and novice crofters – all very helpful and supportive*

The Perthshire event explored some of the practicalities and challenges associated with applying for and managing land under an AECS scheme and invited participants to bring draft plans for discussion with Scottish FWAG experts. A range of land managers and farmers were given a two hour walk and talk around Monzie Farm, facilitated by Richard Lockett (Scottish FWAG). Monzie is an upland farm within the Cairngorms National Park and has an AECS contract in place. Discussions centred around managing grazing plans around livestock requirements, capital items, and moorland management plans.

The Borders event also looked at 'win-win' situations, where agri-environmental management can benefit both wildlife and production. It also explored some of the practicalities and challenges associated with applying for and managing land under an AECS scheme and invited participants to bring draft plans for discussion with Scottish FWAG experts. The meeting attracted a range of land managers and farmers who were given a two hour walk and talk around Whitmuir Farm, facilitated by Scottish FWAG. After lunch there were presentations on the AECS application process and the organic conversion process.

Sample comments from event participants

- *Will investigate converting to organic and make an AECS application*
- *Will try more agroforestry-shelter belts, bird habitat and coppice hedgerows*
- *I will investigate wild bird seed and wetland habitat*
- *Will look at more potential for collaboration to benefit habitat networks. [Comment by Adviser for AECS]*
- *Try green manure, wild bird and water management*

Get a Grip on Greening Roadshow

4th December 2017: Kinross, Perth & Kinross

6th December 2017: Laurencekirk, Aberdeenshire

7th December 2017: Inverurie, Aberdeenshire

These popular evening events focused on getting to grips with the 2018 Greening rules and making it work for farmers, their business and the environment. The event involved input from Soil Association 2017 field lab findings on cover crops and green manures, and RSPB Scotland's corn bunting project, as well as information on the Greening rules.

The post event evaluation included a section asking event participants 'If you could 'invent' an EFA (Ecological Focus Area) option, that would benefit your business, and the environment, what would it be?'. We received lots of responses to this question and fed back ideas and suggestions to the Greening Changes sub-group of the Agriculture and Rural Development Stakeholders Group and RSPB Scotland. As a direct result of hearing the enthusiasm generated by farmers for corn buntings at the programme's 'Get a Grip on Greening' events, Scottish Natural Heritage provided RSPB Scotland with additional funding to trial different seed mixes.



Left: farmers at one of our Greening roadshow discussion events in Aberdeenshire. Right: a corn bunting – a bird associated with lowland farming especially ground in cereal fields, set-aside, grass field margins and unimproved grassland. Scottish populations have dramatically declined over the last 30 years as farming practices have intensified.

1. Non-chemical pest control

We delivered a series of well-attended events focusing on non-chemical methods and strategies for controlling plant and animal pests help to reduce the use of chemical pesticides which are harmful to wildlife and the wider environment. There are a growing number of regulations placing restrictions on the use of some pesticides, which have been shown to be harmful to the environment and a risk to human health – making it a priority to find affordable and sustainable alternatives.

According to the product labels: MCPA used to control soft rush is classified as harmful to aquatic life and can enter drinking water supplies; Asulam used to control bracken is classified as very toxic to aquatic organisms and may cause long term effects in the aquatic environment; and metaldehyde used to control slugs is classified as dangerous to game, wild birds, and animals, and can also enter drinking water supplies.

Practices for supporting productive and healthy extensive livestock systems is crucial to the conservation of many hill and upland habitats, much of which is High Nature Value, and a range of wildlife including priority species – e.g. farmland waders – which these habitats support. Controlling invasive soft rush and bracken will help ensure the viability of extensive livestock production, protect and enhance biodiversity and maintain significant carbon stores.

Rush Control Roadshows: how to tackle rushes on your farm

14th February 2018: Tarbert, Argyll & Bute

15th February 2018: Halkirk, Caithness

16th February 2018: Nethy Bridge, Strathspey

10th May 2018: Scalpsie, Isle of Bute

5th March 2019: Galashiels, Scottish Borders

7th March 2019: Croick, Sutherland

8th March 2019: Breakish, Isle of Syke

These events concentrated on looking at long term solutions for soft rush infestation and drew on practical findings from a Soil Association Field Lab and expertise of rush control expert Ian Cairns (5Agri). Soft rush infestation is a problem for many farmers and crofters that is worsening as the climate changes. Rushes can take over grass/clover swards, with knock-on effects for livestock productivity and profit margins. Chemical herbicides will not prevent rush ingress and their use requires the removal of stock after application, as well as incurring additional cost.



Left: a soft rush infestation – poor for biodiversity and grazing. Right: soft rush is under control providing pasture for grazing and habitat for wading birds

It's clear that there is no cure-all technique to manage rushes, but careful planning and methodical groundwork can help to identify areas where easy progress is possible. Proper management of rushes is immensely beneficial to agriculture, but targeting work can unlock multiple benefits for livestock, wading birds and water quality. Good grassland management (drainage, soil structure, pH, reseeding, and soil nutrients) is key to control rushes in the long-term.

Our principal speaker for the events was Ian Cairns who has developed a strong evidence base of farmer led research into different methods of controlling rush. The events attracted over farmers and crofters and proved popular with a high amount of follow up interest. Key areas covered included: learning how rushes grow with in order to tackle them; producing a template rush control plan for the year ahead; seeing how rush control can be combined with livestock grazing; finding out how cutting can be more effective than herbicides; discovering how rushes can benefit farm wildlife.

Rushes are a growing problem for farmers across Scotland, but management techniques are complex and often need to be tailored to local conditions. Caithness and Strathspey support nationally important populations of breeding waders, but populations are in decline in many parts of Scotland. Farmers at the Strathspey and Caithness events learnt about a machinery loan scheme (through the RSPB Wetland and Waders Initiative) to manage habitat for breeding waders and grazing and the best grass seeds to use. The Argyll & Bute event also looked at managing the impact of wild geese on grass reseeding, whilst the event on the Isle of Bute visited Scalpsie Farm to look at rush control in practice.

Farmers in Sutherland were right to focus their work on aeration and subsoiling to relieve the impact of compaction. However, cutting and follow-up grazing were more relevant to those who attended the Galashiels event. When it came to Skye, the discussion focused on drainage and AECS options to balance improvement against wider conservation work for key species like lapwings, curlews and corncrakes. Following the events, most farmers were planning to change current practices and introduce topping, reseeding, soil aeration, improving drainage, soil testing and liming.

Sample comments from event participants

- *Will try creating more of a strategic management plan. Ian Cairns was brilliant as ever. Really good balance between agricultural and wildlife management*
- *Most useful: Practical ideas. Good speakers*
- *Mob grazing and rotational grazing, improvements in soil fertility and soil aeration without chemicals is the message I would like to have come away with*
- *Will try deeper ploughing. Fab presentations*
- *Information on seed types very helpful and how to control rushes based on your ground type.*
- *Will try reseeding. Info on topping and reseeding was best*

- *It is clear from Ian's presentation that a combination of measures is necessary to stay on top of them, and without deep ploughing there is no immediate solution. In my case together with your chemical free approach I am likely to go for some weed wiping with a brush roller*

Worming Your Way to Profit

7th July 2017: Crianlarich, Stirling

7th August 2018: Forgandenny, Perthshire

The first event was held at SRUC's Hill and Mountain Research Kirkton and Auchtertyre Farms, looking at the benefits of targeted selective treatment and managing animal health risk around environmental features such as wader scrapes. Held in conjunction with SRUC and The Moredun Institute, the day included a practical workshop on the hill farm looking at effective ways of treating fluke and worms covering diagnosis, control, different treatments, and pasture management. Speakers included; Davy Mckracken SRUC, Dr Philip Skuse (Moredun Foundation, Dr Fiona Kenyon Moredun Foundation and Dr John Holland SRUC.

Fluke is estimated to cost £50million to the livestock industry in Scotland and is one of the biggest causes of livestock loss and loss of productivity in livestock. It can be treated by dosing animals with flukicides. However, resistance has begun to become an issue with some flukicides. The event demonstrated methods that can reduce the use of flukicides and manage fluke risk – even around environmental features like wetlands.

Agri-environment schemes like AECS incentivise farmers and land managers to introduce or retain wetlands on farms, or adding in wading scrapes to grazing fields, which have many beneficial outcomes to biodiversity and the environment. On the flipside, wet, boggy areas of ground are the preferred habitat for the mud snails that spread the cysts that cause fluke, and understandably farmers can be concerned about grazing in these areas.

The work that is ongoing at SRUC's Kirkton Farm, with the Moredun, is about demonstrating that wet, boggy ground doesn't necessarily mean more fluke. A whole farm fluke management plan can be a win-win for managing land in an environmentally friendly way and using less flukicides, whilst also reducing fluke risks and improving productivity.



Left: Dr John Holland of SRUC Hill and Mountain Research Centre discussing wader scrapes with farmers at 'Worming Your Way to Profit' held in July 2017. Right: presentation at the event

The second event, held the following year, was a practical workshop held at Michael Blanche's innovative farm looking at effective ways of controlling fluke and worms in grass-based livestock systems. The event covered diagnosis, control, different treatments and pasture management as well as looking at what changes can be made to improve health and productivity, and maybe even save some money.

Practical demonstrations showed the principles in action – with handling, weighing and faecal egg counts – and looked at how wetland areas affect fluke management. Questions were answered by expert speakers Michael Blanche and Moredun scientists Dr Philip Skuce and Dr Fiona Kenyon. Comments were very positive with attendees considering mob grazing sheep/cattle; rotational grazing to provide more efficient grass use; and investigating the better use of grass.

Soil, Slugs and Metal: optimising the relationship

7th June 2018: Strichen, Aberdeenshire

This event was hosted by the Chapman Family at South Redbog Farm. Philip Wright, of Wright Resolutions Limited and past Technical Director of Simba International featured as the main speaker. The event highlighted win-wins from managing soil well and getting the most out of cultivation machinery.



Left: Farming with Nature event participants checking out soil health by digging a soil pit. Right: presentation at the event

Dr Andy Evans of SRUC covered the differing methods of slug control, including the implications of using Ferric Phosphate instead of metaldehyde, and how land managers can effectively control slug populations whilst also protecting the water environment. The event was very well attended with most farmers and land managers stating after the event that they would consider changing their current practices, including composting, use of phosphate, soil assessment, taking remedial action to improve soil and trying different crops.

Bracken Control without Chemicals: techniques to balance farming and wildlife

11th July 2019: Dalbeattie, Dumfries and Galloway

Bracken can be a serious problem on hill grazing and marginal land. Without careful management, large areas can easily be overrun, which is bad news for everything from livestock to wild birds. Uncertainty about the future use of the traditional herbicidal spray Asulam has prompted people to look again at bracken control techniques, to strike a balance between productive agricultural land and the bird and insect species which depend upon bracken habitats.

This event was hosted by farmer Mark Parry of Drumstinchall Farm who has been working hard to break up bracken and achieve a better balance at Drumstinchall for several years. Ian Cairns of 5Agri talked about the bracken lifecycle and identifying seasonal opportunities to control the plant. There was discussion and questions about practical bracken control techniques such as cutting, bruising and trampling to improve grazing. These are practical, affordable management techniques that can break up dense stands of bracken and improve wildlife habitats for nightjars and butterflies.



Left: European nightjar – an uncommon breeding migrant to Scotland found mainly in Dumfries and Galloway. Right: the event included a walk and talk on Drumstinchall Hill, looking at the successes and failures of bracken management to date.

The event was very well attended with all the attendees saying that the content was relevant and/or helpful. There were also positive comments on good background information and networking during the event and attendees appreciated the opportunity to keep in touch as a group after the event. Some attendees expressed that they were dealing with a very similar terrain type and the event was helpful on the level of sharing difficulties and possible solutions.

2. Habitat creation and restoration

Buzzing about Grassland

26th July 2017: Thurso, Caithness

23rd July 2018: Inverurie, Aberdeenshire

26th July 2018: Inverkip, Inverclyde

27th July 2018: Grantown-on-Spey, Strathspey

Created by people and maintained by farming, Scotland's grasslands are an important part of our natural and cultural heritage – providing valuable habitat for wildlife, grazing for livestock and beautiful and iconic landscapes. However, most grasslands are fertilised to make them more productive, enabling only a few species of grass to grow rapidly, crowding-out smaller slower-growing species and reducing biodiversity. Grazing can stop the growth of quick growing species, but flowers can be trampled by over-grazing. A fine balance must be maintained to protect biodiversity and grazing for livestock.

Growing good grass and silage can reduce the amount of concentrated animal feed required and extend the grazing season. If sown with a legume like clover, grass can also fix nitrogen in the soil, reducing the input of artificial fertiliser. Farming with Nature delivered several events – tailored to their different locations – looking at these practices and grazing regimes to protect and enhance biodiversity and provide nutritionally good grazing for livestock.

The events were aimed at livestock farmers who were looking to manage areas of species rich grassland and integrate these areas into their farming systems. The Thurso event was held at Burn of Midsands which is a coastal meadow that supports a rich assemblage of wildflowers, birds and insects including the rare greater yellow bumble bee. Speakers included Michael Blanche (grassland and grazing expert), Davie Black (Plantlife Scotland), Katy Malone (Bumblebee Conservation Trust) and Alison Searl (RSPB Scotland). Expert advice was provided on: how to identify eligible species rich grasslands (a practical field led demo); how to restore or create a species rich grassland; how these areas can be utilised within a typical livestock farming situation; how to increase grass and silage output; and managing grassland for wildlife.

The events held in Inverclyde and Strathspey followed a similar format Havard (a farmer and Natural England adviser for conservation grazing) and Chris Bailey (RSPB Scotland) providing the expert information and advice. Both events involved a site visit: Inverclyde at Ardgowan Estate and Strathspey at Lynbreck Croft – demonstrating that enterprises of any size in different locations can unlock their grazing potential to benefit farming and nature.



Left: Farming with Nature participants watching how to identify and record indicator species at Burns of Midsands meadow. Right: Farming with Nature participants on a walk-and-talk Lynbreck Croft

Farming with Nature's fourth event took place at our Pollinator Demo Farm near Inverurie with a farm walk to demonstrate how pollinators help crops and how to create and manage the farmland features that will support them all year round. The event finished with a participatory session on how this work could be taken forward. Speakers: Dr Lorna Cole SRUC and Alan Johnstone Kings UK. After this event attendees considered creating pollinator margins and planting phacelia and other mixes such as clover.

Sample comments from event participants

- *I now have a lot more knowledge and understanding of the subject which will be useful*
- *Will investigate a farmer's network on social media to discuss mob [rotational] grazing*
- *Will investigate adding some more areas of species rich grassland*
- *It was an excellent event with great networking and was very inspiring*
- *Will look at better management of field rotation*
- *I now have a lot more knowledge and understanding of the subject which will be useful*

Working for Waders: bringing wading birds back to Scottish farmland

6th June 2019: Galashiels, Scottish Borders

Wading birds are an important part of Scotland's natural heritage, but many species are in rapid decline. In the last 20 years, curlews have declined by 60%, lapwings by 50%, and oystercatchers by 40%. The aim of this event was to encourage farmers and land managers help prevent iconic species like lapwings and curlews vanishing from Scotland's farmed land. 34 land managers came from across the South of Scotland and beyond to exchange ideas on wader conservation at Threepwood Farm near Galashiels, where host farmer Colin Strang Steel was on hand to discuss the work he has carried out to benefit wading birds.

Colin has worked hard to integrate wader habitats into the running of Threepwood over the last ten years, and his efforts have paid off with the return of lapwings in rough areas of grassland below his house. Many of these areas have always been wet and unproductive, and by tweaking their management and building a system of 'wader scrapes', the farm has been able to turn unprofitable land into a natural oasis. Visiting farmers quizzed Colin on the practicalities of doing similar work on their land, and expert advisers joined the discussion from RSPB Scotland, Scottish Association for Country Sports (SACS) and Tweed Forum.

Attendees heard about practical conservation measures such as making wader scrapes, organising seasonal grazing and carrying out rush control. There was discussion on how wader conservation can work with a farm business and there was also the opportunity for attendees to talk through their experiences of creating and managing wader habitats with local farmers, conservationists and advisors. The event also covered advice on how to fund any changes farmers might like to make. There was an excellent turnout for this event and several attendees commented on a great gathering. Most attendees fed back that the event had inspired them to collaborate, or think about collaborating, with their neighbours in wader conservation.



Left: wader scrapes at Threepwood: Right: Farming with Nature event on walk-and-talk participants at Threepwood

Curlew Conservation: the role of farmers, peatland and predators

14th November 2018, Auchinleck, Ayrshire

This event also looked at wader conservation focusing on the curlew. It was aimed at those interested in farm conservation or wanting to increase wildlife on their farm. The discussion was on agri-environment schemes and capital items, peatland restoration, predator control, rush and vegetation management and farm woodland opportunities. There was also a visit to Common Farm for a rush cutting equipment demonstration. Speakers included Clive Walton (RSPB Scotland), Hazel Laughton (SAC Consulting), Sandra Stewart (ScotFWAG), Phil York (Animal Welfare Solutions) and Daisy Whytock (East Ayrshire Coalfield Environment Initiative). Event feedback demonstrated the benefits of this topic.

- *I liked to hear the advice and ideas coming from different angles*
- *I also feel that the discussion afterwards was thorough and informative, and that enough time was allowed for questions and comment from the attendees*
- *Overall, a great event which gave us all a lot to think about. Well worth it*



Farming with Nature wader events looked at land management practices to benefit curlew (left) and lapwing (right)

For Peat's Sake! Managing Peatlands and Upland Grazing

7th August 2017: West Linton, Scottish Borders

30th October 2018: Callander, Stirlingshire

Peatlands cover just 20% of Scotland but store 25% more carbon than the rest of the vegetation in the UK put together. They're home to many of Scotland's threatened species of plants and animals, yet up to 80% of those peatlands are damaged. Degraded peatland emits carbon, pollutes rivers and increases the risk of flooding. So, peatland restoration is a priority. Peatland restoration can also help to reduce livestock loss – eroding peatlands with deep gullies are a threat to livestock.

The first event was held on an active hill farm in the Scottish Borders which undertook peatland restoration through AECS. The event focused on exploring the potential and challenges when looking at peatland restoration on an active farming business. The meeting concluded with a visit to the peatland site and a discussion involving the farmer, gamekeeper and expert speakers. The speakers were Ian Cairns (5Agri), Jillian Kennedy (IUCN Peatland Programme), and Emily Taylor (SNH Peatland Action). Feedback was excellent, with attendees commenting on how useful the information was and really appreciated the opportunity for networking and discussion.

This second event looked at the benefits of peatland restoration for upland farms. Farming and Conservation advisers Sandra Stewart and Richard Lockett (Scot FWAG) led a farm visit to Braeleny Farm, where the farmer David Higginson has installed 100 peat dams with an AECS grant. There was also a demonstration of a digger. The event covered funding possibilities through Peatland ACTION scheme and through AECS with Emily Taylor. Comments were very positive with attendees stating the event was good, gave them food for thought and that their knowledge on various topics had been improved.

Sample comments from event participants

- *Good range of topics relating to peatland restoration*
- *Good audience. Discussions over lunch and site visit were really good*
- *Learned about how farmers can benefit financially while still meeting environmental targets*
- *Learned more about Peatland Conservation Scheme and the potential for carbon capture options*
- *Presentations were well made and informative*



Left: testing the depth of peat at Braeleny Farm. Right: demonstration of peat re-profiling at Braeleny

Upland Grazing: the challenges and opportunities

1st August 2019: Lockerbie, Dumfries and Galloway

This event was inspired by a series of workshops which Soil Association Scotland ran to gather information about the challenges and common opportunities of hill farmers. One of the leading ideas was to focus on grazing strategies, technology, and improvement which was the basis for this workshop. The meeting started

with an assessment of the challenges which upland farmers are presented with, led by Dr Davy McCracken (Head of SRUC's Hill & Mountain Centre). This revealed several challenges that were familiar from the preceding uplands events described earlier: hill farming is marginal and weighted down with inputs whose price is variable and can be volatile. Changing eating habits, climate change, and economic deterioration of rural areas threaten the viability of hill farming in the immediate future.

These concerns are compounded by the remoteness of hill businesses, who have a high distance to markets and abattoirs. Davy McCracken highlighted that hill farming accounts for more than 50% of agricultural land use in Scotland, so improving hill farm profitability could have wide significance for the national character.

This was followed by a demonstration by Russ Carrington from PFLA (The Pasture-Fed Livestock Association) on the viability of grass-fed livestock. The group split into two to identify opportunities to increase profitability on Hill farms. Two opportunities from the list were identified as 'next steps' for each. Five areas were selected as ideas that the group would like to pursue: financial benchmarking; breeding potential; grass and ley management; cattle on the hill; carbon storage in the uplands.

The importance of Young Farmers was discussed, and it was decided to redouble efforts to include them in the next stages of this project. The potential for carbon payments for peatland restoration, and how grazing management will affect downstream water quality were also discussed. People were keen to keep in touch and have future meetings on a range of topics. Future meetings are now planned for 2020 under the Farming for the Future programme.

When asked what other knowledge or expertise could be brought into this group people replied: buyers/auction marts; access to appropriate know-how; marketing; thinking on future policy in order that we can steer our own businesses in a positive direction; carbon audit education for farmers; SRUC upland research and demonstration farm near Crianlarich.

Farming with Nature Showcase: working with birds, bees and trees

17 October 2019: Glen Clova, Angus

Soil Association Scotland's Farming with Nature Showcase at the Rottal Estate in Angus brought farmers together with agricultural and environmental organisations to discuss how agroecology in farming can help us meet the twin challenges of climate change and wildlife collapse.

Farmers are a vital part of the solution to climate change and wildlife collapse. Four farmers told our conference how they incorporate nature into their farming, whilst retaining or increasing profitability.



L-R Bruce McConachie, Charley Walker, Dee Ward and Denise Walton

The event focused on four themes: nature as a business indicator; increasing output through regenerative grazing; farming for wildlife; river re-meandering, riparian tree planting and catchment-scale-working. Host Dee Ward, landowner of the Rottal Estate, was one of four nature-friendly farmer speakers, alongside Bruce McConachie of Culfoich Farm, Denise Walton of Peelham Farm and Charley Walker of Barnside Farm who presented on their methods to a packed-out room of 60 delegates.

Soil Association Scotland director Aoife Behan kicked off the day, saying: "In Scotland, 98% of land is rural, and 73% of that land is farmed. This makes Scotland's farmers a vital part of the solution to our twin challenges of climate change and wildlife collapse. Good grassland and water management, farming with trees, building soil health and farming organically are some of the ways farmers help to reverse climate change and restore wildlife. And because they reduce the need for costly inputs, these agroecological practices are also good for business. They are 'win wins', and we call this farming with nature."

Every single bit of nature is an indicator of how we are farming

Speaker Bruce McConachie farms sheep and Highland cross and Aberdeen Angus cattle in the Cairngorms, where he also works with the Royal Highland Education Trust and the Cairngorms National Park. He says: "My grandfather used to say, 'You have to make the farm fit the land – you can't make the land fit the farming system,' and that's how we farm here."



Picture: Visiting the re-meandered Rottal Burn and tree planting on the Rottal Estate

He farms organically, which he may or may not continue with, but which he says has taught him and his father "phenomenal lessons" about grassland management, mainly through rotational grazing. "We use as few inputs as possible, and every single bit of nature is an indicator of how we are farming," he says. "Everything we do starts with the soil. Worms are an indicator of healthy soil. Lapwings and curlew are another indicator, including how they behave. This year they came later to feed, which we think might show a deficiency in the soil, so we're sending it off for soil testing."

"We're part of the Strathspey Wetlands and Waders group, who loan out an aerator. We've done extensive 're-wiggling' of wet grounds, creating feeding sites for wading birds. We try to keep soil where it needs to be – using buffer strips, for example, to prevent run off. We've put clover into the sward so that means we use less nitrogen fertiliser, and there are wildflowers in our grazing mixture. These are all decisions to save money - strip grazing, bail spreading, pit silage (because plastic is too expensive) - but everything we do to save money ends up being good for the environment too." [Watch](#)¹ Bruce's talk at our Farming with Nature Showcase.

"We think success should be measured by profitability and impact on the environment"

Charley and Andrea Walker, who farm sheep and cattle organically in the Lammermuir Hills in the Borders, recently won Farmers Weekly's Grassland Managers of the Year and were Agriscot's Sheep Farm of the Year 2017. Charley says they have increased output by 50% thanks to regenerative grazing. He says: "We feel that as farmers we're privileged to live amongst nature, but we were initially drawn into a system that had a lot of inputs. You're taught that high productivity equals high profitability but actually we have found that not to be true. We think success should be measured by profitability and impact on the environment."

The Walkers farm with nature in different ways. "We have a selection policy so we don't keep weak animals. We use self-shedding sheep that don't need shearing. We calve and lamb in pasture at a time of fertile nutrition, and we outwinter livestock."



Visiting tree-planting on the Rottal Estate with landowner Dee Ward

Mainly, though, their success is down to their grazing methods. "Over the whole farm we have lifted the output by 50%, mainly through regenerative grazing. That means big groups of animals on small areas for a short time with a long recovery period. We do three days grazing and trampling and 21 days rest. The plant group development leads to better soil structure and an increase in organic matter. It also sequesters carbon

¹ <https://www.youtube.com/watch?v=TUT0adKtGVI&feature=youtu.be>

– increasing soil carbon also takes carbon out of the atmosphere. It's not a quirk or a gimmick - it offers a real opportunity to increase output and produce environmental benefits."

Charley and Andrea are part of Soil Association Scotland's Mob Grazing field lab, which aims to measure the benefits, including soil carbon, of this kind of grazing. They are also part of a QMS grazing group. "Good discussion groups like these two have really moved things forward for us," he says. "So we've increased our stocking rate by 35% in five years and, in terms of kilograms of liveweight per hectare, we've increased by 50%. Our whole farm is a habitat and it's all linked – there are benefits to all species and it makes me happy." [Watch](#) Charley's talk at our Farming with Nature Showcase.²



Craig McIntyre of the Esk Rivers and Fisheries Trust shows off the re-meandering of the Rottal Burn, which has brought fish back to the river five-fold

"Where you have strong habitats and connectivity you get resilience"

Third speaker Denise Walton agrees that "the greater the connectivity of habitat, the greater the biodiversity." She and her family took over 'a decrepit, hard-pushed, entirely arable' Peelham Farm in 1995 and set about making it a thriving organic livestock farm where nature has returned in droves and flocks. "We've brought about a 20% increase in biodiversity due to organic management" she says.

"We've dug ponds and planted 50% more woodlands and 75% more hedgerows and linked them all up. Habitat fragmentation can be reversed. We are having draught periods every three to five years now, which doesn't give much recovery time and has a bad effect on butterflies, for example. But where you have strong habitats and connectivity between habitats you get resilience."

[Watch](#) Denise's talk at our Farming with Nature Showcase here.³

"We can do more good by planting trees than anything else"

² <https://www.youtube.com/watch?v=xZ5t3w9ayBI&feature=youtu.be>

³ <https://www.youtube.com/watch?v=jGLc8tI7uVo&list=PLiWAozVmDLEm3-1MsGIldr01X2bjOAOQKM&index=4>

Dee Ward worked with neighbouring estates and local organisations like the River South Esk Partnership on a landscape-scale tree-planting and river re-meandering scheme in the hills and valleys the Rottal Estate. He says: “I feel strongly that we all need to do our bit for climate change mitigation, and that we can do more good by planting trees than anything else.

Here it’s been a win for the river water quality and for the fish.” Setting the river back on its natural course has led to a five-fold increase in juvenile salmon and trout in the river, he says.

[Watch](#) Dee's talk at our Farming with Nature Showcase.⁴

Inspired by the speeches, facilitated group discussions followed, to pull out key challenges and opportunities of improving soil health and water quality, farming with trees, increasing farm wildlife and working together. Mindsets and subsidies emerged as key themes.

After lunch the attendees split into two groups to visit the tree planting and re-meandering work on the estate, and continue the discussion accompanied by others involved in the projects, including as Kelly Ann Dempsey of the River South Esk Partnership and Craig McIntyre of the Esk Rivers and Fisheries Trust.

The scale of challenges like climate change and wildlife collapse is big, but the consensus of the day was that, in farming with nature, there is hope.



Discussing challenges and opportunities of farming with nature

⁴ <https://www.youtube.com/watch?v=McJ4nvYmS6I&feature=youtu.be>