#### **Members Newsletter 019**

So another year is beginning to move towards the final furlong. For arable farmers, this tends to mean quieter times. Not always so for those with livestock as the animals are now nearly all indoors with the associated work that involves. Dairy farmers may say there is never a quiet time.

We are very pleased to be sending you the latest edition of our newsletter which covers a summary of results from our recent members opinion survey covering:

- Farm business revenue strategies
- Data informed farming
- Attitudes towards demonstration farms
- Multi farm environmental plans
- Attitudes towards farm regulation

Also contained within is a round up of the meetings we have held with external speakers including Professor Jonathan Jones from the Sainsbury's lab on genetic modification which proved to generate considerable discussion. There is also a brief summary of a new report from the Worldwide Fund for Nature (WWF) trying to make sense of the concept of rewilding which we suggest is worth a read (an online link to the full report is provided).

Not for the first time, we were recently contacted by a Network member exasperated by a lack of clarity in government policy regarding agriculture and environment. In his words, 'do they want food, do they want birds, do they

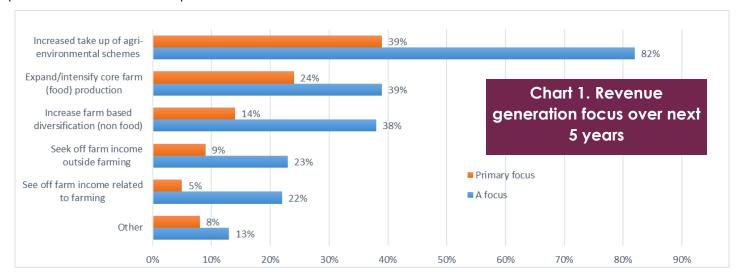
want unicorns'? Working at an academic institution, it is not for us to comment on politics. What has become clear, however, since starting the Network is a need for a long term land use and food policy which everyone—farmers, conservationists, scientists, food retailers, the public—can get behind. This is made very difficult when government ministers chop and change as often as they do and when political instability is the norm. At the time of writing, Northern Ireland still does not have a functional government and in England, Therese Coffey, Secretary of State for Environment, Food and Rural Affairs has just resigned from her job as Prime Minister Rishi Sunak reshuffles his Cabinet. How long will her replacement be in post?

Farming is a long-term business which does not seem to sit well with our political system which operates on a different temporal schedule. A solution to this quandary does not seem obvious but please do get in touch if you have any ideas. We trust the Network remains a place where members can continue to share ideas about all things farming and the environment no matter how crazy.



#### Farm business revenue strategies

Farm business incomes have experienced considerable diversification since the 1980s; with many farms generating revenues from multiple sources in addition to the core business of agricultural production. In some cases, alternative revenue streams have been something the farmer wants to do. In other cases, diversification has been a means to an end i.e. a necessary activity to keep the farm business viable. We opened our recent survey with a question exploring which revenue streams farmers will be focussing on over the next 5 year period with the results presented in Chart 1 below.



The above results are extremely interesting regarding the direction of travel for many farms and provide an insight into current intensions. By far the most striking finding is the emphasis many farms are placing on income generation from the environment. Indeed, 8 out of 10 respondents stated they will be focussing on agri-environmental payments over the next 5 years and 4 out of 10 envisage this will be their *primary* focus. This compares with 4 out of 10 focussing on expanding/intensifying their core (food) production and only 2 out of 10 suggesting this will be a primary focus. As can be seen, a range of other on-farm and off farm income streams are likely to be explored.

Why the emphasis on pursuing environmental payments? A follow up question in our survey revealed the reasons are varied with the key themes summarised in the verbatim comments below:

#### **Tactical**

'Because as the SFI stands at the moment, I believe there is money to be made for minimal changes to practice, however when that balance tips I'll drop schemes in favour of farming for profit. My core business doesn't need BPS or SFI, therefore participation is on a cost to participate vs return basis'

'I will explore Environmental Stewardship and BNG (Biodiversity Net Gain) opportunities etc because food production return on investment is so poor at the moment but I don't want to tie in the farm too long so that we can convert back to producing food when needed'

'Guaranteed margin and income for known duration. Gives an alternative to the high risk of sowing a crop which has a negative margin at time of establishment'

'Our consultant advises that 8 yrs out of the last 10 yrs environment has made a better return'

### Farm business revenue strategies

#### Core farm production now at capacity

'My core farming is at the capacity of the land holding. I'm in the SFI (Sustainable Farming Incentive – an English environmental scheme) pilot already and aim to understand schemes to maximise environmental revenue alongside profitable dairy farming'

'Two reasons [for going down the environmental route]. 1 - The corporate food system has too much power over producers and consumers alike and I expect profitability to suffer as result. 2 - I now believe that ecosystem services are more important than just mass producing commodities to the increasing detriment to the environment'

#### Getting paid for existing activities

'It is a good source of money for some of the good work I am already doing'

'Want to get paid for what I am already doing on the farm and have been looking at for the last 15 years'

#### Age

'Livestock margins are tight, youngest staff member 56 – me- less livestock means more room for higher payment SFI options. Doesn't feel right but could provide a living'

'I am near retirement age and don't have to rely on the farm for income but I do want to keep it viable so agri-environment schemes are my best bet'

#### External pressure

'As an upland livestock farm, that seems to be the best option for maintaining income, given the anti-livestock noises from various quarters'

It is very difficult to draw hard and fast conclusions about what these survey findings are telling us. The responses do suggest, however, a picture where a relatively small number of farm businesses – around a quarter - will drive ahead with agricultural production. They will make significant investments in technology, farm infrastructure and labour. It is possible to speculate these farms will primarily be located on the best land i.e. Grade 1 and 2. There is then a substantial number of farms which will continue to actively farm the land for livestock and crops; but they will develop a broader array of income streams with environmental payments – either from the state or from private sources such as biodiversity or carbon markets – playing a far greater role. There will also be a section of farm businesses who will continue to farm but will focus on other on-farm and off farm ventures rather than environmental payments. This might involve tourism, property rental etc. or increasing part-time work outside the farm gate. Although very difficult to estimate the scale, it is also possible to identify a cohort of the farming community who will significantly reduce farming operations and in the words of one respondent 'fully embrace the environmental ticket'. They may well reside within the more advanced end of the rewilding spectrum as outlined within WWF's recent paper referred to on page 22.



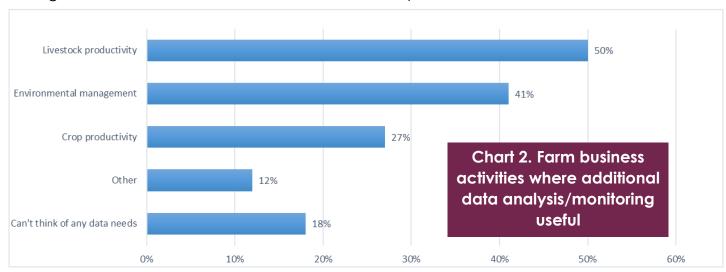
#### Farm business revenue strategies

Whether the future outlined above – if accurate – is a good or bad thing is likely to be a matter of personal opinion. If one is optimistic, it may represent a positive scenario where food production is underpinned by a hub of well capitalised efficient producers, reinforced by a diversified set of farm businesses (the majority) who are still producing food but have multiple income streams from greater environmental activity, simultaneously delivering for the environment as well as spreading business risk for the farmer. Interspersed within this mix might then be a set of 'wildlife focus farms' where nature is the only or majority output. Would this mix of farming units be able to deliver the holy grail of food supply and a thriving natural environmental which the farming community is being asked to deliver? You decide. The crucially important point is that you know where you are going and have a plan to get there; sometimes easier said than done but a valid goal nonetheless.



### Data informed farming

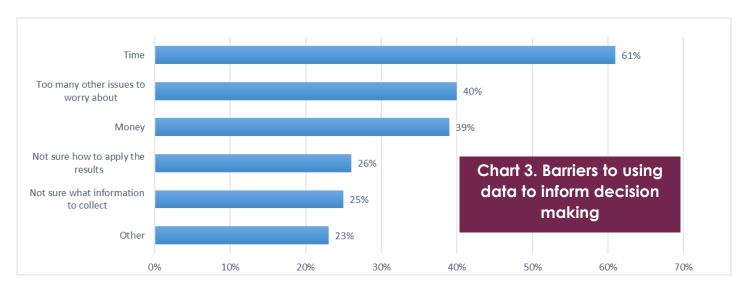
As most of our readers will agree, running a farm business successfully very often requires flexibility with decisions being made 'on the hoof' using experience and gut feel. But what about the use of data, measurements and analysis to inform decision making. Is there a role for increased use of data collection and analysis within your farm business going forward? As the management guru Peter Drucker famously said, "If you can't measure it, you can't manage it." But is that theoretical mumbo jumbo reserved for the deliberations of academics? We opened up this topic in our recent survey by asking respondents whether there is any data collection and analysis (beyond what they are doing already) that would help with decision making within the farm business. See Chart 2 for the profile of answers received:



As can be seen, there appears to be considerable hunger for data with regard to both agricultural productivity and environmental management activities. Note the 'Other' category in Chart 2 in nearly all cases relates to soil analysis. Only 2 out of 10 respondents could not think of any additional data analysis that would help them run their businesses more effectively.

#### Data informed farming

It is evident, therefore, that a majority of Network members see value in data analysis as a toolbox for informing their decisions. However, it is also clear there are a number of barriers that stand in the way of making this a widespread reality (See Chart 3).



We have noted in previous discussions with Network members that many feel increasingly 'time poor', a theme that resurfaces here in relation to data analysis. The will is there but there aren't enough hours in the day. As can be seen in the responses, there are too many other issues to worry about that tend to take priority:

'Yes it's all useful but it's having the time to fully digest the data and put together an action plan'

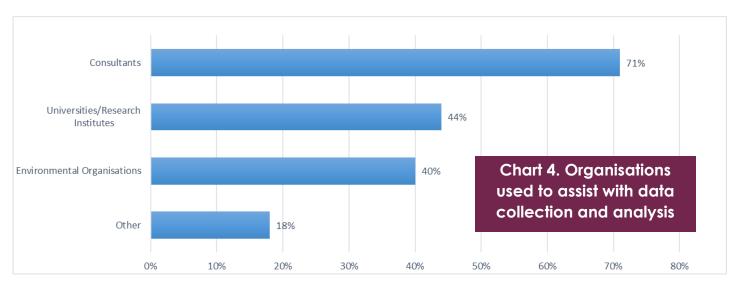
'It's useful until it's not. Farm data has to be continually updated and collected to be useful. Busy periods in the farm calendar often means this gets neglected and the info becomes inaccurate and therefore useless. (mea culpa)'

'There are lots of great apps to help record data, but the best crop app is terrible for livestock info collection, and so on. Also, with every farm being so different, the apps try to go for the most generic, average farm, therefore don't quite work for your own business. I have ended up with lots of data, siloed in different apps, and programs. This leaves me spending huge amounts of evenings and weekends, trying to write my own spreadsheets, so all the information relevant to my business is in one place, and only the KPIs and financial benchmarks I need are there, without the clutter of irrelevant data, or trying to look at four different apps at the same time'

Not surprisingly, money (lack of financial resource) features in the responses as a barrier but we also note with interest the other non-financial issues relating to uncertainty. Specifically, several respondents mentioned they are not sure what data to collect and how to apply the results. Having reviewed the survey responses amalgamated into the 'Other' category in Chart 3, we also see that many farmers are extremely distrustful of technology/data information suppliers. Who do you go to for help? Put another way, who can you work with who is competent and will not rip you off!

### Data informed farming

Despite this innate fear, it appears a very high proportion of those survey respondents interested in data collection and analysis have sought assistance from outside help. As summarised in Chart 4, a wide range of consultants, universities/research institutes, environmental NGOs and assorted 'others' are used (mainly volunteers such as family members and friends). It is noteworthy that experiences have generally been good with 6 out of 10 respondents finding the help they have received positive compared with 3 out of 10 not so. 1 out of 10 are undecided.



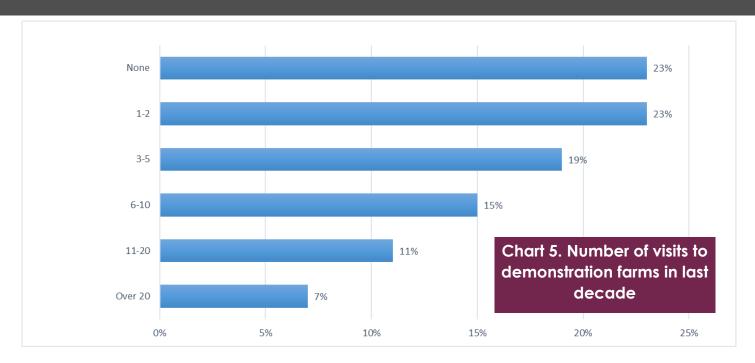
In summary, survey respondents were generally positive about 'data crunching' but help is often required to collect, organise, interpret and use the information. On a positive note, appropriate advice is out there although a certain amount of trial and error may be required until the correct provider is found. This search can be time consuming in itself but the responses to our survey suggest the investment is often worthwhile.

#### Attitudes towards demonstration farms

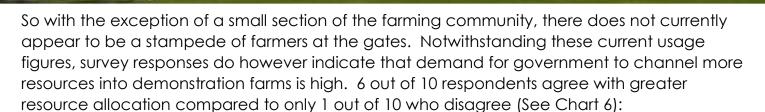
Farming can be a risky business. Trying new ideas – different crops, rotations, animal and crop nutrition, mechanical operations, technologies – comes with uncertainties and information deficiencies which can hamper adoption by farm businesses. Very few farmers have the luxury of being able to make mistakes. Since the nineteenth century, governments in their various shapes and sizes have had a policy of supporting the establishment of so called 'demonstration farms' where new agricultural systems, products and techniques can be trialled. The oldest of these can be found at institutions like Rothamsted Research and older readers will remember the ADAS demonstration farms of the 1970s and 80s. The twentieth century saw the emergence of private sector facilities, largely financed by the agri-chemical and seed manufacturing sector. Views vary regarding how independent and impartial these private sector initiatives have been over the years.

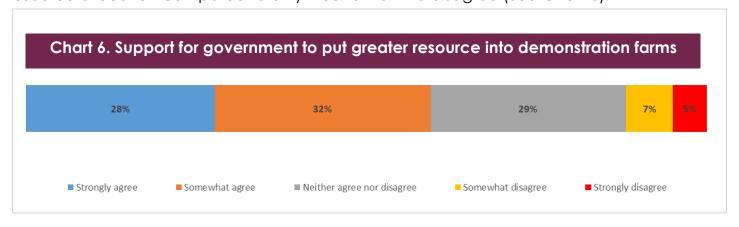
We thought we would take the opportunity in our survey to ask Network members whether there is value in the state investing more resources in developing/expanding demonstration farms fit for the twenty-first century. These would be government funded and independent from commercial influence. Will farmers engage with these facilities and are they likely to help farm businesses going forward?

#### Attitudes towards demonstration farms



Firstly, how many farmers visit demonstration farms and how frequently? Our survey results reveal a broad spectrum of engagement. 2 out of 10 respondents stated they have not visited a demonstration farm in the last decade whilst at the other end of the scale, 2 out of 10 respondents have made >10 visits with half of this cohort making 20+ visits. The largest group of respondents 'in the middle' occupy what might be described as an infrequent visitor profile, on average making 4 visits in the last 10 years.





We asked those in favour of the idea to elaborate on how demonstration farmers could best support the farming community. A selection of the responses received is outlined over the page. You will note that a requirement for independent research features highly in the comments profile:

#### Attitudes towards demonstration farms

'Back in the 80s these farms were instrumental in helping farmers apply research to their own farms. With so much uncertainty in the agricultural sector I think it would be good for this collaboration and perhaps would aid the government to better understand farming and the challenges that we are facing, many of which have been instigated by government'

'By looking at different methodology, trying out in working environments technology without bias. Testing crops and publishing the results, having on-farm open days to discuss the different methods, ideas and what works and doesn't. They have tried this in small areas like trying to establish wildflower meadows in the Yorkshire Dales and finding they failed dismally because the seeds used weren't suitable for the soil'

'We must be one of the few countries that dumped its leading research and left us to the trade, who have their own undeniable interests. Scientific research should be impartial fact and not have other commercial or trendy interests warping it. Have you seen any interstellar astronomers discrediting each other. So yes we need basic independent research that is not driven by anyone. The so called independent commercial trials companies rely on the trade for work, so they can hardly upset them too much'

'The industry is crying out for research that doesn't make money for third party companies. No one is researching how many inputs I don't need as there is no commercial reason to'

'It's a good practical way of communicating new techniques and practices to other farmers.

Also lets someone else makes the mistakes for others to learn from. Always good to meet other farmers at these events and talk through problems and ideas'

'Near market research is desperately lacking in agriculture. New products and production techniques and technology trialled on a commercial scale would be of great benefit'

'Showcasing innovative farming and best practice backed up with open and honest figures could help others transition their businesses'

'The opportunity to see a real world example and ask questions of something/ someone that might apply at home is invaluable. Pictures paint a thousand words and all that!'



#### Attitudes towards demonstration farms

Whilst a majority of respondents are in favour of support for demonstration farms, it is important to reflect that not all farmers are supportive of the concept for reasons which policy makers would do well not to ignore. Historically, some demonstration farms have been considered artificial or devoid of real world reality (e.g. struggling with borrowings, labour shortages, conflict with local planning authorities), a sentiment that was reflected in some of the observations made by our survey respondents:

'Experience of university farms and other institutional farms is disappointing. Best farming practice for profit is found with young enthusiasts. Key is to link academic funding to real profitable farmers'

'There are so many variables. To focus on one farm means that is most likely not relevant to anyone else but them. Lots of companies are happy to sponsor research now on individual farms, and as long as you can be subjective in looking at the results do you need a demo farm? Unlimited money skews the results anyway'

'For the simple reason that they seem to ignore information from the grass roots'

'Demonstration farms are only good if its on your own type of soil. They need to be from a respected party of the farming community not someone pretending to farm. More relevant is grants for farming equipment and farmers going to see kit people have bought first hand on a "normal farm"

'Demonstration farms are far and away less useful and relatable to than farm discussion networks/groups where you visit real life farms of those in your group. In this situation you learn what really works in the real world, not what some huge grant has financed, and that no real farmer can afford'

Despite these reservations and taking into account all the opinions received on this matter, there does appear to be a strong case for developing a greater network of independent demonstration farms across the UK. These need to provide a resource which is pertinent to the localities in which they are based; and crucially, they must provide knowledge, learning and support which is relevant to the 'average' or median farm. With this in mind, we were particularly struck by the comment reproduced below from one of our survey respondents who favours a partnership or two-way information flow between demonstration farms and local farmers:

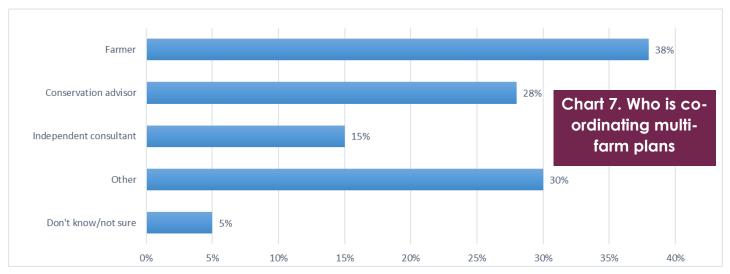
'I think the investment should be spread more widely than demonstration farms to include more learning between farmers visiting each others farms. Possibly use the demonstration farm as a learning hub, with other farms trying new things too with support from the demonstration farm advisers'

Such a collaboration cannot be beyond the wit of humankind to achieve and we see no reason why such a common sense approach cannot be put in place subject to strong leadership being available. This topic deserves greater attention and we will try to identify examples at home and abroad from which we can all learn.

# Multi-farm 'landscape scale' environmental plans

You will probably be aware that governmental agri-environmental policy across the UK is increasingly trying to encourage farmers to group together when it comes to creating environmental areas and wildlife corridors. The idea is that co-ordinated and joined up habitat creation across multiple farms is better for wildlife and water resources management than fragmented or disconnected effort on an individual farm basis. There is significant scientific evidence to support this argument but is it practical for individual farms to participate in joint environmental schemes given each farm business has its own pressures, timeframes and objectives? And not all neighbours necessarily see eye to eye.

Our recent survey included questions designed to explore this topic. What are the views – positive, negative or indifferent? Are Network members already engaging in multi-farm environmental schemes? Would they engage in the future?

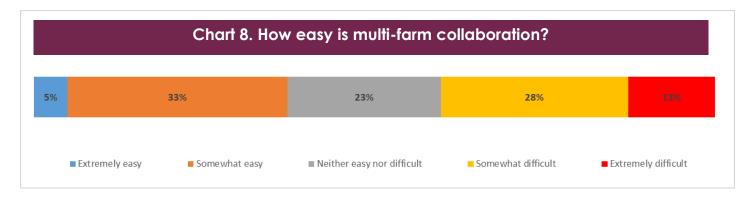


In terms of current involvement, a noticeable proportion of respondents – 3 out of 10 – stated they are already participating in the planning and/or creation of multi-farm environmental delivery plans. As can be seen in Chart 7, these are being co-ordinated by a variety of different entities with the highest number of mentions specifying a member of the farming community. Presumably, the intention in these cases is for the participating farmers to maintain management control over the process, a position most members of the farming community will no doubt empathise with.

How smooth has the collaboration process been so far and specifically, how easy has it been to bring the participating farmers together in a joint working relationship? As might be expected, experiences have varied considerably as outlined in Chart 8. Of those survey respondents currently participating in some sort of joint venture, 4 out of 10 consider the process to have been easy whilst the same proportion characterise the process as having been difficult. 2 out of 10 gave a neither/nor score. Less than 1 in 10 respondents describe the process as 'extremely easy'.



## Multi-farm 'landscape scale' environmental plans



Clearly there are challenges involved in multi-farm collaborations as described in the verbatim comments received:

'Farmers generally are independent businesses, most are unwilling to share business ideas and collaborate with neighbours as they see them as competitors in the marketplace'

'You have to grow trust. It's a gradual process and you have to have schemes that enable collaboration. This is difficult if legal agreements are required'

'Some tenants do not want to surrender land to biodiversity that they are paying rent for'

'As this is a commons group - the difficulties are mainly around the old issues of differing size of business and varying emphases'

'Very different goals across different holdings. Some only want to produce food, others only want to do environmental projects. There is no funding for the group coordinator which is a difficult job'

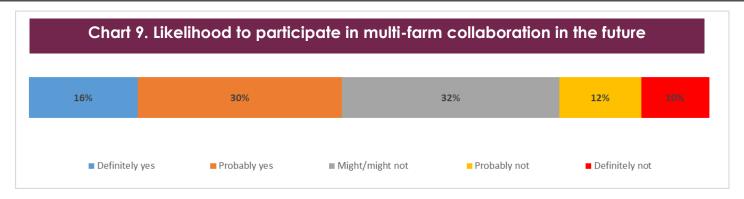
'These projects are taking away from farming and not giving back. The group has been looking in to it but like myself, more people will not go through with the plan as the planned results are not beneficial'

'Time. It's a nice to do but the day job gets in the way. And attitude, farmers are very private, they don't want to share details of their personal businesses'

'Independence, neighbour issues, lack of trust. Needs the person leading it to be paid to deliver it'

Whether the experiences of these complexities and tensions will gradually deter other farmers from considering involvement in a collaborative plan remains to be seen. What is interesting from our survey results (see Chart 9) is that a considerable number of survey respondents not currently involved in such activity would - in principle - consider doing so in the future. Indeed, 5 out of 10 appear up for giving the idea a go and a further 4 out of 10 would not rule themselves out completely. Only 1 out of 10 unequivocally reject the idea, mainly due to concerns over time commitments, loss of control, liability and a fear of falling out with neighbours.

# Multi-farm 'landscape scale' environmental plans



Farmers in the UK have traditionally not had a history of collaboration unlike some of our European neighbours such as the Dutch, the French and the Spanish. What our survey results demonstrate is that despite a level of trepidation, maybe views are beginning to change. Our view is that if there is an interest within the farming community to develop multi-farm environmental activity, policy makers will need to make participation as easy as possible. In our most recent 'first Tuesday in the month' Network members meeting (07 November), this topic was discussed at some length. The general view was that engagement with multi-farm environmental collaboration will require the process to generate a clear premium for those involved, avoidance of unnecessary complexity and minimal legal liabilities. We will be making sure this message is communicated clearly to those in the policy world who are keen on this agenda to inform their thinking.

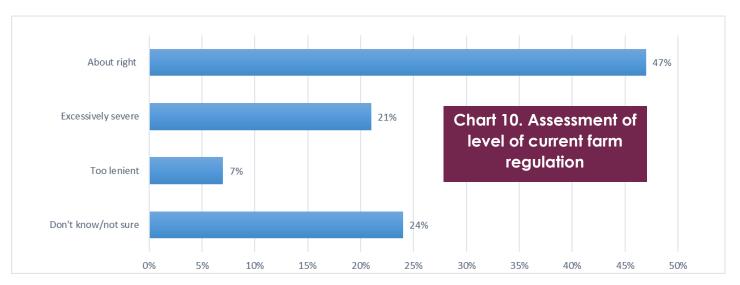
### Attitudes towards farm regulation

The final section of our recent survey asked a set of questions about environmental regulations. All governments within the UK are currently reviewing the regulatory instruments that are applied to farm management and land use activity on farms. Regulations vary slightly in each administration but essentially cover the same core activities: nutrient, soil and habitat management. The principle of the rules is to set a baseline of environmental performance which all farms are expected to meet without financial payment. For activities that go beyond this legal minimum, a policy of agri-environmental payments has been the standard toolkit used by government(s) to incentivise action. Traditionally these payments have been based on an income foregone model which does not reflect the true value of the environmental value that many farmers deliver. The subject of payment rates is a highly complex issue – the field of environmental economics – and is something we have addressed in previous discussion cycles with Network members and written about in previous editions of this newsletter.

Back to the subject of regulations (i.e. rules and standards) and the regulatory baseline as described above, we are interested in members views on whether this baseline is currently set too high, is about right, or is set too low. Our working assumption is that farm businesses are unlikely to welcome more stringent regulations as reflected in the response profile outlined in Chart 10.



## Attitudes towards farm regulation



We do, however, meet farmers from time to time who express dissatisfaction with what might be described as 'the bad guys' getting away with poor performance. This sentiment was also expressed in our recent survey:

'Little farms seem to get picked on for very bad practice, on a small scale. Whilst big farms, doing things like maize and tillage, might not be doing these things in absolutely terrible ways, but the scale means the damage in soil run off, and water pollution are on a huge scale, with massive effects'

'Nutrient and chemical water pollution is part of our industry, there is more that farming should do. There is too much off label applications overuse of roundup... this will become restricted. Protecting large producers of manure because they are already doing it is not sustainable. The Wye will be a big test case going forward. Agriculture is 60% of the issue but sewage is taking all the blame at the moment. We need to remain in control of our destiny. A few big farmers will affect all of us'

'There's too many people involved in policing agriculture and they are all trying to justify their jobs. We all know who are the problem farms and they are too often overlooked'

As can be seen in Chart 10, however, the proportion of respondents considering the regulations to be too lenient are in the minority – approximately 1 in 10. Half of respondents judge the regulations to be 'about right' whilst 2 out of 10 view them as excessively severe. A further 2 out of 10 ticked the 'Don't know/unsure' box. Those considering the regulations too severe are primarily unhappy with issues relating to a sense of proportion and fairness:

'A recent visit by the Environment Agency required measures which honestly seem excessive. The inspector wanted us to provide a slurry pit for a yard which is only used occasionally for e.g. TB testing a herd of 20 cattle. Local farmers have had letters asking why a field is 'bare' when drones have failed to detect recent planting. It is demoralising, frustrating and enough to make you wonder whether it is worth carrying on'

'Most farmers respect the environment and have been looking after the countryside for generations. We need less government not more. If we want to talk about wildlife habitat destruction we only have to look at large scale housing developments, road building & HS2 with thousands of acres destroyed forever'

## Attitudes towards farm regulation

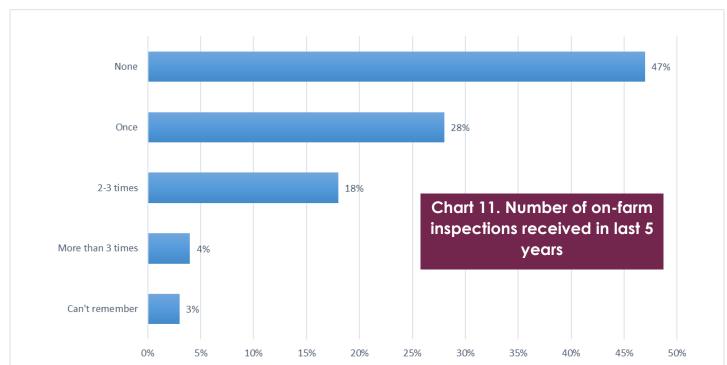
'Farmers are by no way worse polluters, just scapegoats for big corporate polluters, sewage companies etc'

'It's not the extent of the severity so much as the police type authority wielded, the way in which they are administrated, and the costs required to get 'permissions' to do anything'

'Whilst I am not against rules I do believe that we are held to a higher standard than imported foods and that is not fair. If we have standards then all foods should comply with them'

'Farmers are an easy target. One clever bod twigged just this week that water from roads, full of oil and debris, goes straight into becks and streams! Hello? Of course it does and has been doing for centuries, for as long as there have been roads only now the pollution is worse. I'm not for one moment suggesting things can't be improved in farming techniques but to have every ill in the UK placed firmly at the door of farming is getting more than a tad tedious!

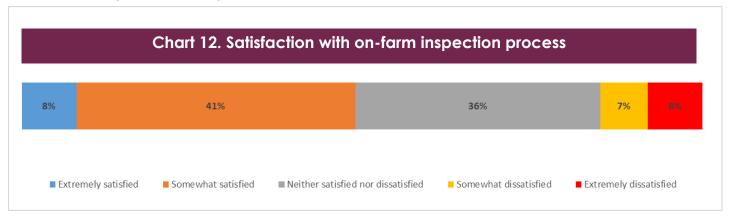
When considering the level of stringency or 'onerousness' of the current regulatory regime, we thought one way of doing this was to ask survey respondents how often they have received some form of on-farm inspection in the last 5 years. The response profile outlined in Chart 11 demonstrates that half of members (5 out of 10) replying to the survey have not had a visit in the last 5 years and a further 3 out of 10 have only had one visit. Only a minority have had two or more inspections.





# Attitudes towards farm regulation

Satisfaction with inspections appears generally OK with only 2 out of 10 respondents registering dissatisfaction (see Chart 12).



In the round, our feeling from the responses received is that the majority of members are reasonably content with the current regulatory regime overall. Notwithstanding this observation, members see room for improvement. With this in mind, our final question in the survey asked respondents to articulate whether they have any guidance to the policy makers currently reviewing environmental rules, regulations and enforcement across the UK. A sample of the feedback provided is reproduced below:

'Take note of current practice on the majority of farms. There will always be a few that flout the accepted procedures who should be targeted without a blanket approach that makes life difficult for those keeping to standard practice. Also note the individual farming systems and make allowances such as dairy farms with extended grazing systems and a very short housing period'

'Try and engage more with farmers beforehand. Very few flout rules deliberately, in most cases it is through ignorance or lack of understanding. A pre-inspection visit could nip a lot of problems in the bud'

'Rules have to be poignant, clear and simple. That way more farmers will be willing and able to go along with them. Rules can be pedantic ,overcomplicated which give govt more chances to inflict fines and reprimands. I pulled out of Glastir (environmental scheme) because of my mental health. Will be very reluctant to deal with Welsh Govt in a similar vein again'

'Keep it simple and workable on both sides, they can't just do it remotely, from behind a computer. Confidence, communication and trust is very low in all levels of government. They are running their own agenda where we feel unwanted'

In summary, we know from our survey responses that environmental regulations can be a source of concern and anxiety for many farmers; compounded by a lack of understanding regarding the detail of each requirement. The message from members is very clear. Keep the rules clear, proportionate and above all make sure inspectors and farmers are able to resolve non-compliances through discussion and collaboration if possible, not immediate penalties. Few would argue that penalties cannot be ruled out where abuse of the rules is flagrant and/ or repetitive. Farmers do not appear to have an issue with regulations per se, more the way in which they are implemented and enforced. This is clearly not a straightforward topic but we hope these survey results provide some perspectives for further discussion going forward. Please do not hesitate to contact us should you have any reflections on what you have read.

This autumn we have invited several external speakers along to evening on-line meetings with members to give a presentation and take part in a questions/answers session. You may have taken part in one or more of these or seen the various invitations we send out from time to time. In this section of the newsletter, we provide a summary of our notes from these meetings to give you a flavour of the main content from each.

#### Tuesday 26th September 7:30pm-9pm. Speaker: Colin Macphail

The challenges of developing integrated farming and environmental policy. A farmer's insight from within a governmental body

Colin farms 5000 acres with his brother on the Isle of Mull. The family were tenants between 1977 and 2018 when they managed to buy the farm. The core business is cattle and sheep with four holiday cottages. He sees the core challenges for his business as increased costs, labour problems, reduced government grants in real terms and predation from species introduction (sea eagles).

Colin is also a Board member of NatureScot which is the lead public body in Scotland responsible for advising Scottish Ministers on all matters relating to the natural environment and land management. He spoke to us about his experiences of governmental policy formulation, his views on farmer representation and the challenges ahead for the farming community.

- Colin joined NatureScot through a wish to represent farmers on agri-environmental policy matters. His view is that farmers are often too busy firefighting to get involved with influencing policy formation. He is one of three board members from the farming sector who he hopes bring balance to the academics/scientists who make up the rest of the number
- He suggested farmers need to first and foremost focus on their businesses including business resilience, succession, good attention to detail and financial planning. But he also maintained farmers need to try to influence policy making by supporting their local representative bodies, trying to access government ministers (appreciating this is difficult) and engaging with environmental NGOs where possible
- As a farmer, he has found the jargon used by policy makers a steep learning curve and trying to understand how the Scottish Government works has been a challenge
- It is difficult to influence policy on agriculture and the environment because there are four government ministers involved, not a single point of contact. It appears that staff numbers in the relevant civil service departments are tight with frequent personnel change
- He outlined the government has set a myriad of environmental targets including cutting emissions by 75% by 2030, net zero by 2045, protection of 30% of land and sea by 2030. However, a recent Climate Change Committee progress report earlier in the year suggests none of these above targets are going to be met

- Colin explained the Scottish Government is working with principles of a 'Just Transition'
  where economic health and a clean environment coexist. Within this framework, those
  who experience a financial impact should be fairly compensated. He is not sure how all
  the environmental targets are going to be met whilst adhering to the 'Just Transition'
  principles
- He suggests the budget available to deliver all these policy goals is very uncertain. From a
  farmers perspective, payment rates (many set back in 2015) have not kept up with
  inflation. Because of the constant scheme changes, he fears many farmers may well
  have switched off from engaging
- Colin concluded his talk by stating there are many challenges ahead for the farming community (1) increased pressure to help government meet GHG targets but huge questions remain regarding the measurement of carbon (2) competition for land from forestry and rewilding which has increased land values (3) huge uncertainty in future payment scheme design making it very difficult to plan (4) increased costs (5) mental health implications
- Where Colin thinks he can have an impact on the NatureScot Board is by advising on the
  farm business implications of policy ideas; and pushing for simplicity within agrienvironmental scheme design. He says a challenge for him is being able to back up onthe-ground observations with detailed scientific evidence



# Tuesday 17th October 7:30pm-9pm. Speakers: Susan Mackirdy, Northumbrian Water (Essex & Suffolk Water) and Al Stewart, South East Water

Water resources management challenges facing the UK. Perspectives from two English water companies operating in different geographical locations

Susan & Al lead activities in their respective organisations which focus on working with farmers on water management issues. Their talks covered climate change and the anticipated water resources challenges this will present farmers and broader society in the years to come; both in terms of water quality and water availability.

Notes from Susan's talk...

- Susan started with an overview of how water companies operationalise activity on the ground in England and Wales. They follow a five year business cycle within what is known as an Asset Management Period (AMP). The government regulator OFWAT agrees the content of these plans (or stipulates changes) and determines how much money companies are able to charge their customers. We are currently in the seventh AMP period (AMP7) since water companies came into being. Both Northumbrian Water and South East Water plans can be found online at https://www.nwg.co.uk/ourplan and https://www.southeastwater.co.uk/about/our-plans/our-business-plan-2020-2025
- Susan explained the biggest source of phosphate in their region is from their own sewage treatment works. Investment is being channelled into sorting this out
- She outlined the company is experiencing rising nitrate levels in their key groundwater aquifers and is working with farmers to address this issue in particular
- Susan also explained the UK as a whole is under significant drinking water supply stress. In
  the future Northumbrian Water will be supplying water from their Kielder water zone area
  in Northumbria (mainly a surface water catchment where water is relatively plentiful) to
  support Yorkshire Water to the south and United Utilities to the west. This will mean
  Northumbria Water will not have such a plentiful supply in the future
- Northumbrian Water has invested in a transfer pipeline which can move water all the way
  from the Tyne catchment in the north of their region to the Tees catchment in the south if
  necessary
- Susan pointed out water companies are only able to abstract water from rivers during periods of higher flows. Taking water when flows are low in the summer is not permitted. This tends to coincide with when demand for water is at its highest
- If a water treatment works cannot deal with an increased pollution load, water companies have to blend the water received with water from other sources which involves extra pumping costs. Treatment works also need to be upgraded e.g. nitrate removal facilities. This is very costly which means water companies are increasingly wanting to address problems at source i.e. reduce pollution loads from occurring in the first place

- Nutrients (nitrate & phosphate) primarily come from sewage treatment works (STWs), domestic septic tanks and farmland. These require removal with expensive facilities. Cryptosporidium (microscopic parasite that causes diarrheal disease) comes from STWs, septic tanks, livestock farms and wildlife such as deer and rabbits. This has to be treated with UV as chemicals will not kill cryptosporidium. Pesticides from farms can be a problem which have to be removed using granular activated carbon. Fine sediments (turbidity) from river banks, fields and forestry(a particular problem in the North East where large forestry plantations are situated) is also a problem
- Susan spoke passionately about a desire to re-meander rivers and reconnect rivers with their flood plains. Her view is that current policies are not sufficiently compensating farmers for this activity. There is an assumption or expectation amongst policy makers that farmers will do this for free
- Susan explained Northumbrian Water grants are available for capital works (e.g. concreting yards, roofs over slurry pits) and cropping changes. Important words to note are 'The application process is extremely easy with a very quick turn around with minimal form filling and red tape'
- Northumbrian Water has a catchment team working with farmers providing information and grants and facilitating innovation trials (thereby supporting farmers to try new ideas).
   The main aim is to deliver 'win wins' for the company and the farming community. The approach is extremely collaborative as summarised by Susan's words below:

'We understand that farms are businesses and they need to make a profit and we also understand that a farmers principle aim is to produce food. So we work with farms on a business to business basis offering compensation for any changes a farmer might make that benefits us but also has a positive impact on the farms bottom line'

'I don't do pointing fingers at people, I do looking for solutions to problems'

#### Notes from Al's talk

- Al outlined the key water quality problems the company encounters. Most pollutants relate to herbicides used on broadleaved weeds and OSR growing (also still detecting metaldehyde). Nitrate is the key nutrient problem, with applications on farms from the 1950s still moving through the chalk aquifers. As with Northumbrian Water, cryptosporidium is an on-going issue. Other pollutants were also mentioned including oils from roads. Also approximately 400 perfluorooctane sulfonates (e.g. PTFE from frying pans, waterproofing sprays) which never break down and will require new treatment technology
- It was interesting to hear AI say that glyphosate not an issue for drinking water as this can be easily removed in the chlorination process
- Al referred to Water Resources South East which is an association of six water companies in the South East of England. They estimate that by 2050, they will need to supply 2,344 megalitres/day. That means 938 Olympic swimming pools every day. 40% of all water demand in the UK will be in the South East region

- Water Resources South East has proposed a range of solutions to an anticipated shortage of water supplies including reservoir building, demand management and desalination.
- In July 2022, there was a huge demand for water in South East Water's area running at 540 Megalitres/day. The company didn't run out of water but couldn't process raw water from boreholes or rivers quickly enough to supply all customers. Two storage reservoirs in East Sussex ran very low and couldn't be topped up because South East Water is only allowed to fill them in the winter months when river levels are high
- South East Water envisages significant water deficits over the coming decades. The population will increase by 25% to 2050 which means a lot of people in a water stressed area. At same time the amount of water the Environment Agency allows the company to extract from groundwater and rivers is likely to reduce by 135 Megalitres/day
- High levels of investment will go into demand management and driving down leakage levels. Curbing household demand could be achieved by increasing prices but OFWAT the government regulator will not allow this
- Water transfer schemes and new reservoirs will be part of the mix. For example, a new reservoir North East of Canterbury is being considered which could supply 22 Megalitres/ day
- Al explained that like Northumbrian Water, he and his team at South East Water are keen
  to work with farmers on environmental matters using the best science and data. They are
  very willing to share water quality data with the farming community to help a better
  understanding of problem areas and to monitor the effectiveness of different land based
  solutions
- Al stressed that South East Water is not pointing the finger at farmers and wants to work
  with all landowners including equine interests and golf courses. They are also wanting to
  engage with the Highways Authority as road run off has been identified as a significant
  issue
- Regarding managing water supply in the future, South East Water is very keen to work
  with farmers to collect water on-farm and is developing funding support packages for this
  objective. Measures of interest include riparian water storage and water harvesting.
  Funding is also available for diagnostic equipment to help farmers identify where they are
  losing water e.g. drinking system pipes, troughs etc.
- Al clarified that water companies are not allowed to top up payments made by the Rural Payment Agency (government funded schemes) as this is considered double funding.
   They are, however, allowed to fund different activities on the same piece of land i.e. so called 'stacking'. He asserted that creativity is needed
- Al finished his talk by emphasising South East Water wants to help farmers with innovation through collaboration and funding support:

'We're not experts in managing the land. The farmers are the experts and we're just working with them. If a farmer comes up with a crazy idea that ticks our boxes were very happy to support them'

# Thursday 26th October 7:30pm-9pm. Speaker: Professor Jonathan Jones, The Sainsbury Laboratory

Genetic Modification - what are the choices and implications for UK agriculture?

Jonathan has been based at the Sainsbury Lab (David Sainsbury's charity) in Norwich since 1988. He is a specialist in plant immune systems and the mechanisms plants use to suppress disease. Throughout his career, he has been an outspoken advocate of GM solutions to crop disease problems and is co-author of UK Royal Society's review of sustainable food security (https://royalsociety.org/topics-policy/publications/2009/reaping-benefits/). His talk focussed on why he sees advantages in GM technology and why he views concerns over the technology as unfounded.

- Jonathan argues for a more proportionate regulatory framework for GM in the UK and Europe. His view is that every learned society that has looked at GM concludes it is no more risky than standard plant breeding. Three main crops in US – soyabeans, corn, cotton – all have a GM component already
- In his view, the risks of GM creating a toxic impact on humans is not credible stating every independent review has drawn this conclusion. He also argued strongly for clear labelling of GM products in the shops to give consumers choice. That way, if members of the public are uneasy they don't have to eat GM items
- He has an issue with gene editing being portrayed as 'good' and genetic modification as being 'bad'. He argues they are both good
- For Jonathan, the term 'genetically modified' is a meaningless term as in his view 'all the crops we grow have been genetically modified'. He sees himself as advocating a 'GM method' not 'genetic modification'
- He maintains that moving maize, potatoes, sunflowers etc from South America to be grown in Europe (where they did not exist) is a more unnatural process than GM
- Jonathan asserted that GM methods make very small changes in genetic variation compared to the natural variation that already exists in crop species
- He explained the Precision Breeding Act has now allowed gene editing this allows manipulation of genes within a plant variety to adjust performance
- He sees his mission as replacing chemistry (i.e. agrochemicals) with genetics to fight plant disease. He stated that 88% of the increase in UK wheat yields between 1960 and 2010 has been down to genetics not agronomy. He suggests GM will result in less land take and lower food prices
- Jonathan sees so many advantages to GM. He explained plants can't use phosphite
  unless they make the bacterial enzyme PtxD (which can be generated using a GM
  method). A crop can outcompete weeds by using phosphite as weeds cannot use
  phosphite
- Another example he gave was using an immune receptor from peppers (Bs2 gene) which people already eat and putting them into a tomato to provide bacterial resistance

- Jonathan mentioned cancer treatment is now taking cancer cells from a sufferer, manipulating the cells to trigger an immune response and putting them back into the patient. This is GM
- One of our Network members from Kent suggested to Jonathan that GM is not needed if
  we can manage our soils correctly, particularly increasing soil organic matter. Jonathan
  agreed SOM is crucial but suggested we need a blend of solutions where GM is one part.
  In his words...'let's get away from a false antithesis' i.e. an either/or scenario. He went on
  to outline he has met organic potato growers who would like to grow GM but their trade
  association won't allow it
- Jonathan is not concerned about GM control by a seed company monopoly. For example, he stated there are five big players in the GM wheat market thereby ensuring competition and a lack of domination by a single entity

#### Worldwide Fund for Nature WWF report released on rewilding

Rewilding is a term which has become toxic to many members of the farming community and is often synonymous with images of wolves, lynx and an end to a farmed landscape. Many farmers are also deeply suspicious of the motives and methods of those behind the rewilding movement. As one Network member put it to us recently, 'I'm not sure if the rewilding people are dangerous or just seriously deluded'. In the interests of trying to understand what rewilding means and whether there is any common ground to be found, the Worldwide Fund for Nature WWF has recently released a report entitled *Bridging the divide: rewilding, farming and the triple challenge* which can be found online at https://www.wwf.org.uk/our-reports/bridging-divide-rewilding-farming-and-triple-challenge.

This report has been heavily influenced by detailed discussion between WWF and members of the UK Farmer Group Discussion Network from Cumbria, south-east Scotland, Essex, mid-Wales and Shropshire. In total, 52 Network members took part in a series of meetings, representing a broad range of farm types, sizes, farming systems and tenure. Many thanks indeed to all those members who found the space to engage with WWF on this difficult topic. These sessions provided a candid opportunity for members to express their views on the topic with an influential global environmental NGO. We very much hope that by facilitating this process, a foundation can be built for a vision of rewilding which makes sense from both a farmers and conservationists perspective.

Do make time to have a look at this report if you have an opportunity as we believe the content is constructive and is indeed attempting to 'bridge the divide'. Should you have any comments having read it, and would like to pass these on to WWF, do please get in touch. It is crucial we inform those organisations like WWF who wish to work collaboratively with the farming community.

# **Next discussion cycle**

Please do not hesitate to get in touch if you have any feedback on this newsletter.

Our next survey is scheduled for December as we like to run four discussion cycles per year and need to fit in one more before the New Year. Please remember this is <u>your</u> Network not ours (we are just the co-ordinator) so do let us know whether there are any topics you would like us to include in the next survey.

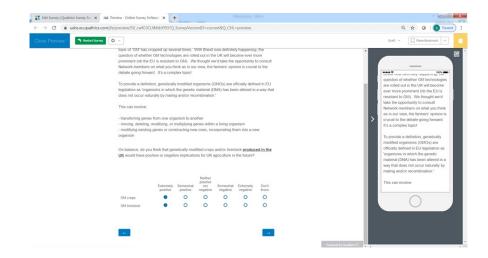
And in addition, do let us know whether there are any specific external speakers you would like us to make approaches to for future talks. We are keen to ensure our external speaker evenings continue to provide members with an opportunity to meet senior decision makers who have influence within the food and farming sector.

With very best regards,



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