



HOUSE OF LORDS

Select Committee on the European Union

Sub-Committee on Energy and Environment

Corrected oral evidence: Brexit: plant and animal biosecurity

Wednesday 2 May 2018

10.30 am

Watch the meeting

Members present: Lord Teverson (Chairman); Duke of Montrose; Lord Rooker; Lord Selkirk of Douglas; The Earl of Stair; Baroness Sheehan; Viscount Ullswater; Baroness Wilcox; Lord Young of Norwood Green.

Evidence Session No. 2

Heard in Public

Questions 13 - 24

Witnesses

[I](#): Dr Simon Doherty, Junior Vice-President, British Veterinary Association; Dr Matt Elliot, Conservation Adviser, the Woodland Trust; Dr Paul Walton, Head of Habitats and Species, RSPB Scotland.

Examination of witnesses

Dr Simon Doherty, Dr Matt Elliot and Dr Paul Walton.

- Q13 **The Chairman:** Welcome to our witnesses for our second evidence session on our inquiry into Brexit and plant and animal biosecurity. Can I just go through some of the usual things? This is a public meeting. It is being recorded via webcast and there will also be a transcript. We will send you a copy of that transcript and, if there is anything that you think is inaccurate compared with what happened during the session, please come back to us. After the meeting if you feel that there is some additional evidence that you would like to put in, please feel free to write to us. If I could remind Members to declare their interests, if they have any, the first time they intervene. Although we probably will not get on to marine, I declare I am a board member of the Marine Management Organisation. Could each of you briefly introduce yourselves not just for the Committee here but for those who are listening?

Dr Matt Elliot: I am a tree health adviser for the Woodland Trust. I am a former forest pathologist. My PhD is in the epidemiology of tree diseases.

Dr Paul Walton: I am head of habitats and species for RSPB Scotland, a nature conservation NGO. I am a sea bird biologist by training. I am a member of the IUCN Invasive Species Specialist Group and a board member of Scottish Environment LINK, the umbrella body for environmental NGOs in Scotland.

Dr Simon Doherty: I am the junior vice-president of the British Veterinary Association. I am mainly a farm animal vet by background. I used to do some work in West Stirlingshire with the Duke of Montrose. I also declare an interest from the perspective that currently I am a consultant in animal sciences and aquaculture for the Department for International Trade, but today I am representing the BVA.

- Q14 **The Chairman:** If there is any information you want to give us from that side, I am sure we would be delighted to hear it, even if you are slightly cautious yourself. Let me start with a very general question. Could I ask that in your answers you do not creep too much on to some of the other questions that you know are coming later on?

Why is biosecurity important to the UK, and what are the implications of the UK's withdrawal from the EU for the UK's biosecurity in terms of animal and plant health, invasive species and food safety? It is quite a broad canvas and I leave it to you as to who would like to start in this particular area.

Dr Matt Elliot: It is important to say first that the Woodland Trust certainly welcomes this look at plant biosecurity. It is extremely important in the UK. Trees have borne the brunt of a number of pests and diseases over the past 30-plus years. The movement of pests and diseases on plants has long been known as a cause of how plant pests and diseases get into new areas. The sanitary and phytosanitary agreement of the World Trade Organization aims to minimise the

disruption to trade that plant health regulation might impose. In other words, the emphasis is on maintaining free trade rather than good biosecurity. This gives us an opportunity to look at those kinds of things and ask how we can improve biosecurity in the UK. Most of you will be familiar with Dutch elm disease and ash dieback has come along in the last few years. They are very serious tree pest diseases. Obviously, changes are caused in the landscape by these diseases over long periods so we do not necessarily realise it is happening. The generation born in the 1980s, for example, will never have seen a mature elm tree in the landscape, so they will not necessarily have appreciated the loss that has taken place, not only of those trees but all the species that are dependent on those trees. The same now is happening with ash due to ash dieback. Some diseases happen very quickly. There is a fungal disease that is threatening plane trees that you may have heard of. If that gets to the likes of London, we could lose all the plane trees within a very short period, maybe 10 to 12 years, and you cannot imagine a London landscape without plane trees.

To go back to this question of trade versus biosecurity, a recent study identified 47 pests and diseases that are present in Europe which, if they got to the UK, would cost over £1 billion to clean up. This far outweighs the financial benefits of trade in these species.

One of the Woodland Trust's initial responses to ash dieback was to stop importing trees. We set up a UK-sourced and grown assurance scheme, which meant all our trees are grown within the UK and we are not going to import any more trees in order to mitigate against this problem of new pests and diseases entering the country.

Dr Paul Walton: Invasive non-native species, and by that I mean animals, plants and other organisms that have been moved by human action from areas where they occur naturally to areas where they do not and allowed to escape into the wild, either deliberately or accidentally, is one of the primary drivers of diversity loss globally. It is recognised as being one of the five big drivers. It is the number one cause of bird extinctions globally over the past few centuries. It is the second biggest global pressure, after habitat loss and logging, in terms of the effect on current endangered species at the last IUCN red list assessment. In this country, it is the primary driver of poor status of protected areas, for example in Scotland in the internationally protected areas of Atlantic woodland—the Celtic Rainforest. Over half of those sites are in unfavourable condition, mostly because of the impact of invasive rhododendron. The Manx shearwater is a species where the UK has 80% of the world's breeding population. We have lost 13 colonies of Manx shearwater in the past century or so due to invasive mammals being introduced on to islands. It is a huge pressure ecologically but it also has a cost.

The Government's estimate of the cost of invasive species, which was made getting on for 10 years ago now, is £1.7 billion per year. That includes the costs structurally of Japanese knotweed, for example, and

rhododendron control, which is massively expensive. It is £1.7 billion here and, again 10 years ago, an assessment put it at €12.5 billion for the European Union. Both of those assessments acknowledge in the reports that they are likely to be underestimates. Globally, the most recent information I could find was an estimate of £70 billion for invasive insect species alone. That is just insects. It is a big issue. That is not always appreciated, but it is a huge issue.

Intrinsically, it is a cross-border issue as well. International trade is the number one pathway whereby invasive non-native species are moved around the world, and it is getting worse. On an international scale, the IUCN red data list again, which looks across all taxa, all species that are threatened, and I have to emphasise involves the work of hundreds and hundreds of scientists—this is not one person with an axe to grind—has demonstrated that this remains a major pressure and it is getting worse, so the trend is going down.

It is possible to take remedial action. Biosecurity measures can work, as we know from international examples, but globally it is getting worse. Domestically, the JNCC UK Biodiversity Indicator on invasives shows a problem there. There is growing international attention on this issue. There is an uncommonly consistent assessment that if you want to combat invasive non-native species, you act at the earliest invasion stage possible. If you can prevent invasives from establishing, it is far more preferable ecologically and far cheaper—hundreds of times cheaper—than dealing with the problem once it has established.

Our domestic legislative arrangements on invasive non-native species are inadequate. They are inadequate because we know that the situation is getting worse in this country. We know that species are establishing at an ever-growing rate. We know the legislation is not working. We know resourcing is not adequate. If you look at answers to a recent Parliamentary Question on biosecurity spend in the UK, only 1/200ths of that spend goes on invasive non-native species, with an environmental focus. The rest of it goes on animal and plant health.

We have new EU legislation. It came into force in 2015 and it is the EU invasive alien species Regulation. The UK was very heavily involved in designing that legislation. That may be one reason why domestic legislation in many ways looks rather out of date and has been amended in a rather piecemeal way. This new EU legislation is coming forward. It is science-based, rigorously processed, with a strong prioritised biosecurity focus on pathways of introduction, surveillance arrangements and early warning/rapid response. Governments are obliged to put these measures in place for some of the most dangerous species.

Regarding Brexit challenges, the question remains as to how and whether EU legislation is going to be transposed into UK domestic legislation. We would say that it absolutely needs to be, as thoroughly as possible.

The other challenges are around trade. There will be changes to our patterns of international trade in this country post Brexit, almost

inevitably. It may mean new trading relationships with countries that are further away and more geographically distant, which means the species that tend to be brought accidentally will be more different from our native biota, so that may introduce new threats.

We need to have a close look at our legislation in this regard. We need to resource and protect our countries from the impacts of invasive non-native species and we need to develop mechanisms of co-operation with our nearest neighbours and our trading partners.

Q15 **The Chairman:** Thank you very much, Dr Walton. That was a very comprehensive start. Dr Doherty.

Dr Simon Doherty: For the record, BVA represents veterinary surgeons right across all the species and specialist divisions, from farm animals, equines, companion animals to the more specialist areas within government and industry. We have over 17,000 members, covering all those particular areas. Our role is to represent and champion the interests of the profession right across the board and to work very closely with some of those specialist divisions that we have within our structures.

The UK generally has an increasingly good status in relation to animal health. Maintaining that is going to require an ongoing commitment to areas such as veterinary surveillance and disease preparedness with sophisticated and scalable responses. Last week we had an exercise—Exercise Blackthorn—to test some of the contingency planning around foot and mouth disease. Biosecurity is covering all aspects of these and very much relies on the input from vets.

As part of the EU, we have benefited from systems that allow us to share information and to monitor animal health right across Europe, and share that information as rapidly as possible. There is the risk that whenever we withdraw from the EU some of that very rapid communication will be lost. There are a number of mechanisms in place—and we can discuss those further—to allow us to share that information fairly rapidly. We would very much want some of those mechanisms to be able to continue.

In terms of the framework, the legislation, structures and institutions around animal health are very much EU-orientated. A lot of the UK systems are very much based on EU systems, and, from that perspective, we need to be very careful that in transposing that across to UK legislation there are no gaps at day one to ensure that we have that underpinning surveillance and the proper resourcing around our laboratories and our biosecurity framework.

It is reciprocal. We get that information from Europe, but we have also had a tremendous opportunity to influence the construction of European legislation. Most recently, the Animal Health Law is a good example of where the UK has been pivotal in driving a level of consolidation and streamlining within some of the European legislation surrounding animal health, and, in particular, livestock health. Again, we would not want to lose that momentum, having put that work into the generation of the new

animal health law, or to lose touch with that. I will leave my opening remarks there.

The Chairman: That is a really good background to the rest of our discussion. Could I raise one point? At the end of the day, we can be as brilliant at biosecurity on our borders as we can be, and spend greater amounts of money on it, but we still have the issue of migrating species, birds primarily, that we cannot control, going backwards and forward. We have airborne spores and insects that come across. The fact that ash dieback disease was more prominent in East Anglia was because of those reasons, as I understand it. We have natural water flow on our shores and we also have climate change, which is bringing species naturally into our biosphere. Does that swamp anything we do on border control because we are fighting something that cannot be fought anyway, or is the big issue border control?

Dr Paul Walton: With invasive non-native species, the swamping goes the other way. Human movements of species have accelerated these natural range expansions and range changes that of course happen naturally. For example, in Hawaii, the rate of arrival of new insect species is 17,000 times what scientists believed the background rate was. We are moving species at a rate that is far higher than they would naturally move. When a species changes its range because of climate change, that is a different issue. We are talking specifically about invasive non-native species that are moved directly by human agency. In fact, that movement is a hugely intensified movement, not only in the number of species that are moved but the types of movement. For example, you have invasive eucalyptus trees in Florida. There is no way the eucalyptus could have arrived from Australia to Florida without people bringing it. These are the kinds of issues that make the invasive non-native species part of this quite a distinctive issue, and definitely a problem that needs to be addressed.

Dr Matt Elliot: There are very few tree pests and diseases that would get here naturally. The case for ash dieback disease arriving by spores has not fully been proven, but it is completely clear that it was imported many times on infected trees; Dutch elm disease was from logs. There is no way the Asian long-horned beetle would make it this far if it were not for us. If you look at New Zealand, as soon as they brought in their biosecurity legislation in 1993, everything stopped coming in.

The Chairman: Hawaii and New Zealand are rather more maritimately isolated than we are.

Dr Matt Elliot: Slightly, yes.

Baroness Wilcox: You are telling us the horror of it all. Are you also telling us how it could be prevented? Have you told me that yet or is it going to come?

The Chairman: I think we will go on to that in the various questions, Baroness Wilcox. If we have not covered that sufficiently by the end,

please come back.

Baroness Wilcox: You are worrying us now so we need to know.

The Chairman: Hopefully, we can go from total pessimism to a little more optimism as the meeting goes on. Dr Doherty.

Dr Simon Doherty: From the perspective of the aquatic environment you are talking about, a good example would be around oyster herpesvirus, which has moved from sea loch to sea loch up the coastline. You can argue over whether we can do anything about that. Other examples are bluetongue and Schmallenberg coming across the English Channel in infected midges. Is there anything we can do about that? We cannot put up a huge barrier to stop all midges coming across the English Channel and the Irish Sea. Schmallenberg and bluetongue are good examples of diseases that popped up in northern Europe, probably through some kind of human movement or intervention. At this particular point in time, the biggest risk to the livestock industry of an emerging or re-emerging disease is probably from a live animal. That applies equally to companion animals and farm animals. Where it is about movement of live animals, certainly there are aspects related to our status reports and disease surveillance that we can beef up and do more about.

The Chairman: Thank you. Let us move on to Lord Selkirk.

- Q16 **Lord Selkirk of Douglas:** I should mention I have an interest in a small family company with small pockets of land and the possibility of development on at least one site and the possibility of one or two turbines. My question has largely been answered already, but, for the sake of clarity, I would like to ask it in case there are other things you wish to add. How does the EU affect biosecurity practices in your fields? Are the EU's rules helpful, ineffective or overly restrictive? Can you provide examples of what has worked well and what has not worked well?

Dr Matt Elliot: The current EU rules are largely ineffective in keeping tree pests and diseases out. They use a risk-based model for biosecurity. A potential pest or disease is identified from either somewhere in the world or already in the EU. A pest risk analysis is carried out where scientists and other people create a risk score for it, and that goes on a register, which gives a relative risk of that pest or disease getting here and the level of impact it would have. On the UK risk register, there are currently just under 1,000 species of pests and diseases, which gives you an idea of the size of the task here. Like I say, this is a risk-based approach, so, by its very nature, it misses pests and diseases that are unknown. It is the unknown unknowns. It can only assess things that we know about. All the most serious tree diseases were unknown to science before they arrived here. By its very nature, it misses all those.

There is a genus of plant pathogen called *Phytophthora*, and you might have heard of *Phytophthora ramorum*, which has been affecting larch over the past few years and caused thousands of hectares of larch to be felled. That was completely unknown to science before it was found in the

UK. There are several examples. That particular genus of tree pest pathogen is ideally suited to movement within the horticultural trade, within the compost and plants. This risk register misses these kinds of diseases, which travel around and do not show symptoms for months, or even years. They cannot be seen and you cannot really check for them.

With this risk register approach, once you have done this risk assessment and described this pest or disease, it is already too late because it is already out of its native range and in the EU. They say that only 7% to 10% of fungal species are currently described, and around 90% of pathogens are still unknown. It gives you an idea of what we are facing. There are probably 500 to 700 species of the *Phytophthora* I was talking about. We only know about 200 at the moment. This whole system, which relies on this risk-based approach, misses everything we do not know about and relies on visual inspection. As you will appreciate with the amount of stuff coming in over the borders, we do not have time to check it all. Even if we did, you would not be able to see it anyway. We need to understand that these pathogens need to be contained where they originate from and not moved around the world in the way they are at the moment.

The cost of managing these diseases far outweighs the amount of trade that it creates. I do not know if anybody is familiar with *Xylella fastidiosa*. This is a disease that has been described in Italy and other parts of Europe on olive. It has decimated the olive groves in the south of Italy. It is a serious concern because it would affect the British oak if it got here. Nurseries in the UK are still importing olive trees and other plants. If you go down your supermarkets today, you will find olive trees for sale that have come directly from Italy. It is insane, frankly, but this is the way it is at the moment. As I said earlier, there is a study which indicates that it will cost just over £20 billion to manage ash dieback. This is the felling and replacement of trees and the cost to the environment. That far outweighs the amount of profit and trade that it created in the first place.

The Chairman: What we are saying is that we have this dilemma whereby you are saying the EU system does not deal with the unknown unknowns.

Dr Matt Elliot: And favours trade, essentially.

Dr Paul Walton: If I might preface my answer to touch on the Chairman's question and Baroness Wilcox's comment, there is hope. This is not relentlessly catastrophic. The single most important predictor that a species is going to become invasive is what is called propagule pressure, and that simply means the rate at which the species is being released into the environment, or its eggs or its larvae. Finding biological characteristics of organisms that tell you that it is going to be invasive has proven to be very difficult to do. You cannot do it, but you can say that the rate at which releases happen is what predicts establishment probability best. If you can slow down that rate, you have a good chance of preventing establishment of a non-native species in a new area.

When I am talking about biosecurity for invasive non-native species, I do not mean trying to stop every single egg of every single shrimp. We are talking about simply taking measures that will slow down the rate of arrival and prioritise the most dangerous species for that. If you do that, it can work. The example that was referred to of New Zealand demonstrates it really works, because the rate of establishment of new species in New Zealand has literally fallen off a cliff since new legislation was passed.

Baroness Wilcox: Who would be your enemy on that? Is this a big company trying to get food into England? Is it retail or business against you doing what you have just said?

Dr Paul Walton: No, absolutely not. Business has not stopped in countries that have made advances in biosecurity.

Baroness Wilcox: How does it come in? It must come in some way or other; bought in, brought in.

Dr Paul Walton: What the European Union has put in place is a big step forward. That has only been in place since 2015, so it is too early to say whether it is having a massive impact. There is no doubt the European Union is a hugely challenging area to try to protect from invasive non-native species. There are massive land borders and it is a big trading bloc. Clearly, it is challenging.

Baroness Wilcox: At least we have the sea.

Dr Paul Walton: It takes the range of species out there and the best evidence that we can find regarding the species that are the highest risk. We do not know exactly which ones it is going to be, but we take those with the highest risk. That is done by a scientific forum, established by statute, which involves the primary experts across the European Union. They identify the species and do a risk assessment on them. That risk assessment is judged by Member States, which then vote: does the risk outweigh the cost of taking action against it? Those species voted for arrive on the EU invasive species list, which the rest of the legislation is centred around. That is action on pathways and looks at how species arrive and who we need to train in our ports and at our airports to be able to identify species, for example.

It requires the establishment of surveillance mechanisms and information sharing across the European Union. It establishes rapid response capacity, so Member States are compelled to put in place the capacity to respond quickly to newly establishing invasives and act in a cost-effective way. There are sensible approaches that are beginning to be taken by the European Union. Essentially, because this issue is getting worse, if we do not take them, we will face massive bills in future because we will have to take remedial action, and, not only that, our biodiversity is going to suffer with all the social and spiritual consequences of that, frankly.

The Chairman: We are going to have to make some progress. It has

been a fantastic background to where we are and has been really useful, but we are going to need to get through some of the questions as well. Dr Doherty.

Dr Simon Doherty: I shall highlight a few examples. As I mentioned, vets are working right across all fields to do with animals. I mentioned that we have had that influential role in relation to the Animal Health Law. To give some context of where things are going reasonably well, the Pet Travel Scheme covers the non-commercial movement of cats, dogs and ferrets. The Balai agreement covers the commercial movements and exchange of animals between zoos. Trade in non-traditional companion animals, exotics and wildlife species would probably benefit from a level of greater control.

There are a couple of areas we could tighten up on. In 2012, under the Pet Travel Scheme, there used to be a provision in place around the control of ticks. As vets, we would be very keen if there was a version of the Pet Travel Scheme that was going to be introduced between the UK and Europe that we reintroduce that piece around tick control. There are several tick-borne diseases that can be brought in in companion animals which have a zoonotic potential. That means they have the potential to move between animals and people. That is certainly one area we would be quite keen to have a look at.

The Chairman: We will come on to the opportunities from Brexit later on. Thank you. That is excellent. Lord Young.

Q17 **Lord Young of Norwood Green:** It will be variations on a theme but we might get some more depth. What impact might the UK's departure have on the EU's biosecurity? You have already given us some examples of this. I want to quote from the evidence that the British Veterinary Association supplied. On page 65, paragraph 25, of your report, you say: "The UK will continue to have access to the OIE, an international surveillance system, and alerts through the World Animal Health Information System, known as WAHIS, an internet-based computer system that processes data on animal diseases in real-time and then informs the international community". Does that give us the same sort of cover as the EU alert system, given that they are all interconnected digitally, so to speak?

Dr Simon Doherty: That is a really pertinent question. The OIE is the Office International des Epizooties, essentially the World Health Organization for animals. Any of these reporting systems rely very heavily on the quality of the information that is being put into them. One thing about the OIE and the WAHIS system is that if you call up a world map you can see the parts of the globe that are having problems with a particular disease, or that are reporting that they are having problems with a particular disease. The resolution of that data is at country level. It tends to rely, as I said, on both the quality of that reporting and the speed of that reporting. You can imagine a situation where countries may be less willing to report something if there were going to be restrictions on their trade. That is at the OIE level.

At the European level we have the Animal Disease Notification System—ADNS. The BVA line on this is that we would be hopeful that we could look at negotiating a position similar to Norway, Switzerland and Turkey, who have access to that Animal Disease Notification System without being members of the EU. We would very much like to look towards that. The advantage of ADNS is that it is rapid and it is good-quality data. There is a level of accreditation required across that system which very much relies on the relevant Member States and non-Member State members of ADNS taking part in ring trials to ensure the quality of their surveillance and maintaining those protocols in terms of reporting.

At a domestic level, it is going to be important for us to bolster some of the surveillance that we have in place. There is no doubt that over the last number of years there has been a reduction in the resource made available to the Animal and Plant Health Agency in relation to the surveillance for animal diseases.

The Chairman: We are coming on to this. Viscount Ullswater is going to bring some of this in later.

Dr Simon Doherty: We definitely need to have a look at that. Baroness Wilcox raised a very pertinent point that we are a series of islands off the north-west of Europe, and, certainly, some biosecurity is afforded by those stretches of water. As I mentioned earlier, midges can hop across the English Channel.

The other area you might gather I have some interest in is in relation to the land border between Northern Ireland and the Republic. We have a land border with the rest of the European Union there. The island of Ireland, and again we will maybe come on to some of this later, now has a free flow of pigs from south to north for processing and sheep from north to south for processing, and millions of litres of milk—I think it is 800 million litres annually—going between the north and the south for processing and onward export. That has been very much reliant on us having a level of commonality across that land border. Where we have similar levels of animal health status, it maintains that freedom of movement of animals and animal products. We would certainly want to maintain that from the point of view that any certification that is required for trade is there because there might be perceived differences in animal health status between one jurisdiction and another. Therefore, if we can maintain a level of parity in our animal health status between jurisdictions, the likelihood is that we will be able to minimise the bureaucracy that would be required in border inspections between Europe and the UK and, indeed, the level of certification that would be required.

Baroness Wilcox: I have just been over there and watched them wandering around all over the place. They can do anything and it is such a huge area to cover; it really is.

Lord Young of Norwood Green: I should have declared an interest as the owner of a cocker spaniel. I say this seriously because of Alabama rot, for example—and I do not know whether that is where the name

originated. The point I wanted to ask you about concerns EU resource and spending on research and development in finding vaccines, cures, or whatever, for any of these diseases. Is that playing a vital role and will Brexit impact on that?

Dr Simon Doherty: To give you a very specific example, I was a veterinary research officer at the Agri-Food and Biosciences Institute in Belfast—AFBI—and a really good example of that was whenever Schmallenberg appeared in Germany—

Lord Young of Norwood Green: Is that bluetongue?

Dr Simon Doherty: This is a slightly different virus just affecting ruminants. Whenever it appeared, it was a completely new virus of a type which had not been seen in northern Europe before. It was close to the border of Holland and Belgium¹. We were in a situation at AFBI where, because of research collaborations that we had been involved in through European funding mechanisms, we were able to pick up the phone and drop an email to the Friedrich-Loeffler Institut, and, literally within days, we were able to get the primers and probes to set up a diagnostic test in Belfast to be prepared for—or at least screen samples for—the possibility that that virus had reached UK shores.

I am not saying that is going to disappear overnight, but certainly that informal contact of being able to pick up the phone or drop a line, in terms of research and development, plays a really important role in underpinning our ability to diagnose tests. I am sure that is the same in plant sciences as well, but certainly in animal sciences there is that ability. That applies even for the Chief Veterinary Officer to be able to pick up the phone while we are within the Union. That is not to deny there are other opportunities. There are other funding mechanisms and there is no reason to say that the scientific expertise that we have in animal health in the UK is going to disappear overnight. European collaborators are still going to be very keen to work with UK-based research institutes and universities working in the animal health space. We need to work out what those mechanisms are going to look like and, if there are aspects relating to co-funding because we are not a member of the European Union, that is where we would need UKRI, BBSRC or Innovate UK to be able to step up to provide that level of co-funding, to make sure we do not lose that level of expertise that is underpinning our ability to diagnose disease.

- Q18 **The Earl of Stair:** First, I declare an interest that I have interests in a variety of land management issues, covering agriculture, horticulture and forestry. It has been a very interesting morning. We have covered an awful lot of ground and I am aware that some responses to my question may well have been given already, but I am going to ask it anyway. Do you have any concerns about the transfer of EU biosecurity legislation to the UK statute book? I know you have covered some of it but there may

¹ Note by witness: The BVA subsequently clarified that it was in Germany (close to the border with Holland and Belgium)

be other points you want to raise.

Dr Paul Walton: Yes, we have concerns. We do not know how EU withdrawal is going to play out with regard to the invasive species regulation in Europe, but at the moment there is no other statutory obligation on UK Governments to implement biosecurity for invasive non-native species. Article 25 of the European regulation creates an information support system. Referring to the previous question, unlike the animal and plant health worlds, the international scene and international regulation are much more poorly developed around movement of invasive non-native species. No other dedicated intergovernmental framework exists on invasive non-native species biosecurity, only that one which is established by this recent EU Regulation.

Under that, Member States meet in an invasive alien species committee. There is also an invasive alien species scientific forum that has been set up, which includes authorities from across the Union to advise on these issues. We fear there are going to be pretty serious gaps in surveillance notification communications. It is not only for us. The UK contributes very significantly to the evidence base and to the surveillance communication that is going on. We have informal mechanisms. I am less sanguine about that being all we have. That is your more solid formal structure. We have the GB non-native species secretariat. You are taking evidence from them next time. That can work very well informally. It is working quite well for the Asian hornet, where we are getting early warnings. The RSPB is involved by using our members to increase vigilance and so on. There is a risk in assuming that can take the place of more formal information-sharing arrangements. That is one of our concerns.

One of our biggest concerns is the loss of funding. At the moment the EU LIFE funding stream is one of the very few biodiversity funding streams we can access that says, "We fund work on invasive non-native species and particularly on prevention". If we do not replace that—it is a stream that funds projects of three to five years of several million euros, that kind of scale—we will lose something that has delivered massive benefits to the UK, including in invasive non-native species. For example, the RSPB has a bid in now with the European Commission for biosecurity for all sea bird breeding SPAs of international significance in the UK to try to get that funding in place. That is a concern as well.

Dr Simon Doherty: To be very clear, the formal mechanisms of notification and disease surveillance are incredibly important across the animal health sector. I was hoping to put in context that sometimes those informal communications between reference laboratories, diagnostic laboratories and the CVOs can be incredibly useful in sharing information quickly.

In relation to the question about the transfer, we would have some concerns. The withdrawal Bill should seek to incorporate animal health and welfare legislation into domestic law, but one area we have already seen a gap in is around animal sentience. There has been quite a bit of

discussion backward and forward around the whole principle of enshrining the piece around sentience in UK legislation. Certainly at BVA we very much feel that should be included as an underpinning principle to any of the future legislation that may be developed around animals.

In terms of the capacity, I guess one of our concerns is that Defra is currently responsible for 43 out of the 313 EU-related work streams across government, the second highest of any department.

The Chairman: We are going to come on to capacity later on.

Dr Simon Doherty: That piece around capacity certainly is a concern. At this point it would be appropriate for me to say that again it is not all doom and gloom; all is not lost. At BVA, we maintain, and will be maintaining, very good contact with the Federation of Veterinarians of Europe. I represent BVA at the FVE. We also have specific links with FECAVA and FEEVA. FECAVA represents companion animal interests and FEEVA represents equine interests. We also have links with the Association of Veterinary Consultants that would be dealing more with input around veterinary medicines, pharmaceuticals, vaccines. We will be maintaining that as part of our ongoing engagement. That will be important as well.

The Earl of Stair: In the EU there is also the precautionary principle whereby unless an issue is specifically scientifically going to affect something it does not need to be implemented. Do you think that the precautionary principle is currently applied effectively in the field of biosecurity and should it be encoded into UK legislation? Do you think it ought to be enhanced and strengthened? You picked up the point I was also going to ask about ticks and parasites. Should that be implemented in a far stronger way into UK legislation in the future?

Dr Simon Doherty: I think so. Again, it comes back to some of the unknown unknowns. The piece around ticks is a known. Both from a human perspective and an animal health perspective—and we touched on Alabama rot, again—you have new and emerging diseases and we are not quite sure where they have come from. Schmallenberg and bluetongue are other good examples; we are not sure where they came from, what they are doing, how they are working. By allowing us to maintain that level of freedom around those types of diseases coming in, the precautionary principle allows us a position to work out what is going on without overburdening the system with bureaucracy.

Dr Matt Elliot: The precautionary principle has not worked for tree pests and diseases as such because it is undermined by the unknown unknowns. The only precautionary principle you could really implement is not importing anything at all, which obviously would be very difficult.

The Earl of Stair: It is more or less a case of disinfecting.

Dr Matt Elliot: Yes. The only answer to that is to invest in biosecurity at borders, in personnel and infrastructure, to check more plants and to

have a lot more of an effective proactive biosecurity approach rather than the reactive approach that we have had so far.

Dr Paul Walton: I would agree with that but, for the precautionary principle with regard to invasive non-native species, the answer is yes, it should be brought into the UK in a pragmatic way. The European regulation is very clear. Articles 4 and 5 make reference to the “available” scientific evidence. It does not have to be conclusive scientific evidence. It is what is available. We have to take the most informed position that we can with regard to biosecurity and, of course, there are other EU environmental principles, for example the principle of preventative action. Biosecurity is all about preventative action, so I would say these principles need to be looked at very carefully at this critical juncture.

Q19 **Baroness Sheehan:** My question is going back to the first part of the Earl of Stair’s question about the transfer of EU biosecurity legislation to the UK statute book, and whether you think that in itself is sufficient. What I am referring to, I suppose, is the role of the European Commission in collecting data, in asking Member States to report back to it and monitoring progress and the role of the ECJ as an enforcement agency.

Dr Paul Walton: I cannot say that is going to be sufficient to mean we will see the New Zealand effect and suddenly the arrival of new species falls off a cliff. That would be a little ambitious. We have to take the best parts of the EU legislation, much of which came from UK brains, I have to say—not entirely obviously, but we contributed very significantly—and we have to build on that. There is a slight opportunity there. For example, the EU list that has to be agreed across Member States stands at 49 species. Our view is that is still pretty small. It will grow in future, but there is an opportunity for us to take that list as a basis and build on that with species that are particularly of relevance to the UK. We can improve on this. The point is that if we do not—given that the problem is intensifying as a response to global trade, and as a result of climate change, which is improving establishment conditions in this country—green Brexit is going to be very difficult to achieve.

Dr Simon Doherty: In relation to animal health, as I mentioned, we have put that work into the animal health law. We want to be able to follow that through. We are going to be at a bit of a loss as to how we will continue to influence that. Certainly through ongoing membership of the likes of the Animal Disease Notification System, we will be able to underline UK legislation with ongoing disease surveillance activities throughout Europe.

The Chairman: To come back to the final bit of Baroness Sheehan’s question: is the threat of infraction from the Commission and the ECJ important and will you be putting that in to the Secretary of State, who will be putting out a consultation on replacing that enforcement role? Does that matter in this area, as we have been told it does in other environmental areas, or is it not really a function?

Dr Paul Walton: I think it probably is and there are other rules. The World Trade Organization says that you can put in place regulation on the movement of species, but it has to be scientifically based, and that is why EU legislation has this very rigorous scientific process. We either continue somehow to be a part of that or we will have to create a mirror image, a similar sort of process and structures ourselves. That is the choice we have, or we face the prospect of an ever-intensifying invasive species issue.

Lord Selkirk of Douglas: I want to speak briefly about Dutch elm disease, which you will recall almost wiped out the population of elms. If there is a similar disease spreading quickly, do we have means of containing it now to a greater extent than then? Humans have vaccination.

Dr Matt Elliot: There is no real chemical response like that. There are some management practices and arboricultural practices which might help to slow down certain pests and diseases. You could vaccinate trees, but it would be an extraordinarily expensive and unworkable thing to do.

Lord Selkirk of Douglas: I think this makes your work all the more important.

Q20 **Viscount Ullswater:** My question is about information sharing—and information sharing, I guess, post Brexit. First, I should declare an interest. I am a trustee of an agricultural estate in Cumbria.

We have had written submissions which have identified many EU-based systems which facilitate biosecurity information. There are other groups such as the European and Mediterranean Plant Protection Organization, which are not EU bodies and to which the UK could therefore continue membership. Could you identify those information-sharing and surveillance systems in your sectors which need EU membership to participate, and how do other third countries engage in these systems? Can informal information exchanges between organisations and researchers replace any loss of access to the more formal systems? I would like to ask Dr Doherty: what is the result now of losing Pirbright as a centre for bluetongue and the reference laboratory moving to Spain? That is just an instance of what is happening at the moment. My question is rather general but that is a little more specific.

Dr Simon Doherty: To be very clear, the European reference laboratory for bluetongue has moved to Spain. Regarding the scientific expertise, at a global level we are second only to the United States in terms of the number of OIE reference laboratories we have. This is global reference laboratories and the UK is second only to the United States in the number we have - at Pirbright and Weybridge, and around crustacean diseases at Cefas as well. That status will not go away. The European part is moving. To a certain extent, even with the European reference laboratories moving, they are still going to rely on the global reference laboratories that we maintain here, and the expertise we have around areas such as African swine fever, which we have not had in the UK. We have

tremendous expertise in foot and mouth disease, African swine fever and highly pathogenic influenza, without even having those diseases in the country. That is not going to go away.

Informal contacts are not going to completely replace any formal mechanisms that exist. There will still be a lot of collaboration between those European reference laboratories and the global reference laboratories wherever they happen to be. There is a loss of funding associated with that. Therefore, to maintain the national reference laboratory framework and the OIE reference laboratory framework at APHA, Weybridge, Pirbright and so on, we will need to ensure those are properly resourced. We should bear in mind the gap in that funding with EU status being taken away.

In relation to your broader question, I have already touched on some of the mechanisms—the Animal Disease Notification System and WAHIS. I wanted to mention that in relation to particular movements within the EU, a lot of the surveillance information goes under the TRACES system, which stands for Trade Control and Expert System. Any animals or animal by-products that are moved currently within Europe go through the TRACES system. That is again where there is a check made on the parity of status between countries. We rely on that exchange of information through informal and formal routes. We definitely would want to see that position maintained.

Dr Matt Elliot: Plant health is very similar in that there is a large network of informal scientific networks which talk to each other constantly about what pests and diseases are around and what is likely to be coming next. You mentioned the European and Mediterranean Plant Protection Organization. We will continue to be a member of that. There are close links with the USDA and all over the world. I do not think we will necessarily lose that. The big uncertainty is how we are going to replace things such as the plant passporting scheme which is currently in place in Europe. We will have our own phytosanitary certificates. Currently, that is a paper-based system. That will need to move to an electronic system. How is all that infrastructure going to be in place, as well as increased personnel and border checks? That is the big uncertainty for us at the minute.

Dr Paul Walton: For invasive non-native species the formal intergovernmental arrangements worldwide are much more poorly developed. Europe is beginning to develop them under the Regulation. There are informal networks and international treaties and agreements which place requirements on Governments: for example, the Convention on Biological Diversity, Aichi target 9, the sustainable development goals of the United Nations. United Nations analysis says that for those 17 goals, 10 of them cannot be achieved without effective action on invasive non-native species, but we do not have this history of formal intergovernmental frameworks. It is a slightly more immediate issue in terms of what is facing us and what will be lost in terms of loss of flora. I am not trying to denigrate the effectiveness of informal contacts, but that

depends on personal relationships, which are open to vagaries, as we all know.

The Chairman: For our report, can we ask whether we need to be able to maintain the shared lists that are there at the moment?

Dr Paul Walton: A great deal of the rest of the legislation is focused around the invasive species list for the EU. The pathway action plans will be absolutely critical to effectiveness. It introduces restrictions on sale, use, breeding, keeping, movement and so on. That list is going to be really important so that we have cross-border coherence with our European trading partners and neighbours. But we can also – and this is not forbidden by the EU regulation, you are allowed to have your own national list—but we can make our national list even stronger and perhaps even more responsive. A problem we have with the invasive species list domestically at the moment is that there are lists in domestic legislation, but the process of changing those lists is spectacularly ponderous, frankly. It takes a very long time. It is down to Secretaries of State and Cabinet Secretaries and administrations to change and so on. We could do with speeding that process up, and post Brexit we could be much more responsive even than the EU is at the moment (which is, in practice, actually changing it annually but under the legislation it has to change every six years when they have to review that list). We could be a bit more responsive.

Q21 **Baroness Wilcox:** I have to declare that I am president of the National Consumer Federation and I was a chairman of the National Consumer Council. I now have a scientific hatchery for lobsters in Cornwall.

There is a question that you have perhaps covered before but this will be the official job. Does the UK have the capacity and expertise to conduct and audit biosecurity risk assessment in your sectors, in the context of no or reduced EU input? What bodies would you anticipate taking on these tasks?

Dr Matt Elliot: The capacity is not there at the moment in terms of plant health. I have said a few times that we need investment in personnel. I believe that we have somewhere in the region of about 20 or so plant health inspectors at our borders. They have to check all the consignments, as compared to something like 700 in New Zealand. That is the kind of level we need to get to. Obviously, we have some way to go. No, we do not have the capacity, to answer your question directly.

Baroness Wilcox: How many people live in New Zealand?

Dr Matt Elliot: I do not know.

Baroness Wilcox: It is about five million. Do you know how many live here? And how many have you got? Good grief.

The Chairman: To clarify, we are going to move on in a minute to the other areas of capacity. This is around audit and biosecurity risk assessment.

Dr Matt Elliot: Forgive me.

The Chairman: We will come on to the broader issue and I am going to include IT, as you have mentioned it as an important issue, when we come on to the next question.

Dr Matt Elliot: We introduced an assurance scheme, which I mentioned and which is audited to prevent any more imports of pests and diseases. We have found in the sector that there are plenty of auditors to go around but there are not very many specialist auditors who are trained in a horticultural background.

Dr Simon Doherty: Specifically in our area, most of that independent scientific advice and communication comes from EFSA. That scientific opinion and advice will form the basis of a lot of the policies and will draw quite a bit on UK scientific evidence to underpin what goes on at EFSA. There is a piece around the auditing procedures as to what we might do beyond that situation.

Depending on what situation we end up coming out back end of this, there is the possibility that EFSA could still be involved. EFSA is providing a lot of their information online, so we will still have access to that. In terms of our audit procedures here, I know that there is some interest in the Committee from previous roles in relation to the Food Standards Agency as to whether in fact some of that would be undertaken through the Food Standards Agency or Food Standards Agency Scotland or in Northern Ireland, or whether it would be through APHA and Defra. The area in relation to risk assessment that we would potentially have a difficulty is if whatever UK body ended up taking it on had differences with EFSA, and how that would actually pan out—where there would be differences in the risk assessments and how that would be ironed out. I suspect that in relation to trade with the EU, we are probably going to be in a situation where it will be the EFSA risk assessment that will roll. Therefore, any domestic risk assessments we have in place will be for our own purposes rather than for export trade purposes.

Dr Paul Walton: We do not have sufficient internal expertise in the UK to do all risk assessment on invasive non-native species on our own. We need to access expertise in some taxa or groups of animals and plants where the expertise lies elsewhere. In the European Union, the information support system that has been set up—the scientific forum, which is closely involved with risk assessment—accesses and pays for that expertise. Post Brexit we must find ways that the UK can also access that expertise as appropriate. I do not see any other alternative, frankly.

The Earl of Stair: Looking into the future—this is principally for the BVA and possibly for you, Matt Elliot—is there likely to be an issue with the legal status of a European qualified vet or inspector working in the United Kingdom? At the moment we use quite a few European vets within slaughterhouses and abattoirs and so on. Are the training and qualifications so similar that it is going to be possible?

Dr Simon Doherty: We are coming on to capacity, but certainly in relation to—

The Chairman: If you would just answer this question within that tight area.

Dr Simon Doherty: At the minute, we have reciprocal recognition of professional qualifications and, to that end, a qualified veterinarian within an EU Member State is currently recognised and can register with the Royal College of Veterinary Surgeons to practise here in the UK. That is in terms of working here. Were you referring to the ability to sign certificates in Europe?

The Earl of Stair: We are currently using vets and European-qualified people here. Will their status change post Brexit or will they still be able to sign with the same authority?

Dr Simon Doherty: The BVA is involved with a Veterinary Capacity and Capability Project with Defra and the Royal College of Veterinary Surgeons and a number of other bodies, including the Veterinary Schools Council in the UK², looking at the whole piece around capacity. Specifically around that reciprocal recognition of qualifications, at the minute we are obliged to look at that reciprocal recognition right across the European Union. We would not want to add a level of restriction to the number of European vets who are coming to work in the UK from a capacity perspective. However, there may be different mechanisms we could look at. Some of the European veterinary schools are accredited by EAEVE—the European Association of the Establishments of Veterinary Education. It may be that, to look at aligning the standards and the shape of the veterinary qualification in the UK with some of the schools in Europe, we would look to reciprocal recognition of EAEVE-accredited veterinary degrees only. As I say, that is being considered, but it is important that at this particular point in time where we have significant capacity issues we would not want to add any extra restrictions on to that.

The Earl of Stair: It may be brought in to legislation.

The Chairman: Absolutely, although presumably it is something the UK can do unilaterally if it wishes. Lord Rooker.

Lord Rooker: I have two very short supplementaries, but I did not want to interfere with the flow of the answers. They are relevant to what I want to ask about inspections and trade. How long has Turkey been a member of the Animal Disease Notification System?

Dr Simon Doherty: I am not sure, but we could follow up and provide that information.

Lord Rooker: Did that system exist before we joined the EU?

² Note by witness: the BVA subsequently clarified that the Veterinary Schools Council are being engaged by the Project but are not members

Dr Simon Doherty: No.

Lord Rooker: As with the RASFF system, that has come about since we joined and there is nothing to fall back on when we come out?

Dr Simon Doherty: No.

Lord Rooker: The fact that Turkey is in there is different from the RASFF system and I wondered how long Turkey had been a member. We can check on that.

On the BVA note, which is relevant to my question on capacity, you would not know from reading your evidence that there were any global reference laboratories, because you only concentrate on the EU reference laboratories. I wondered about foot and mouth at Pirbright, because it is a global reference laboratory, as I understand it. It would be useful to have a supplementary note on that. We are the losing the EU reference laboratories, but how many global reference laboratories are left that have nothing to do with the EU in a way, so the capacity is still there in terms of the science?

In relation to materials coming in from the EU, we had an answer from the Minister in another of our inquiries, which was that because we trust the EU as a system—we are leaving it, but we trust it—when stuff comes in from the EU we will assume that they have checked it all out and everything else. In other words, we do not need the extra capacity.

Baroness Wilcox asked a question on New Zealand, and I have no interests to declare other than my wife and I married on a visit to New Zealand. You can understand that 90% of its economy is agriculture that is protected and they need those numbers. We were told, “We trust the EU, so we probably won’t have to beef up our inspections”. Do we have the capacity to check what is coming in from the EU? At the moment, we are relying on those countries to do it anyway. There are good laboratory facilities in this country, but we are short in some science areas. Do we need extra capacity, or would you say, “We still trust our former partners in the EU to do the job for us and whatever they send us we will assume is okay”?

The Chairman: Also on capacity, which is important, presumably we will have to certify everything that is going out if we are not part of the single market. There is that side of capacity as well, because it will be the same people to some degree.

Dr Simon Doherty: It is a two-way flow. That is why any system that is about the certification of products from the UK to the EU or vice versa needs to be based on risk. That is why I feel we very much need to align our animal health objectives and make sure that we have mechanisms in place to ensure that those are fully aligned all the time.

There is the opportunity for us to strengthen one or two little bits. I mentioned the treatment of ticks in companion animals. By and large, where we can have them as closely aligned as possible, we can hopefully

reduce the level of pre-export testing or post-export/post-import testing that is required to check that animals are of a particular status.

To go back to the precautionary principle, we had a situation recently where animals came from France to the UK that were not quite what it was said they were going to be and it resulted in an awkward conversation between the CVOs of the two countries. We need to be aware that if we are not part of those formal mechanisms it is responsible, and it is our responsibility, to put some checks on that.

Without wanting to creep too much into the next question, that capacity around our ports: we already have a huge shortage of vets here. We are looking at aspects relating to veterinary certification, portal inspections and so on. There have been aspects, for example in the Atlantic salmon industry in Scotland; a lot of the Atlantic salmon is inspected not by veterinary surgeons but by environmental health officers. The environmental health officer profession is, in itself, stretched beyond capacity, so it is not as though we have a fall-back position there.

A lot of the third countries that we are exporting to require a veterinary certificate, not an environmental health officer certificate. While we can devolve some areas of responsibility, where there are veterinary certificates you will need vets to sign them. They need to be competent in what they are doing. We need to have the capacity for them to do that. We need to make sure that the training they have is reflective of what they are doing, which it is not a lot of the time. We need to be very careful to build all that in to what we are talking about.

The Chairman: You mentioned that systems at the moment are paper based. We have come across this in some other areas. Are they going to be completely unable to deal with a post-Brexit situation? Do we need to ask Ministers about this?

Dr Simon Doherty: When it comes to live animals and animal health products, there is a paper certificate that goes with the consignment. The TRACES system that I mentioned earlier is electronic. There is a connection between the physical paper that is signed off and stamped by the vet at the time of export and what goes through the TRACES system. They need to match up. Increasingly, there will be a move towards electronic-based systems, but at this point in time there are a lot of paper certificates.

The focus of this particular inquiry is around Europe and EU exit, but to put it into the bigger picture, we are talking about a workforce that is also doing a lot of certification for third countries. The Secretary of State for DIT mentioned a significant export win over the next five years for Aviagen of fertilised eggs and day-old chicks going to Thailand, and those need to be certified. Any increase in trade we have with Kazakhstan, China, Thailand or any other countries is stretching capacity beyond the extra certification that may be required around European imports and exports.

Dr Matt Elliot: Phytosanitary certificates that would replace plant passports are paper based at the moment. That is being looked at, and IT systems will need to be built pretty quickly to catch up.

The Chairman: You say that confidently.

Dr Matt Elliot: We know how IT systems go.

The Chairman: We all sound slightly sceptical about the quick development of IT systems. Dr Walton, is there anything you want to say on capacity?

Dr Paul Walton: That was largely a question about animal and plant health. It is evident that there is much further to go to get arrangements sorted for invasive non-native species movement nationally among UK countries and internationally. I would refer to the answer to Baroness Redfern's Written Question on 29 January 2018.

The following is in England: £2 million is spent on animal health³; £13.2 million is spent on plant and tree health; £3.1 million is spent on aquaculture; £2.8 million is spent on bee health; £900,000 is spent on invasive non-native species. I am not trying to do down the huge importance of animal and plant health at the top of the list, but we have to look seriously at our international relations and our investment in biosecurity for invasive species, or future generations will face huge bills.

The Chairman: Thank you. Let us take on that theme of broader trading patterns. Earl of Stair.

Q22 **The Earl of Stair:** We will move away from Europe for the moment as we are going to have the potential for lots more international trade. That is going to open up a lot more opportunities for a new range of invasive alien species. What could be the biosecurity consequences of new post-Brexit trading patterns in your individual sectors of plants, wildlife and veterinary?

Dr Matt Elliot: In terms of plant health, being a member of the EU afforded us some protection through its biosecurity systems. Plants coming from third countries could come into Europe before here, so problems would be picked up there. Everywhere, now, will be a third country, so, as I have said a couple of times, we will have to invest significantly in our borders to replace that security the EU afforded us. We have some way to go with the phytosanitary certificates and so on.

Dr Paul Walton: The higher proportion of species that arrive from further away geographically, the higher the proportion of species that are entirely novel to this country. Not all non-native species cause immediate problems or long-term problems, but a higher proportion of them are likely to be very novel. There is a biological point that that sheer novelty means that species in this country have not evolved alongside those and there is a potential for problems. That is an important consideration.

³ Note by witness: the RSPB later clarified that the figure is £200m

What we will do with new trading patterns is establish new pathways, which should be seen as pathways of introduction of novel species to this country. We need to be responsive to those pathways and be prepared to put in safeguards around them as appropriate. As I mentioned earlier, it is training for staff and people at key points on these pathways, the surveillance mechanisms within the country, the establishment of early warning and rapid response capacity. We need statutory rapid response teams ready to move when we know these species have arrived so that we can prevent them from establishing. That is the preventive spend that is going to save us a lot of trouble down the line. It is as simple as that.

Dr Simon Doherty: At the minute, the EU puts the emphasis on standards at the point of production. That is part of the reason why outside the EU we will have to look at what we are doing at our border posts: because there is a shift in the dynamic.

Now is probably the appropriate time for me to mention veterinary capacity specifically. Some 47% of the new registrations with the Royal College of Veterinary Surgeons in 2016 were EU graduates. Only 53%⁴ of new registrations to the Royal College of Veterinary Surgeons were from UK veterinary schools. Lord Rooker mentioned that 95% of official veterinarians working in abattoirs graduated overseas.

BVA has made a number of specific calls in relation to this. We have asked for vets to be restored to the shortage occupation list and for the veterinary profession to be prioritised in any future immigration policy. A number of the UK veterinary schools train undergraduate students from overseas. About 40% of the students studying at the University of Glasgow are North American students.

If those students have studied for four, five or six years in the UK, we would like to see some way in which they could be given some kind of preferential treatment in relation to being able to stay on and take a first job after they graduate within the UK. They have been taught within the UK system, they understand UK animal health, and there could be a lot to be gained by using those students rather than them disappearing back to North America or elsewhere around the globe. If they are graduating from UK schools they should be given the opportunity to continue to work here in the UK.

The Earl of Stair: Did you say that we ought to be inspecting things at point of source? That would suggest that on top of having border controls we would also need to have somebody to approve either the welfare or the conditions in which goods are produced before coming in?

Dr Simon Doherty: We are already doing that for our products. We are inspecting our premises to make sure there are the highest levels of animal health and welfare.

⁴ Note by witness: the BVA subsequently clarified that 44% were from UK veterinary schools (the remaining 8% were from third countries)

The Earl of Stair: In the UK?

Dr Simon Doherty: Yes. I am not suggesting that we would look at things at point of source, but it is important that we have capacity at the ports for imports. As things stand, we accept that the European standards at the farm gate are good enough, but from the point of increasing not just from Europe but further afield, that we're inspecting things at the point of source and giving the assurance that where we are exporting to Europe we are maintaining those standards.

Lord Rooker: When the food and veterinary office of the EU is going around the world checking on plants and certifying they are okay to import or export into the EU, they are doing that on behalf of the EU but they will not be doing it on behalf of the UK when we leave, will they?

Dr Simon Doherty: They will not be doing that on behalf of the UK. That is why we need to make sure that we do what we are saying in order to give that level of extra accreditation to our exports. That is why they are going to require that level of assurance from us that it is what it says on the tin, literally.

Lord Rooker: Youngsters can train as a vet and see the world.

The Chairman: That is one of the big issues on non-food safety.

Lord Young of Norwood Green: On that very point, I notice that you are a STEM ambassador to the veterinary schools. Why can we not attract more young people into the veterinary profession? I thought our young people were obsessed with animals.

The Chairman: A very brief answer, please.

Dr Simon Doherty: There are a number of different things there. We have roughly 1,100 vet students who qualify each year. At the minute, we are dealing with retention issues in the veterinary profession. The profession is looking very closely at why we are not retaining vets after seven to 10 years qualified. That is one issue.

The second issue is capacity and veterinary education. A number of universities are looking at the possibility of starting new veterinary schools in the UK. Even if we did that today, we have a lag of eight or nine years before those schools open their doors and qualified vets come out at the other end.

As part of the European framework, we have become reliant on that 50% of EU vets coming in. That is not to say those EU vets will not continue to come in, but we need to make very clear how things stand and for government to be clear about the future status for current European citizens working in the UK as vets or veterinary nurses and, indeed, what the position is going to be for European vets who want to come and register in the UK in the future to maintain those ongoing links.

The Chairman: Presumably domestic legislation would have to approve

continued mutual recognition, or does the BVA have that in its own statute?

Dr Simon Doherty: We are a membership organisation. The registration of new vets comes under the auspices of the Royal College of Veterinary Surgeons, which is the regulatory body for the profession. BVA and the College and Defra are looking at that whole piece as part of the Veterinary Capacity and Capability Project.

The Chairman: We might go on to 12.15 pm, but we will have to keep ourselves sharp on the last two questions, because they are important. Lord Rooker.

Q23 **Lord Rooker:** The big story from this place tomorrow will be the debate later today about Northern Ireland on Amendment 88. That is a nice lead in to devolution. Do we have a UK system: Wales, England, Scotland? What are the difficulties there? There is a border down the Irish Sea on some aspects of this, is there not? On plant health, for example, there is different legislation in Northern Ireland from GB. The idea that there is no border down the middle of the Irish Sea is preposterous; it is already there.

On the all-island arrangements, which are important in agriculture—you mentioned the export of milk earlier—the island of Ireland has 16% of the world's infant formula market only because of a frictionless border and its integrated nature. Could you explain where there are potential differences and potentially serious problems internally in GB, but in particular in GB to Northern Ireland and the island of Ireland? If there is a Scotland-England issue, I am not aware of it.

Dr Simon Doherty: From my own experience of having worked at AFBI, AFBI and DAERA, which is the Department of Agriculture, Environment and Rural Affairs, work very closely with their counterparts in the Republic: Teagasc, the research institute; DAFM, in statutory diagnostics; and the Department of Agriculture, Food and the Marine in the South. They publish an all-island disease surveillance report every year, which recognises diseases do not stop at Newry, Strabane or Armagh; they will go backward and forward.

There are a couple of good examples of where we have made huge progress in recent years. There has been the formation of Animal Health Ireland and Animal Health and Welfare NI, which are largely industry-driven, with Animal Health Ireland taking the lead for the control of bovine viral diarrhoea virus, or BVD, from the South to the North on an all-island basis. Expertise in Animal Health and Welfare NI is looking at Johne's disease, or *Mycobacterium avium* paratuberculosis, from North to South.

That level of interaction between the industries in the North and South from a disease control or biosecurity perspective is already happening. How that will look going forward is the piece we do not know. Will there be a hard or a soft border? How is that going to work? We know there are farms and veterinary practices that span the border. There is a real

danger of frustrating some of those huge advances in disease control if we do not get that right.

In respect of devolution globally, putting my BVA hat back on and getting off my Northern Ireland soapbox, the BVA would have serious concerns about the devolution of animal health. At the minute, the EU is used to dealing largely with Defra, and if we are going to be dealing with slightly different issues in Scotland, Wales, England and Northern Ireland, there is the possibility for something to fall between a gap.

A recent example is the export of fifth-quarter to China, in relation to pigs. A series of Chinese inspections were arranged for GB and Northern Ireland was left out and we had to arrange a separate visit for Northern Ireland to get that level of accreditation. It was a light-touch oversight, but it affected the Northern Ireland sector quite considerably. We need to make sure that there is a level of joined-up approach, even if there is devolution.

With regard to devolution, you can have a slightly different emphasis. Scotland has a huge interest in Atlantic salmon, whereas other parts of the industry are looking at pigs, dairy or poultry. It is absolutely right that those areas can look at maximising export trade opportunities from their region within the UK, but we also need to be very clear about needing a joined-up approach to animal health, particularly in disease surveillance, sharing information and laboratory capacity, and making sure that we have a trained workforce of vets throughout the UK.

The Chairman: We need to move on. To give you an advance warning, in the final question, which is about what we should do next following Brexit, I am going to ask you to give me three key things that you would like to see changed after Brexit that we could not do before. Dr Walton, would you like to come in on devolution?

Dr Paul Walton: We need a common legislative framework on this issue. If not, there is an incoherent approach and unavoidable risks. Gaps in any administration's arrangements will affect everybody. That is clear. As I said at the start, it is intrinsically a cross-border issue and we need to develop that co-operation. As a starting point, we suggest that that ought to be based upon the provisions of the current EU legislation.

With regard to Ireland, there is a sense that a biogeographic rather than a geopolitical approach will make a lot of sense. We are talking about mature, formal set-ups for animal and plant health, but that is not the case for invasive species. Informally, we have the GB non-native species secretariat, on which Scottish, UK and Welsh Governments are represented. It is pretty effective in its informal role. There was an all-Ireland invasive species initiative, which I think is languishing slightly at the moment.

There are elements of the invasive non-native species issue that ought to be handled at a GB and all-Ireland level, but how that will play out with regard to the Irish border I cannot say. The whole UK archipelago and

our offshore islands are disproportionately important for biodiversity⁵. It is critical that we get island biosecurity right in this country. That is one area that I would like to see improved post Brexit.

Dr Matt Elliot: As far as plant health is concerned, an all-island approach has been under way since ash dieback. There is an all-island surveillance system, and the North and South work very well together. You have the Irish Sea in the middle. Northern Ireland has protected zone status for certain pests of spruce. That works very well to keep the spruce bark beetle out of Northern Ireland and in Scotland. As has been pointed out, we need to keep a UK structure for biosecurity. There are different issues in different parts of the country—forestry in Scotland is very different from England, for example—but we certainly need a UK-wide biosecurity policy framework.

Q24 **The Chairman:** Dr Doherty, what are the top three things that you would do differently post Brexit?

Dr Simon Doherty: My top three are, first, to update and improve the legislation designed to address exotic disease. That is nice and broad. The UK resetting its relationship with the OIE is going to be important from a surveillance perspective going forward and strengthening that relationship. I am due to go with the CVO to the General Assembly of the OIE in Paris in a couple of weeks. The third would be in relation to companion animals and the Pet Travel Scheme, the reintroduction of tick and tapeworm treatments for cats and dogs.

The Chairman: Thank you. Dr Walton.

Dr Paul Walton: They are: better domestic legislation that is better co-ordinated across UK countries; a longer species list that includes the EU list but is extended for this country; a look at what invasive non-native species we export around the world, because this is not just about what is coming in here but what we export; and a particularly close look at the export of *Bombus terrestris*, bumblebee nests, for pollination services that are transferring insect diseases around the world that were not from the EU.⁶ EU legislation does not look at what we export.

The Chairman: Thank you. Mr Elliot.

Dr Matt Elliot: It would be a biosecurity Act that would look at the threats from all unwanted organisms. We have talked a little about the differences between non-natives and pest and diseases, but it is all non-native, so a single approach to non-native organisms coming in is needed. The UK has an opportunity to examine how to move to a more proactive biosecurity system, but we need a willingness to invest in the infrastructure and personnel at the borders. If another tree pest comes in

⁵ Note by witness: the RSPB subsequently clarified that they meant to say that, in the UK archipelago, our offshore islands are disproportionately important for biosecurity.

⁶ Note by witness: the RSPB subsequently clarified that they were referring to transferring diseases around the world that originate from the EU

and wipes out another UK native species, the public will look back and say, "Why didn't we take this opportunity when we had it?"

The Chairman: Thank you very much indeed. I am pleased you raised the issue of bees, because there is the issue in my part of the world in Cornwall of the black bee and the various imports, I think mainly from Italy, that have had all sorts of problems.

Gentlemen, thank you very much indeed. This has been a very informative session. We have gone slightly over time, but it has been very much worth it. Thank you very much for your evidence.