



Select Committee on the European Union

Energy and Environment Sub-Committee

Corrected oral evidence: Brexit: plant and animal biosecurity

Wednesday 25 April 2018

10.30 am

Watch the meeting

Members present Lord Teverson (Chairman); Lord Curry of Kirkharle; Viscount Hanworth; The 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. 1

Heard in Public

Questions 1 - 12

Witnesses

[I](#): Dr Kezia Barker, Lecturer in Geography, Birkbeck, University of London; Dr Robert Black, Consultant in Biosecurity Law and Drafting, Natural Resources Institute; Dr Emily Lydgate, Lecturer in Environmental Law, University of Sussex.

Examination of witnesses

Dr Kezia Barker, Dr Robert Black, Dr Emily Lydgate.

Q1 The Chairman: This public session is our first evidence session on Brexit connected with plant and animal biosecurity. We might describe our witnesses today as on the academic side of this subject. May I remind Members to declare any interests when they first ask a question or intervene? I am a Board Member of the Marine Management Organisation. This is a public session and it is webcast as well as recorded. We will send a copy of the transcript to the witnesses and if you think anything has been incorrectly recorded, please do come back to us. If at the end of the meeting you think there is any other area that you would like to make points about, we will be very happy to receive further written evidence. Before we start may I ask the witnesses to briefly introduce themselves and then, Dr Barker, I think you want to make a short statement? Let us start with Dr Lydgate.

Dr Emily Lydgate: I am Emily Lydgate. I am a Lecturer in Environmental Law and a Fellow of the UK Trade Policy Observatory at the University of Sussex.

Dr Robert Black: I am Robert Black. Since 1995 I have been giving legal and technical advice on sanitary and phytosanitary measures to developing countries, accession countries and emerging countries. My primary discipline is plant health but I also have some familiarity with EU food law. I also advise and train on risk analysis.

Dr Kezia Barker: I am Kezia Barker. I am a Lecturer in Geography in the Department of Geography at Birkbeck, University of London, where I contribute to our research-led teaching programmes. One of my research areas is in the meanings and politics of biosecurity.

The Chairman: Dr Barker, I believe you wanted to say something at the beginning of the session.

Dr Kezia Barker: Yes. I wanted to explain briefly why biosecurity is a contested political matter by suggesting that it is inflected with three conundrums.

The first is the issue of anticipation. Biosecurity demands that we act in advance, that we intervene in pre-border contexts, analyse risk pathways and develop contingency plans. It is easier, cheaper and more effective to intervene earlier, but 90% of pathogens may be unknown to science. Those that are known can behave in unexpected ways in new host environments and changing climates. How anticipatory, therefore, is our risk-based approach focused on already existing threats?

Secondly, there is the issue of democracy. Biosecurity touches many industries, sectors and diverse publics. It is inherently a public interest concern—but what is our biosecurity risk culture in the UK? There is little public discussion of what level of biosecurity protection and intervention we are willing to accept and how we value our natural cultural assets.

Biosecurity implies forms and languages of inclusion and exclusion. All these are political issues but the most tenacious coupling of biosecurity is with the economic logic of trade liberalisation. Can we reimagine biosecurity according to democratic/political rather than economic/trade imperatives?

Then there is the issue of exclusion and resilience. Biosecurity is often posited as the attempt to wall out circulatory threats to enable the safe movement of trade and travel, but bio-insecurity and vulnerability can be produced within, for example in some forms of poultry production, in monocultures, through excessive use of fertilisers and through climatic and other environmental stressors such as habitat fragmentation and degradation. This means, therefore, that biosecurity is not just dependent on keeping things out but also a matter of building internal resilience. A diverse local food and local plant industry, agroecology and maintaining high standards of animal welfare all produce good biosecurity.

Q2 The Chairman: Okay. If that sets the standard for the rest of the witness session we are going to have a very good session, so thank you, Dr Barker. I know the other witnesses will make their points as part of the first question which goes to the fundamentals of why biosecurity is important to the UK. What are the implications of the UK's withdrawal from the European Union for biosecurity in terms of animal and plant health, invasive species and food safety? It is quite a broad subject. Dr Lydgate, would you like to start?

Dr Emily Lydgate: I am going to narrow it down quite a bit to two considerations that are key from a trade perspective. Biosecurity poses a particular challenge within what is arguably the most challenging area of our future relationship with the EU already: namely, how to avoid a hard border in Northern Ireland. Biosecurity enforcement in all the areas covered by this inquiry relies on physical inspection at borders.

One significant example is that EU law requires that all live animals from third countries be subject to veterinary checks at designated border posts. There are thousands of live animals moving freely across the intra-Irish border now. How would we avoid the need for veterinary checks and other types of sanitary and phytosanitary inspection? This is an area of significant disagreement between the UK and the EU. If we look at the EU's past practice, there is quite a high bar to achieving the level of frictionless trade that requires a very deep and broad level of regulatory integration. This is a key issue.

Biosecurity, particularly in the food safety area, is significant with respect to a potential US/UK trade agreement, because the EU bans or restricts a lot of US products based on food safety concerns—not only the infamous chlorinated chicken, but also food hormones, additives, pesticides and GMOs. Getting the UK to remove these product bans will obviously be a very high priority for the US in a trade agreement. So there is a geopolitical question here about whether we are going to stay aligned with the EU or move towards the US, which is quite binary.

Dr Robert Black: I would like to add to rather than repeat what Emily has said so effectively. For me, the importance of biosecurity for the UK is demonstrated through the single market, because that is where biosecurity essentially operates. It is ironic in the context of the Brexit debate that the UK was promoting the idea of a single market and that UK experts and lawyers were very influential in drafting legislation in each of the three biosecurity sectors of plant health, animal health and food safety. As Kezia mentioned, animal welfare should be seen as a component of biosecurity in the EU because of the farm to fork strategy.

The elements of biosecurity that are of particular interest to me are the plant health regulations, and here the question of borders and future borders will be very important. We can probably say more about that in answer to later questions. On food safety, I am greatly concerned about pesticide residues, the common framework for that throughout the EU and what will happen after Brexit. There is also the importance of risk analysis to underlie acceptable non-tariff measures and how this will pan out in the future.

The Chairman: Dr Barker, did you want to come in on this question?

Dr Kezia Barker: Just to reiterate that the key risks come from potential resourcing pressures if we fall out of some sort of biosecurity alignment, in inspection and certification across borders or if we become effectively a third country. There is also the risk of trade pressures to weaken our environmental and animal welfare standards which will put pressure on consumer groups or biosecurity watchdogs to attend to those. The key opportunities are in prompting national debate over our biosecurity risk culture in the UK and how we value our shared environmental assets and in potentially thinking about developing local cultures of gardening and the local food industry, potentially through growing domestic markets and other forms of import substitution.

Viscount Hanworth: How are the standards of biosecurity in the UK regarded by other European Union countries, notwithstanding the prominence of our lawyers in formulating European Union criteria? I am mindful of the fact that in recent times we have suffered from two endogenous animal diseases, namely Bovine Spongiform Encephalopathy, BSE, and foot and mouth disease, and it is arguable that both were propagated as a result of some doubtful farming practices in the UK. So might not other European Union countries be pleased to place us in a permanent quarantine?

Dr Kezia Barker: Biosecurity policy-making and practice in the UK and the EU is very marked by past crises, and there can be a sense that the way biosecurity is practised can be quite reactive. As you mentioned, those crises caused inquiries and biosecurity practices changed accordingly. Regarding our reputation and our contribution at the EU level, the UK makes a very strong contribution. Our risk analysts in Defra contribute to crucial risk-analysis panels and it will be seen as a great loss if those pools of experts were not available to contribute to ongoing EU policy-making and risk analysis.

Dr Robert Black: It is recognised that the UK has the best plant quarantine anywhere in Europe and probably the rest of the world, apart from perhaps Australia or New Zealand. For example, we have kept out Colorado beetle since 1845, which is a considerable achievement. On the other hand, we used to have what was called an Approved Importers Scheme which allowed plant material to enter without border inspections. It would come to the nursery and then be grown in a greenhouse or under plastic for two weeks and be inspected and give time for hard-to-see pests to be diagnosed. About eight years ago, however, the Commission decided that it could not allow that, so we had to implement border inspections for all plant material at airports and at sea ports.

Viscount Hanworth: Would it be fair to say that there is a contrast between our stringency in these matters and our success in preventing animal disease and maintaining phytosanitary standards?

Dr Robert Black: We have had a very good record of preventing plant diseases spreading from the other member states and the rest of the world.

Q3 **Lord Curry of Kirkharle:** For the record, I farm in Northumberland. I have sheep and cattle and combinable crops. I am a Trustee of the Clinton Devon Estates, which also has animals and crops. The main thrust of our concern tends to be that, in leaving the European Union, there might be some relaxation of standards that might lead to some dilution of standards in the United Kingdom. I am interested to know whether you think that the standards that currently exist in the European Union are good enough. Do they function well? Are there any changes that might be proposed in the pipeline or that you think could be improved?

Dr Kezia Barker: The way EU biosecurity has tended to be characterised in the literature is reactive rather than proactive—potentially slow to respond to pest and disease events. There is also the weakest link principle where if you treat the EU, the UK included, as one bioeconomic unit through the plant passport scheme and the veterinary checks scheme, everything depends on the standards of the weakest member state. There are significant developments coming in phytosanitary-led regulations which are due to come into force at the end of 2019. Of course, there is the question of the legislation itself and also of the implementation regimes, which, as you hinted at, is crucial.

Lord Curry of Kirkharle: Presumably they vary significantly across the European Union.

Dr Robert Black: Some countries or particular points of entry used to be regarded as a soft touch for importing some plant material such as cut flowers and so on that would ultimately end up in the UK from third countries because they did not have adequate inspections. They could come by lorry all the way through into the UK. That has been tightened up considerably, and similarly, for pesticide residues from third countries. To comment on what Kezia said about legislation, this new Regulation, 2016/2031, which is now enacted but will come into force in December

2019, for the first time adopts the terminology and the concepts of the International Plant Protection Convention. Defra has indicated that it intends to implement this even after Brexit because the present UK Plant Health Act for Great Britain and Plant Health Act (Northern Ireland), both of 1967, do not implement the International Plant Protection Convention in its current format. The implementation currently of IPPC, and indeed the SPS agreement, is provided by the current EU Plant Health Directive 2000/29/EC. So that is an important development in the legislation.

Dr Kezia Barker: To add to that, where we are concerned about the standards in other countries, one crucial mechanism to improve that is through co-operation and our experts in inspection and diagnostics undertaking training and sharing expertise. The EU has provided a crucial forum for that. A high percentage of training is provided by the UK to other Member States.

Dr Emily Lydgate: It is true that leaving the EU would free us to take a stricter approach to biosecurity. For example, we would no longer be bound to provide freedom of movement to EU goods, so we could move towards Australia's approach of regulating species introduction through a whitelist, which designates only the species that are allowed, rather than the EU's blacklist approach, which designates the species that are not allowed. We could introduce greater controls on the products themselves. Another Australian example is the proposal for compulsory fungicide spraying on all seeds of certain species being imported.

It is striking the balance between on the one hand preventing the introduction of a species or organisms which could be economically and ecologically catastrophic, while on the other hand trying to facilitate trade and reduce bureaucracy in border areas. For example, with the fungicide proposal, organic farmers in Australia are saying, "Our products can no longer be classified as organic so we will go out of business". So in the UK example there needs to be some sort of proportionality cost-benefit analysis of how we approach these issues.

The Chairman: We will come on to opportunities later in the session. Regarding the weakest link, which you mentioned, Dr Barker, has that been solved within the EU now or can we name names?

Dr Kezia Barker: I would not like to. It is dynamic. The plant legislation that we have referred to has been in development for a few years and the UK has been significant in contributing to that. To reiterate, it is all about implementation. The Regulation comes into force at the end of 2019, so it is hard to answer that question at this point—but there are different standards.

The Chairman: You are saying that Australia is number one in the world league table?

Dr Kezia Barker: I would say New Zealand.

The Chairman: If Australia and New Zealand get five stars, where is the

EU at the moment? Two, three, four?

Dr Kezia Barker: You would still describe the EU as world leading, particularly in plant phytosanitary standards—but, yes, Australia and New Zealand.

Dr Robert Black: In terms of weakest links, after the E. coli outbreak in beansprouts in Germany led to fatalities and serious illness, the German authorities immediately blamed the Spanish because they were seen to have the laxest standards. In fact, it had nothing to do with Spain but it had a huge economic impact on Spain. It was due to a local producer producing beansprouts using human excrement to fertilise.

The Chairman: That is the trouble with fake news. Dr Barker, do you want to make a last comment?

Dr Kezia Barker: Yes. It is often very easy with disease and disease events to point a finger of blame after the event. When something is here it is very difficult¹. There has not been much research invested in key outbreaks to trace them back to a source of origin. It is also important to say that biosecurity depends on good neighbours. If we open up different trade routes we are interfacing with different biosecurity regimes in other countries. The EU has been a mechanism for encouraging as a community the production of good biosecurity neighbours.

Q4 **Lord Rooker:** I would like to deal with the issue of the shared approach to biosecurity between the UK and the EU as to what extent it is appropriate. I am working on the basis that there are claims that some organisms are a risk to other EU Member States but not a risk to the UK and that therefore we could safely allow products in and out. To avoid a supplementary later—because it was already referred to in one of the earlier answers—if the climate affects the organism, the climate in the UK is the same as the climate in the Republic of Ireland. Does that create a separate problem?

Dr Kezia Barker: Regarding the issue of shared lists specifically, there are one or two examples where, because of our shared lists of harmful organisms, we are putting resources into inspection where perhaps we do not need to. Oranges is the classic example where we need to inspect quite a high percentage of oranges and we do not have a citrus industry. Perhaps slightly tangential to this, there are also some examples in the invasive species domain where we have taken action and undertaken culls to prevent hybridisation with other species elsewhere in the EU. I am thinking about the ruddy duck example and the cull of the ruddy duck to prevent hybridisation with the white-headed duck in Spain. There is a potential opportunity to tailor these lists more to UK concerns and, under pressure of resources, focus our inspections.

On the climate, Northern Ireland and how biosecurity happens in Northern Ireland, I do not know if anyone else feels more confident

¹ Not by witness: Dr Barker subsequently clarified that establishing causes and contributory factors is difficult.

talking about this but there is a recognition of a need to co-operate and to operate as one bioclimatic zone in biosecurity matters. There are important memorandums of agreement and programmes in which that functions.

Dr Robert Black: On the other hand, the island of Ireland has always been recognised as a separate plant health area from Great Britain and the rest of the EU with some pests such as fire blight. We benefit with the shared lists and from early warning about new pests which are coming in or attempting to breach remote borders, say in the east or the south. With climate change we should be prepared for the possibility that pests or crops which can only thrive in southern parts of the EU might find good habitats in the UK. So there are benefits from Brexit but the risk analysis will have to be done all over again because the socioeconomic conditions in the UK are different from some parts of Europe. Therefore, the economic risk of a pest might be different, and having to redo risk analysis will require more resources.

Dr Kezia Barker: The production of these lists in the new EU legislation that we mentioned is happening right now and I imagine that Defra risk analysis specialists in the Animal and Plant Health Agency are operating as though we will be part of some form of biosecurity union and alignment. I think that the UK's suggestions for those lists are being considered.

Lord Rooker: Can I follow that up?

The Chairman: Okay. We will come back on Ireland later.

Lord Rooker: This is not necessarily about Ireland but there is an issue about climate. Are you familiar with the EU law relating to the apple snail?

Dr Kezia Barker: No.

Lord Rooker: It is banned in the EU because it would cause problems in about seven countries, whereas it was used here for cleaning water tanks and it works. It is okay in the UK because it cannot survive from one year to another. It cannot survive in the Republic of Ireland from one year to another either. We are not affected, other countries are, but there is a complete EU ban on the basis that in Portugal, Spain, France, Italy, Croatia and others it can survive and it causes terrible problems if it gets out in the open. If Brexit comes, we have a classic case of saying it is cheap for us to use and we can clean our water tanks, the aquarists can use it and it does the job. The problem is the climate is the same and it will be the same in the Republic of Ireland and it would work there. They could use it because it does not survive over the winter. How do you get over a problem like that if it is on a list in the EU and yet it is a big benefit to us post Brexit as well as to the Republic of Ireland? How do you get over a problem like that of having these lists that we will probably still have after Brexit?

The Chairman: Very brief answer as it is not us who are supposed to be giving evidence to you; it is supposed to be the other way around.

Lord Rooker: Hang on. We have been given written evidence and I am using our written evidence to ask a question.

The Chairman: Absolutely. We will have a quick response.

Dr Robert Black: We have to take account of the growth of sheltered crops, particularly in the southern parts of England and also in parts of Scotland as well for horticultural produce. Pests can now overwinter under those conditions and whereas before a pest like an African armyworm caterpillar² was not considered a threat to the UK it is now because of sheltered crops.

Q5 **Lord Selkirk of Douglas:** May I ask what laws are currently in place to protect the United Kingdom's biosecurity and to what extent are these laws governed by the EU rather than domestically? What I have in mind behind the question is the veterinary checks on the trade in animal products and other control measures against certain animal diseases.

Dr Emily Lydgate: The EU has a very stringent regime regarding centralised requirements for animals and animal products. These are applied to third countries and include requirements for production, the inspection of production facilities and that they meet EU requirements. They also encompass border inspection requirements. That is an example of where veterinary controls are tightly controlled at the EU level.

Dr Robert Black: On plant health it is interesting from the point of view of legislation that the EU Plant Health Directive of 2000/29/EC is implemented through the joint authority of the two UK Plant Health Acts of 1967 and subsection (2) of the European Communities Act. Looking at the Withdrawal Bill, I am not sure what the future status is of this legislation that has this dual authority that is typical of a lot of legislation in the biosecurity sector. The implementation of the new EU Regulation will make a major difference to the UK's legislative base for plant health.

Dr Kezia Barker: Stop me if it is not useful to say this again but essentially the EU operates as one domain. There is the veterinary check system and the plant passport scheme with the idea that within those schemes animal and plant products can move relatively freely. There are now some tracing systems in response to previous concerns over food fraud in the animal health domain. The strict checks come at the outer borders where third country material is coming in. For animals it is at the border inspection posts. For plants it is slightly more dispersed. Within that, the EU legislation across the domains of animals, plants and invasive species applies internally.

Lord Selkirk of Douglas: Is the inference from everything you have said that these laws should be kept in place or should they be updated

² Note by witness: Dr Black subsequently clarified that he meant to refer to the cotton bollworm and not the armyworm caterpillar

from time to time?

Dr Robert Black: I have no doubt when we turn to food safety that we have much better food safety in the UK because of the EU food laws, which the Brits mostly wrote anyway. But food safety risks are relatively low in number compared to plant health or veterinary risks. The same food safety risks apply all over the world, so it is much easier to have a common framework.

Dr Kezia Barker: It is potentially an opportunity to think about simplifying and streamlining our laws. We might want to look at the New Zealand example. New Zealand biosecurity legislation is one model for that. We can think about the opportunity of going further, particularly in areas which are more traditionally thought of as being outside the domain of biosecurity legislation itself. That would be labelling schemes, for example. I have mentioned the significance of internal resilience. We might want to think about ways in which we can prevent disease risk and strengthen our animal and plant health within through supporting local national industries, particularly in the nursery and gardening industry as well as local farming. There are places where we might want to look at our lists of controlled species and adapt them more to the UK. There is also the question of continuous updating so that the democratic and public participation in the production of lists can be looked at. In New Zealand, regional pest management strategies have to be consulted on and updated every five years, and there is a public participation element to that. It is not a perfect model but it is one.

The Chairman: We will come on to what we should do in the UK in the future. Those points are well recorded.

Baroness Sheehan: I would like to finish this section on legislation. We have already talked quite a lot about the fact that the UK's Plant Health Acts 1967 are not compliant with the International Plant Protection Convention, with the compliance gap currently being filled by the EU's Plant Health Directive. What are the UK's international obligations regarding biosecurity and how will leaving the EU impact the UK's ability to meet them?

Dr Robert Black: The UK has been a contracting party to the International Plant Protection Convention from its beginning in 1951-52, and that will still apply. On food safety there is the Codex Alimentarius Commission, run jointly by FAO and the World Health Organization. There is also the World Organisation for Animal Health (OIE). The UK is a contracting party to all these individually and plays a major part in all the discussions and policy development of those bodies.

Baroness Sheehan: Is that sufficient? Are you saying that there will be no legislative gap and that our membership of and compliance with these international organisations is already enough?

Dr Robert Black: The big question is what will happen in terms of the corrections that could be made to legislation after Brexit and whether the UK chooses to amend the substantive provisions of EU law.

Baroness Sheehan: So there is still legislative work that would need to be done post Brexit?

Dr Robert Black: Yes, there will be some administrative corrections to be made, but there is also the question of the EU bodies that have an important role in biosecurity, particularly the European Food Safety Authority. They provide the ultimate advice to the Commission on risk assessments and policy on all three biosecurity sectors. EFSA features in the fundamental EU food law.

Baroness Sheehan: The agencies you are talking about, for example, include the Animal and Plant Health Agency. Are they sufficiently robust as currently constituted in meeting the requirements post Brexit with the extra workload that they will have?

Dr Robert Black: The Animal and Plant Health Agency is the inspectorate and it is going to have a much greater workload, as my colleagues have been saying. FERA is responsible for the scientific input into the inspection process.

Dr Kezia Barker: Animal and plant health risk assessments have been brought within Defra now.

Dr Robert Black: Certainly FERA does risk assessment³. There should be a firewall between the scientific base and the inspectorate because you should not have the inspectorate doing their own risk assessments.

The Chairman: Please face this way and keep your voices high. I have the Duke of Montrose and Viscount Hanworth who want to come in, but I think Dr Lydgate wanted to make a comment first.

Dr Emily Lydgate: On the international obligations, I do not have the sense that this is going to be a problematic area for the UK because it is already an IPPC member and a Convention on Biological Diversity member and already a WTO member—but that does not mean that adjustments will not need to be made. For example, the IPPC Convention requires us to issue phytosanitary certificates. We might be having to do more of that in the future. It is important to underscore that these international obligations in themselves would not provide the level of biosecurity that the UK has now. For example, the IPPC only regulates pests that have a negative economic impact. The UK might find that to be an overly restrictive approach. The CBD is vaguely and broadly worded.

Regarding the WTO, the SPS agreement will continue to constrain the UK's future approach to biosecurity in some respects. It cannot be discriminatory and so on. But these could be viewed as minimum

³ Note by witness: Dr Black later clarified that Fera's role is to provide the scientific base for risk assessments

standards that all WTO members are subject to. The nature of the UK's participation will be different. It will have to individually report to the SPS Committee and its regulations will be subject to more oversight and scrutiny. So it is not exactly the same but I would not flag this as an area of particular concern.

Dr Robert Black: I do have concerns about one of the most important aspects of the WTO principles, which is the most-favoured-nation principle. It means that if concessions are offered to one country they have to be offered to all the other members of the WTO. For example, if the UK wanted a trade agreement with a particular country which meant lowering standards, it would have to do the same thing with all the other WTO members.

The Chairman: Yes, that has come up on a number of occasions.

Viscount Hanworth: Is the European Union environmental legislation stable and stationary or is it developing rapidly? If so, would the UK be hard pressed to track the European Union legislation post Brexit?

Dr Kezia Barker: As we have mentioned, the crucial piece of legislation in the phytosanitary area has been under development and is coming in and being implemented at the end of 2019. After that there is a dynamic process where Member States can update the list periodically. I do not imagine that after that there will be significant legislative development for a few years. It has been quite a huge piece of work that all Member States have contributed to.

Viscount Hanworth: The EU States will be mandated to adopt them whereas we will not.

Dr Kezia Barker: This is not my area, but it depends on how that Regulation gets repealed.

The Chairman: At the end of this inquiry we will have the Minister as a witness and will ask him that exact question. Hopefully, he will not come back and say that that is not his responsibility. So that is a sufficient answer, thank you.

Dr Kezia Barker: International obligations govern biosecurity bilateral trade agreements and how biosecurity can or cannot be used to influence trade. These will need to be negotiated. There is a risk in that. Our political body language around this is important so that there is not a sense that there is a pressure for us to lower our standards or that our biosecurity standards are up for negotiation in those sorts of negotiations of bilateral trade agreements.

The Chairman: That is very useful, thank you.

Q6 **The Duke of Montrose:** I would like to declare that I am a farmer and landowner in Scotland who is affected by invasive plants, diseases and all the things that we cope with. In an earlier question, Dr Black said that the present policing is a combination of the 1967 Act and the European

Act. I could not make out whether there will be gaps if we lose the European Union aspect that will be definitely need to be filled.

Dr Robert Black: Yes, there would be a gap if the Directive or the implementation of the Directive is repealed, but it will be repealed by the new Regulation that is coming into force in December 2019. So as long as Defra sticks to what it has said about using this as a basis for future legislation, we do not have to worry.

The Duke of Montrose: We have a regulation in shape at the moment.

Dr Kezia Barker: You mentioned invasive species. There is the EU Invasive Alien Species Regulation 1143/2014. This has been in effect for a bit longer and lists species of Union concern. There were 37 original species and a further 12 added in 2017 which are effectively controlled, banned from sale and require responses to.

Dr Robert Black: That is retained legislation according to the Withdrawal Bill.

The Duke of Montrose: As a rider, the Scottish Government have come up with some of their own. They reckon beech trees are an invasive species.

The Chairman: Invasive species between parts of the United Kingdom. We will leave that for the moment and we will come on to devolution later. One of the areas we have not yet mentioned is the marine environment, which I have an interest in. New rules have come out from the IMO on ballast water. Is there anything that we need to take care of there as we have not talked about the seas around this country? Is there any international legislation that we need to be aware of?

Dr Kezia Barker: I am glad that you mentioned the marine environment because, along with invasive alien species, it can sometimes be forgotten. Unfortunately, my research expertise does not extend to our current marine biosecurity.

Dr Robert Black: Nor does mine.

The Chairman: That is fine. You are here as experts and if you do not know something do not worry about it.

Q7 **Viscount Ullswater:** I am a Trustee of a landed estate in Cumbria. My question moves away from legislation to information sharing. I am sure you would agree that food and wood products are traded all over the world by air and by sea. I believe that ash dieback arrived as spores of a pathogen on a piece of wood from Poland and probably originally from the Far East. To what extent is the UK reliant on the EU for the surveillance and timely notification of biosecurity threats? What are the systems for this? Can non-EU members participate in things such as EuroFIT or the Rapid Alert System for Food and Feed? Are there any alternative international or non-EU information sharing mechanisms? Do we share in those at the moment or, if we do not, would it be beneficial

for the UK to share them post Brexit?

The Chairman: Dr Lydgate, would you like to start this time?

Dr Emily Lydgate: I would like to defer to my colleagues on this.

Dr Robert Black: EuroPhyt is very important but there is also the European and Mediterranean Plant Protection Organization, EPPO, which is a non-governmental organisation and covers a much bigger area than Western and Eastern Europe and goes into Central Asia and North Africa and so on. It has been very active in pest alerts and categorising pests from the point of view of the threats that they pose. I am sure that the UK will continue to benefit from and contribute to this source of information sharing.

The Rapid Alert System for Food and Feed is rather a strange animal in that anybody can look up current and previous alerts on food but the alerts are only issued by EU Member States. If food which is considered to be dangerous or harmful comes from third countries, the country of origin is not automatically notified. They have to register with special dispensation to receive the alerts about their own produce. The UK's future involvement or benefit from RASFF has to be questioned. A lot of the decisions on future policy planning and so on in the EU takes place in what the EU in an awful term has called 'comitology', which is the committees of national experts. I see no way that the UK is going to be allowed to contribute to these committees, whatever trade agreement is ultimately agreed, because very sensitive matters are discussed.

Dr Kezia Barker: On the point about whether non-EU members participate in these networks, there are examples of EEA countries being involved and being part of some of those different networks that my colleague mentioned and in the mechanisms to include them in that notification system. On surveillance, notification, and notification on serious incursions, the moment of outbreak is only one part of the picture of important surveillance work. Surveillance is ongoing at multiple points in a biosecurity continuum from the pre-border environment. Knowing that the occurrence of a pest is only one part of the picture, you then need to rapidly gather scientific information about the pest, the knowledge of its extent and its potential host relationships. The risk is not just in losing the immediate notification but in the funding and organisation of some crucial surveillance research programmes. Maybe what is at risk is the informal networks. There are some examples of official notifications happening much later but something being known about through personal connections, hearsay and relationships between scientists. These informal networks are crucial and potentially at risk.

Q8 **Viscount Hanworth:** This question is driving at the same issues. What biosecurity risk assessment is currently carried out by the EU that would need to be repatriated post Brexit? Is the UK equipped to take this task on? What would be the value in the UK continuing to participate in the European Food Safety Authority, EFSA, as a third country? Does the EFSA depend to any great extent on facilities that are located in the UK?

Dr Kezia Barker: The EU does not have a centralised risk assessment institution. The EFSA is a network of experts in laboratories and institutions located across Europe. The UK makes a significant contribution to that.

Viscount Hanworth: In terms of local establishments?

Dr Kezia Barker: We have 41 competent organisations (Article 36 organisations) that can contribute and can be drawn on to form part of these shifting risk assessment panels. That is the highest number designated. Those would be our universities and research centres in the UK. So there would be a real loss felt at EU level if our risk assessment experts and our facilities and scientists were not able to be part of the EFSA panels. Those panels shift. The experts whom they draw on will be invited according to the particular scientific needs of a particular outbreak, depending on the entity.

Dr Robert Black: I was a member of an EFSA panel on pesticides for a few years. These panels perform an important function in risk assessment in that they are asked to respond to questions from Member States about a pesticide or a pest when the Member State has a concern about whether the controls are too stringent or not stringent enough.

Dr Emily Lydgate: I would underscore the importance of EFSA's role in risk assessment. It has a broad remit in biosecurity, covering food and feed safety, nutrition, animal health and welfare, plant protection and plant health. We could elect to have third country status in EFSA and continue to participate and negotiate the terms of that participation, but that would require—the relevant legislation spells this out—that we have adopted and applied relevant legislation in this field. We would need to adopt the EU acquis in this area. EFSA is also responsible for doing risk assessment that underlies the EU's use of the precautionary principle because it covers GMOs, flavourings, enzymes and novel foods. So, if we did continue to participate in EFSA, that would constrain our ability to liberalise or realign those areas with other countries.

Viscount Hanworth: At risk of going off at a tangent, is the UK Government keen to assert the principle of risk assessment in place of the precautionary principle? Could you comment on that?

Dr Emily Lydgate: This is going to be an issue of self-definition for the UK, and an important one for our continued participation in EFSA because we would be agreeing to uphold the EU's approach to food safety, within which the precautionary principle is a key cross-cutting influence. So you are right to say that there is a tension about where the UK is going to go: whether it is going to adopt a science-based—to use a loaded term—approach.

Viscount Hanworth: Could you comment on that?

Dr Robert Black: I beg to differ from Emily on this. The question of risk assessment versus precautionary principle is a bit of a chestnut these

days, in that there is an apparent conflict between the precautionary principle as in the EU Treaty and mention of the precautionary approach in the SPS Agreement. The European Commission developed a new policy on when the precautionary principle could be used, which is in effect to use the precautionary principle only when the degree of uncertainty is so great that a realistic risk assessment cannot be done. This fits in very much with Article 5 paragraph 7 of the SPS Agreement. So I do not think that is a big issue any longer.

The Chairman: Lord Curry wants to come in. We need to make some progress.

Lord Curry of Kirkharle: Assuming that we will not apply for EFSA membership, will the Food Standards Agency, which is one of the equivalent bodies here, need enhanced powers in order to replace the role that EFSA has currently?

Dr Robert Black: EFSA is not a regulator.

Lord Curry of Kirkharle: What would replace EFSA?

Dr Robert Black: We already have the Food Standards Agency. The two organisations are complementary rather than overlapping or duplicating.

Lord Curry of Kirkharle: That is true now, but would not the FSA need to have enhanced authority in order to replicate what we currently benefit from with EFSA?

Dr Robert Black: They will need more resources in personnel to conduct the same kind of high-level risk analyses that are done by EFSA at the moment.

The Chairman: Do you want to come in briefly on that, Dr Barker?

Dr Kezia Barker: Just to reiterate that it is also within APHA that we have our risk analysis specialists. Risk analysis happens in moments of legislative development, in assessing new applications, for changing pest status in response to emergencies and assessing new trade pathways. So there would be an increased workload in terms of undertaking risk assessments.

The Chairman: That is useful.

Viscount Ullswater: Dr Barker, you mentioned the institutes, the universities and the other investigatory institutes such as the Pirbright Institute. Does that form part of the overall EU source of knowledge or is that entirely for Great Britain? What would be the future? Would they want to share that sort of knowledge?

Dr Kezia Barker: Perhaps my colleague, Dr Black, has more experience on this but, yes, our experts in those institutions can be called on. There is an election of new panel members to the established panels of EFSA—is it every two years?

Dr Robert Black: I think it is longer than that.

Dr Kezia Barker: A longer period than that. We have experts who serve on those panels. In response to particular risk events, there might be a new panel convened which can be made up of some members, or new organisations can be brought in and the panel will look at the required scientific capacity and where it best sits within the network of institutions and research centres around the EU. It is not so much about us repatriating, therefore, as they have not gone anywhere, but there will be examples of places and moments where we will need to do more risk assessments and the scientific work that underpins that where there will be potential resource issues. There is also a longer-term skills pipeline issue. A recent scientific review in about 2015 looked at the sciences that contribute to understanding plant pathology from GCSE up to university and about the capacity there. There will need to be additional attention to that skills pipeline of important plant pathologists and taxonomists coming through.

The Chairman: If you were able to refer us to that article we would find that useful because people resources is a constant theme.

Dr Kezia Barker: Yes.

Q9 **The Earl of Stair:** I declare an interest in agriculture, horticulture and land management. The last question was about risk assessments. I would like to turn to the biosecurity risks themselves, most of which are addressed at the point of entry into the EU on the main borders. What biosecurity inspection management that is currently carried out at EU borders or by European bodies will need to be repatriated to the UK post Brexit? Do you think that in the UK we have the resources to take on those tasks and which departments do you think they ought to fall into?

Dr Robert Black: The UK does very well in pest risk analysis. The CAPRA—Computer Assisted Pest Risk Analysis—was developed by EPPO for the EU. It is advanced software for doing PRA. UK scientists and experts were heavily involved in this. I am sure that on the plant health side we have more pest risk analysis expertise than any other EU country.

Dr Kezia Barker: On the question of inspection and management, which I think you want to move on to, this is where the key resourcing issue and impact will be around Brexit if we fall out of biosecurity alignment with the EU and effectively become a third country. There are implications both for the inspections of things coming in and the certification of our things going out and going into the EU. There are implications for the UK and the EU if we fall out of alignment. The key bodies responsible are within Defra in the Plant Health & Seed Inspectorate in the Animal and Plant Health Agency. Also, the APHA inspectors, the official vets who are required to certify animal products - if we become a third country - for animal products moving into the EU. There would be a requirement for a huge increase in inspections, a pressure on border agencies and a team of inspectors who are based at

Heathrow and other border inspection points. There would be a huge pressure from the increase in certifications for items going into the EU.

It is important to mention—I think this was brought up in a previous inquiry around food—that 90% of the vets that operate at the official premises where the certification of animal products happen are non-British EU members. So there would be a question there around recruitment. There are resource issues of spaces for lorries at Dover, a need for a potential increase in quarantine and containment facilities and higher admin costs. Some of those financial burdens will be shared with industries which also may be struggling from other economic pressures of restructuring due to Brexit. There will be a requirement for phytosanitary certification of all our plant products going into the EU. The key impact will be the result of us falling outside that circle of the plant passport scheme and the veterinary certification scheme.

The Earl of Stair: Do you think that it is going to be practical? Dr Black, you were talking about the expertise being in place. We have a countdown of only months now. Is it practical to have something in place by the time we need it?

Dr Robert Black: To add to what Kezia said, the biggest impact is going to be on the need for phytosanitary certificates for movement of plant materials from the UK into the EU because at the moment they are not required. Instead there is the plant passport system where plant passports for certain risky items are issued by the grower or the nursery under the supervision of the plant health authorities. If we have a complete break and if there are now borders to be crossed there will be an increased burden on the plant health authorities to issue phytosanitary certificates—and there could be hundreds of thousands of them. That is a very big resource issue. There would need to be training and employment of more inspectors to do that job.

The Earl of Stair: What are your views of Minister George Eustice's statement that the UK could take a risk-based approach to border inspections? Do you see that as a practical suggestion?

Dr Robert Black: Does that mean borders with the EU, because that approach is already applied?

The Earl of Stair: He will be talking about UK borders post Brexit.

Dr Robert Black: The UK, certainly for food of plant origin, is a major importer of food which is shipped on to the rest of the EU. We are already acting as the external border for a huge amount of goods anyway. We are already applying that risk-based approach.

The Chairman: Baroness Sheehan and Lord Young, may I ask you to make your questions short?

Baroness Sheehan: I do not have a question.

Lord Young of Norwood Green: My apologies for missing some of your

evidence. How do countries such as Norway and Switzerland manage?

Dr Kezia Barker: They are members of the plant passport scheme and the veterinary checks scheme. They are within the biosecurity ring for plant and animal products.

Dr Emily Lydgate: It is a curious hybrid because they are not part of the Common Agricultural Policy and they are authorised to have a different external tariff regime for agriculture and fisheries because they are not part of the customs union. So there are border checks that pertain to agriculture, but my understanding is that they do not encompass the same issues that we are discussing today.

The Chairman: Is that sufficient, Lord Young?

Lord Young of Norwood Green: It depends on what our relationship is post Brexit. That is the reality.

The Chairman: If only we knew. The Duke of Montrose.

Q10 **The Duke of Montrose:** What could be the biosecurity consequences of new post-Brexit trading patterns and what steps should the UK take to mitigate them? To add a rider, some of us were listening to a Professor of Food Trade from Michigan University yesterday morning. Ignoring other issues, would we need higher biosecurity to enable us to comply with both US and EU regulations?

Dr Kezia Barker: On the risk of new trading patterns, there will be new risk pathways for entities; every new trading pathway brings with it new risks which would need to be assessed. As we have spoken about, there is the resourcing pressures of those. We will be interfacing with different biosecurity regimes and, depending on the strength of their regime with regard to internal inspection, there could be potential risks. There is also the need to build new relationships in the pre-border environment.

Dr Emily Lydgate: We do not know what our trading patterns will be. If we have, for example, a tariff wall on agriculture with the EU, that will very likely lead to a lot more agricultural products being imported from elsewhere. That would impose particular risks and increase trade in general, as Dr Barker was saying.

We are going to need a lot more capacity to do border checks. Plant pathogens and invasive species are not going to wait around for us to get these checks in place. HMRC is estimating seven years to implement new border systems. This is an area in which, even beyond December 2020, which is the end of our transition or implementation period, we will want to have a phased approach to implementing whatever our future trade agreement with the EU is going to be. Often with free trade areas you have phased implementation which is phased liberalisation of products. In this case we are erecting more trade barriers. Similarly, we need to take a phased approach to avoid some of these problems.

If I understand the question correctly on the US and the EU, it is whether we would have to double the capacity to meet different regulatory requirements. This comes down to an issue for individual companies. Even if we maintain an overriding alignment with the EU system, individual companies could choose to export to the US. If we develop a unique system that does not quite fit with either the EU or the US, companies will have the freedom to follow the regulations of those countries to gain market access. It is important to recognise that that access is now automatic to the EU and by fulfilling domestic UK biosecurity requirements we automatically fulfil EU requirements. This could be an existential issue for companies, especially small companies where they could not align with both sets of standards. For example, in the CETA agreement the EU has given a higher quota of beef for Canada to export, but Canada has not taken it up because all of its supply chains are geared towards the US market, so it does not make sense economically. It may be unfeasible and too expensive to try to differentiate supply chains within a company.

The Chairman: That is very interesting, thank you. We move on to matters around UK frameworks and devolution.

Q11 The Earl of Stair: We have two islands at this end of Europe. We have the north and south of Ireland and the three countries on this side of the water. The north of Ireland connected to the south of Ireland has its own set-up, regulations and so on. To what extent is a common biosecurity framework across the UK necessary post Brexit? Can you explain how the island of Ireland is managed in terms of biosecurity and what the impact of Brexit might be on these arrangements?

Dr Robert Black: The UK has its own internal market. For example, for pesticides, each Member State, although it has to follow the approvals of active substances by the European Commission, is free to reject or not register actual plant protection products, depending on whether they are useful or appropriate. There is a single list of plant protection products which can be used in the UK.

Recently, I was invited to prepare a blog for the Welsh Assembly on the question of what would happen with neonicotinoids after Brexit because some Welsh Assembly Members were concerned that there might be some divergence between Wales and England, for example if England was more liberal in using neonicotinoids which might endanger the habitats and wildlife of Wales. In the blog I said that this was most unlikely because it would completely destroy the UK's own internal market.

The Irish question is very interesting because, as I said earlier, the island of Ireland has had special plant health status because it is geographically isolated from the mainland. If there is a hard border imposed between Northern Ireland and the Republic, the question will be whether phytosanitary certificates, veterinary certificates and so on are needed for movement both ways across the new border. This could affect the trade in live animals, fresh meat, dairy, semen for animal

rearing and also be a threat to the UK's horseracing industry because at the moment there is free movement of horses from Ireland.

Dr Kezia Barker: There is always the aspiration to uniformity in biosecurity practice but arguably the way in which internal pest management has been devolved makes possible flexible approaches, and locally contextualised approaches and relationships with stakeholders. There are mechanisms of co-ordination. There is the Great Britain non-native species mechanism, which is designed to support co-ordination within Great Britain around invasive species issues. The classic example and piece of research was by a colleague, Dr Gareth Enticott at Cardiff University, on bovine tuberculosis. One point of policy differentiation between Wales and England is around vaccination and culling. He has done an extended piece of ethnographic research, which is useful. As much as there can be moments of differentiation which those who understand biosecurity would suggest do not make sense or do not work to produce good biosecurity, in fact there are advantages to being closer to local stakeholders and understanding farmers' concerns and democratic participation at a local level. The devolution of pest management responsibilities is an ongoing tension that needs work but there are mechanisms in place to manage it.

The Earl of Stair: Do you see a need for a hard biosecurity border between the two Irelands?

Dr Kezia Barker: The need for a hard biosecurity border?

The Earl of Stair: On the basis that the north and the south Ireland are joined and that post Brexit there will be an opportunity for problems there. There is a sea frontier between the remainder of the United Kingdom and Ireland and I wonder whether you see a need for a hard border on that level from a biosecurity point of view.

Dr Robert Black: I do not see any need because it is not needed now. It would only be needed if something happened which may impose a hard border between the north and the south.

Dr Kezia Barker: It depends whether you mean need according to biosecurity risk or a requirement according to biosecurity legislation and how that would happen.

The Chairman: Thank you. We finish with the crux of the matter, which we have covered to some degree. Lord Rooker.

Q12 **Lord Rooker:** Are there any steps that we could take to strengthen our biosecurity post Brexit that we are not allowed to take while we are in the EU?

Dr Robert Black: My short answer is no. For example, the UK at the moment is free to negotiate within the EU framework a pest of special concern to its own territory—for example, an emerging pest—on which some special action can be taken. Each Member State is entitled, if it can justify it, to apply a higher food safety standard to maintain the same

level of protection of its population if, for example, there is a particular food which has excessive consumption or if there is some particular cultural importance of a particular food. Spain did this with squid. Because the Spanish eat so much squid on a daily basis they were able to have a lower maximum permitted level of cadmium imported than any other country in the EU. As I mentioned, at the moment the UK has the freedom to refuse to register plant protection products for any particular active substance that is approved at EU level.

Dr Kezia Barker: Yes, there are steps that we could take to strengthen our biosecurity but not necessarily through thinking within what is typically understood as biosecurity legislation. We could take steps to look at the trade in mature or semi-mature trees in pots or plants for planting, which in terms of taking an anticipatory approach is very difficult with a risk-based framework and an emphasis on visual inspections. It cannot go far enough in preventing damaging tree pathogens from getting in. There is an important paper by Clive Brazier published in 2008 which looks at this. There are opportunities outside biosecurity regulations. If we have differences in our pest lists there will be opportunities to refocus and prioritise our inspection which, when we are talking about managing our resources, could to a certain extent improve biosecurity outcomes.

With the new legislation that we discussed at the beginning, which gives the opportunity for protected area status for Member States, there are now mechanisms for staying within some form of biosecurity alignment but then looking at applying these protected area statuses. If we wanted to tighten our biosecurity there would be the opportunity to do that.

Dr Robert Black: I agree but, in answer to the question, I do not think anything Dr Barker has described is actually prohibited within the EU framework.

The Chairman: I am going to bring Lord Curry in in a minute. Dr Lydgate, is there anything you want to add?

Dr Emily Lydgate: I refer to my earlier comment.

The Chairman: That is fine. Lord Curry.

Lord Curry of Kirkharle: In the past it has been regarded as potentially restrictive of trade if we try to impose higher biosecurity measures here within the common trading market. Is it not true that we could move more quickly if there was a degree of risk by imposing higher biosecurity measures if we were outside the EU, rather than having to go through the bureaucratic process within the European Union?

Dr Robert Black: It may be different for other biosecurity aspects but my experience with plant health is that there are mechanisms for individual Member States to draw the attention of the Commission to emerging pest threats quite quickly. So I do not think that the EU is restrictive in this sense.

Dr Kezia Barker: Historically, there has been a sense that the EU has been slow to move on things such as plant pests and particularly around tree pathogens. The new Regulation that is coming in has attempted to address this, so there is the opportunity of potentially moving more quickly and adding pests to lists more rapidly. If we are thinking about an anticipatory framework the question is whether this is only ever going to be focused on known risks and risks currently known to science. The majority of existing pathogens are unknown to science and fall outside that.

The Chairman: When we get on to known unknowns, we should perhaps stop the session. Dr Lydgate, Dr Black and Dr Barker, thank you very much indeed for your evidence in our first session. It has given us a very strong foundation for talking to and grilling our future witnesses. I bring this public session to an end. Thank you very much.