THE REMOVAL OF POST-CHERNOBYL SHEEP CONTROLS

Report by Steve Wearne, Director Wales

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1 SUMMARY

- 1.1 Widespread monitoring following the Chernobyl nuclear accident in 1986 identified potential food safety concerns due to levels of radiocaesium in the meat of sheep grazing certain upland areas of the UK. The FSA has constantly monitored these levels since then and also continues to manage controls on the movement of sheep in the affected areas to protect consumers.
- 1.2 A review has been carried out by the FSA to assess whether these protective measures are still required to maintain food safety. The conclusion is that:
 - the current controls are no longer proportionate to the very low risk;
 - they do not further minimise the already low doses consumers would otherwise receive; and
 - removing the existing controls will not compromise consumer safety.

1.3 The Board is asked to:

- <u>agree</u> that the FSA issues Consents which would permit all farms remaining under restriction to move sheep without the need for monitoring as of 1 June 2012 this would have the practical impact of lifting controls.
- agree that the FSA recommends to Ministers the revocation of the remaining Orders under the Food and Environment Protection Act 1985 (known as FEPA Orders) which restrict the movement of sheep in designated areas of the UK – this would remove the legislation made redundant by the issuing of Consents.

2 INTRODUCTION

- 2.1 Out of the 9,800 UK holdings, and more than 4 million sheep, originally placed under restriction following the accident, there are only 327 farms in North Wales and 8 farms in Cumbria, England still remaining under some form of restriction (see Figures 1 and 2 in Annexe 3). All *Mark and Release* controls (see paragraphs 4.2 to 4.4) were lifted in Northern Ireland in 2000 and in Scotland in 2010.
- 2.2 A review has been carried out by the FSA to assess whether protective measures are still required to maintain food safety. The review shows that the consumer risk is now very low and removing controls will not compromise consumer safety.

2.3 A 12-week consultation on the proposal to remove all the remaining post-Chernobyl sheep controls concluded on 8 February 2012. The responses from this consultation have now been considered and this paper seeks the Board's agreement to the complete removal of controls.

3 STRATEGIC AIMS

3.1 This review contributes to the FSA's strategic outcome that "regulation is effective, risk-based, and proportionate, is clear about the responsibilities of food business operators, and protects consumers and their interests from fraud and other risks".

4 DISCUSSION

Current Controls

- 4.1 The FSA is responsible for maintaining the controls placed on the movement of sheep in designated areas through a scheme known as *Mark and Release*. Under this scheme, sheep are monitored to assess the level of radiocaesium contamination using a live-monitoring technique. Sheep assessed to be above a level of 1,000 becquerels per kilogram (Bq/kg) are prevented from entering the food chain for a minimum of three-months, during which time contamination levels are reduced through clean feeding.
- 4.2 Further details on the current controls can be found in Annexe 1.

Science and Evidence

- 4.3 Fundamental to the FSA's review was the use that should be made of the current level of 1,000 Bq/kg as a measure of risk. Contrary to many people's understanding, the 1,000 Bq/kg level is not a safety limit in the sense that it is unsafe to eat any amount of meat above that level. Rather, it was used in the immediate aftermath of the Chernobyl accident as a means of controlling the maximum radiation dose (or risk) to which consumers are exposed. This is only really effective in reducing consumer risks when a large number of sheep exceed this level (e.g. in the first few years after the Chernobyl accident) when consumers could potentially eat large quantities of meat with these levels of contamination.
- 4.4 The impact on consumer doses becomes negligible as the number of sheep exceeding this level declines substantially over time (see Figure 3). In the rare case where sheep with higher levels may enter the food chain, eating these sheep would not result in any safety concerns, even if a person was to eat a substantial part of the sheep.
- 4.5 An updated risk assessment has been carried out which considers the radiological dose which could be received by consumers of sheep meat. This provides a more realistic measure of risk instead of relying purely on a fixed level of contamination within individual sheep.
- 4.6 Details on the risk assessment are provided in Annexe 2. In summary, the independently peer-reviewed assessment demonstrates that the levels of radiocaesium in sheep present a very low consumer risk, even to those who

are high consumers of sheep. It further demonstrates that the *Mark and Release* programme is now having a negligible impact on further reducing the already very low consumer doses and in the rare situation where a sheep over 1,000 Bq/kg could enter the food chain, this would not be a food safety concern.

Proposed way forward

4.7 The FSA can issue Consents under the Food and Environment Protection Act 1985, without the need for changes in legislation. This would permit all farms remaining under restriction to move sheep without the need for monitoring. Subject to the Board's view, it is proposed that the FSA issue such Consents to take effect as of 1 June 2012. After the Consents are issued, the necessary steps will then be taken to formally revoke the FEPA Orders¹ covering England, Wales and Scotland which requires appropriate ministerial approval. No action is required in Northern Ireland as all restrictions were removed in 2000.

5 IMPACT

- 5.1 A full impact assessment has been published as part of the consultation package. The primary group affected will be the farmers currently within the restricted area. Under the *Mark and Release* scheme, farmers receive a headage payment of £1.30 for each sheep monitored. This payment is to recompense the farmers for the costs they incur in gathering and holding sheep for them to be monitored. These payments are made by DEFRA in England and the Welsh Government in Wales. Our Impact Assessment calculates that there will be a loss to business of £325,000 per year due to the loss of headage payments to these farmers.
- 5.2 In theory, the headage payment to farmers should balance the inconvenience the farmers suffer. However, the amount of the headage payment has not increased since it was introduced in 1986, and the balance between the payment and the inconvenience to farmers will therefore have changed. It was acknowledged during the consultation that, although difficult to quantify, the increased freedom to farmers from lifting controls is likely to outweigh the loss of headage payments, providing there was no consequential impact on consumer confidence and this has been reflected in our Impact Assessment.

6 CONSULTATION

6.1 The FSA received 15 responses to its 12-week UK wide public consultation from a variety of organisations, including the farming unions, meat industry, the Health Protection Agency and Cumbria County Council. Individuals responding included the Shadow Minister for Rural Affairs of the Welsh Assembly and four farmers from within the restricted area.

¹ FEPA Orders restrict certain activities, in this case the movement of sheep, within designated areas. The Food and Environment Protection Act 1985, section 2(1), gives the FSA powers to consent, either unconditionally or subject to conditions, to activities which are otherwise prohibited by a FEPA Order.

- 6.2 The responses were generally supportive of the risk assessment and agreed with the conclusions that there was a very low risk to consumers and that controls were no longer required to protect consumer safety.
- 6.3 However, a number of farmers, predominantly in Wales, are against the removal of controls. Their main argument is that there remains a small number of sheep above the previous criteria of 1,000 Bq/kg that could enter the food chain. Although accepting that this is not a food safety issue, the farmers are concerned that consumers may not understand this and so the reputation of Welsh lamb could be damaged. Our plans for future consumer engagement, which would mitigate this risk, are summarised in section 12 below.
- 6.4 The consultation responses have been considered and no substantial consequential changes have been made to the Impact Assessment. A summary of the consultation and the responses will be published on our website no later than 3 months after the end of the consultation.

7 LEGAL IMPLICATIONS

- 7.1 European Council Directive 96/29/Euratom lays down basic safety standards arising from ionising radiation. This requires that where the Member States have identified a situation leading to lasting exposure resulting from the aftereffects of a radiological emergency they shall put measures in place which are necessary for the exposure risk involved. However, such intervention shall be undertaken only if the reduction in detriment due to radiation is sufficient to justify the harm and costs, including social costs, of the intervention.
- 7.2 The very low risk demonstrated by our assessment shows that intervention (i.e. the current controls) is no longer required to comply with Council Directive 96/29/Euratom requirements for cases of lasting exposure.

8 RESOURCE IMPLICATIONS

- 8.1 Consumer protection is, as always, the FSA's main objective. In regulating food products and processes to deliver consumer protection, our strategy to 2015 makes clear that such regulation should be effective, risk-based and proportionate. The risk assessment demonstrates that risks are "very low" either with or without current controls, and the controls themselves are out of proportion to the current risk.
- 8.2 The proposed change would have resource implications. Maintaining the controls in their current form costs the FSA around £320,000 per year in terms of monitoring. In addition, payment of headage rates costs DEFRA around £10,000 per year and the Welsh Government around £325,000 per year. Ceasing the controls will remove these costs.
- 8.3 There should be no significant costs to the FSA relating to the cessation of monitoring. The supplier of the monitor probes has agreed to accept the return of the monitors under their disposal schedule without charge, but there

will be minor incidental costs for transporting the monitors and other equipment to disposal sites.

9 RISK IMPLICATIONS

- 9.1 Our assessment is that the current controls in England and Wales are no longer proportionate to the very low risk, they are ineffective in further minimising the already low doses and removing controls will not compromise consumer safety.
- 9.2 There is the potential for loss of consumer confidence in lamb from affected areas and criticism of the Agency if the removal of controls is not handled correctly. Our plans for future consumer engagement, which would mitigate this risk, are summarised in section 12 below.

10 VIEWS OF OTHER DEPARTMENTS

- 10.1 The FSA has involved DEFRA and the Welsh Government throughout this process. When the public consultation was launched, the FSA notified Ministers at the Department for Health and the devolved equivalents and DEFRA officials notified their Ministers.
- 10.2 FSA officials will continue to work with DEFRA and the Food Policy and Strategy Unit of the Welsh Government in implementing this policy.

11 DEVOLUTION IMPLICATIONS

- 11.1 In both England and Wales, it is proposed that Consents will be issued by the FSA to permit all farms remaining under restriction to move sheep without the need for monitoring as of 1 June 2012 prior to revocation of the FEPA Orders.
- 11.2 An opinion will need to be sought from the Regulatory Policy Committee on the impact of this policy in England and the Impact Assessment will be submitted to the Reducing Regulation Committee for final clearance prior to implementation of this policy in England.
- 11.3 All restricted farms in Scotland have been issued with Consents, the last of which were issued in June 2010 and the only action required is to revoke the FEPA Orders to remove legislation which is no longer required. No action is required in Northern Ireland as all restrictions were lifted in 2000.
- 11.4 Revocation of the FEPA Orders will require the authorisation of the Minister for Health and Social Services in Wales and the Minister for Public Health in Scotland and the Board's decision would form the basis of the FSA's advice to Ministers as noted in the second bullet of paragraph 1.3.

12 CONSUMER ENGAGEMENT

12.1 FSA officials have attended meetings with farming union officials and farmers in North Wales both before and during the consultation period. Feedback from these has stressed the need for a carefully constructed consumer

- engagement strategy to accompany the removal of controls, which is seen as vital to mitigate or respond to negative portrayals in the media.
- 12.2 The public consultation received coverage in both the local and national media, including prime time national TV on the BBC's *The One Show.* In responding to this coverage, the FSA has reinforced the message that our scientific assessment has shown the risk to consumers is very low. The FSA has received no adverse comment from consumers.
- 12.3 In implementing the policy, the FSA will continue to reinforce the message that risk to consumers is very low and removing controls will not compromise consumer safety. We aim to work with the farming unions and meat industry on a joint platform and provide information and comment in their publications in order to provide context to explain the very low risk.

13 SUSTAINABILITY ISSUES

13.1 Impacts under the 3 pillars of sustainable development (environmental, economic and social) have been considered in the preparation of the Impact Assessment. Removal of controls is the preferred option because it minimises the costs of industry and the public sector by removing regulation which is no longer required to maintain food safety. There are no notable benefits, including no reduction in food safety risk, associated with any alternative options considered.

14 CONCLUSION AND RECOMMENDATIONS

- 14.1 The current controls are no longer proportionate to the very low risk. They are ineffective in further minimising the already low doses and removing controls will not compromise consumer safety.
- 14.2 There is some opposition to the removal of controls due to a perception that adverse media coverage may result in a loss in consumer confidence in Welsh lamb. The FSA will work with the farming unions and meat industry in order to mitigate this risk.

14.3 The Board is asked to:

- <u>agree</u> that the FSA issues Consents which would permit all farms remaining under restriction to move sheep without the need for monitoring as of 1 June 2012 – this would have the practical impact of lifting controls.
- <u>agree</u> that the FSA recommends to Ministers the revocation of the remaining Orders under the Food and Environment Protection Act 1985 (known as FEPA Orders) which restrict the movement of sheep in designated areas of the UK – this would remove the legislation made redundant by the issuing of Consents.

Annexe 1

A.1 CURRENT CONTROLS

- A.1.1In order to protect consumers, restrictions were placed on the movement of sheep in designated areas using powers under the Food and Environment Protection Act 1985 (known as FEPA Orders).
- A.1.2The FSA is responsible for maintaining these controls through a scheme known as *Mark and Release*. Under this scheme, sheep are prohibited from moving out of the restricted area unless they have first been monitored to assess the level of radiocaesium contamination using a live-monitoring technique. Sheep assessed to be below a level of 1,000 becquerels per kilogram (Bq/kg) are permitted to move out of the restricted area and may be slaughtered and enter the food chain. Sheep assessed to be above this level are considered to have failed and are marked with indelible paint. Marked sheep are permitted to move out of the restricted area, but may not be slaughtered for a minimum of three-months, during which time contamination levels are reduced through clean feeding.
- A.1.3Under the *Mark and Release* scheme, farmers receive a headage payment of £1.30 for each sheep monitored. This payment is to recompense the farmers for the costs they incur in gathering and holding sheep for them to be monitored. These payments are made by DEFRA in England and the Welsh Government in Wales.
- A.1.4Under the current policy, individual farms may be considered for removal from these controls (de-restricted) where certain criteria are met. The precise criteria vary across the UK, but the minimum is that a full-flock survey, conducted during the summer months, when contamination is at the highest, has assessed that no sheep within the flock is measured above 1,000 Bq/kg. The policy in England and Wales has been that these criteria must be met for two consecutive years.

Annexe 2

A.2 RISK ASSESSMENT

- A.2.1The Agency has reviewed the controls which remain on the relatively small number of farms to consider if they are still required to protect food safety. As part of this review, the use of the current level of 1,000 Bq/kg as a measure of risk has been reconsidered. Using a fixed level of contamination gives the impression that sheep above 1,000 Bq/kg are unsafe and sheep below that level are safe. However, recent international guidance published by the International Commission on Radiological Protection (ICRP)² has reinforced the view that protection from radioactivity should consider the actual risk to individuals (measured as the effective dose) rather than purely relying on a fixed level of contamination.
- A.2.2In radiological protection, effective dose is a measure of the harmful effect of radiation to an exposed individual which takes account of the type of radiological contaminant, the age of the individual and the level of exposure (in this case, the quantity consumed as contamination within the food). Where individuals are continually exposed to a source of radioactivity for an extended period, the dose received over the duration of a year is often used as a comparison and so doses are expressed in units of millisieverts per year (mSv/yr).
- A.2.3An updated risk assessment has been carried out which is consistent with the latest recommendations from the ICRP. It considers the radiological dose which could be received by consumers of sheep meat. This provides a more realistic measure of risk instead of relying purely on a fixed level of contamination within individual sheep. This assessment has been independently peer reviewed and is supported by experts from the Health Protection Agency and the Centre for Ecology and Hydrology as expressed in their responses to our consultation.
- A.2.4The full report can be found in the FSA's science repository, Foodbase: http://foodbase.org.uk/results.php?f category id=&f report id=725
- A.2.5During the summers of 2010 and 2011, the FSA carried out monitoring surveys in the restricted areas of Cumbria and North Wales. The surveys were carried out during the summer months directly following upland grazing and prior to fattening on lowland pasture. This is when radiocaesium concentrations in sheep meat are at their peak. Furthermore, sheep were monitored prior to fattening on improved or partially improved pasture. The practice of fattening on improved pasture is known to be undertaken by at least 67% of restricted farmers and can significantly reduce the levels of radiocaesium in sheep. The assessment is therefore considered conservative as most of the sheep monitored would be subsequently fattened prior to slaughter.

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²The 2007 Recommendations of the International Commission on Radiological Protection, (ICRP Publication 103; 2007); and Application of the Commission's Recommendations to the Protection of People Living in Long-Term Contaminated Areas after a Nuclear Accident or a Radiation Emergency, (ICRP Publication 111; 2010)

A.2.6The data gathered in these surveys were used to assess the risk to consumers of sheep meat originating in the currently restricted areas. The risk assessment calculated the likely dose to the more highly exposed individuals by defining a representative person. This is an individual whose habits are realistic and not outside the range of what people encounter in their day to day life, but that the probability is less than approximately 5% that a person drawn at random from the exposed population would receive a greater dose. For this assessment, the representative person was defined as an adult frequent buyer (purchasing their meat once per fortnight) who sources all their meat from the monitored farm and who consumes a high level (20kg) of sheep meat per year in the top 2.5% of the radiocaesium distribution in their sheep meat intake.

A.2.7 It is concluded from the risk assessment that:

- Although low levels of radiocaesium persist in sheep throughout the restricted areas of Cumbria and North Wales, the consumer risks are very low.
- The doses to the representative person (representing more highly exposed consumers) range from <0.05 to 0.21 mSv per year with an average dose of less than 0.09 mSv per year. This is considerably below the 1 mSv per year reference level typically used in existing (e.g. long-term) exposure situations and the 1 mSv per year limit for members of the public exposed to radiation from routine planned exposures (e.g. nuclear site discharges).
- The Mark and Release programme, which monitors against the 1,000 Bq/kg level, is now having a negligible impact on further reducing the already very low consumer doses.
- A.2.8During the consultation, concerns were raised that removing controls will allow sheep above 1,000 Bq/kg into the food chain. Our response to this is that the 1,000 Bq/kg level is not a safety limit in the sense that it is unsafe to eat any amount of meat above that level. Rather it represents a way of controlling the maximum radiation dose (or risk) that consumers are exposed to. The maximum radiation dose varies depending on a number of factors including the consumer's age, the amount of affected sheep meat they consume and even their meat-buying habits (e.g. whether they buy their meat from a local supplier or national supermarket).
- A.2.9The amount of radiocaesium in a single portion of sheep meat is less important than the total amount consumed in all sheep meat portions over the course of a year. As consumers are most likely to purchase their annual supply of meat in small portions on a number of different occasions throughout the year, rather than all in one go, they are likely to be consuming meat from many different sheep. This brings their annual radiocaesium intake closer to the mean of the radiocaesium distribution in sheep rather than the upper end.
- A.2.10 Consuming a small portion of meat from a sheep exceeding the 1,000 Bq/kg level does not have a significant impact on the annual radiation dose a consumer would receive. It does not necessarily follow that people who

- consume a small proportion of their annual sheep meat intake above 1,000 Bq/kg necessarily receive the highest dose.
- A.2.11 The number of sheep above the 1.000 Bq/kg level is very small. In 2011, all sheep in England and 99.7% of sheep in Wales were below this level during *Mark and Release* monitoring (see Figure 3 in Annexe 3).
- A.2.12 In summary, our assessment, which has been independently peer-reviewed, demonstrates that the levels of radiocaesium in sheep across the restricted areas present a very low consumer risk, even to those who are more highly exposed. The current controls in England and Wales are no longer proportionate to the very low risk, they are ineffective in further minimising the already low doses and removing controls will not compromise consumer safety. Furthermore, in the rare situation where a sheep over 1,000 Bq/kg could enter the food chain, this would not be a food safety concern.

Annexe 3

Figure 1 - Original restricted areas in 1986

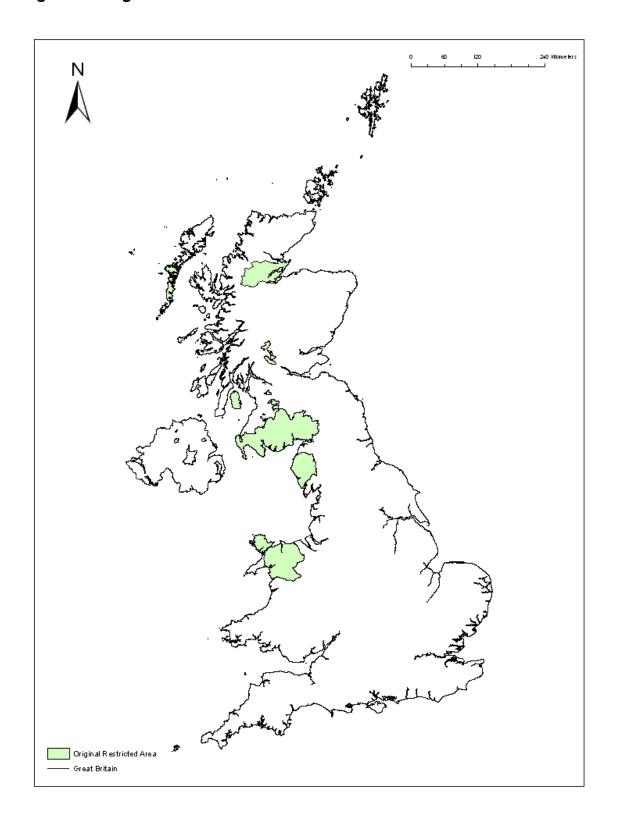
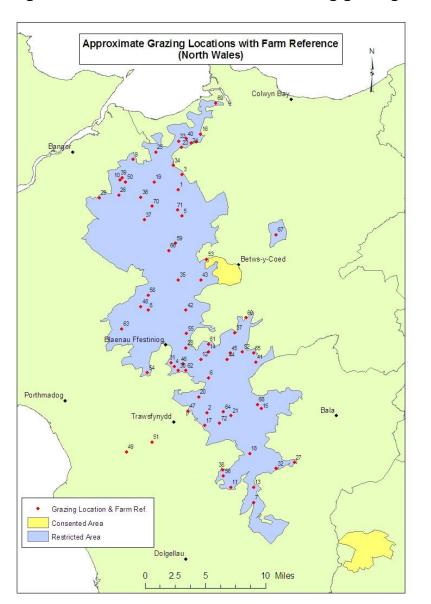


Figure 2 - Current restricted areas showing grazing locations of farms monitored as part of the risk assessment



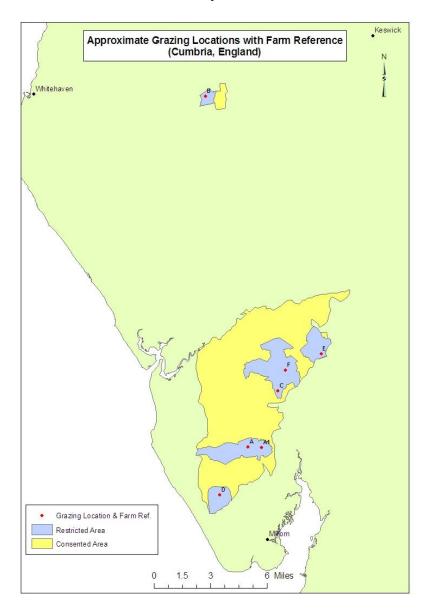
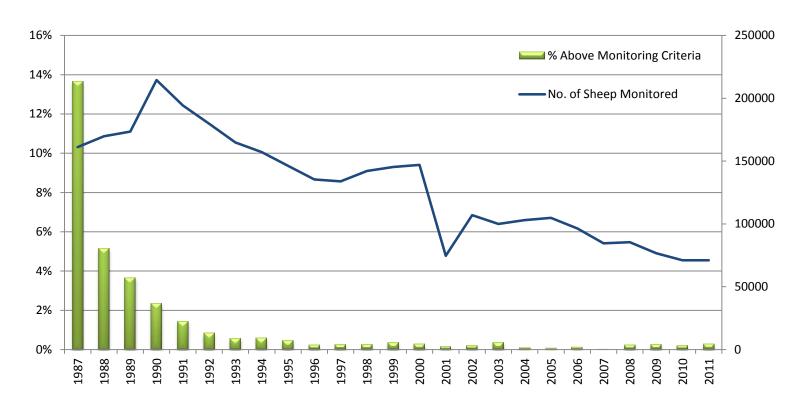


Figure 3 - Percentage of sheep above the monitoring criteria in Wales between 1987 and 2011



Note: In England, with the exception of 2004, there have been no *Mark and Release* failures since 1991. In 2004, four sheep failed at a single farm.

16 March 2012 Annexe 4

REMOVAL OF POST-CHERNOBYL SHEEP CONTROLS SUMMARY REPORT OF RESPONSES TO CONSULTATION FROM STAKEHOLDERS

The Removal of Post-Chernobyl Sheep Controls consultation was issued 17 November 2011 and closed on 8 February 2012.

Twenty-five years after the Chernobyl nuclear accident, controls remain on a relatively small number of UK sheep farms following radioactive contamination deposited on certain upland areas. The Food Standards Agency (FSA) has recently conducted an updated risk assessment which shows the risk to consumers is now very low, and that if controls were removed that risk would remain very low. The purpose of the consultation was to seek views on the proposal to remove all remaining controls on the movement of sheep from the restricted areas.

The consultation was issued directly to interested stakeholders and added to the consultations page of the FSA's Website. In addition, FSA officials attended meetings with farming union officials and their members in North Wales both before and during the consultation period.

The FSA is grateful to those stakeholders who responded and sets out in the tables below the substantive issues raised in the responses. The considered response of the Food Standards Agency to stakeholders' comments follows each table. A summary of actions to be implemented resulting from stakeholder comments is set out in the final table.

Where responses were received in Welsh (as marked by an asterisk), the comments have been published in Welsh with a translation into English for the purpose of this summary.

A list of stakeholders who responded can be found at the end of the document.

Full consultation responses are held by the FSA and may be made available on request.

General comments on the proposal to remove all controls and restrictions (Option 2 on the Impact Assessment)

Respondent	Comment
Mr P V Jones, Conwy *	Hoffwn pe baech yn ail-ystyried eich penderfyniad i godi gwaharddiadauar y fferm uchod. I would like the Agency to reconsider its decision to lift the restrictions at the above farm.
J Davies, Conwy *	Felly rwy'n cefnogi rhif 20 optiwn 1 yn eich yngynghoriad sef, gwneud dim, cadw'r polisi presennol.
	I support option 1 in your consultation, being do nothing and maintain the current policy.
Anonymous, North Wales	The FSA and Welsh Assembly need to re-think this, otherwise they will have a real agricultural economic disaster on their hands, all of their own doing. Scanning should be continued for the sake of farming, as this could well be the final nail in the coffin of an already struggling farming industry.
R E Roberts, Gwynedd *	Hyderaf y gwnaiff yr Asiantaeth Safonnau Bwyd ail ystyried eu argymhelliad i godi'r gwaharddiad symud yn llwyr (opsiwn 2) a defnyddio opsiwn 1 sy'n system mwy relisting o godi'r gwaharddiad mewn ffordd syml a dealladwy i bawb.Gyda opsiwn 2 mae'n ymddangos fod gwaharddiadau symud defaid yn cael eu codi oherwydd fod argymhellion newydd gan yr ICRP.
	I would hope that the FSA reconsiders its proposal to remove the controls in their entirety (option 2) and use option 1, which is a more realistic way to remove restrictions in a simple way that is understood by all. With option 2 it appears that the restrictions are being removed because of new guidance from the ICRP.
Ms J Graham, North Wales	I consider that the post-Chernobyl restrictions have only been implemented for as long as they have in order to maintain the employment of those bureaucrats and civil servants involved. I shall be overjoyed to have all controls lifted and not have to waste any more of my time and tax money on this nonsense.
Health Protection	The Health Protection Agency's role is to provide an integrated approach to protecting UK public health through the provision of
Agency,	support and advice. The HPA has welcomed the opportunity to provide comments to FSA at various stages on their approach
Environment	to derestricting the remaining areas of the UK that are subject to sheep controls. From the HPA perspective, and based on the
Assessments Department	monitoring and assessments carried out by FSA, there is no public health reason for the restrictions to remain in place. The FSA have demonstrated that the risk to consumers from radionuclides of caesium in sheep resulting from the Chernobyl accident is now very low and that maintaining the controls is not required for food safety.
The National Sheep Association	· · · · · · · · · · · · · · · · · · ·

NFU in the North West (England)	Currently only 8 English farms remain under restriction all of whom are in South West Cumbria. This is considerably less than the number in Wales but is obviously of great concern to those farmers who are affected. We have consulted with farmers who are subject to these restrictions.
	Of those farmers consulted all were in favour of the lifting of the restrictions placed upon them.
	Given that fact that the NFU in the North West represents only the farmers in the region we feel that we are only able to offer a response with respect to the holdings under restriction in Cumbria.
	The NFU is in favour of supporting regulation which is backed up by scientific research. The research outlined above suggests that the risk posed to the public by the lifting of these controls is very low. Therefore, the NFU in the North West is in principal happy to support Option 2. This also ties in with the Government's own mandate to remove red tape where it serves no purpose.
Hybu Cig Cymru Meat Promotion Wales	HCC has noted the outcome of the review and based on the evidence contained in the consultation it is recognised that the current controls are no longer proportionate to the very low risk; they are ineffective in further minimising the already low doses; and removing controls will not compromise consumer safety. However, in considering the removal of all post-Chernobyl controls it is important to take account of the potential impact on lamb consumption and to recognise the key economic importance of lamb production. Effective and timely communication of the evidence and the intended approach will be vital in ensuring that consumer confidence in lamb is maintained and that production and marketing of lamb is not harmed and damaged.
Antoinette Sandbach AM	It is my hope that the FSA's final decision would protect safety of consumers, maintain public confidence in the food supply chain, be proportionate to the risks involved and fair to farmers both within and outside restricted areas.
	Further to discussions with my constituents (holding numbers and and and and and and and written permission to make representations on their behalf, and after considering the evidence provided in the risk assessment, I would strongly recommend that the FSA maintains the current restrictions for those farms which have failed tests for the last ten years and have no access to lowland grazing in unrestricted areas. I note that radiocaesium's half-life is 30 years, and that there will only be three years until this duration has elapsed. Maintaining controls on the decreasing number of farms to which such restrictions would apply would also not represent an undue burden on taxpayers.

NFU Cymru	In conclusion
	a) NFU Cymru recognises that the method of assessing risk from radiation has been changed and the risk from eating
	sheep meat is extremely low and does not present a food safety risk.
	b) Before any restrictions are lifted the message that 1000Bq/kg is no longer an appropriate measure needs to be
	conveyed in a simple way, well in advance.
	c) NFU Cymru would ask FSA that consideration be given to a gradual lifting of the restrictions with flocks grazing areas with the lowest readings removed first which would allow further monitoring of areas with slightly elevated readings.
	d) Impact assessment needs to be clearer on potential effect on sheep meat sales in the event of negative publicity and how farmers would be compensated. Our aim would be to avoid this at all costs by giving the correct, consistent message to our consumers.
	e) FSA Wales need to produce a clear timetable and action programme when the decision is made.
Farmers' Union of	Members generally agreed that the scientific analyses conducted by the FSA were appropriate in determining the level of risk
Wales	involved in removing post-Chernobyl sheep controls. The Union recognises that the FSA preferred option – Option 2:
	Removal of all post-Chernobyl controls and associated regulation on sheep farming in the UK – has considered and evaluated
	the potential risk to consumer health and that the risk perceived is now negligible.
	However, despite the reported positive scientific risk assessment, members believed it imperative that consideration be offered to the impact of removing controls on the consumer perception of UK and Welsh lamb.
British Meat	BMPA can confirm that it supports the removal of the remaining post-Chernobyl controls and the associated regulation on
Processors	sheep farming in the UK. I am sorry, but I haven't been able to obtain any data that would help populate your impact analysis,
Association	though as far as my members were concerned, anything that increases the livestock available in these times of limited supply
	would be a good thing.
Cumbria County Council	We have read your consultation documentation and read the response from the NFU in the North West dated 30 January.
	The research outlined within your consultation document suggests that the risk posed to the public by lifting post Chernobyl
	sheep controls is very low. We understand that currently only 8 farms in England remain under the restrictions, all of which are
	in south west Cumbria. Two of these farms had sheep which recorded levels of radiocaesium which were above 1000bq/kg
	though no sheep from Cumbria have failed the 'Mark and Release' scheme for 4 years.
	Given these results, and the expectation that levels of caesium take up by sheep through grazing will continue to fall over time, Cumbria County Council supports your 'Option 2' proposal to remove all post-Chernobyl controls and associated regulation on sheep farming in the UK.

FSA Response

The responses are generally supportive of the risk assessment and its conclusions that there is a very low risk to consumers and that controls are no longer required to protect consumer safety. While we note that some individuals and their representatives have reservations regarding the potential damage to consumer confidence, the FSA is being evidence-led when making decisions on food safety controls. Following consideration of the consultation responses received, our assessment – subject to agreement by the FSA Board at its meeting on 20 March – remains that removal of controls will not compromise consumer safety.

The FSA considers that effective and evidenced assurances have been provided which demonstrate a very low risk to consumers through our peer reviewed risk assessment. Maintaining the current controls would not eliminate risk. People are exposed to low levels of radiation from food and the environment, mainly from natural sources. The current controls allow sheep with low levels of radiation into the food chain. The risk to consumers from these low levels of radiation is very low and by removing controls, the risks would continue to be very low. Consumer safety would not be compromised.

In response to suggestions that the FSA continues to derestrict on a farm-by-farm basis, this was considered in the Impact Assessment. In practical terms, it would take many years to undertake this systematic process and cover all farms. Thus the majority of farms would remain restricted for many years despite the very low risk to consumers that has now been clearly established by our recent assessment. This is not our favoured approach.

In clarification of Cumbria County Council's response, only 4 sheep have been above the *Mark and Release* criteria in Cumbria since 1991 according to our records. This happened on one farm in 2004.

Consultation question Q1: Do you have any evidence that would alter the assessment that the risk to consumers is very low and that removing controls will not compromise consumer safety?

Respondent	Comment
Environment Assessments Department	HPA does not have any evidence to suggest that the removal of controls would compromise consumer safety. Whilst it is not the responsibility of HPA to endorse the risk assessment itself, we are satisfied that it has undergone a thorough peer review. HPA also acknowledges that independent statisticians provided expert advice on the sampling protocols to be adopted during the sheep surveys carried out in the summers of 2010 and 2011. Therefore HPA considers that the evidence-base presented by FSA supports removal of all sheep controls
MBE, Centre for Ecology and Hydrology	I think the FSA has carried at a commendable and thorough assessment with stakeholder involvement which has provided adequate information to make a decision. There is a high level of confidence that the risk to consumers is extremely low if controls were removed. Therefore, I do not think that removing controls would compromise consumer safety. I consider that any doses now averted do not warrant the expenditure and disruption which the current system entails. Furthermore, I think the suggested removal of controls, and the conclusions from the underpinning analysis conducted by FSA, are consistent with recommendations from ICRP and the IAEA. Finally, I do not see the need for further analysis or evidence to make the decision.
Wales	I have absolutely no evidence that would alter the assessment that the risk to consumers is very low and that removing controls will compromise consumer safety. On the contrary, I have had only one lamb fail within the past sixteen years and that was seven years ago. Prior to 1995 I believe that very few, if any, sheep on this farm failed but, as I was not directly involved at that time, I cannot provide details.
Hybu Cig Cymru Meat Promotion Wales	HCC has no further evidence that would suggest removing the current controls will compromise consumer safety.
Farmers' Union of Wales	The FUW does not possess any evidence that would alter the consumer health risk assessment as provided by the FSA.

NFU in the North	Farming practice in the area dictates that animals do not go to slaughter or market directly from the areas of pasture with high
West (England)	levels of radioactivity.
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	The reason cited for these farms being subject to continuing restrictions is that testing is still required to protect food safety.
	Therefore the risk that sheep produced on these farms poses to the public is the key consideration that needs to be addressed
	before deciding if the restrictions should be lifted.
	We note the conclusions of the 'Assessment of Radiocaesium Activity Concentrations in Sheep in Restricted Areas of England
	,
	and Wales and Potential Consumer Doses' dated November 2011. It states that although low levels of radiation persist in
	sheep in the area, the consumer risk is very low.
	The final conclusion is that the Mark and Release scheme is having a negligible impact on reducing consumer risk. Modelling
	suggests a maximum does radiation of 0.21mSv per year for a high consumer of meat from these farms, which is well below
	the 1mSv per year typical exposure level for members of the public. This is obviously a very positive outcome and will be
	welcome news for the small number of producers affected by these restrictions.

FSA Response

The FSA has noted these comments on the thoroughness of the risk assessment and the lack of any additional evidence being brought forward by stakeholders who responded to the consultation.

Consultation question Q2: Do you agree with the estimates for the time farmers have to make themselves available during *Mark and Release* inspections, 2 hours per 100 sheep monitored and 1.5 hours for every 100 sheep not monitored but inspected (see paragraphs 68 to 71 of the Impact Assessment)?

Respondent	Comment
	Concerning the estimates for the time squandered on the Mark and Release inspections I cannot agree or disagree because I
	have never bothered to time them. However, it is important to understand that time must also be wasted in gathering the
	animals and, later, turning them out. An entire day may have to be sacrificed to deal with the operation.
	HCC has no evidence that the time estimates made in the impact assessment should be reviewed further. It is noted that
	currently, farmers have to make themselves available during Mark and Release inspections, estimated at 2 hours per 100
	sheep monitored and 1.5 hours for every 100 sheep not monitored but inspected.
	NFU Cymru members would generally agree with the assumption in the risk assessment of 2 hours to scan 100 sheep and 1.5
	hours to mark 100 sheep, although this would vary, particularly where small lots or flocks are involved. We have always
	maintained that the £1.30 payment should be inflation linked and does not cover the time of skilled workers.
	Members responding to this section agreed that, as outlined in the relevant section of the impact assessment, 2 hours per 100
Wales	sheep monitored and 1.5 hours for every 100 sheep not monitored but inspected were appropriate time estimates.

FSA Response

The FSA has noted the general agreement with these estimates, and the ancillary point that headage payments are unlikely to cover costs to farmers.

In response to Ms Graham's comment, we note that *Mark and Release* monitoring is carried out when a farmer wishes to move sheep and that therefore animals would need to be gathered prior to movement whether monitored or not. Therefore, the cost of gathering animals is considered to be business as normal and has not been taken into consideration; our estimate of costs relate only to additional time taken to oversee the monitoring process.

Consultation question Q3: Please provide evidence of any financial implications that the removal of controls, and hence ceasing of headage payments, will have on farmers currently under restriction?

Respondent	Comment
	The headage payment of £1.30 has not risen in line with inflation, thus I doubt whether any farmer will suffer financially at the loss of this pittance. I, for one, will be more than happy to forgo the payments.
Meat Promotion Wales	The current compensation of £1.30 per head for farmers under restriction is paid in recognition of the additional work that these farmers have to undertake. It is considered that farmers will appreciate this additional payment which for an average flock in Wales of 556 sheep will amount to a minimum of £722. For the farmers involved, lifting the restrictions may mean losing these payments but there will be benefits to them such as not having to go through the timely Mark and Release inspections and the monitoring process. They will also have the freedom to trade and move their animals when they choose enabling them to take advantage of market price increases.
Wales	Under the present controls, farmers under restriction receive compensation amounting to £1.30 per head. This compensation is offered in recognition of the costs incurred when gathering and holding sheep for monitoring under the FSA 'mark and release scheme'. The Union notes that approximately 250,000 sheep are monitored or inspected in Wales. Lifting restrictions will therefore lead to a Welsh-specific loss of £325,000 per annum. However, members responding to this section of the consultation believed that the reduction in restrictions and the concomitant increase in the ability of producers to take advantage of market price increases would offset such losses, provided adverse publicity did not result in an, albeit scientifically unfounded, fall in consumer confidence.

FSA Response

The FSA has noted these comments, and the assessment by Hybu Cig Cymru and the Farmers' Union of Wales that the losses from ceasing headage payments would be offset by the ability of farmers to be more responsive to market price increases.

Consultation question Q4: Do you consider that there are any further costs, benefits or other implications to the farming, meat processing and retail industry that would result from the proposal to remove all remaining controls which have not been considered in the Impact Assessment?

Respondent	Comment
NFU in the North West (England)	Furthermore, the need to test these animals has led to some marketing problems for some farmers and on occasions opportunities to sell stock have been missed due to the need to test.
The National Sheep Association	We are concerned if this move is in response to Treasury cut backs with the effect being that sheep farmers livelihoods are negatively affected. Any attempt to pass the costs, or impacts of the Chernobyl radioactive release onto farmers must be avoided. The FSA must consider any market related impacts that could arise from lifting these controls, including any resistance from consumers in purchasing UK lamb, and potential impacts on the market value of store sheep from affected areas.
Farmers' Union of Wales	Members believed that any financial drivers, such as the reported £350,000 cost savings, must be secondary to the validity of removing all controls. Any dissemination of information to the consumer should primarily focus on the scientific evidence supporting a negligible risk to human health. Reports on cost savings may be misconstrued as the main driver for change and could overshadow the validity of the scientific evidence.
Farmers' Union of Wales	The Union notes that consumer confidence was identified as a key factor in the discussions associated with the present control measures (Stakeholder Discussions, Part II, pg 38). Although difficult to definitively quantify, the majority of members believed that inappropriate information dissemination could reduce consumer confidence in Welsh lamb and could lead to a decline in consumption.
Hybu Cig Cymru Meat Promotion Wales	HCC recognises the FSA's preferred course of action on the basis that assessments have shown that the risk to consumers is very low; and that removing controls will not compromise consumer safety. As already indicated the potential damage to the consumption of lamb needs to be considered as consumers may perceive the product to be less safe if checks are no longer carried out. However, this is extremely difficult to quantify as the majority of consumers will not even realise that there are still farms under restriction 25 years on from the original incident. Therefore, if the restrictions are lifted this needs to be communicated in a careful and sensitive manner so as not to raise unnecessary alarm amongst consumers of lamb.

As noted in the Impact Assessment, removing controls may mean farmers are able to take better advantage of short-term price fluctuations. However, as prices may fluctuate down as well as up, this benefit cannot be quantified and so is noted as a non-monetised benefit of removing controls.

We note that there may be the perception that controls are being removed because of government cost savings, which may result in a loss of consumer confidence in lamb from affected areas. As noted by the Farmer's Union of Wales, the potential cost to the industry of reduced consumer confidence is extremely difficult to quantify. However, the FSA has based this decision on the scientific evidence that the risk to consumers is very low, and the FSA will continue to give proper prominence to this in our communications around this matter. For the purposes of the Impact Assessment it has been assumed that there will be no significant loss in consumer confidence.

Our response to the concerns around consumer perception and communication is addressed under the relevant section heading below.

Consultation question Q5: Do you agree with the assessment of costs and benefits outlined in the Impact Assessment?

Respondent	Comment
Hybu Cig Cymru	HCC has no further evidence to suggest the costs and benefits outlined in the Impact Assessment should be different.
Meat Promotion	
Wales	
Farmers' Union of	The FUW has no additional evidence to provide on the relative costs and benefits outlined in the Impact Assessment.
Wales	However, the Union would reiterate that the removal of post-Chernobyl sheep controls, and any subsequent information
	dissemination on this matter, must recognise any potentially detrimental impacts on consumer perception.

FSA Response

These comments have been noted. Our response to the concerns around consumer perception and communication is addressed under the relevant section heading below.

Further specific comments: Sheep above the Mark and Release monitoring level ("failures")

Respondent	Comment
Anonymous, North Wales	With all the failures this year, it is obvious that [radioactivity] is still rife within the land, and this is one statement that the FSA have omitted to release, and one wonders why?
	Lifting restrictions of such a large number of farms is totally unrealistic, especially as hundreds of failures have been recorded by the scanning teams over the past few months. These failures were not confided to a specific area, but at a variety of locations, and the public have a right to know this.
	Numerous failures were recorded by doing experimental testing on our farms, with some farmers experiencing 90-95% failure rate. The FSA should inform the public of this as they need to know.
NFU in the North West (England)	Only 2 farms in Cumbria had sheep which had levels of radiocaesium which were over 1,000bq/kg. However, as the assessment points out, local farming practice means that the likelihood of any sheep with levels of radiocaesium exceeding 1,000bq/kg entering the food chain are remote. No sheep from Cumbrian farms have failed the Mark and Release scheme for 4 years.
Mr P V Jones, Conwy *	Hoffwn dynnu eich sylw i'r canlynol;
Conwy	Fe sganiwyd 259 o wyn ar y 11/8/11ac fe fethodd 58 ohonnynt a pasio'r prawf sganio (sef 22%). Y bwriad oedd gwerthu'r wyn yma yn syth o'i mamau gan fod galw amdanynt ar y cyfandir yr adeg hon o'r flwyddyn. Oni bai am y prawf sganio fe fuasai'r wyn a lefel uchel o ymbelydredd wedi mynd i'r gadwyn fwyd. Pe bai hyn wedi digwydd yn sucr fe fuasai'n difetha'r farchnad wyn ar y cyfandir a hefyd y farchnad gartref. Cawsom rhagor o wyn yn methu'r prawf ymbelydrol ar y 23/8/11. Mae'r nifer a gawsom yn methu'r prawf yn uwch yn 2011 nac yn 2010 ac mae profi'r wyn yn cadw'r "failiers" allan o'r gadwyn fwyd.
	I would like to draw your attention to the following;
	259 lambs were scanned on 11/8/11 and 58 failed (22%) The intention was to sell the lambs direct to market as there is a call for them on the continent at this time of year. Without the scanning, lambs with a high level of radioactivity would have entered the food chain. If this had happened then it would surely have ruined the market for lamb on the continent and also at home. We had more failures on 23/8/11. The number of failures we have had was higher in 2011 than in 2010 and the monitoring keeps the 'failures' out of the food chain.

	Yn ystod tymor 2011 bu cynnydd yn nifer yr wyn a oedd tros y lefel dderbyniol o ymbelydredd ar nifer o ffermydd yn Eryri i gymharu a'r blynyddoedd diweddaraf. Hyn yn profi fod "risk" yn dal i fod, gellir dadlau fod y "risk" yn isel, ond rhaid gofyn a ydyw'n "risk" gwerth ei chymryd a hynny yn enw da cig oen Cymru?!	
	During the 2011 season, there was an increase in the number of sheep over the acceptable radioactivity level on a number of farms in Snowdonia compared with previous years. This proves there is still a risk and though it can be argued that the risk is small, it must be asked if it is a risk worth taking in the name of Welsh lamb?	

FSA Response

The proposal to remove the *Mark and Release* control measures was based on the results of a consumer dose assessment and not on whether sheep are above or below the *Mark and Release* monitoring criteria.

Contrary to many people's understanding, the 1,000 Bq/kg level is not a safety limit in the sense that it is unsafe to eat any amount of meat above that level. Rather, it was used in the immediate aftermath of the Chernobyl accident as a means of controlling the maximum radiation dose (or risk) to which consumers were exposed. This was only really effective in reducing consumer risks when a large number of sheep exceeded this level (e.g. in the first few years after the Chernobyl accident) when consumers could potentially eat large quantities of meat with these levels of contamination. The impact on consumer doses becomes negligible as the number of sheep exceeding this level declines substantially over time. In the rare case where sheep with higher levels may enter the food chain, eating these sheep would not result in any safety concerns, even if a person was to eat a substantial part of the sheep.

Maintaining the current controls does not eliminate risk. All food contains low levels of radiation, mainly from natural sources. The current controls allow sheep with low levels of radiation into the food chain. The risk to consumers from these low levels of radiation is very low and by removing controls the risks will continue to be very low and consumer safety will not be compromised.

The majority of sheep are consistently below the *Mark and Release* monitoring level each year. In 2011, over 99.7% of sheep were below the monitoring level. It should also be noted that the monitoring equipment is calibrated very conservatively, such that only 1 in 40 of sheep which are above the *Mark and Release* criteria would actually have levels of radiocaesium above 1,000 Bq/kg. Our data shows that the very small number of sheep which are above the monitoring level are only marginally above. In the rare case where sheep with higher levels may enter the food chain, eating any of these sheep would not result in any safety concerns, even if a person was to eat the substantial part of the sheep themselves.

In response to J Davies's comment, the slight increase in the total number of sheep exceeding the monitoring level coincides with the introduction of a new monitor in 2008. The increase in the number of sheep exceeding the monitoring level is insignificant compared to the large decrease from the proportion of sheep which were above in the years immediately after the accident and is almost certainly an artefact of the new monitors and not an indication of increasing levels of radiocaesium in sheep.

In clarification of NFU in the North West's response, only 4 sheep have been above the *Mark and Release* criteria in Cumbria since 1991 according to our records. This happened on one farm in 2004.

Further specific comments: Consumer confidence and communication

Respondent	Comment
Anonymous, North Wales	By not continuing to scan there would be a 100% chance that a lamb with radiation would be allowed into the food chain, and as a result this could be catastrophic to the sale of Welsh Lamb, and would have a far reaching effect on the industry. Farmers not living in the restricted area would more than likely be penalised, as the Welsh Lamb market is under one blanket. [Any] failure into the food chain would be enough to stagnate the whole Welsh Lamb industry. With continued scanning this risk would be eliminated and with no consumer issues being raised.
J Davies, Conwy *	O ddarllen dros y blynyddoedd, sylwaf fod anghytuno rhwng gwyddonwyr a'u gilydd, beth sydd yn "risc" isel neu uchel mewn ymbelydredd, felly, fel ffermwyr mynydd, rhown y cyfrifoldeb i gyd ar eich ysgwyddau chi, yr Asiantaeth Safonnau Bwyd, os darganfyddir ymbelydredd mewn cig oen yma ym Mhrydain neu dramor mewn wyn wedi eu hallforio o Cymru, hynny oherwydd dileu'r system scanio sydd wedi bod yn effeithiol tros nifer o flynyddoedd. Byddai'r gost o adfer hyder y cyhoedd mewn cig oen yn llawer iawn uwch na £1.30 y pen, pe digwyddai hynny.
	From reading over the years, I have noticed that scientists disagree about what constitutes a high or low risk with radioactivity, therefore, as a mountain farmer, the responsibility is on your shoulders, the FSA, if radioactivity is found in sheep here in Britain or abroad in sheep exported from Wales because of removing the scanning system that has been effective for a number of years. The cost of rescuing consumer confidence in lamb would be much higher than £1.30 a head, if that happened.

R E Roberts, Gwynedd *	Mae derbyn opsiwn 2 ar ei ben ei hun yn ddatblygiad peryg iawn oherwydd y gallai greu diffyg hyder yn y rhesymau a'r ffordd y byddai'r canlyniadau yn cael eu diddymu.
	Mae'n rhoi'r argraff fod anifail sy'n methu a phasio y prawf sganio 1000bq/kg un diwrnod, ac ddim yn saff i fynd i'r gadwyn fwyd, yn medru bod ar un darlleniad bq/kg ond y byddai yn cael ei gydnabod i fod yn saff i fynd i'r gadwyn fwyd.
	Gallai gwybodaeth fel hyn gael effaith ddrwg iawn ar hyder y cwsmer, boed yn wraig y tŷ ym Mhrydain neu unrhyw ran arall o'r byd. Mae cig oen Cymreig wedi ennill ei blwy fel cynnyrch o safon arbennig o dda, gyda statws PGI, mewn llawer o wledydd y byd. Y peth olaf yr ydym ei angen fel cynhyrchwyr cig oen Cymreig yw unrhyw reswm neu esgus i'r cwsmer beidio a'i gefnogi a'i brynu. Gallai hyn cael oblygiadau pell gyrhaeddol a drwg iawn ar y farchnad gig oen Cymreig, nid yn unig i gynhyrchwyr o dan gyfyngiadau symud defaid yn sgil Chernobyl ond i holl gynhyrchwyr cig oen Cymreig.
	Llawer iawn gwell fyddai defnyddio'r system sydd wedi ei defnyddio'n llwyddiannus yn y gorffennol i fonitro holl ddefaid y daliad a rhyddhau'r defaid os yw'r holl ddefaid yn is na'r pwynt o 1000bq/kg; a'u cadw i fewn os oes rhai defaid a darlleniad uwch na 1000bq/kg. Wrth barhau gyda'r system yma (sydd wedi bodoli ers tua 20 mlynedd) byddai y cwsmer yn parhau i gadw hyder a ffydd yn y cynnyrch.
	Accepting option 2 on its own is a dangerous development because it could result in a lack of confidence in the reasoning behind and the way in which the controls have been removed.
	It gives the impression that an animal that fails to pass the monitoring test at 1,000Bq/kg on one day, and is, therefore, not safe to enter the food chain, can have the same reading on another day but be declared safe to enter the food chain.
R E Roberts, Gwynedd * continued	it a housewife In Britain or anywhere else in the world. Welsh lamb has established itself as a product of high standard, with PGI status, in many countries throughout the worlds. The last thing we need as producers of Welsh lamb is any reason or excuse for consumers to avoid buying our produce. This could have very negative and far reaching implications on the market for Welsh lamb, not only for the producers in the restricted area but for all Welsh lamb producers.
	It would be better to maintain use of the system that has been used successfully in the past to monitor all sheep on holdings and permit their movement if they are lower than 1,000Bq/kg. By maintaining this system (that has existed for 20 years) the consumer will still have confidence and faith in the produce.

NFU Cymru	Science has moved on and the method of calculating safe radiation doses to individuals with it. This is explained in the documentation sent out with the consultation. However, the general public both at home and abroad the consumers of sheep meat will not be aware of this.
	The FSA rightly point out that we should no longer regard a reading of over 1000Bq/kg as a 'failure' but because this figure has now been entrenched in people's mind for 25 years and more, it inevitably will. Furthermore the compensation scheme offered is still based on this figure.
	The first step therefore must be for the Food Standards Agency to put this figure into context, as it is considered by you to be no longer relevant, as the internationally recognised method of measuring radiation doses is now based on very different calculations compared to 1986.
	It is NFU Cymru's firm view that before the FSA removes the existing restrictions a communications plan should precede derestriction to allay any fears and dismiss misconceptions that the public may have or the media will try to portray. This information needs to be in the public domain in a language that everyone will be able to understand.
	Using examples of background radiation levels in Cornwall would be useful in getting the message across.
	We would wish to reiterate that this plan must be produced, discussed shared and agreed with key industry stakeholders (Farming Unions, HCC) and accepted by consumers of sheep meat before any restrictions are lifted.
NFU Cymru	NFU Cymru's other issue relates to the impact assessment. As an industry representative we will do everything in our capability to ensure that there is a consistent message about the actual facts in line with the FSA and other organisations. However, public opinion is paramount but can be fickle at times as we have seen with recent food scares blown up by certain elements of our media.
	If this process is not handled correctly, there would potentially be huge implications for lamb and mutton prices and product demand. This would not only affect sheep from the restricted area but potentially sheep from Wales and even from the UK on both the domestic and overseas market across the World.
	All measures should be put in place to avoid this and we do believe that this potential problem has been underplayed in the impact assessment and how, if it did happen, the industry would be compensated for price blights and reduced demand.

NFU in the North	Our only concern regarding the lifting of these restrictions is the potential impact of this on the market for our lamb, both at
West (England)	home and abroad. The lifting of these restrictions is clearly good news and finally draws a line under the issue for those
	farmers concerned. However, if this is communicated incorrectly this could damage the confidence that consumers have in the
	safety of lamb produced in the area. Therefore, before the removal of the restrictions, a communication plan should developed
	to address any fears and misconceptions that the public may have or the media will try to portray. This needs to be a clear and
	simple message that the general public are able to understand.
, ,	HCC considers that if the FSA decides to remove the existing restrictions, a communications plan should be prepared including
Meat Promotion	measures to minimise any misconceptions that may appear in the press; and which may negatively influence public opinion on
Wales	the safety of lamb as a food product.
	It is important that this communication exercise is handled sensitively. Failure to do so could result in the wrong impression being given that the restrictions are being lifted for financial rather than for scientific and public safety reasons. While the consultation suggests there is no health reason for maintaining the restrictions, public opinion driven by negative newspaper headlines may differ. If the restrictions are therefore lifted the media should be fully briefed on the reasons for doing so. For example, it is suggested that representatives from all sections of the national press along with the BBC, ITN, Sky, Press Association, etc. should be given unrestricted access to evidence that radiation contamination is now at a safe level.
	The FSA may wish to consider delaying lifting the restrictions until the media coverage is fully monitored to see what effect, if any, they have on public opinion.
The National Sheep	The NSA would like to know how the FSA intends to communicate to the consumer that lamb from Chernobyl affected areas is
Association	now safe to eat.

Farmers' Union of Wales	Welsh lamb is currently in a strong position within the global marketplace, and since being granted Protected Geographical Indicator (PGI) status in July 2003 has been formally recognised in terms of its origin and quality at a domestic and European level. Adverse publicity could jeopardise the overall perception of Welsh lamb, thereby leading to a decline in the production and consumption of this high quality product.
	Mishandled or inappropriate information dissemination could lead to a reduction in consumer confidence if consumers fail to understand the evidentiary support for removal of controls and therefore perceive such produce to be unsafe. This is especially pertinent given that the majority of consumers presently have little awareness of the existence of post-Chernobyl restrictions on UK farms. Furthermore, the difference in the perception of consumers to terminology such as 'low' versus 'no' risk must be considered and evaluated prior to any information dissemination.
	Should the FSA opt to remove all post-Chernobyl controls and associated regulation, the main priority must be to ensure the existence of an effective communication plan. When and if media interest in this issue arises, it is essential that the resultant FSA communication is clear, consistent, in an appropriate format, and validated with robust scientific evidence, with the latter being disseminated in a format which is easily accessible and easily understood by the average UK consumer. The Union believes that the FSA should aim to monitor the media coverage given to this issue and should be prepared to counteract any negative or erroneous publicity immediately. The FSA should also be prepared to take robust action, if necessary via the Press Complaints Commission, in the event that the science relating to the removal of controls is misrepresented in the media.
	The Union believes that there may also be merit in the FSA reviewing the communications issued when post-Chernobyl sheep restrictions were removed in Scotland.
Cumbria County Council	We agree with the NFU that: "Our only concern regarding the lifting of these restrictions is the potential impact of this on the market for our lamb, both at home and abroad. The lifting of these restrictions is clearly good news and finally draws a line under the issue for those farmers concerned. However, if this is communicated incorrectly this could damage the confidence that consumers have in the safety of lamb produced in the area. Therefore, before the removal of the restrictions, a communication plan should developed to address any fears and misconceptions that the public may have or the media will try to portray. This needs to be a clear and simple message that the general public are able to understand."
British Meat Processors Association	One thing we do ask, however, is that any publicity around these changes are handled sensitively to try and help prevent any coverage that might be alarmist.

FSA Response

The FSA has undergone a 12-week public consultation which has received coverage in both the local and national media, including prime time national TV. In responding to this coverage, the FSA has reinforced the message that our scientific assessment has shown the risk to consumers is very low. The FSA has reviewed the media coverage since the public consultation was launched in November and when the controls were removed in Scotland in 2010. This has raised no concerns that there will be an adverse affect on consumer confidence.

In implementing the policy, the FSA will continue to reinforce the message that risk to consumers is very low and removing controls will not compromise consumer safety. We aim to work with the farming unions and meat industry on a joint platform and provide information and comment in their publications in order to provide context to explain the very low risk.

There is little disagreement within the mainstream scientific community regarding the risks from low levels of radioactivity. Our assessment is in line with internationally agreed recommendations.

As an open and transparent organisation, all our evidence is available for scrutiny by the media or general public. Our assessment, which was made available during the consultation process, can also be found at the following link.

http://foodbase.org.uk/results.php?f category id=&f report id=725

Further specific comments: Declaration of safety (e.g. Food Chain Information forms)

Respondent	Comment
Mr P V Jones, Conwy *	Mae gofynion SMR11 (Bwyd a Chyfraith Bwyd) yn dweud nad ydym i beryglu iechyd pobol wrth roi bwyd nad i'w yn saff i'w fwyta i'r cyhoedd. Hefyd wrth werthu neu symyd ein hanifeiliaid rydym yn arwyddo AML1 sef dogfen Adnabod a Symud (Cymru 2009) a gwybodaeth am y gadwyn fwyd FC1. Os na fydd ein defaid wedi ei sganio neu ei cyfrif ni fyddwn yn cydymffurfio gyda rheolau AML1 ac SMR11. Yn sicr ni fedrwn arywddo ffurflen AML1. Ond eto mae'n rhaid ei harwyddo cyn gawn symyd na gwerthu ein defaid.
	The requirements of SMR11 (Food and Food Law) are that we are not permitted to endanger the safety of consumers by providing unsafe food. Also, by selling or moving our animals we sign AML1 which is an identification and movement document (Wales 2009) and a food chain information document FC1. If our sheep are not scanned or inspected we will not be complying with the rules of AML1 and SMR11. It is certain we will not be able to sign form AML1. And yet we have to sign this form before being permitted to move or sell our sheep.
J Davies, Conwy *	Pan fydd aelodau o'r cyhoedd, ffrindiau a chydnabod yn holi yn achlysurol, fel sy'n digwydd, a yw'r wyn yn dal i ddangos ymbelydredd? Byddwn bob amser yn dweud, ydynt, ond ei bod yn amhosib iddynt fynd i'r gadwyn fwyd oherwydd y system "monitro" a scanio. Os dileir y system scanio <u>ni</u> allwn roi'r sicrwydd yma iddynt yn y dyfodol. Hynny yw, <u>ni</u> ellir cadw dim fel hyn yn gyfrinach rhag y cyhoedd. Fel ffermwyr byddwn yn llenwi trwydded symud defaid wrth fynd ag anifeiliaid i'r farchnad neu'r ladd-dy, byddwn yn rhoi tic mewn blwch i gadarnhau fod yr anifeiliaid hyn yn bodloni safonau iechyd a osodir allan gan yr asiantaeth fwyd (ASB) yng nghyswllt Chernobyl byddwn yn gwneud hyn gan wybod fod yr wyn neu ddefiad wedi i scanio a'u cael yn iach, os dileir y scanio, sut gallwn ni gadarnhau nad oes ymbelydredd mewn rhai ohonynt.
	When members of the public, friends and acquaintances ask occasionally, as happens, if the sheep still show radioactivity, I will answer each time that they do but it is impossible for them to enter the food chain because of the monitoring and scanning system. If the system is removed, we will no longer be able to give this reassurance in the future. That is, this could not be kept secret from the public.
	As a farmer, I complete a movement licence in order to move animals to market or slaughter and tick the box that confirms that the animals meet the health standards defined by the Agency (FSA). With regard to Chernobyl, I do this in the knowledge that the sheep have been scanned and found safe. If the scanning is stopped, how can I confirm that there isn't radioactivity in any of them?

FSA Response

The results of the risk assessment are clear in demonstrating the very low risk to consumers from consuming sheep meat. For the purposes of post-Chernobyl contamination, therefore, the requirements of SMR11 are complied with and there is no barrier to farmers signing the necessary food chain documentation

The FSA's assessment focused on consumer doses, which were shown to be very low. There is agreement in the international scientific community that dose to consumers provides a much better and more direct assessment of any risks than whether a very small minority of sheep (less than 0.3% in last year's monitoring activity) contain slightly elevated levels of radiocaesium.

To clarify the comment by J Davies, the *Mark and Release* monitoring is not used to separate sheep which are radioactive from those that are not. All food contains low levels of radiation, mainly from natural sources.

Further specific comments: Continued reassurance monitoring

Respondent	Comment
The National Sheep	Some farmers in the UK still have sheep that record radioactive levels above the minimum requirement even 25 years after the
	Chernobyl accident, and consideration should be given to a base level of random testing to be maintained, particularly as no
	information is available on radioactive levels in sheep pre-Chernobyl.
NFU in the North	In order to assist with this it has been suggested by one farmer that some residual testing in the area may be useful to monitor
` ` ` '	the situation. This will offer up to date information on the levels of radiocaesium in the area. If this option is undertaken this
	should be done on a voluntary basis and any farmers in the area who are willing to participate in any residual testing should be compensated along similar lines to that which they receive under the current testing programme. There should be no
	compensated along similar lines to that which they receive under the current testing programme. There should be no compulsion for farmers to enter into this residual testing if they do not wish to do so.
	compaision for faithers to effici into this residual testing if they do not wish to do so.

Cumbria County Council	Cumbria County Council continues to favour regulation which is supported by scientific research and considers continued regular monitoring of affected farms (e.g. by soil and grass sampling) to monitor radiocaesium levels would be appropriate to provide ongoing public reassurance about food safety.
	We also agree with the NFU that any residual monitoring or testing "should be done on a voluntary basis and any farmers in the area who are willing to participate in any residual testing should be compensated along similar lines to that which they receive under the current testing programme. There should be no compulsion for farmers to enter into this residual testing if they do not wish to do so".
NFU Cymru	The FSA have confirmed that Becquerel levels in monitored meat at abattoirs have been extremely low and present no health risk. The FSA monitors many foods for radiation levels and it would be beneficial we think to instil further confidence in sheep meat (the importance of which we cannot overemphasise to Welsh farming) for increased monitoring levels during any transition period and the results could be used to help support the communication plan.

FSA Response

The Annexe to the Impact Assessment considered a range of alternative monitoring protocols. All alternative monitoring protocols are considered to be disproportionate, given the very low risk to consumers. They would be ineffective methods of improving food safety for the same reasons as the current monitoring protocol is now ineffective.

Further monitoring is not considered necessary, as 25 years of monitoring coupled with the recent dose assessment, provide a very high degree of confidence that the risks are very low. Furthermore, levels of radiocaesium will continue to decline. It is unlikely that monitoring soil or grass samples would provide additional public reassurance as it would provide little useful information. This is because the radiocaesium is spread unevenly over the upland areas (so difficult to get representative samples), and it's uptake by sheep is dependent on multiple factors including soil and vegetation type, physiology of individual sheep, grazing habits and the effects of different farming practices.

There will be no further monitoring under the *Mark and Release* scheme. However, the Agency will be continuing its routine surveillance for radioactivity in aquatic and terrestrial foods, which is a separate UK monitoring programme. See: http://www.food.gov.uk/science/surveillance/radiosurv/rife/

Further specific comments: Exports of lamb meat

Respondent	Comment
	The lamb industry has over the last couple of years thrived with export of Welsh Lamb at its highest for a long time, and they want to put all our hard work into jeopardy. Consumer confidence is vital to this, and they have not taken this into account.
	Foreign countries may not know that we are still monitoring our lambs, but as soon as they got to know that the powers that be want to stop monitoring our lambs, then this would have a fatal effect on the export market.

FSA Response

Based on the comprehensive risk assessment, the view of the FSA is that a decision to remove current controls would send a clear message to both home and export markets on the safety of sheep from the restricted areas

Other comments

Respondent	Comment
NFU Cymru	We now turn to the area still under restriction in North Wales. Compared to Cumbria it remains a relatively large area of approximately 200 square miles of upland and there is concern amongst our members in the area at the impact derestricting the whole area in one fell swoop could have on public perception given that hitherto derestriction has always been carried out on the basis of blocks of farms.
	Our members feel that FSA should consider a third option for the phased removal of restrictions. This would allow further monitoring to take place where radiation levels are at their comparative highest. We feel that it is feasible for FSA to do this through the consent licence system already in place to release those areas grazed by flocks showing the lowest readings.
	As flocks are removed, this will release resources for monitoring of areas with higher readings and eventually all areas could be removed. It would be at this point that legislation could be considered by Welsh Government to totally remove the restricted area. This is the view that was put forward by our members within the area who felt that a phased removal approach has been successfully used in the past and would have the advantage of maintaining public confidence in the derestriction process which must be the number one priority for all of us.

FSA Response

The FSA's main priority is consumer safety. A phased removal of controls to allow further monitoring is considered unnecessary from a consumer safety perspective because the FSA's assessment demonstrates that consumer risks are very low across the currently restricted area. The assessment has a high degree of confidence, as it was designed to be conservative, to account for any uncertainty. Furthermore, the monitoring of every restricted sheep prior to sale or slaughter for the past 25 years, has given us a thorough understanding of the levels of radiocaesium in sheep entering the food chain.

Respondent	Comment

Farmers' Union of	The Union notes the format of the present consultation and the associated questions which require respondents to produce
Wales	evidence to validate, support or amend the FSA Impact Assessments as provided. In order to more fully ascertain the effects
	of the outlined proposals, the FUW would have preferred to see a consultation appropriate for the collection of information from
	affected farmers.

FSA Response

This comment has been noted.

Respondent	Comment
J Davies, Conwy *	Mae'r system "monitro" sydd wedi bodoli tros y 25 mlynedd diwetha, ar y cyfan, wedi gweithio'n hwylus gan sicrhau nad oes unhryw beryg mewn bwyta cig defaid neu wyn sy'n mynd i'r gadwyn fwyd. Rydym fel ffermwyr wedi addasu ein gweithgareddau ar gyfer y gwaith ychwanegol yma er mwyn cadw a chodi hyder y cyhoedd yng nghig oen Cymru, hyn i gyd am iawn-dal isel iawn o £1.30 y pen.
	The monitoring system in place for the last 25 years, on the whole, has worked well, ensuring that no unsafe sheep or lamb meat enters the food chain. As farmers, we have changed our practices in order to suit the additional work in order to maintain and raise consumer confidence in Welsh lamb, all of this for a very low compensation rate of £1.30 per head.

FSA Response

This comment has been noted.

Respondent	Comment
The National Sheep Association	If there are any uncertainties over maintaining public confidence in lamb produced in affected areas then the NSA understands from previous communications with FSA that the option of moving sheep to 'clean' grazing for a period prior to marketing would be considered. We would like this option to remain if food safety cannot be guaranteed although we are aware that this is not an option that would suit all farmers. Clean grazing is consistent with current farming practices, as many farmers already fatten sheep on improved and clean pasture. This option is considered a good half-way house between the current mark and release controls and the removal of all restrictions. It would optimise protection and could be backed up with reassurance monitoring. We consider this to be good from a consumer confidence perspective, as it demonstrates a progression towards normality through a practice that would maintain consumer confidence. A further benefit is that monitoring would only be needed on a reassurance basis. However clean grazing is not an option for all farmers as some do not have access to improved and clean
	pastures. In these instances, alternative arrangements may need to be considered, including maintaining existing controls if necessary.

FSA Response

If sheep are grazed on improved or partially improved pasture, the level of contamination rapidly decreases and this could be used to reduce the contamination levels in the sheep, and hence the dose to consumers. Farmers who have access to improved pasture are likely to use this for grazing their sheep prior to slaughter in any case as they benefit from increased weight and therefore value of their sheep when sold. However, the assessment demonstrates that the risk to consumers is in any case very low, even before any clean grazing period. In many cases, the levels are below that which can be reasonably measured using the live monitoring technique.

Considering that the assessed dose to consumers is in any case very low, it is inappropriate to impose changes to the farming practices to those farms without suitable improved pasture where it can only have a marginal effect on reducing what is already a very low risk.

Respondent	Comment
	If there is such a low risk, why were the scanning teams required to do three readings on every lamb/ewe they scanned for us?
Wales	

FSA Response

This is a question about the *Mark and Release* monitoring. The number of readings is not the important issue here; rather it is the total length of time that a sheep is monitored, which is important.

It is precisely because the levels of radiocaesium in the sheep are so low, that we have to ensure we take readings over a sufficient length of time to get an accurate measurement. We have found a measurement time of 30 seconds gives the required degree of confidence. We could take a single 30-second reading of each sheep, but we have found that three 10-second readings (which produce the same result) are more practical. This is because sheep can have a tendency to move about and disrupt the readings if they are too long.

Respondent	Comment
Anonymous, North	Is it not [absolutely ridiculous] that these organizations feel they can lift the restrictions on these farms with no forethought for
Wales	anyone's livelihood, and how on earth can they justify stopping this with the flick of the wrist. This is way too fast, and beggars
	to think how many other failures have been recorded this year without us farmers knowing about.

FSA Response

The FSA's primary concern is to ensure food safety. However, ever since the controls were introduced they have been removed where evidence shows that they are no longer necessary. Of the 9,800 UK holdings, and more than 4 million sheep, originally placed under restriction following the accident, there are 334 farms in North Wales, and 8 in Cumbria under some form of restriction. All *Mark and Release* controls were lifted in Northern Ireland in 2000 and in Scotland in 2010.

ACTIONS TO BE IMPLEMENTED:

- No substantive changes to be made to the preferred policy option, which will be presented to the FSA Board on 20 March 2012 for its decision.
- The FSA will aim to work with the farming unions and meat industry on a joint platform and provide information and comment in their publications
 in order to provide context to explain the very low risk.

List of Respondents:

List of responders

- 1. Anonymous, North Wales
- 2. Mr P V Jones, Conwy Private individual (farmer) *
- 3. J Davies, Conwy Private individual (farmer) *
- 4. Ms J Graham, North Wales Private individual (farmer)
- 5. Health Protection Agency, Environment Assessments Department (Ms J Simmonds, Head)
- 6. National Farmers Union (NFU) in the North West (England)
- 7. Antoinette Sandbach AM, Assembly Member for North Wales, Shadow Minister for Rural Affairs
- 8. Hybu Cig Cymru Meat Promotion Wales (Gwyn Howells, Chief Executive)
- 9. The National Sheep Association (Phil Stocker, Chief Executive)
- 10. National Farmers Union (NFU) Cymru (Wales)
- 11. R E Roberts, Gwynedd Private individual (farmer) *
- 12. Farmers' Union of Wales (Dr Hazel Wright, Senior Policy Officer)
- 13. British Meat Processors Association (Fiona Steiger, Advisor Food and Environment)
- 14. Cumbria County Council (Peter Allan, Nuclear Issues Officer)
- 15. Dr Brenda J Howard MBE, Centre for Ecology and Hydrology

^{*} Where responses were received in Welsh (as marked by an asterisk), the comments have been published in Welsh with a translation into English for the purpose of this summary.