

Equine DNA & Mislabelling of Processed Beef Investigation

Report March 2013

**Department of Agriculture, Food and
the Marine**

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Contents

Statement to the Dáil by Minister for Agriculture, Food and the Marine, Simon Coveney TD.....	3
1. Introduction to the beef sector	8
2. Background to the Investigation.....	9
3. Main strands of the investigation	13
3.1 Silvercrest.....	13
3.2 Meat Traders.....	15
3.3 Rangeland Meats	17
3.4 QK Meats.....	18
3.5 Dawn Fresh Foods.....	20
3.6 B&F Meats, Carrick-on-Suir.....	20
3.7 Liffey Meats.....	21
3.8 Greencore/ABP	22
4. DNA testing of meat products	24
5. Length of the Supply Chain	25
6. Market and Consumer Response.....	27
7. Horse Identification	30
7.1 Horse Traceability	30
7.2 Ossory Meats	31
8. Actions taken during and as a result of the Department's investigation	33
8.1 Irish actions	33
8.2 EU actions	33
9. Conclusions and Recommendations	35

Statement to the Dáil by Minister for Agriculture, Food and the Marine, Simon Coveney TD

Two months ago to the day (on 14 January) my Department was first informed by the Food Safety Authority of Ireland of its finding of 29% equine DNA in a single beef burger sold in Tesco and manufactured by the Silvercrest plant in Co Monaghan. This findings in the Food Safety Authority of Ireland (FSAI) meat authenticity survey resulted in the immediate launching of an official investigation.

This investigation, initially involving the FSAI and my Departments veterinary inspectorate and audit team, was broadened to include the Department's special investigation unit and the Garda National Bureau of Criminal Investigations.

On 5th February I appeared before the Joint Committee on Agriculture, Food and the Marine. I gave a detailed statement to that Committee and both Professor Alan Reilly of the FSAI and I answered many questions on these matters. The controversy has moved on considerably since that date and meat products have been withdrawn in many countries.

The disclosure in Ireland of adulteration of beef products with equine DNA has prompted other authorities to examine this issue. It transpired that what had been uncovered was a pan- European problem of fraudulent mislabelling of certain beef products. Almost all Member States have been affected by the problem. Indeed it has been uncovered outside of the European Union. It became a global problem affecting some large global companies and international food brands.

Today I am publishing a report on the official investigation and related matters. It will, I think, demonstrate both the complexity of the problem uncovered and the thoroughness with which it was approached.

I propose to refer to three main areas.

But before I do so I want to state clearly that consumer confidence and trust is the most vital component of our policy relating to the broad food industry.

Without consumer confidence and trust there is no future for any of the participants in the food supply chain whether they are retailers, processors, traders or primary

producers. There is a clear onus on all the participants to ensure that safe and quality food products are placed on the market.

Ireland's reputation as a food producing country rests on all participants fulfilling this responsibility. Any potential risk to that reputation, albeit in a relatively small segment of the food sector, was the basis for the immediate launching of the official investigation and for the actions I have taken in the course of the investigation.

The Investigation Outcome

I wish to highlight a number of points.

The equine DNA found in consignments of frozen beef products was labelled to be of Polish origin. The investigation has not found any evidence of adulteration with horsemeat of these consignments in Ireland but in this regard, following our enquiries, there are clear concerns about the activities of traders/intermediaries operating outside the State. Information uncovered in the investigation has been passed to the appropriate authorities and Europol.

That is not to suggest that intermediaries in the supply chain were the sole cause of the problem. The investigation has also shown direct trade with Poland. In the case of one Polish company, whose product was found positive for equine DNA, the Polish company arranged to collect the consignment and reimburse the Irish operator (QK Meats).

Details of the investigation outcome in respect of the main companies involved are provided in the report.

The investigation concludes that in the case of Silvercrest & Rangeland Meats there was no evidence that they deliberately purchased or used horsemeat in their production processes or that these companies were relabeling or tampering with inward consignments.

Given the reputational issues for the Irish food industry as a whole I believe the practices by two companies of not respecting customer specifications (in case of Silvercrest) and of knowingly withholding information about problems in the supply chain (in case of QK Cold stores) are totally unacceptable. Likewise I am extremely

concerned at the failure of ABP to maintain proper oversight of Silvercrest. We have a right to expect better from the Irish food industry. The companies have let themselves down as well as risking reputational damage to the Irish food sector itself.

B&F Meats was found to be involved in mislabelling of a limited quantity of horsemeat for export to the Czech Republic. While the company claims that no fraudulent intent was involved the placing of a false label on a product and the question of instituting legal proceedings in this respect remains under consideration.

EU actions

When the problem widened to include other Member States I convened a meeting of other Ministers and the Commission in Brussels which led to the establishment of an EU wide testing programme both for equine DNA in beef products and phenylbutazone in horse carcasses. The results of these tests will be published in mid April and will form the basis for consideration of any future EU actions. It was also agreed that Europol should be involved in terms of coordinating the investigations being carried out in Member States.

Acting in my role as Chairman of the Council, I also arranged a special debate on this matter under the Irish Presidency at the Council of Agriculture and Fisheries meeting. The Council agreed that it would keep the matter under review.

Apart from the EU response, a range of additional actions have been put in place in Ireland at my instigation.

National Actions

In addition to the EU programme, the FSAI and my Department met with representatives from the meat processing, retailing and catering sectors and agreed a protocol for DNA testing of beef products to check for adulteration with horse meat. The following categories of food are being tested – pre-packaged beef products on sale to the final consumer or to mass caterers, beef products offered for sale without pre-packaging to consumers or to mass caterers and meat ingredients used in processed beef products. It was agreed that the results would be made public. The first set of results was published in early March. Most of the 957 tests were negative except for products already identified as positive.

In addition to the EU-wide control programme for residues of phenylbutazone, my Department introduced a positive release programme for horses destined for the food chain. This programme will run for an initial period of one month and the results, once published, will be assessed to inform future policy.

Issues Identified and Future Actions

Although the Department will continue its involvement with investigations being carried out in other Member States and pursue any issues arising, the report draws a series of conclusions and identifies possible further actions.

Firstly it is clear that the focus of controls which heretofore was on food safety will henceforth have to encompass checks on food authenticity. The FSAI DNA testing protocol already in place in Ireland addresses this requirement. It is right that the Irish industry should lead the way in this respect but I will pursue this issue in Brussels to ensure a level playing field in respect of controls applying to EU food production.

I will also pursue the issue of requiring irregularities in relation to food authenticity to be reported.

The episode has revealed the extent and complexity of the involvement of traders and agents in the food supply chain. With the legal power already in place I have decided that all such intermediaries operating in Ireland will be registered as Food Business Operators.

A number of changes are warranted in relation to EU labelling regulations, such as provisions covering intermediate labels and reporting of mislabelling incidences, as well as practical steps on the use of security features and more detail on commercial documentation. These will be pursued at EU level as appropriate.

Finally, I want to refer to the related but separate issue of horse identification and traceability.

I should firstly express my concern at the incident which occurred only last Friday in Ossory Meats, a horse abattoir. This incident is detailed in the report. I had previously decided that, in the context of the measures we are taking to improve horse controls that my Department should take responsibility for the supervision of this and another horse abattoir under the control heretofore of local authorities. What

gave rise to the incident at Ossory Meats and the subsequent suspension of the plant is totally unacceptable but will be pursued with full vigour.

In general, while the investigation did not uncover any illegal introduction of horsemeat into the food chain in Ireland, we have accelerated our review of procedures relation to horse identification and controls. We believe there is need for significant changes here to move horse traceability to the same level as cattle identification, where systems were developed in response to BSE in the mid 1990's. These changes are dealt with in the report and will be pursued by my Department.

In conclusion and in relation to this entire problem, I believe the fact the official control system in Ireland uncovered what is a global problem of serious mislabelling of beef problem and the manner in which we have addressed the issue shows Ireland to be at the forefront of control regimes. In time and when the issue is fully addressed at EU level it will stand to us in continuing to build the reputation of Irish food products.

1. Introduction to the beef sector

1.1 The beef sector is among Ireland's largest indigenous industries, representing almost 30% of output value in the agri-food sector, with almost 100,000 farm families, including almost 60,000 specialist beef producers providing raw material for a processing industry employing some 8,000 people.

1.2 The economic footprint of the sector in Ireland is significantly higher than for many manufacturing sectors, because of the large number of indigenous suppliers and its regional spread.

1.3 Ireland is the largest net exporter of beef in the Northern Hemisphere. The industry produced 495,000 tonnes in 2012, at a value of €1.9 billion, with some 453,000 tonnes of that output exported. The sector has transformed its market focus in recent years, with more than 90% of exports going to high value EU markets.

1.4 Irish beef is currently listed with over 60 blue chip retailers and Food Service Operators across the EU and has an excellent reputation for quality. This reputation has been built on the natural grass-based production attributes of Irish beef and by investment by the sector and Government in farm infrastructure, food safety control systems, traceability systems and market promotion measures. Critical to the success of the Beef and the wider Agri food industry in general is the maintenance of consumer confidence and trust.

1.5 The adulteration of beef products, which is the subject of this report, occurred in "manufacturing beef product" which is beef used for further processing. Exports of frozen and manufactured beef products from Ireland, principally burgers and minced meat preparations processed in Ireland, amounted to some 50,000 tonnes valued at €200 million in 2012 or about 11% of the overall beef trade. This beef tends to be traded on the basis of the proportion of visible lean meat (VL) in the beef, ranging from 75VL to 95VL with the leaner meat worth more.

2. Background to the Investigation

2.1 The presence of equine DNA in beef burgers was uncovered as a result of an investigation by the Food Safety Authority (FSAI) under its food fraud programme. The FSAI detected the problem by the use of advanced DNA testing methods which had not been previously routinely deployed or indeed required under food regulations.

2.2 The FSAI commenced a survey in late 2012 on the authenticity of certain meat products. The survey entailed sampling at retail level and laboratory tests of meat products using DNA-based analytical techniques to differentiate between animal species.

2.3 The results of the laboratory tests were received by the FSAI on the 11th of January and provided to DAFM on 14th January 2013. The results generally showed trace or minute amounts of porcine or equine DNA with one exception. This showed a high level finding of 29% equine DNA in a beef burger sold in Tesco and produced by the Silvercrest plant in Co Monaghan.

2.4 While the FSAI concluded that there was no food safety issue involved, the disclosure of the high level equine DNA finding in particular prompted the immediate instigation of a joint official investigation by DAFM and the FSAI to find the cause of the adulteration in the beef burger concerned.

2.5 This official investigation was adjudged necessary, not to remove the responsibility from the food business operator (FBO) concerned to explain and address the problem uncovered, but because of concern about the significance of the mislabelling involved where consumers were being misled. Clearly answers were needed to address the impact on consumer confidence and the possible risk to the broader reputation of Irish food production.

2.6 Significant official resources were deployed on the investigation from the 15 January when DAFM officials first visited the Silvercrest plant to take further samples

prior to the publication later that evening of the FSAI survey results. The objective of the initial investigation into the finding of this high level equine DNA in one burger was firstly to determine if this was a once-off occurrence or whether it reflected a more systemic problem and secondly to identify the source of the high level equine DNA finding. The investigation involved three main components:

- The taking of samples of burgers and raw materials used in their production
- Analysis of the raw material used in burger production batches, which test results showed positive for equine DNA.
- A detailed audit of associated company records and supporting documentation

2.7 The complexity of this task can best be demonstrated by the fact that multiple ingredients from some 40 suppliers (many supplying a variety of raw ingredient products) were used in production batches and the mixture of ingredients could vary in every half hour production batch.

2.8 The actual sampling protocols, laboratory capacity constraints, the time required to undertake the analysis and the need to seek confirmatory quantitative laboratory results necessarily extended the time needed for the investigation. The sampling process itself involved drilling into large frozen blocks of meat multiple times in a systematic way whilst ensuring the avoidance of cross contamination to acquire the necessary sample quantity. All of this process had to be undertaken carefully because of the need to have certainty about the overall findings of the investigation.

2.9 Test results received by the Department on 25th and 26th January led to a major breakthrough in establishing the source of equine DNA in beef burgers. These indicated significant positives for equine DNA in frozen beef trimmings labelled as originating from an EU approved plant in another Member State (Poland) which had been used as raw material for the production of burgers at Silvercrest Foods. The investigation established a direct correlation between burgers in which a high level of equine DNA was detected and this raw material product. The authorities in Poland were notified of these findings on 26 January prior to a public announcement.

2.10 These findings firmly pointed to the conclusion that the raw material in question was the source of equine DNA in the burgers manufactured at Silvercrest. Multiple results on samples taken from Irish food ingredients were negative and demonstrated that the integrity of Irish produced ingredients remained intact.

2.11 While the investigations at Silvercrest were ongoing, the Department also conducted checks on any other possible imports of Polish labelled product of the type identified as containing equine DNA. On a precautionary basis, the Department conducted forward tracing exercises on horsemeat produced in approved horse slaughtering plants in Ireland.

2.12 In this context over the course of the next four weeks, in addition to Silvercrest, the official investigation extended to a number of other meat plants including Rangeland Meats, QK Meats, B&F Meats and to a lesser extent Liffey Meats, ABP Nenagh and Dawn Fresh Foods. The following sections of the report describe in the case of each plant the circumstances as to why it was necessary and provides details of each investigation before drawing conclusions on each. The report also makes general recommendations for future actions.

2.13 Arising from a high level equine DNA finding in Rangeland and the emerging complexity of the supply chain involved in both Rangeland and Silvercrest the Department's Special Investigation Unit (SIU), operating in conjunction with the Gardai, were deployed in the investigation alongside the veterinary inspectorate and audit teams.

2.14 As the investigation continued in Ireland, tests carried out in other Member States, in the first instance in the UK, revealed that the adulteration of beef products was not exclusively a problem affecting production in Ireland. Nearly all Member States have been affected to some extent by the mislabelling of meat products. It is generally accepted that the equine DNA contamination disclosed by official tests in Ireland has in fact uncovered a widespread pan-European and perhaps global problem.

2.15 Europol has also become involved as an EU wide coordinating body for the EU investigation. The SIU through the Gardaí has passed all Irish information to Europol.

2.16 In the investigation, as well as the contacts with the Polish authorities, particularly strong links were established with the FSA in both the UK and in Northern Ireland. Direct contacts have also been established with authorities in the Netherlands and Spain.

2.17 Against this background the Minister for Agriculture, Food and the Marine, in his role as President of the Agriculture Council, took an early initiative of convening a meeting of European Agriculture Ministers directly affected and the Commission on 13 February. This led to a prompt Commission initiative to introduce an EU wide DNA testing programme for processed beef products as well as an EU programme for phenylbutazone (“bute”) testing of horse carcasses. The outcome of this time-limited programme will form the basis for consideration of further EU actions.

3. Main strands of the investigation

The next section details the investigations and findings from each of the main companies subject to the investigation.

3.1 Silvercrest

3.1.1 As referred to earlier in the report, the Silvercrest investigation initially focused on the individual ingredients used in the manufacture of the affected batch. The company asserted its view that the high level finding represented an outlier, as all other positives were at trace level. An explanation of this, from their perspective was that a fault in the sampling or testing process could have been responsible for this high level finding.

3.1.2 When it was established on 18 January that the problem was systemic in nature, the company voluntarily ceased production. The investigation broadened out into a variety of different strands. These included quantitative analysis of a range of burger samples and raw material ingredients as well as detailed analysis of records held by the company relating to the sourcing of ingredients and their incorporation into the burgers that tested positive. The purpose of this was to examine systematically and test the ingredients commonly present in the burgers.

3.1.3 Finding common ingredients in affected burger batches is a difficult and onerous process because of the changes that can take place every half hour in production batches. Careful analysis was required to find the common ingredients present in each of the production batches that showed a presence of equine DNA in the finished product.

3.1.4 As the manufacturing of frozen burgers is itself a process that utilises frozen ingredients, the sampling for test purposes is a painstaking and difficult exercise. This must be carried out in accordance with precise protocols in order to prevent cross contamination and to preserve the integrity of the samples for testing purposes.

3.1.5 Over 140 samples of burgers and ingredients were taken and all testing, including confirmatory tests, was carried out both in an Irish laboratory and in a German laboratory. Capacity in laboratories was a constant constraint on the process of finalising test results. Indeed the level of DNA testing performed in the laboratories utilised for this purpose was unprecedented and delayed the detection of the adulterated ingredient.

3.1.6 On 26 January, some 10 days following the commencement of the investigation, tests showed positive results of equine DNA at significant levels in an imported product labelled as frozen beef trimmings from an EU approved plant in Poland, a product that was a common ingredient in a range of frozen burgers that tested positive. These and subsequent results showed equine DNA in the Polish labelled ingredient ranging from 4.1% to 37.8%. All Irish sourced raw material ingredients tested negative.

3.1.7 These results clearly established that the imported raw material in question was the source of the equine DNA in the Silvercrest manufactured burgers. The Polish authorities were immediately notified of these findings.

3.1.8 Polish veterinary officials visited Ireland from 12th to 15th February while the Irish Chief Veterinary Officer held a high level meeting in Poland during the same week with a view to combining expertise and sharing information aimed at identifying channels through which these products reached Ireland. These contacts took place following a constructive meeting the Minister arranged with his Polish counterpart in Brussels on 7th February.

3.1.9 A number of possible channels through which the Polish labelled ingredients were delivered to Silvercrest have been identified. These included channels through traders in the UK and in Ireland (the names of which are not being disclosed while investigations are continuing in other jurisdictions).

3.1.10 The conclusions of the official investigation has not shown any evidence that Silvercrest deliberately purchased or used horsemeat in their production process or that relabeling or tampering of inward consignments took place. It has not yet been established where the inclusion of horsemeat in the implicated consignments occurred.

3.1.11 It is clear that the supply chain involved traders and agents. In attempting to definitively identify the location where the mislabelling occurred there is continuing close cooperation with the Polish authorities, the UK authorities and Europol. This will focus on the full supply chain covering the stated place of origin of the consignments, intermediate stopping points and the means of transportation as well as investigating the money trail on these consignments. It is clear however from the investigation that Polish ingredients were supplied direct from Poland, or through a number of different traders in Ireland and other Member States.

3.1.12 However, while the investigation has concluded there is no evidence that Silvercrest knowingly purchased horsemeat the company itself has admitted that it had used non-approved suppliers in breach of specifications laid down by some of its major customers.

3.1.13 While this is not a food safety or indeed a food quality issue, the failure of management in this regard and the inherent disrespect for customer requirements has led to very serious consequences not just for the company concerned but has also put at risk the reputation of the entire agri-food sector in Ireland. Silvercrest is owned by Ireland's largest beef processor, ABP. It is a real concern that management oversight and corporate governance structures were not in place to prevent the failures detected in this investigation in Silvercrest

3.1.14 Food business operators have a responsibility not alone to place only safe food on the market but to ensure the quality and authenticity of the products it is selling. Silvercrest did not fulfil the latter expectation and deliberately failed to respect its customer expectations and agreed supply contracts.

3.1.15 Having regard to the priority given by the food industry, and supported by Government, in building its reputation for supplying quality products to meet consumer expectations, this failure is inexcusable.

3.2 Meat Traders

3.2.1 It has become clear during the course of the investigation that the food supply chain for processed meat products may involve direct sourcing from an approved plant or buying from traders as intermediaries in the transaction.

3.2.2 The involvement of traders has been highlighted in so far as they are effectively part of the food chain, but in some instances do not appear to be fulfilling the obligations of food business operators.

3.2.3 McAdam Food Products has been mentioned in respect of a number of transactions under investigation. The owner has been interviewed on a number of occasions during the course of this investigation.

3.2.4. It was discovered that a consignment supplied by an Irish trader (McAdam Food Products) to Rangeland Meats and rejected by them was sent to a cold store/meat plant in Northern Ireland because the frozen block size did not fit their handling system. This was subsequently detained by FSA UK. This was sourced by him from a UK trader, labelled as of Polish origin. When the consignment was examined in recent weeks by the FSA UK, it was discovered to contain Polish and Irish horsemeat.

3.2.5 We have further information in relation to another rejected consignment by Rangeland, sourced by McAdam Food Products from another UK trader. It is understood that this consignment was collected on behalf of the UK trader, and was destined for the Netherlands. This UK trader appears to have an established relationship with another UK Food Business Operator (FBO), which is a potential location for the holding or loading or transshipment of processed meat product in the UK. This information has been provided by my Department to the UK and Dutch authorities, who are actively following up on this information.

3.2.6 The SIU has completed their investigation into McAdam Food Products. Whilst it is evident that McAdam Food Products supplied adulterated processed meat products to Rangeland, there is no evidence that this company knowingly traded processed meat product that was subsequently found to have tested positive for equine DNA.

3.2.7 The overall investigation by the SIU has revealed practices involving traders that fall far short of safeguarding the integrity of the supply chain for processed meat products, and in some cases point to deliberate and wilful mislabelling of processed

meat product leading to a fraud on the consumer. There are ongoing investigations in other jurisdictions that may warrant prosecutions involving traders.

3.2.8 This is a matter of considerable concern for my Department, and the registration of all traders and agents will be vigorously pursued, with a prohibition on non-registered personnel from playing any part in the food supply chain.

3.3 Rangeland Meats

3.3.1 On 31 January, Rangeland Foods notified the Department of the finding of equine DNA in certain consignments of Polish labelled meat ingredients. The company indicated that none of these ingredients had entered the food chain. The Department extended the investigation to encompass that plant and took samples of the material concerned on Friday 1 February to test for the presence of equine DNA. The company voluntarily suspended production. Results of these tests showed 75% equine DNA in product labelled as frozen beef trimmings of Polish origin.

3.3.2 In this case the raw material, involving three consignments, was imported through a trader based in Ireland (McAdam Food Products). This company operates as a trader and has sourced beef supplies for both Silvercrest and Rangeland. The investigation established that the company sourced Polish labelled product from a UK based trader.

3.3.3 These trading relationships were notified to the UK and Dutch authorities for further investigations in those jurisdictions.

3.3.4 The company carried out a deep cleansing operation on its plant and, having assured its customers of its intention in future only to source Irish raw material, Rangeland resumed production on 8th February. Since then the company has withdrawn products that tested positive for equine DNA in the UK and elsewhere. These products were manufactured using earlier batches of Polish labelled raw material ingredients, some months before there had been any focus on equine DNA and in effect, and given what has been established in the past number of weeks, these developments were not surprising. Rangeland has tested product returned from its customers and all samples tested were found to be negative for equine DNA

3.3.5 The investigation has concluded that Rangeland did not knowingly purchase or use horsemeat in its production process or that it was relabeling or tampering with inward consignments. It has not yet been established where the inclusion of horsemeat in the implicated consignments occurred but the investigation concluded that this did not occur within the State. It is clear that the supply chain involved traders. In attempting to definitively identify the location where the mislabelling occurred there is continuing close cooperation with the Polish authorities, the UK authorities and Europol.

3.4 QK Meats

3.4.1 As part of the investigation, the Department conducted further enquiries to establish whether Polish labelled product of the type implicated at Silvercrest and Rangeland had been used in other meat processing plants in Ireland. This led to QK Meats informing the Department on 5th February 2013 that it had imported consignments of Polish labelled beef trimmings and some of these tested positive for equine DNA.

3.4.2 Products had been sourced from some 19 different Polish suppliers over a sustained period and these stocks were stored in QK Cold Stores, Naas. QK Meats subsequently admitted that, based on its own risk assessment, it had tested 15 consignments from 9 of its 19 different Polish suppliers. Seven of these tests had shown to be, on a qualitative basis, positive for equine DNA. The first such positive test result was on 27th June 2012 and the company then contacted the Polish supplier whose representative visited the plant and arranged to take back the consignment.

3.4.3 Further positive tests results on other consignments of Polish labelled product were obtained by the company in October, November, December 2012 and January 2013. Some of these consignments were returned to the suppliers but the Department placed a detention order on those remaining in the plant for the purposes of the investigation.

3.4.4 QK Meats claimed that none of the equine positive raw material entered the food chain. However the company admitted that it continued to source raw material

from Poland while being aware of the suspect nature of raw material from the supply chain it had been sourcing from. During the investigation, the Department established that the company was purchasing this raw material from Poland at €400 per tonne less than the price of corresponding beef trimmings available here. It is clear that in a country that is a net exporter of beef products, this competitive pricing aspect of the trade is the primary motivator in utilising imported ingredients in the manufacturing process.

3.4.5 The company having tested and found positives results for equine DNA in some of the raw material of Polish origin, failed to test other such ingredient products and some of these products have entered the food chain. Information provided by the company indicated that the Polish labelled raw materials were used at an incorporation rate of between 10 and 40% in the manufacture of frozen minced meat preparations for a range of customers in six countries as well as being supplied to Dawn Fresh Foods, Fethard. The Department advised the company to contact its customers to alert them of these facts.

3.4.6 Other than suggesting that there were 'mumblings' in the trade about suspect Polish raw material, QK Meats did not explain fully why it was testing for equine DNA since last June or why, having found equine DNA in some products did not test all such products.

3.4.7 While these findings are extremely disturbing, QK Meats, knowing that the State was involved in a full public investigation into the source of equine contamination during the latter part of January, failed to inform the Department of its earlier findings following positive DNA test results. These facts would have informed the official investigation in a significant way and, most likely would have led to earlier conclusions on the source of equine DNA. Failure on their part to act at a much earlier time was inexcusable

3.4.8 This failure on the part of QK Meats senior management showed scant regard for the public good and was a serious failure of judgement on its part in not revealing to the official authorities, information that could have shortened the initial phase of the investigation in identifying the likely source of the equine DNA. The plant remains under investigation.

3.4.9 While the investigation progressed in QK Meats, frozen food company Birds Eye named the company as the source of horse meat contamination in three of its products. In a statement released on 5th March, Birds Eye said its investigations established that this was the single isolated source. QK Meats was suspended as a supplier of meat to the company. This information was not a surprise and simply confirmed that ingredient supplies from QK Meats already despatched before the Department's detention order was imposed on stocks in storage continued to be at risk of emerging in finished products for a period after the detention order.

3.4.10 The finding by Birds Eye reaffirmed the prudence of the Department's decision to detain these products until such time as the company presents fresh proposals that will be acceptable to the Department that ensures that these products do not come back onto the market again.

3.5 Dawn Fresh Foods

3.5.1 Another case of equine DNA traced back to Ireland was reported on 15 February in the UK involving Oak Farm Foods, the UK trading arm of Dawn Fresh Foods based in Fethard Co Tipperary. The product, Oak Farm Cottage Pie, was supplied to 47 schools and a full product range recall was organised in the UK on 8th March 2013.

3.5.2 Department inspectors visited the plant in Fethard and carried out an extensive investigation. The investigation found that the minced beef ingredients for the cottage pie was supplied to Dawn Fresh Foods from QK Meats and some of the raw material used to manufacture this minced beef was from the same Polish origin supply chain and was delivered to QK Meats in January 2012. Given these findings, the Department is satisfied that Dawn Fresh Foods is not of significance in this investigation.

3.6 B&F Meats, Carrick-on-Suir

3.6.1 As part of the wider investigation, a forward tracing exercise on horsemeat produced in approved horse slaughter plants in Ireland was carried out and confirmed that the vast bulk of horse meat produced was being exported.

3.6.2 In this context, on 22nd February the Department discovered that B&F Meats (Carrick on Suir), a small scale plant approved to debone beef and horsemeat, was despatching some horsemeat to a single customer in the Czech Republic via a UK based trader using a label in the Czech language which when translated refers to beef.

3.6.3 The Department immediately suspended all operations at the plant, served a Legal Notice on the company and the plant was included in the wider SIU and Garda investigation. The investigation undertaken at the plant concluded that the company was complicit in mislabelling a product that was 100% horsemeat while placing a label on the product in the Czech language that referred to beef. The company for their part claim that there was no fraud because the company was supplying horsemeat to a customer which had ordered horsemeat and was receiving payment for horsemeat. While the meat in question carried a description for beef, both the trader and the eventual customer were fully aware, and had requested the use of the particular improper label.

3.6.4 B&F deliberately put a false label on the product and it is the view of the Department that this was clearly part of an attempt by them or someone else to mislead a customer further down the food chain and as such was a wilful act. Having regard to the EU labelling regulations the question of instituting legal proceedings for the use of misleading labels remains under active consideration.

3.6.5 Details of these findings were provided to the UK and Czech authorities. Following the plant's compliance with the Legal Notice, it was in a position to resume deboning on 28 February.

3.7 Liffey Meats

3.7.1 In parallel with the initial investigation at Silvercrest, the Department also commenced an investigation into the manufacture of beef burgers at Liffey Meats where the FSAI survey had found trace level equine DNA in three of the company's burger samples. It was clear that these levels were not of major significance or on the same level as was the case with Silvercrest.

3.7.2 The company itself indicated that it had identified the source of the trace level contamination as imported ingredients. This was consistent with trace level results found by the FSAI and the Department in such imported ingredients. On 21st January, following testing of beef burgers sampled by the Department from product manufactured by Liffey Meats in the period 10th to 16th January 2013, results showed there was no presence of equine DNA in the burgers. As a result, the Department concluded that there was no need for further investigation at the plant.

3.8 Greencore/ABP

3.8.1 The Department was made aware that a Spaghetti Bolognese product manufactured by Greencore in the UK was withdrawn by ASDA UK following a finding that it had contained equine DNA. Greencore indicated that the minced meat ingredient was supplied by ABP Nenagh.

3.8.2 The Department carried out a full check of operations at ABP Nenagh including a detailed examination of the records and documentation held by the plant. Arising from these measures the investigation concluded that the beef in the mince meat sold was solely of Irish origin and that no evidence was found that pointed to equine contamination originating in the plant.

3.8.3 Greencore subsequently indicated that multiple further testing of the same batch of product at two different independent accredited laboratories all produced negative results for equine DNA in the product concerned. In addition, Greencore's own investigation of the incident, including their audit of the ABP plant in Nenagh, found no evidence of contamination in the supply chain.

3.8.4 ASDA has also said in a statement that their initial concerns no longer apply.

3.8.5 The Department is satisfied that no further investigation is warranted in this case in respect of ABP Nenagh.

4. DNA testing of meat products

4.1 DNA is the basic building block of all living organisms which encodes the information that dictates the characteristic features of most life forms. In the food industry DNA testing is an extremely sensitive technique employed by scientists to assist in the identification of food ingredients of animal, plant or microbial origin. Extensive knowledge about the entire sequences of DNA from many organisms are now available and this knowledge allows us to identify the source of particular DNA.

4.2 For instance it is possible to distinguish between the source of meat in foods that originates from different animals using DNA testing. DNA-based analytical techniques allow the agri-food sector to trace the origin of meat products from the animal of origin to the point of sale. Accurate and reliable traceability based on DNA analysis allows food business operators to authenticate and validate meat ingredients in food products.

4.3 While compliance with existing food safety and food hygiene requirements was not an issue in relation to the mislabelling of meat products uncovered by the FSAI survey it is clear that the focus of controls henceforth will need to be extended to include food authenticity. A number of steps have been taken in that regard.

4.4 At the height of the controversy surrounding equine adulteration of meat based products, the Minister, as Chairman of the Council of Agriculture and Fisheries Ministers convened an informal meeting in Brussels on 13th February of the Commission and Ministers of Member States directly affected by the problem at that time. At that meeting the Commission proposed an EU wide programme of DNA testing of meat products to be undertaken in all Member States and a further programme of testing of horsemeat residues in slaughterhouses. This programme was quickly agreed by all Member States two days later and fully endorsed by the Council of Ministers on 25th March.

4.5 The testing programme subsequently commenced on 1 March and will last initially until the end of March. A threshold of 1% has been established below which results are considered to be negative for equine DNA. The results of this phase of

testing will be published by the EU Commission in mid April and testing may continue for another two months thereafter. The results of these tests will provide an evidence base for the consideration of future actions at EU level.

4.6 In the meantime the FSAI, in conjunction with the Department, has agreed a national protocol with the meat processing, retail and catering trade for DNA testing of beef products in Ireland. Under this protocol, by the beginning of March some 957 tests have already been undertaken, with 928 samples found to be negative and 29 samples representing 7 products found to be positive for horse DNA. All the positive results had been published previously and these products were withdrawn from the market.

5. Length of the Supply Chain

5.1 It is clear that within the EU Single Market there are complex supply chains which facilitate trade and access to markets and, subject to compliance with food safety and traceability requirements, provide consumers with a range of products at competitive prices. However it is important that the drive for increased competitiveness is not to the detriment of the safety, quality and authenticity of food products rightly expected by consumers.

5.2 In this regard there is a clear onus on all participants in the food chain whether they are retailers, traders, processors or primary producers to ensure that safe and quality products are placed on the market. Without consumer confidence and trust all of the supply chain will be undermined. The adulteration of beef products with equine DNA allows a number of preliminary conclusions to be raised in respect of the controls on the supply chain:

- Official controls should extend beyond checks on FBO's food safety management and labelling systems to encompass controls on FBO's DNA checks on authenticity. The FSAI DNA testing protocol already put in place in Ireland addresses this point and the Minister will pursue the question of extension of an EU wide DNA testing programme to ensure a level playing field in respect of controls applying to EU food production.

- The investigation has revealed the extent of the involvement of meat traders/agents in the supply chain for processed meat products. There is a need for increased transparency in this area of the supply chain. The Minister has accordingly decided that all meat traders operating in Ireland should be registered by his Department as Food Business Operators. This needs to happen on an EU wide basis also.
- While movement of products and trade within the Single Market is facilitated by the use of commercial documents accompanying consignments, consideration needs to be given to the level of detail and consistency of such documents to facilitate better traceability.
- The labelling of beef products should incorporate security features to prevent such labels being tampered with or replaced with fraudulent labels.
- The use of multiple ingredients in differing batches of manufactured food gives rise to a complex traceability challenge particularly where there is a need to identify specific ingredients as in this case. Consideration must be given to the level of internal traceability necessary within food businesses and the accessibility to such traceability records when needed.
- EU Labelling regulations should be reviewed with a view to introducing provisions in relation to intermediate labelling which would place an onus of responsibility on ingredient suppliers to ensure the accuracy of product labelling placed in intermediate markets.
- Regulations on labelling and mislabelling need to be strengthened, particularly in order to place an onus on a company to inform the relevant national authorities about the results of authenticity tests that give rise to concerns.

6. Market and Consumer Response

6.1 One of the goals of the equine DNA investigation has been to ensure that consumer confidence in the Irish meat sector is restored. Bord Bia has maintained constant contact with our export markets to reassure international buyers that there are no food safety issues involved and that the issue is being dealt with swiftly and appropriately by the Irish authorities.

6.2 Initial market impact at consumer level indicated that the issue was largely confined to the UK and Ireland, where products were taken off retail shelves, media coverage was intense and consumer awareness very high. Initial research carried out in January 2013 indicated consumers were ring-fencing the issue to the processed meat sector and not extending or generalising it to the wider industry.

6.3 The processed meat sector is a relatively small segment of the Irish meat industry. Media coverage, interest and awareness has been limited to processed meats and to some extent minced meat. No concerns with regard to fresh meat have been reported to Bord Bia by trade buyers or consumers. The fact that Ireland's controls identified the particular issue and the manner in which it has been addressed is viewed as extremely positive and will assist in maintaining the confidence in Irish food.

6.4 Follow up research carried out by Bord Bia in the UK in mid February indicated that while media coverage was initially largely concentrated in Ireland and the UK, it assumed an international dimension as developments across Europe emerged with the involvement of France and the Findus products. When added to previous revelations consumers now see a fundamental issue of trust and a systemic failure rather than a failing by any one country.

6.5 This in itself does take some pressure off Brand Ireland but it also makes it harder for Ireland to take any effective remedial action because UK consumers are looking for re-assurance about *all* products entering that market. Nonetheless, UK consumers remain positive about Irish meat which many feel has a premium

reputation, but it is important to understand that there is a perceived difference between Irish meats farmed in Ireland and processed convenience products that *“happen to be made in Ireland”*. The positive attitudes and premium perception directed towards Irish meat do not necessarily extend to convenience food which is looked upon as part of an international supply chain where suppliers could be located anywhere. In this regard *“Ireland is just another country caught up in this”*.

6.6 The Irish beef industry has a blue chip portfolio of high end supermarket and foodservice business in Europe’s consumer markets that is without parallel. The industry’s success is based on robust relationships with premium customers built up over an extended period and based on a track record of high quality standards, underpinned by our green credentials.

6.7 More than 75% of all Irish beef exported is produced from some 34,000 farms which are members of the Bord Bia Quality Assurance Scheme. Similarly, under Bord Bia’s Origin Green programme, most of our meat exporters have also signed up to the implementation of a sustainability plan that commits them to the achievement of stretch targets in key areas around emissions, water, biodiversity and health and well-being. Based on these programmes Bord Bia will continue to strongly assert Ireland’s high quality standards and green credentials at every opportunity.

6.8 Ireland’s international reputation as a source of natural, high quality food, drink and ingredients depends on the commitment of producers and company’s right along the food supply chain and in turn close co-operation by industry, agencies and Government to deliver on a sustainable growth agenda.

6.9 It is clear that the urgent, transparent and effective manner in which the equine DNA issue has been addressed will help in maintaining the confidence of consumers in Irish food. The official control systems in Ireland were the first to uncover this problem. Even though retailers themselves have very sophisticated audit capabilities they failed to recognise and identify the source of adulteration despite their advantages in knowing the list of approved suppliers to the production facilities in question. The thorough manner in which the problem is being addressed shows the

Equine DNA & Mislabelling of Processed Beef Investigation

attention given to food production at official level in the country. This in turn will help underpin consumer confidence that controls in Ireland will continue to be at the forefront in protecting their interests.

7. Horse Identification

7.1 Horse Traceability

7.1.1 Although investigations have not disclosed any illegal introduction of horsemeat into the food chain in Ireland the Department has reviewed all procedures relating to horse identification and controls at abattoirs.

7.1.2 It is clear that the identification and traceability of horses is not on the same level as cattle identification, where the systems were developed and refined over many years primarily due to concerns about BSE in cattle in the mid 1990s.

7.1.3 The Department accepts that the equine identification systems are open to abuse and some significant reform is required. Work has already commenced in this regard to improve the systems relating to passports and electronic identification of horses. Certain claims have been made in the public domain about illegal movements of horses and when pursued by the Department have rarely been backed up. However the requirement to improve the current system is reinforced by the results of investigations underway in relation to Ossory Meats detailed in section 7.2.

7.1.4 A number of very specific steps have been taken in the past two years that have considerably tightened controls in this area, including the registration of premises, strengthening of powers of the Minister in relation to the approval of passport issuing organisations and the introduction of enhanced procedures for the slaughter of horses in abattoirs. In addition, the Minister has now committed to providing centralised operational coordination in respect of all equine slaughter facilities in the country to improve controls at the point of slaughter.

7.1.5 The ultimate aim is to establish a central passport issuing authority for which the Department will have direct control and under which agents will be approved to issue passports. Current EU legislation will need to be changed in order to deliver this centralised arrangement. This matter is being raised at EU level.

7.1.6 Prior to this investigation, the Minister had already decided to establish a central database of horses. The use of appropriate technology will serve to strengthen controls which heretofore have been based on paper based documents. This project involves additional investment in the Department's Animal Identification and Movement (AIM) database. The first phase involves the migration of data in respect of all horses registered by Passport Issuing Organisations as well as data collected at slaughter plants, knackeries, and mart sales and at points of export.

7.1.7 A review of the processes and procedures relating to the issue of passports is also underway and there are on-going contacts and discussions with the Passport Issuing Organisations. It is further planned, when the initial phase is in place, to extend data capture to the transfer of ownership of equines. In addition the Department and FSAI, building on the tripling of Bute testing in the past three years, has introduced a more comprehensive testing regime for horsemeat to provide full reassurance that no illegal slaughtering of horsemeat is taking place and to guide future action in this area. These initiatives are receiving priority attention.

7.2 Ossory Meats

7.2.1 Ossory Meats is an equine slaughter plant based in Banagher, Co Offaly. Until recently, the company has been subject to official controls provided by veterinary staff of Offaly County Council. As the equine mislabelling investigation progressed a separate but parallel investigation was conducted on horse slaughter plants and associated horse traceability. In addition, certain allegations continued to be made that improper practices relating to the availability and presentation of passports at point of slaughter and export were taking place.

7.2.2 Although not directly pertinent to the equine DNA findings in beef based products, the Minister decided to introduce more robust controls and these are discussed elsewhere in this report. As an immediate step, the Minister decided, with the agreement of the County Managers concerned, that his Department would take direct control over the two slaughter plants, Ossory and Ashgrove Meats in Limerick from the local authorities.

7.2.3 On Friday 8th March, the Department carried out identification checks on horses presented for slaughter at Ossory Meats. In respect of the horses presented, 25 of them had irregularities, these irregularities related to passport and microchip identifiers. In some cases, while the microchip in the equine matched the passport, the marking on the horse and the passports were very different. In other cases horses presented as yearlings were in fact much older. These animals were humanely slaughtered and destroyed. The company has since been suspended from operations.

7.2.4 As part of its ongoing work on horse traceability in association with the FSAI, the SIU broadened its investigation to determine how these irregularities occurred. This investigation has already commenced. It involves an examination to determine how and where the irregularities occurred and will focus on the respective roles played by the implicated Passport Issuing Agencies, the veterinarian(s) whose signatures appear on the irregular passports, the persons who registered the horses and to whom the passports were issued, the traders who supplied the horses for slaughter and of course the conduct and management oversight at Ossory Meats. Pending the completion of this investigation no conclusions can yet be drawn although the discovery last Friday remains deeply disturbing.

7.2.5 This incident is quite extraordinary; particularly the brazenness in attempting to have these animals slaughtered at a time when controls had been enhanced in the plant in question and also when the entire horsemeat saga was receiving such intensive public scrutiny. Where illegality is identified, the full rigours of the law will be deployed to bring those responsible to account.

8. Actions taken during and as a result of the Department's investigation

During the investigation a number of actions were taken to address consumer concerns both unilaterally within Ireland and with our EU partners.

8.1 Irish actions

- The FSAI, in conjunction with the Department, agreed a national protocol with the meat processing, retail and catering trade for DNA testing of beef products in Ireland. Under this protocol some 957 tests have already been undertaken, with 928 samples found to be negative and 29 samples representing 7 products found to be positive for horse DNA. All the positive results had been published previously and these products were withdrawn from the market.
- A decision has been taken to centralise and manage an equine identification database for Ireland within the Department of Agriculture. Work on this has already commenced.
- The Minister has decided that all meat traders operating in Ireland should now be registered by his Department as Food Business Operators.
- The Department has taken over, from Local Authorities, the supervision of the two slaughter plants licensed to slaughter horses within the State.

8.2 EU actions

8.2.1 At the height of the controversy surrounding equine adulteration of meat based products, the Minister, as Chairman of the Council of Agriculture and Fisheries Ministers convened an informal meeting in Brussels on 13th February of the Commission and Ministers of Member States directly affected by the problem at that time. At that meeting the Commission proposed an EU wide programme of DNA testing of meat products to be undertaken in all Member States and a further programme of testing of horsemeat residues in slaughterhouses. This programme

was quickly agreed by all Member States two days later and fully endorsed by the Council of Ministers on 25th March.

8.2.2 The testing programme subsequently commenced on 1 March and will last initially until the end of March. A threshold of 1% has been established below which results are considered to be negative for equine DNA. The results of this phase of testing will be published by the EU Commission in mid April and testing may continue for another two months thereafter. The results of these tests will provide an evidence base for the consideration of future actions at EU level.

9. Conclusions and Recommendations

9.1 This report demonstrates that since 15th January this year the Department and the FSAI has undertaken a comprehensive investigation into the adulteration of beef based products by equine DNA. This investigation has involved the SIU and the Garda Fraud Office and separate investigations were conducted into a large number of meat businesses in Ireland and also included enquiries that extended to other jurisdictions. These extended enquiries involved cooperation with investigations being conducted in these other jurisdictions and with EUROPOL. These contacts assisted the Department with its own investigations on the one hand and also provided invaluable assistance to other countries in the conduct of their enquiries.

9.2 As this investigation draws to a conclusion, a number of conclusions and recommendations can now be drawn.

- Firstly, FBO's, from primary production, through the various processing stages, traders and other intermediaries, right through to retail level have primary responsibility for the safety and quality of food placed on the market.
- The equine DNA contamination of certain beef products was discovered by the operation of official food controls and the use by the FSAI of advanced DNA technology.
- This disclosure and the investigation that followed resulted in the closure for varying periods of three meat plants in Ireland, one of which remains closed.
- It caused reputational damage not alone to the companies directly involved but also put at risk to a certain extent the reputation of the Irish meat processing industry. This reputational damage was however limited to the Irish and UK markets.
- Given the priority accorded by both the food industry itself and by the Government to developing the reputation of Irish food products as being of the

highest standard the practices by two companies of not respecting customer specifications (in case of Silvercrest) and of knowingly withholding information about problems in the supply chain (in case of QK Cold stores) are not acceptable.

- The processed meat industry needs to take full responsibility for all ingredients incorporated into finished products and price should not be the main determinant in sourcing these ingredients.
- There is no evidence that Silvercrest & Rangeland Meats knowingly purchased or used horse meat in the production of beef products.
- However Silvercrest itself has admitted that it had used non-approved suppliers in breach of specifications laid down by some of its major customers.
- The failure of Silvercrest/ABP management in this regard and the inherent disrespect for customer requirements has led to very serious consequences not just for the company concerned but has also put at risk the reputation of the entire agri-food sector in Ireland.
- Silvercrest is owned by Ireland's largest beef processor, ABP. It is a real concern that management oversight and corporate governance structures were not in place to prevent the failures detected in this investigation in Silvercrest.
- QK Meats, knowing that the State was involved in a full public investigation into the source of equine contamination during the latter part of January, failed to inform the Department of its earlier findings following positive DNA test results. Failure on their part to act at a much earlier time was inexcusable.
- This failure on the part of QK Meats senior management showed scant regard for the public good and was a serious failure of judgement on its part in not revealing to the official authorities, information that could have shortened the

initial phase of the investigation in identifying the likely source of the equine DNA. The plant remains under investigation.

- Equine DNA found in consignments of frozen beef products in Ireland was labelled to be of Polish origin. The investigation has not found evidence of the adulteration with horsemeat of these consignments in Ireland.
- The supply route for some of the Polish labelled products involved intermediaries and food business operators, most of whom operate outside the jurisdiction. Enquiries involving authorities in Poland, the UK and Netherlands, as well as Europol focusing on the supply route are continuing to establish where the adulteration of the products occurred.
- In some cases the investigation has revealed direct trade with Poland. In the case of one Polish Company whose product was found positive for equine DNA the company arranged to collect the consignment and to reimburse the Irish operator (QK Meats).
- In the case of B&F Meats consideration of institution of legal proceedings for possible non-compliance with labelling regulations is under active consideration.
- No issues have arisen in the investigation in respect of Liffey Meats, ABP Nenagh and Dawn Fresh Foods.
- Other parties that cannot yet be named that have links to Ireland but operate outside of the jurisdiction are being investigated.
- The findings of the Department's investigation where other countries are implicated have been referred in all cases to the Competent Authorities and to Europol. The full engagement of other Competent Authorities with Europol will assist the discovery and prosecution of the perpetrators of this fraud.
- National DNA testing regime as implemented by industry under FSAI protocol to continue to provide additional assurances to consumers.

- Consideration will be given to additional “bute” testing of horsemeat produced in Ireland following completion of month long survey at present underway.
- All traders/agents of meat operating in Ireland should be registered as Food Business Operators.
- EU Labelling regulations should be reviewed with a view to introducing provisions in relation to intermediate labelling. Furthermore a mandatory requirement should be introduced on FBO’s to notify competent authorities about incidences of mislabelling.
- EU regulations relating to the accessibility of complex internal traceability needs to be reviewed.
- EU regulation relating to the identification and traceability of horses should be reviewed.