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1 **Halal Meat Fraud and safety issues within the European Union: A review**

2 Awal Fuseini<sup>a</sup>, Steve B. Wotton<sup>a</sup>, Toby G. Knowles<sup>a</sup>, Phil J. Hadley<sup>b</sup>

3 <sup>a</sup>University of Bristol, School of Veterinary Science, Langford, Bristol, BS40 5DU,  
4 UK

5 <sup>b</sup>AHDB, Creech Castle, Bathpool, Taunton, TA1 2DX, UK

6 Correspondence: Awal Fuseini ([awalfus@yahoo.com](mailto:awalfus@yahoo.com)). 07474192392

7 University of Bristol, School of Veterinary Science, Langford, Bristol, BS40 5DU,  
8 UK

9 **Abstract**

10 Since the discovery of horsemeat in some processed beef products in early 2013, there  
11 has been increased speciation testing of products of meat origin within the EU. This  
12 led to the detection of porcine DNA and subsequently pork meat in some processed  
13 “Halal” products in the UK. This situation caused a great deal of panic and distress  
14 among the UK Muslim population, as the consumption of pork or its derivatives is  
15 strictly forbidden in Islam. This paper considers what makes meat Halal and discusses  
16 existing gaps in Halal certification and the regulation of Halal meat that potentially  
17 expose the Halal market to fraudulent activity.

18 **Keywords**

19 Halal meat; Food Safety; Meat Fraud; Stunning; Slaughter;

20 **1. Introduction**

21 The adulteration and mislabelling of meat and other food products is not a new  
22 phenomenon. Within the EU, there are stringent measures in place to protect and  
23 promote foods that are traditional specialties and have geographical indications such  
24 as Protected Geographical Indication (PGI), Protected Designation of Origin (PDO)  
25 and Traditional Specialties Guaranteed (TSG) and law protects these. Relevant EU  
26 food safety and labelling legislation also seeks to prevent the adulteration and

27 production of foods that may pose a public health risk, as well as the  
28 misrepresentation (through mislabelling) of food in order to deceive consumers.  
29 Despite these preventative measures, certain individuals, in using unapproved  
30 methods, succeed to produce food that is unfit for human consumption or not  
31 correctly described. These individuals are more often than not, motivated by greed,  
32 and a desire to maximise profits. Halal meat is that derived from animals slaughtered  
33 in accordance with the Islamic dietary laws enshrined in the Quran (Islamic Holy  
34 Book) and the Hadith (The traditions of the Prophet of Islam, Mohammed). The  
35 majority of practicing Muslims will only consume Halal meat, as many regard the  
36 consumption of such meats as a form of worship. Due to the spiritual significance of  
37 Halal meat to Muslims consumers, in addition to the economic benefits associated  
38 with trading in such meats due to the expansion in the global Muslim population,  
39 there has been competition for a share of the Halal market by mainstream food  
40 business operators in the industrialised world. The Pew Research Centre (2015)  
41 projected that if the current trends continue, the global Muslim population will  
42 increase by 73% to 2.8 billion by the year 2050. Despite the apparent economic  
43 benefits associated with trading in Halal food products, many Halal consumers have  
44 expressed concern about the lack of understanding of the rules surrounding the  
45 slaughter of animals, and the subsequent processing or handling of these products for  
46 Muslim consumption. The situation is exacerbated by the fact that many Halal Food  
47 Business Operators in the West are non-Muslims with limited or no understanding of  
48 the Islamic dietary laws. Also, the recent discovery of fraudulent activities in the  
49 Halal industry (BBC 2014 2015; Birmingham Mail 2014; Huffington Post 2014a;  
50 Mail Online 2015) has aggravated the situation. The detection of undeclared  
51 horsemeat (and horse DNA) in some products in the UK (Food Standards Agency,

52 FSA 2013; The Guardian 2013a) led to more stringent tests of processed foods for  
53 undeclared materials (FSA, 2014), which has resulted in prosecutions (FSA 2015;  
54 Food Safety News 2015). The subsequent increase in product testing led to the  
55 detection of pork meat and porcine DNA in various “Halal” products destined for  
56 Muslim consumption (The Guardian 2013b; ITV News 2013). Muslims are forbidden  
57 to farm, trade or consume pork or any by-product from pigs.

58 Whilst many fraudulent activities in the Halal industry, such as the intentional  
59 mislabelling of non-Halal meat as Halal, or the contamination of Halal meat with pork  
60 (and its derivatives) or other non-Halal materials, may be motivated by the desire of  
61 some unscrupulous Food Business Operators (FBOs) to maximise profits, the inability  
62 of Halal Certification Bodies (HCBs) to agree on a unified Halal standard may be  
63 considered to be partially to blame for some of the lapses in the understanding of the  
64 requirements of the Islamic dietary laws. Some HCBs, for instance, approve food-  
65 processing sites, which, in addition to processing Halal products, may also process  
66 pork or other non-Halal materials using the same equipment and processing lines.  
67 Although these sites claim to ‘thoroughly’ clean the equipment after the processing of  
68 pork, other HCBs are of the view that the cleaning may still expose Halal products to  
69 porcine DNA contamination and will not certify such a site. In the UK, porcine DNA  
70 has been detected in ‘Halal’ savoury beef pastry products originating from a  
71 processing plant where pork and the “Halal” products in question were processed  
72 using the same equipment (The Guardian 2013b). Notwithstanding the disagreement  
73 on the processing of Halal and pork or pork derivatives on the same processing lines  
74 by HCBs, there appears to be differences in Halal standards regarding the  
75 acceptability of pre-slaughter stunning of animals, machine (mechanical) slaughter of

76 birds, thoracic (chest) sticking of ruminants and some aspects intensive livestock  
77 production systems.

78 This paper attempts to define Halal meat, whilst highlighting gaps and loopholes  
79 within Halal certification and enforcement that expose Halal meat to fraud. It also  
80 considers the differences that exist between the Halal standards used by different  
81 Halal authorities across the EU. The paper contributes to the literature regarding the  
82 definition of Halal in terms of animal welfare and food safety.

## 83 **2. What is Halal**

84 Halal is an Arabic word that literally means anything that is permissible or lawful  
85 (Riaz 1996, Fuseini et al. 2016a). When used in relation to meat, such meats must be  
86 derived from specific animals slaughtered in accordance with requirements specified  
87 in the Quran and Hadith. Extensive reviews of the requirements of Halal slaughter  
88 have recently been conducted (Farouk 2013; Fuseini et al 2016a; Fuseini et al.  
89 2016b). It is generally agreed within the Muslim community that for meat to be  
90 acceptable for consumption by Muslims, the animal must be a species that is accepted  
91 for Halal, more importantly, it must also be fit and well at the time of slaughter and  
92 that sufficient time must be allowed for the loss of blood, which leads to irreversible  
93 loss of brain function. The Quran expressly forbids Muslims from consuming blood.  
94 This may be due to the role residual blood (in the carcass) plays in the spoilage (and  
95 palatability) of meat, particularly against the background that at the time the Quran  
96 was revealed, there were no advanced technologies such as refrigeration systems for  
97 the preservation of meat. Kirton et al. (1991) suggested that poor bleeding-out at  
98 exsanguination results in poor keeping and eating quality. There is lack of evidence to  
99 support the hypothesis that the method of stunning or slaughter affects the loss of  
100 blood as quoted below. It must be emphasised, however, that blood loss at

101 exsanguination cannot be literally complete, as residual blood will always remain in  
102 the capillaries whether animals are slaughtered with or without stunning. Hence the  
103 religious ban on the consumption of blood must be interpreted as an intention for  
104 proper bleeding, i.e. removing as much blood as it is practically possible from the  
105 carcass.

106 Despite the fact that Islamic authorities around the world unanimously agree on some  
107 of the requirements of Halal slaughter, there are other aspects of Halal slaughter that  
108 have divided opinion among Islamic jurists, leading to confusion among Halal  
109 consumers, food business operators and other stakeholders in the Halal industry as to  
110 what is authentic Halal meat. For instance, European Council regulation, EC  
111 1099/2009 requires the pre-slaughter stunning of all animals before slaughter in order  
112 to induce immediate loss of consciousness, however, paragraph 18 EC1099/2009  
113 gives derogation for slaughter without stunning, it is enshrined within this legislation  
114 as well as in some member states for faith groups. Some Islamic jurists have  
115 vehemently argued against the use of any form of stunning for Halal slaughter, whilst  
116 others are of the opinion that pre-slaughter stunning is Halal compliant, on condition  
117 that the stunning itself is fully recoverable and does not lead to injury (to the animal).  
118 Opponents of pre-slaughter stunning for Halal slaughter have often cited the  
119 possibility of animals dying following stunning and before exsanguination as the main  
120 reason pre-slaughter stunning contradicts the Islamic dietary rules. Others are of the  
121 opinion that the stunning of animals prior to slaughter results in the retention of more  
122 blood in the carcass in comparison with those slaughtered without stunning. However,  
123 repeated research has demonstrated that there is no difference in animals that are  
124 slaughtered either with or without pre-slaughter stunning in terms of the total blood  
125 lost at exsanguination (Khalid et al. 2015; Anil et al. 2006; Gomes Neves et al. 2009).

126 In addition, some methods of stunning e.g. head-only electrical stunning support the  
127 full recovery of animals if they are not slaughtered post-stunning (Wotton et al., 2014;  
128 Orford et al., 2016). These misconceptions produce disagreements within the Muslim  
129 community, which, in addition to the lack of an overarching regulatory authority for  
130 Halal food in EU member states, and other countries in the developed world, opens  
131 the door for misinterpretation and potential fraudulent activities in the Halal food  
132 industry.

### 133 **3. The market for Halal meat**

134 The demand for Halal meat is on the rise and it is projected to continue to grow  
135 (Farouk 2013; Sungkar 2009; Bonne and Verbeke 2008). Many factors contribute to  
136 the exponential growth in demand for Halal meat. Lever and Miele (2012) cited the  
137 UK and France as the two EU countries where for over a decade there has been  
138 uninterrupted growth in the demand for meats slaughtered according to the Halal  
139 rules. The global expansion in Muslim population (Pew Research Centre 2015) may  
140 be responsible for the continued growth of the Halal meat market. However, some  
141 researchers have suggested that the growth of the Halal meat market within the EU is  
142 attributed to the increased migration of Muslims across Europe in recent years  
143 (Bergeaud-Blackler 2004). Although this observation was made over a decade ago,  
144 the recent exodus of Muslim refugees from countries such as Syria, Iraq, Afghanistan  
145 and Libya into the EU, due to the surge in religious extremism and on-going wars in  
146 those countries, has reaffirmed migration as one of the most important factors  
147 influencing the growth of the EU Halal meat market. Also, the continued increase in  
148 the export of Halal certified meat and processed meat products from the EU to  
149 Muslim-majority countries such as Turkey, Indonesia, Malaysia, the UAE and  
150 Singapore is another important factor influencing the growth of the Halal meat market

151 in Europe. Temporal (2011) reported that the Asia Pacific region accounts for the  
152 largest share of the global Halal export, whilst Singapore was identified as the single  
153 most important centre for the transit of Halal products en-route to the major importing  
154 countries. It must be noted that the consumption of Halal meat is not restricted to  
155 Muslim consumers. In the UK and other parts of Europe, many non-Muslims continue  
156 to patronise Halal restaurants and fast food chains that clearly advertise their meat as  
157 Halal with little or no information as to whether animals were pre-stunned or not.  
158 Notable among these restaurants and fast food chains include Kentucky Fried Chicken  
159 (KFC), Subway, Nandos, and a large number of Indian restaurants on the high street.  
160 Some of these establishments are solely “Halal restaurants” and all products in such  
161 restaurants are usually certified Halal by one of the numerous HCBs that exist. It is  
162 therefore not surprising that the mainstream retail multiples within the EU, including  
163 Albert Heijn, Aldi, Asda, Carrefour, Marks and Spencer, Morrisons, Sainsbury’s,  
164 Tesco and Waitrose have all started stocking fresh or processed Halal meat products  
165 (Awan et al. 2015; The Telegraph 2014). These retailers are always quick to  
166 emphasise that they do not sell unstunned meat under their own label, however,  
167 unstunned meat may still be sold in some of the stores, usually under a third party  
168 label. Despite the scramble for a share of the Halal meat market by the major retail  
169 multiples, the preferred point of purchase of Halal meat by the majority of Muslims is  
170 the local Halal butcher (Riaz 1996; Becker et al. 1998; Glitsch 2000; Ahmed 2008;  
171 Bonne & Verbeke 2008). This may have influenced the recent opening of Muslim-  
172 butcher stalls in many of the supermarkets within the UK. In a survey involving 300  
173 UK Halal consumers, the majority of respondents (90%) indicated that they were  
174 unaware of the fact that some of the major supermarket chains sold Halal meat. The  
175 findings also revealed that the majority of Halal consumers (96%) prefer to shop at



176 the local Muslim-butcher shop because they trusted their compliance with Halal more  
177 than the supermarket chains (Ahmed 2008). Although some non-Muslims continue to  
178 consume Halal meat willingly (or unknowingly), others avoid it for the reason that  
179 they consider such meats can be from animals slaughtered in an inhumane manner,  
180 albeit a significant proportion of Halal meat is stunned prior to slaughter. In fact,  
181 within the EU, the proportion of Halal meat stunned before slaughter has been  
182 reported as 65% of cattle, 50% of small ruminants and 50% of poultry (DIALREL  
183 2010). In the case of slaughter by followers of the Jewish faith (Shechita), all forms of  
184 stunning have been rejected, leading to the slaughter of all animals without stunning.  
185 It does appear however, that, a significant proportion of the animals slaughtered  
186 according to the rules of Shechita cannot be consumed by the Jewish community due  
187 to the presence of the “forbidden fat” (tallow) and the sciatic nerve in the  
188 hindquarters. These “unfit products” are therefore passed onto the non-Kosher market  
189 (Conway & Lichtenstein 2015; RSPCA 2015), because within the EU, there is  
190 currently no legal requirement for meat to be labelled with the slaughter method or,  
191 more specifically, whether the meat originates from animals stunned pre-slaughter,  
192 post-cut stunned or unstunned. Whilst some animal welfare proponents are calling for  
193 meat to be labelled as either stunned or unstunned (if the legislation continues to  
194 permit non-stun slaughter) to provide clarity to consumers (RSPCA 2015),  
195 organisations representing the veterinary profession have called for a total ban on the  
196 slaughter of animals without stunning within the EU on animal welfare grounds  
197 (BVA 2015; FVE 2016).

#### 198 **4. Halal meat certification in Europe**

199 The ultimate goal of the certification of meat as Halal by third-party HCBs is to  
200 provide assurance to Halal consumers that some key requirements have been met

201 during the slaughter, processing, packaging, storage or transport of the meat. This is  
202 particularly important within the EU and other industrialised countries where many  
203 FBOs may be unfamiliar with the requirements of Halal, additionally, there is  
204 increased risk of cross contamination of Halal food with non-Halal products such as  
205 pork during further processing, storage or transport. The concept of Halal certification  
206 within the EU is a relatively new phenomenon. In the UK, the first HCB ever to  
207 certify meat as Halal, the Halal Food Authority (HFA), was established in 1994.  
208 According to this organisation, their main objective at inception was to “monitor and  
209 authenticate” the Halal status of poultry and red meat because the Halal status of up to  
210 85% of “Halal meat” in the UK at the time could not be verified (HFA, 2016).  
211 Opponents of Halal food certification have often questioned the motives of those  
212 ventures. It has been suggested that the exponential increase in the population of  
213 Muslims across Europe in recent years may have contributed to the increase in the  
214 number of unregulated HCBs, all with the aim of independently verifying Halal  
215 status, and facilitating the trade in Halal products (Fuseini et al 2016b). Within the  
216 UK alone, there are over 10 HCBs who are all competing applying varying Halal  
217 standards in their quest to assure consumers about the authenticity of Halal meat  
218 certified by themselves. There have been accusations and counter-accusations among  
219 the certifiers as to whose Halal standard is genuine. The lack of government  
220 involvement or a central monitoring body of HCBs has meant that any individual can  
221 set-up an HCB with little or no technical expertise about meat, potentially a lack of  
222 specific religious knowledge and/or non-mainstream agreement about what makes  
223 meat Halal. Lack of technical understanding has led to a lack of proper monitoring  
224 and scrutiny of some Halal certificated sites, which has resulted in the contamination  
225 of Halal products at processing sites where Halal and non-Halal products are

226 produced in tandem but with poor segregation and/or cleaning (Saqib Mohammed,  
227 Personal communication, 2016). Others have been accused of approving slaughter  
228 technologies that violate the basic requirements of Halal slaughter. Although many  
229 Muslims would appear to prefer meat from animals slaughtered without stunning  
230 because the method guarantees a live, uninjured animal at the time of slaughter  
231 (EBLEX 2010), recent covert filming at non-stun Halal slaughterhouses by animal  
232 welfare activists in Belgium and the UK have highlighted systemic abuse and  
233 suffering of animals destined for the Halal food chain (PETA 2009; Newsweek 2015).  
234 These practices would have undoubtedly violated the animal welfare requirements of  
235 Halal slaughter enshrined in the Quran and *Hadith*. It must be emphasised that such  
236 violations are also common in Muslim-majority countries where very painful and  
237 violent methods are used in coercing and restraining animals prior to slaughter. These  
238 include the hoisting of conscious animals (usually ruminants) by the hind leg prior to  
239 slaughter, slashing of tendons in the hind legs in order to immobilise conscious  
240 animals prior to slaughter and the lifting of small ruminants by their wool or limbs  
241 (CIWF, 2007; 2008; 2012). There is therefore a need for proper monitoring and  
242 regulation of Halal slaughter in Muslim-majority countries too, the mere fact that an  
243 animal is not stunned prior to slaughter does not necessarily make the meat compliant  
244 with all the Halal slaughter requirements. Some of the problems that exist within  
245 Halal certification could be rectified with a unified global Halal standard. This would  
246 ensure that all HCBs operate under the same rules, and would be analogous to the  
247 current EU ‘Organic’ standard overseen by a number of certification bodies all  
248 operating to the same overarching rules. The Organisation of Islamic Cooperation  
249 (OIC), an inter-governmental organisation with 57 member states is currently working  
250 on the development of a global Halal Standard (OIC 2015). Pointing et al., (2008)

251 pointed out that until there is clarity or consensus on the correct definition of Halal,  
252 enforcement agencies would find it difficult to protect Halal consumers. Further,  
253 consumer law, according to Pointing et al., (2008), does not currently give sufficient  
254 protection to Halal consumers despite the Muslim authorities having made attempts to  
255 develop quality standards to instil some confidence in Halal products.

256 The high cost of Halal certification to FBOs is another area that has attracted  
257 attention. The annual certification fee for an abattoir or food-processing site in the UK  
258 in 2016 can range from a few hundreds of pounds to tens of thousands of pounds,  
259 depending upon the HCB. The certification fee may be insignificant to the major  
260 players in the meat industry, however, to small throughput plants and food businesses,  
261 this potential cost can be significant. In an attempt to avoid a fee, some FBOs have  
262 been found to intentionally mislabel non-Halal meat as Halal, others have resorted to  
263 “self-certification”, this is where an FBO verifies its own Halal status and  
264 communicates this to the Halal consumer. This practice is common among Muslim  
265 owned food businesses. Whilst some businesses have successfully implemented this  
266 model, others have struggled to effectively put it into operation. The practice of “self-  
267 certification” can only be used where the target consumers are local, this is because  
268 most Halal importing countries require a Halal certificate to accompany all Halal  
269 meat products before such products can be given clearance. Lever and Miele (2012)  
270 cited a French Halal lamb distributor, Halaldom, as a company that has successfully  
271 utilised “self-certification” of its Halal products. According to the authors, this has  
272 been possible due to a “strong communication strategy with Muslim consumers” and  
273 their commitment to the community displayed by donating a percentage of the income  
274 received for every order back to the community.

275 Despite the shortfalls of HCBs highlighted above, many Halal consumers regard them  
 276 as the enforcers of the Islamic dietary laws in the developed world. They are also  
 277 regarded by many FBOs as facilitators for Halal trade. This is because certificates  
 278 issued by some of these organisations have become respected and are accepted by  
 279 local Halal consumers and importers of Halal meat to Muslim-majority countries. It is  
 280 worth noting that despite the existence of a large number of HCBs across the 28 EU  
 281 member states, only a handful of these organisations can issue certificates for export  
 282 to the international Halal market. This is because certificates issued by the local HCB  
 283 can only be accepted in the importing destination if authorities in those countries  
 284 accredit them. Table 1 is a list of some of the major HCBs within the EU and the  
 285 countries where their certificates are accepted.

Halal Certification Body (HCB)	Accreditation of HCB in Halal-importing country			
	Malaysia (JAKIM)	Indonesia (MUI)	Singapore (MUIS)	UAE
Halal Control, Germany	Yes	Yes	Yes	No
Halal Feed and Food Inspection Authority, The Netherlands	Yes	Yes	Unknown	Yes
Halal Food Authority, UK	Yes	Yes	Yes	Yes
Halal Food Council of Europe, Belgium	Yes	Yes	Yes	Yes
Halal Institute of Spain, Spain	No	Yes	Yes	No
Halal International Authority, Italy	Yes	Yes	Yes	Yes
Halal Monitoring Committee, UK	No	No	No	Yes

Halal Quality Control, The Netherlands	Yes	Yes	Yes	Yes
Islamic Information and Documentation Centre, Austria	Yes	No	Yes	Yes
Ritual Association of Lyon Great Mosque, France	Yes	No	Yes	Yes
The Grand Mosque of Paris-SFCVH, France	No	Yes	Unknown	Unknown
The Muslim Religious Union in Poland, Poland	Yes	Yes	Unknown	Unknown
Total Quality Halal Correct, The Netherlands	Yes	Yes	Yes	Yes

286 Table 1: Major HCBs within the EU and the countries in which their certificates are  
287 recognised.

## 288 5. Halal meat safety

289 The procedure for the slaughter of animals for consumption by Muslims is not  
290 markedly different from conventional slaughter, with the exception of where animals  
291 are slaughtered without any form of pre-slaughter stunning. Halal slaughter with pre-  
292 slaughter stunning involves the same procedure as conventional slaughter, however,  
293 the former requires the recitation of a short prayer before or during slaughter to satisfy  
294 the religious requirements. One may therefore assume that the safety of meat should  
295 not be affected by the two methods described above, albeit post-slaughter processing  
296 or handling may affect food safety. At the time the Quran and other Islamic scriptures  
297 were revealed some 1400 years ago, there were no food safety regulations, however,  
298 the concept of *Tayyib* (wholesome/safe foods) was incorporated into Halal to cater for  
299 food safety, albeit this aspect is seldom given the attention it deserves within the

300 Muslim community. It has been suggested that the concept of Halal food safety  
301 according to the standards of the major HCBs is ambiguous (Demirci et al. 2016).  
302 This may be due to the fact that many HCBs have concentrated on the issue of  
303 slaughter whilst ignoring other important aspects such as the *Tayyib* requirements.  
304 Sirajuddin et al. (2013) noted that the failure of Muslim authorities to incorporate  
305 *Tayyib* into Halal meat production has exposed gaps in the safety of Halal meat, they  
306 have suggested a more holistic approach in interpreting the scriptures regarding the  
307 “*Halal-Tayyib*” concept of food production. Nonetheless, Cutler (2007) pointed out  
308 that Halal and Kosher (religiously slaughtered meat for Jews) meats are prepared  
309 under much stricter standards in comparison with meat from conventionally  
310 slaughtered animals (for consumers with no religious requirements governing meat  
311 production). This improves both the quality and safety of Halal and Kosher foods  
312 (Asghar et al. 1990; Farouk et al. 2014). On the contrary, the hygiene of the premises  
313 of most Muslim local butchers has often raised serious meat safety concerns, some of  
314 these premises often lack basic hygiene facilities such as facilities for hand washing  
315 or designated changing areas. It is not uncommon to see a local Muslim butcher  
316 handling or cutting meat with no hairnet, coat or apron. Huffington Post (2014b)  
317 reported that although Halal meat may guarantee spiritual purity, it does not  
318 necessarily guarantee safe meat. The report cited a number of incidents where Halal  
319 meat was found to be unfit for human consumption (Food Safety News 2009, 2013).  
320 One of the biggest seizures of unsafe Halal meat by food safety officers was recently  
321 reported in Glasgow (The Evening Times 2016). Approximately 1 tonne of unsafe  
322 meat, believed to be lamb was supplied to two Halal butchers operating in the  
323 Glasgow area. The Evening Times (2016) reported that these butchers were suppliers  
324 to some of the city’s many food outlets.

325 The majority of the issues surrounding Halal meat safety include illegal slaughter of  
326 livestock, poor labelling and documentation, and poor hygiene and sanitation of Halal  
327 meat premises and personnel. These incidents of food fraud and food safety are not by  
328 any means restricted to the Halal meat industry. In Belgium and Ireland, the  
329 introduction of dioxin into the human food chain through the use of contaminated fat  
330 in animal feed (Casey et al. 2010) is still fresh in the minds of many Belgian and Irish  
331 consumers. Tahkapaa et al. (2015) suggested that these incidents might have  
332 prompted the adoption of EU Regulation 178/2002 in the EU. This regulation lays  
333 down the general principles pertaining to feed and food safety within the EU and at  
334 national levels.

## 335 **6. Halal meat fraud**

336 Some researchers have described food fraud as an ancient practice usually driven by  
337 profit (Manning et al 2016). The fraudulent trading in meat that is claimed to be Halal  
338 can take many forms, from the sale of illegally slaughtered animals generally  
339 associated with poor animal welfare, to the sale of unwholesome meat for human  
340 consumption, which poses a risk to human health. Manning and Soon (2014) argued  
341 that the fraudulent trading in foods that pose a public health risk are more often  
342 detected at a stage where the food is already at a point of sale or has potentially been  
343 consumed. In a recent food crime annual strategic assessment report in the UK, the  
344 Food Standards Agency (FSA) in conjunction with Food Standards Scotland (FSS)  
345 defined food crime as “dishonesty on the part of the producer or supplier” (FSA/FSS  
346 2016). Table 2 shows different forms of food crime and the threat each may pose  
347 (FSA/FSS 2016), food crime within the Halal industry may fall under one of these  
348 categories. Food businesses (including Halal producers) are expected to be familiar  
349 with these offences, and steps must be taken to prevent them. In the UK, organised



350 criminal gangs are usually involved in these activities, a situation which because of  
 351 the potential scale, raises food safety concerns among regulatory and food safety  
 352 professionals (Pointing and Teinaz 2004). These authors explained that the most  
 353 common offences included the sale of reprocessed chicken sludge bleached to  
 354 improve its aesthetic value, the importation of unfit bush meat and “smokies” from  
 355 parts of West Africa where such products are considered as delicacies. Blow-torching  
 356 the skin or hide of an animal before splitting the carcass produces a “smokie”, and is  
 357 thought to improve the taste of the meat. Although banned within the EU (EC  
 358 Regulation EC1662/2006), these products continue to be illegally imported into  
 359 Europe for human consumption in some member states (Chaber et al. 2010; BBC  
 360 2010). Aside the dangers these products pose to public health, there are concerns for  
 361 animal welfare and also conservation of endangered species. It has been reported that  
 362 carcasses of endangered species such as giraffes, gorillas and chimpanzees have all  
 363 been imported from Africa and sold within the EU as bush meat (Pointing and Teinaz  
 364 2004). Some products may end up in the Halal food chain with no proper  
 365 documentation of their Halal status.

Food Crime Type	Threat	Meaning	Example
<b>Pure</b> Serious criminal activity in which the intention is to compromise the authenticity or safety of food	Adulteration	Rendering food poorer in quality by adding extraneous substance	The addition of methanol to Vodka in order to fraudulently increase volume
	Substitution	Replacing all or part of a food stuff with another	The substitution of lamb with another from a

		substance of a similar kind without altering its overall characteristics	less expensive species of red meat e.g. beef
	Diversion	Turning a foodstuff or another substance away from its intended course or purpose	Using animal waste (intended for destruction) in products for human consumption
	Misrepresentation	Selling a product as something it is not (whether in terms of origin, quality, safety for consumption or nutritional benefits)	Sale of shellfish from prohibited beds (owing to E-coli levels). False declaration of geographic origin.

<p><b>Indirect</b></p> <p>Detrimental impact on the safety or authenticity of food as a consequence of other criminal activity</p>	<p>Identity theft</p>	<p>Fraudulently using the identity of a legitimate business for financial gain</p>	<p>Procurement of a consignment of chicken from a supplier using false company identity. The product is not stored or handled in accordance with food law and enters the food chain through informal channels</p>
<p><b>Cyber-enabled</b></p> <p>Serious criminal activity facilitated or enabled by the internet</p>	<p>Misrepresentation</p>	<p>Selling a product as something it is not (whether in terms of origin, quality, safety for consumption or nutritional benefits)</p>	<p>DNP, a harmful industrial chemical, is sold online as a weight-loss supplement. Dishonest concealment is then used to defeat detection in the course of</p>

			shipping. Food supplements are sold online with exaggerated or entirely false claims made about their benefits
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366 Table 2 An outline of the different forms of food crime (Adapted from FSA/FSS,  
367 2016).

368 **6.1 Illegal slaughter**

369 Illegal slaughter is the slaughter of animals for human consumption outside a licensed  
370 establishment (EC853/2004), except where permission is granted for the slaughter to  
371 be performed outside a licensed premise, such as the on-farm slaughter of animals for  
372 personnel use only – on-farm slaughtered meat cannot be sold to the general public, it  
373 must be used by the owner (usually the farmer) or his/her immediate family. In  
374 addition to meeting the EU legislative requirements specified in EC1099/2009,  
375 animals destined for the Halal food chain must also be slaughtered in the Islamic  
376 tradition. Any meat that falls short of the two requirements above is deemed unfit for  
377 Muslim consumption. Guidance issued to Local Enforcement Authorities in the UK  
378 (FSA 2009) highlights the following scenarios that should arouse suspicion regarding  
379 the legality of meat:

- 380 • The slaughter of animals at unlicensed establishments
- 381 • The cutting of meat at unlicensed premises
- 382 • Unlabelled or poorly health-marked meat

- 383 • Meat that may have been imported through illegal channels
- 384 • Meat that is advertised, marketed and sold by itinerant vendors at car boot
- 385 sales, pubs, clubs and other public gatherings
- 386 • Meat that was slaughtered legally but may become unfit to consume within the
- 387 interpretation of EC178/2002 due to storage under unsanitary conditions or at
- 388 temperatures outside the legal limits.

389 Table 3 below lists examples of fraudulent activities discovered in the Halal meat  
 390 industry in the UK. Muslims are instructed, according to the Islamic scriptures (Quran  
 391 and Hadith) to consume only Halal meat, many Muslims therefore regard the  
 392 consumption of Halal meat as a religious act, hence the significance of consuming  
 393 Halal meat to a Muslim cannot be underestimated. It is therefore surprising, that some  
 394 Muslims or food businesses owned by Muslims have been implicated directly or  
 395 indirectly in the majority of the crimes committed regarding the falsification of the  
 396 status of Halal meat. This, according to experts in the Halal certification or regulation  
 397 industry is why some production is motivated by greed and a desire to maximise  
 398 profits by means either by fair or foul.

Incident	Fine imposed	Source
A Halal Meat Company in Bradford used counterfeit Halal labels on meat products and sold them as Halal	£20,000	<a href="http://birminghamnewsroom.com/meat-supplier-ordered-to-pay-nearly-20000-for-fake-halal-labels/">http://birminghamnewsroom.com/meat-supplier-ordered-to-pay-nearly-20000-for-fake-halal-labels/</a>
A Halal meat wholesaler in Birmingham mislabelled and sold non-Halal meat as Halal.	£62,000	<a href="http://www.halaltimes.com/fake-birmingham-halal-meat-company-fined-62000-pounds/">http://www.halaltimes.com/fake-birmingham-halal-meat-company-fined-62000-pounds/</a>

A Halal Meat supplier in Birmingham misled Halal consumers by claiming their products were certified by the Halal Monitoring Committee	£1,100	<a href="http://birminghamnewsroom.com/halal-meat-supplier-fined-for-misleading-customers/">http://birminghamnewsroom.com/halal-meat-supplier-fined-for-misleading-customers/</a>
Halal Meat butcher in Manchester mixed cheap minced beef with minced lamb and sold it as 100% lamb	£18,000	<a href="http://www.manchestereveningnews.co.uk/news/greater-manchester-news/halal-butchers-food-fraud-trafford-11178552">http://www.manchestereveningnews.co.uk/news/greater-manchester-news/halal-butchers-food-fraud-trafford-11178552</a>
A meat processor in Newry, Northern Ireland, falsely labelled non-Halal burgers as Halal	£70,000	<a href="http://www.bbc.co.uk/news/uk-northern-ireland-33317601">http://www.bbc.co.uk/news/uk-northern-ireland-33317601</a>
A meat supplier in Walton Summit, supplied Halal “chicken” kebabs to one of the major retailers which were found to contain mainly connective tissues and beef.	£10,000	<a href="http://www.lep.co.uk/news/business/food-firm-hit-by-kebab-fine-1-4670081">http://www.lep.co.uk/news/business/food-firm-hit-by-kebab-fine-1-4670081</a>
Four men illegally slaughtered sheep for the Eid festivities at unlicensed premises without prior stunning	£2,075	<a href="http://www.express.co.uk/news/uk/580745/Islam-Muslim-halal-slaughter-farm-UK-Llechrydau-Farm-court">http://www.express.co.uk/news/uk/580745/Islam-Muslim-halal-slaughter-farm-UK-Llechrydau-Farm-court</a>

399 Table 3. A list of some of the reported crimes involving Halal meat in the UK.

## 400 **6.2 Mislabelling of Halal meat**

401 The accurate labelling, presentation and advertisement of foodstuffs within the EU  
402 must comply with Article 2 of Council Directive 2000/13/EC. This specifically makes  
403 it an offence for the labelling of any food product to mislead consumers regarding the  
404 characteristics, identity, constituents, quantity, method of manufacture, durability and  
405 geographical origin of the product. Despite the lack of clarity regarding the true  
406 meaning or definition of Halal, the intentional mislabelling of non-Halal products as  
407 Halal in order to mislead consumers into purchasing such products constitutes an  
408 offence. The doubts surrounding the true meaning of Halal meat is brought about by  
409 the sketchy interpretation of the Islamic scriptures by Muslim scholars with regard to  
410 modern livestock farming and animal slaughter practice. This lack of agreement  
411 between HCBs makes it difficult for Local Enforcement Officers to identify  
412 fraudulent activities in the Halal meat trade. On one hand, some Muslims are reluctant  
413 to accept any farming, animal slaughter or meat processing technique that was not  
414 used by the Prophet of Islam, on the other hand, there are Muslims who have  
415 recognised the need to accept technologies that do not explicitly violate the Islamic  
416 slaughter guidelines, as they were not available at the time of the Prophet. Halal meat  
417 may be mislabelled in two ways; false declaration of meat species and the presence of  
418 undeclared meat species (Chuah et al 2016). A series of surveys regarding the  
419 labelling of chicken products in the UK concluded that there was widespread  
420 mislabelling of chicken (FSA 2001, 2003). With regard to chicken labelled as Halal,  
421 the following worrying conclusions were reached:

- 422 • There was widespread mislabelling of Halal chicken.

- 423       • The addition of water to ‘pump up’ chicken was a common practice. In some  
424 instances, over 50% of the chicken weight was added water..
- 425       • The water used in “pumping-up” the chicken was found to contain proteins to  
426 aid the retention of water in the carcasses, these proteins were of porcine and  
427 bovine origin. As mentioned above, it is forbidden for Muslims to consume  
428 pork or its derivatives, in addition, the bovine protein may have been derived  
429 from animals slaughtered contrary to the Islamic slaughter requirements.
- 430       • Additives used in chicken were often not included on labels.

431 Aldi Supermarket had to apologise to its UK Muslim consumers after a product  
432 containing pig blood and pig skin was mislabelled as Halal by its producer  
433 (International Business Times 2015). The retailer indicated that it was an isolated  
434 incident and that it did not pose any food safety risks to consumers. The adulteration  
435 and mislabelling of Halal meat is not restricted to the EU, Chuah et al (2016) tested  
436 143 processed “Halal” meat (beef and poultry) products in Malaysia for the presence  
437 of Halal-prohibited proteins from pigs, rats, cats, donkeys, dogs and other undeclared  
438 Halal-acceptable species. They found that 78% of the products were mislabelled. In  
439 addition, buffalo DNA was detected in 40 out of 58 products labelled as beef whilst  
440 33 out of the 58 products contained undeclared chicken. However, none of the Halal-  
441 prohibited products were found in those tested.

### 442 **6.3 Contamination of Halal meat**

443 Meat derived from pigs, carnivorous animals, birds of prey and animals slaughtered  
444 contrary to Islamic principles are regarded as non-Halal. The cross-contamination of  
445 Halal meat with any of these products will negate the Halal status of the meat. Pork  
446 appears to be the most important product of concern for the majority of Muslims  
447 living in the West, this is because most Halal meat producing facilities in these



448 countries also handle and process pork alongside Halal meat products. This practice  
449 increases the risk of cross-contamination between the Halal products and pork,  
450 particularly where there are poor segregation and cleaning between the two products.  
451 The detection of even very low levels of pork or porcine genetic materials in Halal  
452 products will render the products non-Halal. Due to this concern, a number of  
453 researchers have attempted to use different testing techniques to determine the  
454 identity of meat protein in Halal products in order to reassure Halal consumers of the  
455 authenticity of Halal products (Murugaiah et al. 2009; Demirhan et al. 2012;  
456 Stamoulis et al. 2010; Ulca et al. 2013). The Malaysia government recently signed a  
457 Memorandum of Understanding (MoU) with a UK based testing facility, Fera  
458 Science, for the provision of Halal proficiency testing (Global Meat News 2016). The  
459 aim of the agreement is for Fera Science to develop protocols for the detection of pork  
460 and alcohol in low levels in Halal products. These protocols are therefore restricted to  
461 species and alcohol detection and not the wider ethical issues in the Halal industry.

## 462 **7. Conclusion**

463 The consumption of Halal meat is an important aspect of the dictums of the Islamic  
464 faith. However, the desire of some Halal meat suppliers to maximise profits has led to  
465 a series of incidents involving the mislabelling of products that do not meet the Halal  
466 dietary laws as Halal. Incidents of this nature can cause significant distress to  
467 practicing Muslims. Divergent views within the Muslim community regarding what is  
468 authentic Halal have resulted in confusion among FBOs, Halal consumers and  
469 stakeholders in the industry. This also makes it difficult for law enforcement agencies  
470 to identify and prosecute offenders of Halal meat fraud. Nonetheless, in recent years,  
471 there have been a number of successful prosecutions of Halal meat suppliers who  
472 intentionally sold non-Halal meat as Halal. The health and safety aspects of Halal

473 meat has also been questioned, as a significant proportion originates from smaller,  
474 potentially less well managed and regulated processors. Some researchers have  
475 suggested that the adoption of a holistic “*Halal-Tayyib*” concept of livestock  
476 agriculture and meat production would alleviate some of the food safety risks  
477 associated with post-slaughter handling of Halal meat. Further research is needed to  
478 understand the Islamic scholarly interpretation of the *Halal-Tayyib* concept and how  
479 this can be incorporated into modern livestock agriculture and food processing  
480 systems. The successful implementation of this concept would improve animal  
481 welfare during Halal slaughter as well as eliminate the food safety risks associated  
482 with Halal food production. Halal Certification Bodies need to engage to play this  
483 vital role in ensuring the successful implementation of this concept.

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