

Religious Rules and Requirements – Halal Slaughter



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Haluk Anil, Mara Miele, Karen von Holleben,
Florence Bergeaud-Blackler and Antonio Velarde



DIALREL REPORTS NO. 1.1.2

Dialrel Reports
Edited by Mara Miele and Joek Roex

School of City and Regional Planning
Cardiff University
Glamorgan Building
King Edward VII Avenue
Cardiff, CF10 3WA
Wales, UK
<http://dialrel.eu>

November 2010

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F. Bergeaud-Blackler, A. Velarde

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F. Bergeaud-Blackler, A. Evans, J. Luy

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ISBN 1-902647-87-4

Typeset by Joek Roex, Cardiff, UK

ACKNOWLEDGEMENTS

Usama Abou Ismail, Mohammed Faouda, Samir Zeki.

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CONTRIBUTORS

Haluk Anil

Cardiff University, Cardiff, UK

Florence Bergeaud-Blackler

Université de la Méditerranée, Marseille, France

Karen von Holleben

bsi Schwarzenbek, Schwarzenbek, Germany

Mara Miele

Cardiff University, Cardiff, UK

Antonio Velarde

IRTA, Girona, Spain

INTRODUCTION

Slaughtering practices before acceptable meat products are obtained for Muslim consumers are of utmost importance (Halal slaughter and meat), especially for those who want to ensure they comply with requirements (8). As far as Halal slaughter is concerned there seems to be variations in the way it is practiced. The variations are partly due to differences in the interpretation of the Koran and the Hadith (the sayings of the prophet Mohammed) as well as perceptions of the effects of procedures. Since pig meat is forbidden, red meat and poultry species is the subject of interest.

Because of differences in interpretations of rules and practices there has been some confusion and controversy regarding Halal slaughter. One of the major aims of Dialrel project was, to explore ways by which Halal slaughter rules would be determined and verified by consulting scholars. To this end, a Workshop was organized in cooperation with one of the Dialrel partners in Mansoura, Egypt, where religious experts and scientists discussed Halal slaughter rules. This meeting was also preceded by a visit to Al-Azhar University where prior discussions took place and continued in Mansoura University. This report includes a summary of the Workshop in Egypt, followed by relevant information and findings and religious decrees (fatwas) on rules in literature, misunderstandings of slaughter practices, international efforts in finding a globally agreed set of standards and certification issues.

SUMMARY OF MANSOURA AND AL-AZHAR WORKSHOP FINDINGS

BACKGROUND

The act of slaughter (Al-Dhabh) is allowed in the name of God; therefore pronouncing the name of Allah is the usual practice. This is to remind the slaughterer that he is taking the life of a living creature. Animals are restrained but there are no specific religious regulations as to how this should be done, however animal welfare must be protected. Following restraint, slaughter is achieved by severing both blood vessels and the trachea in the neck using a sharp knife. The usual type of incision is severance of the vessels and tissues in the retrograde fashion following an initial stab incision in the neck.

Provision and consumption of meat for Muslim communities is an essential part of the religious life and certain conditions must be met so that the meat is lawful, Halal. If the treatment and slaughter of meat animals do not meet the criteria then the meat may be regarded as unlawful, Haram.

Some species such as pigs, carnivorous animals and carrions are forbidden. Rules relating to Halal slaughter are based on i) the Holy Quran; ii) Sunnah and Hadith; and iii) views of religious scholars.

There are direct and indirect references in the Quran relating to food in general and slaughter (1).

The following verses are some examples Sura: Verses 2: 168, 172, 173; 5: 1, 3, 5, 87, 88; 6: 118, 119, 121, 145, 146; 16: 114–118 (Provided by Prof. Dr. Mohammed Fouda, Dean of Veterinary Faculty, Mansoura University).

- 2:168. O ye people! Eat of what is on earth, Lawful and good; and do not follow the footsteps of the evil one, for he is to you an avowed enemy.
- 2:169. For he commands you what is evil and shameful, and that ye should say of Allah that of which ye have no knowledge.
- 2:170. When it is said to them: "Follow what Allah hath revealed:" They say: "Nay! we shall follow the ways of our fathers." What! even though their fathers Were void of wisdom and guidance?
- 2:171. The parable of those who reject Faith is as if one were to shout Like a goat-herd, to things that listen to nothing but calls and cries: Deaf, dumb, and blind, they are void of wisdom.
- 2:172. O ye who believe! Eat of the good things that We have provided for you, and be grateful to Allah, if it is Him ye worship.

- 2:173. He hath only forbidden you dead meat, and blood, and the flesh of swine, and that on which any other name hath been invoked besides that of Allah. But if one is forced by necessity, without wilful disobedience, nor transgressing due limits,- then is he guiltless. For Allah is Oft-forgiving Most Merciful.
- 5:1. O ye who believe! fulfil (all) obligations. Lawful unto you (for food) are all four-footed animals, with the exceptions named: But animals of the chase are forbidden while ye are in the sacred precincts or in pilgrim garb: for Allah doth command according to His will and plan.
- 5:3. Forbidden to you (for food) are: dead meat, blood, the flesh of swine, and that on which hath been invoked the name of other than Allah. that which hath been killed by strangling, or by a violent blow, or by a headlong fall, or by being gored to death; that which hath been (partly) eaten by a wild animal; unless ye are able to slaughter it (in due form); that which is sacrificed on stone (altars); (forbidden) also is the division (of meat) by raffling with arrows: that is impiety. This day have those who reject faith given up all hope of your religion: yet fear them not but fear Me. This day have I perfected your religion for you, completed My favour upon you, and have chosen for you Islam as your religion. But if any is forced by hunger, with no inclination to transgression, Allah is indeed Oft-forgiving, Most Merciful.
- 5:5. This day are (all) things good and pure made lawful unto you. The food of the People of the Book is lawful unto you and yours is lawful unto them. (Lawful unto you in marriage) are (not only) chaste women who are believers, but chaste women among the People of the Book, revealed before your time,- when ye give them their due dowers, and desire chastity, not lewdness, nor secret intrigues if any one rejects faith, fruitless is his work, and in the Hereafter he will be in the ranks of those who have lost (all spiritual good).
- 5:87. O ye who believe! make not unlawful the good things which Allah hath made lawful for you, but commit no excess: for Allah loveth not those given to excess.
- 5: 88. Eat of the things which Allah hath provided for you, lawful and good; but fear Allah, in Whom ye believe.
- 6:118. So eat of (meats) on which Allah.s name hath been pronounced, if ye have faith in His signs.
- 6:119. Why should ye not eat of (meats) on which Allah.s name hath been pronounced, when He hath explained to you in detail what is forbidden to you - except under compulsion of necessity? But many do mislead (men) by their appetites unchecked by knowledge. Thy Lord knoweth best those who transgress.
- 6:121. Eat not of (meats) on which Allah.s name hath not been pronounced: That would be impiety. But the evil ones ever inspire their friends to contend with you if ye were to obey them, ye would indeed be Pagans.
- 6:145. Say: "I find not in the message received by me by inspiration any (meat) forbidden to be eaten by one who wishes to eat it, unless it be dead meat, or blood poured forth, or the flesh of swine,- for it is an abomination - or, what is impious, (meat) on which a name has been invoked, other than Allah.s". But (even so), if a person is forced by necessity, without wilful disobedience, nor transgressing due limits,- thy Lord is Oft-forgiving, Most Merciful.
- 6:146. For those who followed the Jewish Law, We forbade every (animal) with undivided hoof, and We forbade them that fat of the ox and the sheep, except what

adheres to their backs or their entrails, or is mixed up with a bone: this in recompense for their wilful disobedience: for We are true (in Our ordinances).

16:114. So eat of the sustenance which Allah has provided for you, lawful and good; and be grateful for the favours of Allah, if it is He Whom ye serve.

16:118. To the Jews We prohibited such things as We have mentioned to thee before: We did them no wrong, but they were used to doing wrong to themselves.

In addition to the Quran, Sunnah and Hadith are used for guidance. Sunnah is the tradition and the examples set by the Prophet, model for Islamic life and practice, whereas Hadith is stories and the sayings of the Prophet. Importance and requirement of animal welfare in Islam have often been emphasized. The following Hadith of the prophet is a good example: 'Allah Who is Blessed and Exalted, has prescribed benevolence towards everything; so when you must kill a living being, do it in the best manner and, when you slaughter an animal, you should sharpen your knife so as to cause the animal as little pain as possible.'

There are numerous other Hadith that can be cited (3). These include accounts that place more emphasis on animal welfare such as preclusion of sharpening a knife before an animal, preventing animals witnessing slaughter.

DISCUSSIONS AT MANSOURA WORKSHOP

Details of this workshop are included in the Appendix at the end of the report. The following is a summary.

Following presentations on Dialrel activities, Prof. Dr. Fathy El-Nawawy Professor of Meat Hygiene gave a talk on Halal rules and practices ranging from Tasmiyya (reciting of Allah's name), optimum neck cutting positions to the importance of loss of blood. These were discussed in detail (see Annex).

Then Prof. Dr. Samir El-Sheikh Professor of Islamic Law, Faculty of Languages and Translation, Al-Azhar University, Cairo presented the following based on Islamic Sharia (Law). In summary:

- Islam is comprehensive; Sharia looks after everything for good. Allah u Teala provided rules.
- All food, fish, nuts, grains, vegetables, fruits are good for us. Haram things are unlawful. Also animals are lawful and must be killed according to Islamic rules.
- Haram (unlawful) foods include pigs, dogs, donkeys, carnivores, reptiles, insects, animals killed by strangulation, blow/clubbing; natural death/causes, beasts with fangs, birds of prey are carrion. Fish are exempt prophet pbu allowed things that come from sea as lawful, they are not no carrions. Animals if not sacrificed according to Islamic rules and those killed for gods zother than Allah are Haram.
- Tasmiyyah is essential.
- To avoid certain diseases blood must be cleared out of animal's body. Blood should not be retained in the veins and congeal, for hygiene reasons. Good flow of blood is required.
- Must only die from slaughter, no dressing while alive

- However, anything can be eaten during necessity.
- Muslims or People of the books (Christian and Jews), male or female can slaughter animals. Besmele/ Tasmiyyah, citing of god's name, is a must.
- Facing Kible (Mecca) is recommended, but not required. Majority of scholars agree.
- Animal's head must not be removed during slaughter.
- Run away animals that are out of control can be shot.
- In regard to stunning if suffering occurs, or if animal dies before slaughter and if blood is congealed and retained, then that would be haram. Otherwise stunning is acceptable if the following are observed: 1) Tasmiyyah 2) No suffering 3) Flow of blood.
- There are 2 main requirements 1) Mercifulness to animal 2) Slaughtered animal must be healthy.
- New technological methods ways would be fine as long as suffering is minimised and sufficient blood flows out to protect consumers. Islam does not say it has to be done by hand. Automatic cut is fine. Electric current killing is haram, but electric blades are fine.

The meeting continued with discussions on importance of blood loss, perception of pain and its duration during Halal slaughter with or without stunning and effects of various stunning methods. Although there was agreement on importance of exsanguinated blood being Haram (forbidden), and mercifulness to animals, it became clear there were some misunderstandings of scientific findings (listed under myths). These included lack of difference between stunning and slaughter methods and blood loss, immediacy of stunning methods and when death occurs after stunning and slaughter. The above were explained by examples of literature and video recordings and discussed.

The following are the outcomes of the meeting.

MANSOURA CONSULTATION FINDINGS

The following are the conclusions arrived at the Workshop held in Mansoura.

- Alive animal is required before death by exsanguination
- Flow of blood before death is essential
- Tasmiyyah is required during slaughter, not required for each bird if automatic neck cutting is used
- Eating of any meat in necessity and from people of the books is acceptable
- More flexibility in rules than thought
- Kible(facing Mecca) is not necessary, but optional
- Recommendation for latest techniques confirmed
- Stunning acceptable if above conditions are met
- Misunderstandings of techniques and effects still exist that require addressing globally

DECISIONS (FATWAS) ON HALAL RULES IN REGARD TO SLAUGHTER

Although there is no universally accepted hierarchical system there have been attempts over the years to issue rulings on Halal slaughter. For example in 1978 Al Azhar University issued a fatwa allowing stunning of animals before slaughter (in those countries where stunning is performed); previously in 1977 a fatwa had been issued in Saudi Arabia that allowed captive bolt stunning. However, in 1995 Al Azhar issued another fatwa stipulating that stunning by captive bolt should not be allowed because it was similar to delivering a manual blow on the head of animals.

The debate on deciding the correct rules is still continuing that include a number of organisations and working groups in the world. The prominent ones are the Organisation of Islamic Countries (OIC) working group and Malaysian standards. Although it must be emphasized that the OIC Standards are still under discussion the following excerpts from the OIC draft (courtesy of Dr Hamid Ahmad) is presented as an example.

This Standard was developed by the Standardization Expert Group of the Organisation of the Islamic Conference (OIC).

GENERAL GUIDELINES ON HALAL FOOD

3.1 Islamic Rules

It means what Allah Legislate for Muslims which gain its rules from the wholly Qur'an, and the honourable prophet method (Sunnah).

3.2 Halal Food

Halal food is the food which is allowed to be consumed according to Islamic rules and that comply with the requirements mentioned in this standard.

3.3 Prerequisite Programmes (PRPs)

Basic conditions and activities necessary to maintain a hygienic environment throughout the food chain suitable for production, handling and provision of safe final products and safe food for human consumption.

3.3.1 Good Manufacturing Practice (GMP)

Actions regarding personnel and building hygiene in order to ensure safe and healthy

production, storage and distribution of food.

3.3.2 Good Hygiene Practice (GHP)

Measures taken in stages of food chain to ensure the provision of safe food for consumption.

3.4 Food safety

Concept that food will not cause harm to the consumer when it is prepared and/or eaten according to its intended use.

3.5 Food Chain

All stages involved in the production of food including processing, production, packaging, storage, transportation, distribution and supply to the market, from raw material and its origin to consumption.

5.1.1.1 Halal animals

The following examples are considered as Halal:

- a. Domesticated animals such as cows, buffalos, sheep, goats, camels, chickens, geese, ducks, and turkeys.
- b. Non-predatory wild animals such as deer, antelope, chamois, wild cows, zebras.
- c. Non-predatory birds such as pigeons, sparrows, quails, starlings, and ostriches.
- d. Grasshoppers

5.1.1.2 Non-halal animals

The following examples are considered as non Halal:

- a. Pigs, dogs and their descendants.
- b. Animals not slaughtered in the name of Allah.
- c. Animals not slaughtered according to Islamic rules.
- d. Animals that died by themselves.
- e. Animals with long pointed teeth or tusks which are used to kill prey or defend themselves such as tigers, bears, elephants, cats, monkeys, wolves, lions, tigers, panthers, jackals, bears, foxes, squirrels, martens, weasels, and moles, etc.
- f. Predatory birds with sharp claws such as hawks, falcons, eagles, vultures, ravens, crows, kites, owls
- g. And also lizards, snails, insects, mouse, crocodiles and alligators.
- h. Pests and venomous animals such as rats, centipedes, scorpions, snake, wasps and other similar animals.
- i. Animals which are considered repulsive like flies, maggots, ticks, spiders and other similar animals.
- j. Animals that are forbidden to be killed in Islam such as honeybees and hoopoe.
- k. Donkeys and mules.
- l. Any ingredient derived from the non-Halal animals is not Halal.

5.1.2 Aquatic animals

Poisonous aquatic animals that are harmful to human health are non Halal, unless the harmful or poisonous material is removed. Also all fish with scales including their eggs as well as shrimps are considered as Halal.

5.1.3 Amphibious animals

All amphibious animals are non Halal.

5.1.5 Blood and other materials of human or animal origin

All types of blood and products made from blood are non Halal.

5.2 Rules of Slaughtering

5.2.1 Requirements of the Animals to be slaughtered:

- a. The animal to be slaughtered has to be an animal that is Halal.
- b. A certificate must be issued by a Veterinary Authority which attests that animals to be slaughtered are healthy.
- c. The animal to be slaughtered shall be alive or deemed to be an alive at the time of slaughter. The slaughtering procedure should not cause torture to animals and should be done with animal welfare/rights consideration.
- d. For a certain period before slaughtering, animals should be fed with Halal food. This period is minimum 3 days for Halal animals. Feeding of animals should be cut down for a period of 6 hours before slaughtering.
- e. If animals have arrived from long distance, they should first be allowed to rest before slaughtering.

5.2.2 Slaughterer

- a. The slaughterer shall be a Muslim who is mentally sound and fully understands the fundamental rules and conditions related to the slaughter of animals.
- b. The slaughterer shall have a certificate of Halal slaughtering issued by a competent authority supervising matters relating to health, hygiene, sanitation and rules of Halal slaughtering.
- c. A slaughterer performed by religiously observant Jews or Christians who properly meets all Halal requirements described herein may be used when a Muslim slaughterer is not available and not with persons from other religion.

5.2.5 Stunning

- a. Stunning is not recommended. One of the Halal slaughter methods recognized at national/international level shall be preferred. Exemplary durations and electrical current values with regard to stunning are given in Annex A for information. Animals must be alive during using the electrical shock and must be low voltage on the head only.
- b. Electrical current and duration shall be validated and determined by the organization, taking into account the type and weight of the animal and other varying factors.

5.2.6.1 Slaughtering procedure of animals

In addition to Clause 5.2.1, the following requirements are applied.

5.2.6.1.1 Health checks of animals before slaughtering

In addition to ante mortem control, the following requirements are also applied.

Animals to be slaughtered shall undergo health checks. These checks include assessment of veterinary medicine residues, age, and pregnancy, diagnosis of diseases which hinder

slaughtering (such as anthrax and rabies and etc.), communicable diseases or any feverous diseases. Those animals which are found sick or suspected to be sick shall immediately be segregated in an isolation area and legal formalities should be fulfilled. Animals which have completed 1/3 of their pregnancy shall not be slaughtered.

5.2.6.1.4 Leading animals to slaughtering area

Animals to be slaughtered shall be led into the slaughter area by qualified personnel through a corridor. Giving a light slap to legs with a stick or slight twisting of tail in the case of cows and use of low voltage electrical operated device are considered as normal practices.

At the end of the corridor that animals are led through for slaughtering, it should be ensured that animals waiting in the line are prevented from seeing those being slaughtered, with the help of a movable curtain or a partition system.

5.2.6.1.5 Procedure

- a. The animal may be slaughtered, after having been hung or laid preferably on its left side facing Kiblah (the direction of Mecca). Care shall be given to reduce suffering of the animal while it is being hung or laid and not to be kept waiting much in that position.
- b. At the time of slaughtering the animals, the slaughterer shall utter ‘Bismillah Wallahuakbar’ which means “In the Name of Allah Almighty Great” and he should not mention any name other than Allah otherwise this make it non-Halal. Mentioning the name of Allah should be on each carcass “Zabaha” (killed by slaughter) or on each group being slaughtered continuously and if the continuous process is stopped for any reasons he should mention the name of Allah again.
- c. Slaughtering shall be done only once to each animal. The “sawing action” of the slaughtering is permitted as long as the slaughtering knife shall not be lifted off the animal during the slaughter.
- d. The act of Halal slaughter shall begin with an incision on the neck at some point just below the glottis (Adam’s apple) and after the glottis for long necked animals.
- e. The slaughter act shall sever the trachea (halqum), oesophagus (mari) and both the carotid arteries and jugular veins (wadajain) to hasten the bleeding and death of the animals. The bleeding shall be spontaneous and complete. The bleeding time must be not less than 2.5 minute to insure fully bleeding.

5.2.6.2.3 Procedure

- a. Slaughterer should grab the head by left hand, stretching it down tightly and shall cut the throat by a sharp slaughtering knife held in the right hand. The sharp edge of knife which used for slaughter should be not less than 12 cm.

5.2.6.2.3.1 Mechanical slaughter

- a. The operator of the mechanical knife shall be a Muslim.
- b. The slaughterer shall recite ‘Bismillah Wallahuakbar’ prior to switching on the mechanical knife and shall not leave the slaughter area.
- c. Should the slaughterer leave the slaughter area, he shall stop the machine line and switch off the mechanical knife. To restart the operation he or another Muslim slaugh-

terer shall recite ‘Bismillah Wallahuakbar’ before switching on the line and mechanical knife.

- d. The knife used shall be of single blade type and shall be sharp. e) The slaughter act shall sever the trachea (halqum), oesophagus (mari) and both the carotid arteries and jugular veins (wadajain) to hasten the bleeding and death of the animals
- f. The slaughterer is required to check that each poultry is properly slaughtered and any birds that missed the mechanical knife shall be slaughtered manually.
- g. A backup slaughterer with knife shall be ready to check any neck not cut well during mechanical slaughtering and rapidly cut it manually.
- h. Bleeding period shall be minimum 60 seconds but during winter this period shall be increased by 5–10 seconds.

5.2.6.3.1 Fish and grasshoppers do not need to be slaughtered. In case of fish they should be taken from water while still are alive and death should happen outside the water.

5.2.6.3.2 Animals that are hunted and killed properly are regarded as being slaughtered. However, those animals captured alive should be slaughtered according to the Islamic rules.

- b. The honeybees falling parts in the honey and the non avoidable parts are excluded from the non-Halal animals.
- c. the product or its ingredients shall be safe and not harmful.
- d. the product is prepared, processed or manufactured using equipment and facilities that are free from contamination with non-Halal materials.
- e. during its preparation, processing, packaging, storage or transportation it shall be physically separated from any other food that does not meet the requirements specified in items a, b, c and d or any other things that are described as non Halal by Islamic rules.

Table 3.1. Guideline parameters for electrical stunning.

Type of animal	Current (Ampere)	Duration (Second)
Chicken	0.25–0.50	3.00–5.00
Lamb	0.50–0.90	2.00–3.00
Goat	0.70–1.00	2.00–3.00
Sheep	0.70–1.20	2.00–3.00
Calf	0.50–1.50	3.00
Steer	1.50–2.50	2.00–3.00
Cow	2.00–3.00	2.50–3.50
Bull	2.50–3.50	3.00–4.00
Buffalo	2.50–3.50	3.00–4.00
Ostrich	0.75	10.00

Notes: 1. Electrical current and duration shall be validated and determined by the organization, taking into account the type and weight of the animal and other varying factors. 2. The above table will need to be amended. For example the high currents given for poultry, if used with 50Hz, would kill the birds before slaughter.

HALAL STANDARDS AND CERTIFICATION

Efforts are being made to produce agreed Halal standards. Organisation of Islamic Countries (OIC) and Malaysian Standards are examples. However, issues listed below need to be resolved before Universal standards are agreed. Similarly, the issue of fragmented certification system is also a problem. Existing self-appointed certification bodies in different countries compete with each other by claiming their products to be more Halal than others at present.

PROBLEM/CONTENTIOUS AREAS

The following is a list of current outstanding issues that have emerged:

- Halal Certifiers – authenticity, lack of standards, insufficient checks/documentation
- Illegal slaughter and unfit meat sale
- Lack of auditing standards (from stable to the table)
- Mechanical killing of animals
- Recorded *tasmiya* (Islamic prayer) during poultry slaughter
- Animal welfare compromises not being recorded
- Labelling – stun/non-stun (New European law may require labelling of non-stunned animals in future)
- Islamic rules-interpretation unclear
- Lack of training for Muslim slaughtermen and certifiers
- Almost all attention of Halal on fresh meat
- Hygiene standards questionable

STUNNING AND HALAL SLAUGHTER

Preslaughter stunning is carried out for conventional killing of meat animals with the aim of managing the carcass and preventing potential pain and distress during the neck cut. Stunning is required to induce immediate unconsciousness that should last until death usually by exsanguinations. There are various stunning techniques that include electrical, mechanical and gas stunning with different applications and effects on both welfare and product quality.

Whether stunning should be acceptable before Halal slaughter has been subject to controversy for decades. Certain types of stunning methods have been regularly used for decades in some countries. For example New Zealand, where stunning is compulsory, has been exporting Halal red meat since the 1980s and in UK, Germany, Holland, France and Spain Halal meat is produced from both stunned

and non-stunned animals (where legislation provides exemption) for the Muslim market. Poultry slaughter in large numbers also often employs preslaughter stunning in these countries and in Turkey. Some European countries, however, such as Sweden, Norway and Switzerland have imposed bans on slaughter without stunning. A New European Union regulation that will come into force in 2013 will maintain the exemption. However, each member country will have the option to implement it or have derogation. The most popular stunning method is the use of electrical currents. Specific electrical currents and frequencies need to be used for Halal slaughter, mainly so that death is prevented but only a stun is achieved. Either non-lethal voltages and currents or high frequencies (>100 Hz) are used only to stun animals for Halal slaughter.

There are three views in regard to stunning: i) those who accept it if conditions are met because welfare of animals is protected and rules are maintained (3); ii) some reject the idea of stunning completely as they think stunning is not necessary, against religious rules or creates problems for animals (2); iii) others either not sure or want assurances in both cases. Dialrel project has found that consumer trust in Halal products is low in Europe. In addition to legislative changes, post-cut stunning is also being considered as a compromise for the objectors in Europe.

MYTHS ABOUT STUNNING AND SLAUGHTER METHODS AND THEIR EFFECTS

When considering different techniques and their effects on physiological parameters, animal welfare and carcass quality it soon becomes clear that there are a number of misunderstandings in the meat industry as well as among interested parties. These so called myths often cause confusion. Some examples are presented below:

Myth/claim: Bleed out is better if no stunning method is employed

Answer: Research carried out comparing neck cutting with or without stunning has found no difference in bleed out rate and total blood loss in sheep (9) and in cattle (10).

Myth/claim: Electrical stunning methods kill animals before neck cut and exsanguination slaughtered

Answer: Only 50Hz frequency sinusoidal waveform if applied in the chest can kill by stopping the heart. High frequencies over 100 Hz should not stop the heart (e.g. poultry stunners used for Halal slaughter).

Myth/claim: Animals do not recover from a stun if not slaughtered

Answer: Recovery of animals has been shown in sheep in the UK Eblex DVD as demonstrated by Anil et al. in sheep and in poultry (Dialrel Final Workshop, Istanbul).

Myth/claim: Stunning methods are cruel, neck cutting without stunning is more humane.

Answer: If a stunning method is used correctly with appropriate parameters unconsciousness is produced immediately and the animal will not feel any sensation. Welfare problems only occur with misapplication of stunning methods. Neck cutting without stunning needs to be carried out rapidly. In practice, welfare problems caused by bad cuts and delayed loss of consciousness are well documented and need addressing (11).

APPENDIX

Mansoura University
Faculty of Veterinary Medicine
Department of Animal Husbandry



جامعة المنصورة
كلية الطب البيطري
قسم الرعاية وتنمية الثروة الحيوانية

MANSOURA WORKSHOP

A list of the participants in the workshop of the Dialrel project (FP6-2005-FOOD-4-C), religious slaughter, improving knowledge and expertise through dialogue and debate on issues of welfare, legislation and socio-economic aspects that was held at the department of Animal Husbandry on the 6th March 2010

No.	Name	Position
1	Prof. Dr. Mohammed Fouda	Professor of Animal Welfare and Dean of Faculty of Veterinary Medicine, Mansoura University.
2	Dr. Usama Abou-Ismaïl	Lecturer of Animal Welfare, Mansoura University.
3	Dr. Mara Miele	Dialrel Project Coordinator.
4	Dr. Haluk Anil	Dialrel Project Planning Former Coordinator.
5	Dr. Florence Blackler.	Dialrel Project French Contact Person.
6	Prof. Dr. Fathy El-Nawawy	Professor of Meat Hygiene, Cairo University.
7	Prof. Dr. Saeid Abo Zeid El-Daly	Professor of Meat Hygiene, Zagazig University.
8	Prof. Dr. Mohammed El-Sherbeny	Professor and Head of Department Food Hygiene, Mansoura University.
9	Prof. Dr. Mohammed El-Gazzar	Professor of Meat Hygiene, Mansoura University.
10	Prof. Dr. Khalid Ibrahim Sallam	Professor of Meat Hygiene, Mansoura University.
11	Prof. Dr. Salah Abo Elwafa	Professor of Parasitology and Vice Dean of Faculty of Veterinary Medicine, Mansoura University.
12	Prof. Dr. Ali Ali El-Kenawy	Professor of Virology and Vice Dean of Faculty of Veterinary Medicine, Mansoura University.
13	Prof. Dr. Abd El-Hady Mohamed Orma	Professor and Head of Department of Animal Nutrition and Nutrition Deficiency Diseases.
14	Prof. Dr. Elsaeid El-Sherbeny Elsaeid	Professor and Head of Department of Biochemistry and Chemistry of Nutrition.
15	Prof. Dr. Adel Helmy El-Gohary	Professor and Head of Department of Hygiene and Zoonoses.
16	Prof. Dr. Nabil Abo Hekal Sayed Ahmed	Professor and Head of Department of Physiology.
17	Prof. Dr. Kamel Ibrahim Abo El-Azm	Professor of Poultry and Rabbit Diseases.
18	Prof. Dr. Salah El-Morsy Farag	Professor and Head of Department of Anatomy and Embryology.
19	Prof. Dr. Viola Hasan Zaki	Professor and Head of Department of Internal Medicine and Infectious and Fish Diseases.
20	Prof. Dr. Adel El-Tabey Ibrahim	Professor and Head of Department of Animal Surgery, Anesthesia and Radiology.

21	Prof. Dr. Gehad Ramadan Mohamed	Professor and Head of Department of Biochemistry and Chemistry of Nutrition.
22	Prof. Dr. Mamdouh Mohamed Abo El-Magd	Professor of Forensic Medicine and Toxicology.
23	Prof. Dr. Tarek Ibrahim Mohamed	Professor of Animal Nutrition and Nutrition Deficiency Diseases.
24	Prof. Dr. Gamal Abd El-Gaber Mohamed	Professor and Head of Department of Bacteriology.
25	Prof. Dr. Mohamed El-Sayed El-Boushy	Professor and Head of Department of Clinical Pathology.
26	Dr. Hussein Saad Hussein	Assistant Professor and Head of Department of Pathology.
27	Dr. Emad El-Sayed Younis.	Assistant Professor of Infectious Diseases.
28	Dr. Ahmed Shawky Ismail	Lecturer of Animal Histology.
29	Dr. Ragab Abd Allah Darwish	Assistant Professor of Animal Behaviour.
30	Prof. Dr. Samir El-Sheikh	Professor of Islamic Law, Faculty of Languages and Translation, Al-Azhar University, Cairo.
31	Prof. Dr. Mohamed Ismail Abo El-Reish	Professor of Islamic Law and Shareat, Al-Azhar University, Alexandria Branch.
32	Prof. Dr. Mohamed Abo Zeid El-Amir	Professor of Islamic Law, Al-Azhar University, Mansoura Branch.
33	Mr. Ahmed Othman El-Mekawy	Al-Azhar Scholar, Cairo.
34	Mr. Hasan Abd El-Gawwad El-Bashir	Al-Azhar scholar, Dakahlia.
35	Dr. Fathy Mohamed El-Beyaly	Director of Directorate of Veterinary Medicine, Dakahlia Province.
36	Dr. Mohamed Abd El-Aziz Ahmed	Director of the Slaughter Houses, Dakahlia Province.
37	Dr. Mohamed Mohamed El-Asfour	Director of Directorate of Veterinary Medicine, Damietta Province.
38	Dr. Adel Salah Salim	Director of the Slaughter Houses, Damietta Province.

Welcome by Prof. Dr. Mohammed Fouda Number

Mara Miele: Presented general information on Dialrel and background. She stated that this meeting is part of WP1 and WP5 also referring to New EC Regulations, concerns about animal welfare, identifying best practices and rules.

Prof. Dr. Fathy El-Nawawy Professor of Meat Hygiene, Cairo University.Presentation

Halal slaughter in Egypt, rules, practices and abattoir investigations

Avoid unnecessary suffering conscious or unconscious

1-Short neck animals 2-Long neck (camel,giraffe)) 3 Hunting 4 Emergency 4 methods

Tasmiyyah=recite name of Allah Bismillah allahu ekber, face kibble, stand left side of animal

Incision of all neck tissues, not spinal cord continuous cut

Long neck junction of neck with the chest where cut is made

Questions:

HA: Could I clarify a few points. Thank you firstly especially for descriptions of cuts.

- 1) Reflexes after cut: corneal, respiratory movements, convulsions after no stunning- Some of them do not indicate consciousness. Residual consciousness shown, brain activity demonstrated,, other scientific evidence indicate consciousness/sensibility can last after cut.
- 2) Vertebral artery: you said VA will not pump, but the problem is with cattle an extra branch can supply blood to the brain after the cut.. Our research showed that Occlusions can occur in carotid arteries even after best cut. Loss of brain activity can take up to a minute or more.
- 3) Loss of blood, you said slaughter without stunning is better than with stunning. I have 2 published papers that show otherwise. There is no difference in blood loss between stunning and slaughter, and slaughter without stunning.

Explained experiments and results

Dr Fathawy insisted there is more residual blood left in carcass after stunning.

HA: I would like to see evidence of residual blood, because you have not shown anything in your video or results about blood loss and your claim..

Florence presentation: WP3 Concerns of Halal consumers:

Lack of Halal provision in state institutions, schools, hospitals

Consumers prefer butchers than supermarkets, personal trust with butcher

Lack of authenticity/choice proximity of non-halal in supermarkets a problem

Majority highly committed to Halal good thing except Turkish consumers

Balance Hygiene, quality,

Dr Samir summarised Florence pres

H Anil Any questions relating to Florence's presentation

Al Nawawy: How do you measure pain/suffering during stunning?

Florence: I was summarising consumers concerns and also experiences of slaughtermen, not assessing and making claims

H Anil: Just to add, getting peoples 'opinions, not assessing. But stunning is required to make animal unconscious immediately, but pain is another matter, we can discuss later.

Al Naw: I was talking to Dr Mara earlier, I am pleased to hear pithing is now banned in Europe.

H Anil: Yes since 2001. Questions?

Q: My understanding is that we cannot prevent pain but also psychological effects. We need to search for technology to prevent psychological stress. But they will suffer. Dr Nawawy said there were movements but not necessarily pain.

H Anil: Good point about minimising pain and preventing unnecessary pain. Search should continue.

Q: Why most animals conscious before slaughter. Stunning anaesthetises animals, do you know that? Recording EEG. Shorten the pain etc..

H Anil: You asked a few questions. All important. During discussions we have to deal with the. But

Anaesthesia is not acceptable because of residues. If no residues are left in animal and it is economical then yes.

Pain during stunning: Electrical, captive bolt, gas methods available. 2 methods more relevant. If electrical stunning is applied at right current levels, it will make animal unconscious. It will not feel any pain or other sensation, because it will be unconscious.

Cutting the throat: Scientifically it was difficult to prove pain or not. You can look at brain activity, other sensations, but pain is very specific, and difficult to measure. But a new paper by Troy, Johnson et al came out who developed a technique to analyse brain EEG changes, compared with a cut. They showed that there could be pain. So stunning is designed to provide unconsciousness. CB provides instantaneous unconsciousness and quicker than immediate. We can continue these later. Shall we move onto Dr Samir's presentation.

Prof. Dr. Samir El-Sheikh Professor of Islamic Law, Faculty of Languages and Translation, Al-Azhar University, Cairo.

Dr Samir: Thank you for inviting me here to Mansoura, also extend it to University of Cardiff, colleagues. I work at Al Azhar to teach Islamic Sharia in English. I have benefited from pres and questions, explained to me some scientific aspects. I am to talk about Islamic Sharia, in relation to Halal meat. I shall go back to beginning. Islam is comprehensive; Sharia looks after everything for good. Allah u Teala provided rules. All food, fish, nuts, grains, vegetables, fruits are good for us. Haram things are unlawful. Also animals are lawful and must be sacrificed according to Islamic rules. I should also refer to haram Foods. Islam is comprehensive Sharia. : "Does he not know what she has actually created he is wise:" Pigs, dogs, donkeys, carnivores, reptiles, insects, animals killed by strangulation, blow/clubbing; natural death/causes are carrion. Fish are exempt prophet pbu things that come from sea lawful, no carrions, If not sacrificed according to. Intoxicating drinks and has drug effects not halal. Donkeys lions, amphibians, turtles are haram. Animals killed for other than Allah. Tasmiyyah is important.

Haram: Anything cut off an animal, this piece is carrion. Food additives may be incompatible.

Dogs, pigs animals not killed according to Islamic rules are disallowed.

Donkeys, cats, dogs, pig, blood are forbidden. Also to avoid certain diseases. Blood must be cleared out of animal's body. Very importantly, if killing by other

means, we will not secure meat. Blood should not be retained in the veins and congeal, for hygiene reasons.

Islamic method of sacrificing an animal is to cut its throat with a view to letting all blood out. Blood carries harmful things. We should insist on a good flow of blood.

Stunning to make an animal unconscious must not allow blood to congeal or reduce flow. It could affect hygiene adversely. My question about electrical stunning is this. If blood does not congeal then it's healthy.

Conditions:

Strangled animal, died from slaughter only

Must not start to skin the animal before its dead is haram.

Carrion: something is cut off while animal is alive cut. Maitatat: Unfit meat/animal

Prayer must be read:

Strangling, before icons, without besmele (Tasmiyyah), partly eaten by another animal is haram.

Another recitation:

Donkeys forbidden by prophet (pbu) local donkeys

Beasts with fangs, birds of prey are haram.

However, anything can be eaten during necessity. even carrion, pig etc.

Pray translation: Forced by necessity (severe hunger) nothing else available, Allah is forgiving.

Whose slaughtering is acceptable Muslims or People of the books can slaughter animals. Besmele/ citing of god's name are a must. Male or female OK

Pray Translation: People of the books (Christian and Jews)

I will answer questions but shall finish first.

Instruments used: In a desert if no traditional instruments, can use anything.

A man said to messenger I have no knife. Ans: Whatever can draw blood is acceptable.

Otherwise blood can congeal. My decisive opinion. Blood is out. Claw or tooth can be used.

But Tasmiyyah is necessary.

Important tool by prophet; Trans: Excellence or perfection, kill in a good manner, slaughter in a good manner, spare suffering each of you use a sharp knife. Slaughtered animal should not be shown to other animals. Otherwise it is haram.

Cut the windpipe and all throat to let blood flow. Claw or tooth not allowed. Head can be cut off as long as Allah's name is mentioned.

Head must not be removed from the head during slaughter.

Run away animals that are out of control can be shot, that's OK.

Foetus of female animals: if alive slaughter it, otherwise take it out.

Whatever Allah's name mentioned on anything is fine.

Facing Kible is recommended, but not required. Majority of scholars agree.

Every act in our daily life is connected with Allah. Sunnet: I am facing Allah the creator of heaven and earth, Abraham the upholder of the religion, pure

monotheist and I am not one of polytheists. This is from you and for you on behalf of my family and nation of Mohammed.

Most of the ways followed by slaughterhouses in Europe, they don't comply with Sharia. That is if the suffering is not minimised, if blood in such ways remains in the blood vessels. Blood has many diseases. If stunning leads to death before slaughter, then that's not Halal.

That's all I have to say.

H Anil: Thank you Dr Samir for his excellent and comprehensive presentation. We now have a set of questions we have prepared. However, I like to clarify something with you about the congealment of blood. If no congealment or if it flows out, that's acceptable is it not? That's what you are saying is it not, then that's Halal

Dr Samir: We have 2 main requirements 1) Merciful to animal 2) Slaughtered Must be healthy. If no congealment it's OK, but when you minimise suffering and congealment not OK.

H Anil: Thank you. And the other point is if an animal does not die after stunning before blood is let out that acceptable too.

Dr Samir: Yes

H Anil: Thank you. Now, I would like to go over to Dr Miele for questions. She will ask the questions and we can discuss them

M Miele: We have prepared some questions. Our questions are focused on issues mainly from Muslim communities in Europe.

Dr Samir: I want to clarify something first, if new technological ways to slaughter animals, that's fine as long as suffering is minimised and sufficient blood flows out to protect consumers. Otherwise we should refuse. New technology is fine. Islam does not say it has to be done by hand. Automatic cut is fine. Electric current killing is haram, but electric blades are fine.

M Miele: Thank you. If I understood correctly, must minimise suffering and blood flow. In Europe some groups refuse stunned animals. So, you are saying stunning is fine. Dr Anil showed in his experiment that after stunning if not slaughtered, animals can recover. What is your opinion?

Dr Samir: I don't know all the details of stunning methods. But in every community you will find these who are conservatives and others easy on people. They have their point. But Islam has views on every issue. From getting up until you go to bed. Why not with time, slaughter collectively, all conditions are reserved. 1) Tasmiyyah 2) No suffering 3) Flow of blood.

You have to tell me exactly what happens with stunning. Does blood flow? Does it die because of stunning?

M Miele: Before Florence asks a question then Haluk will show his experimental results.

Florence: You explained blood flow is crucial. How do you cope with science when it shows blood flow is the same and technological progress?

Dr Samir: In Islam we can use new technology but also keep Muslim law.

Florence: I mean what Haluk showed no difference in blood loss. In 78 Egyptian fatwa commission approved stunning. But I you have 2 scientific opinion opposing each other.

Dr Samir: If machines are used that's fine. A new way our prophet told us to minimise suffering.

M Miele: Dr Anil will show his recent research.

Video by Haluk being shown.

H Anil: This is one of the ways for Halal slaughter. What I did I could stun an animal electrically and show it could recover.

Animal is alive here. This is the stunning. A number of animals, head only stunning, current passes through for 1 second, immediate unconsciousness, I check reflexes, but unconsciousness. We are waiting for the animal to recover. I check eye reflex etc when recovery takes place, it has not been slaughtered. If an animal dies before slaughter, that would be a concerns. There are stunning methods if used will not kill them If you want 100 per cent guarantee, that's only one thing we will all die. If an animal suddenly dies before slaughter for a different reason, that is possible. But I say thousands of animals slaughtered for Halal in NZ.

Dr Samir: If the animal does not die you can check that's fine. What about the effect of electrical stunning on bleeding, blood flow?

H Anil: many research been done to look at. If very high current currents are used there may be haemorrhages, but no effect on blood flow, if there was a negative effect, it would not be acceptable.

Dr Samir: Our religion copes with science, if you assure me no effect on blood flow and no pain will be, then that's fine. If the pain is equal, why should we use stunning, if it is equal. Or the same as non-stunning. It only takes 2-3 seconds.

H Anil: Sorry but it's a good question. Firstly death does not occur in 2-3 seconds. It is not equal in that kind of comparison. If you slaughter the pain felt will be from the cut, then in the wound, then how long does it take before death. You can look at brain function. If you look at brain function after stunning, it lost. In some animals it can take longer for brain function to be lost. like cattle Question is how long? After stunning no brain function. With new technology, if we can provide that why not use it? In UK a lot are stunned, in NZ all, but in France more slaughtered without stunning.

But if you use electric current through head, but also use on chest to stop the heart, then it would not be acceptable.

Dr Samir: So, you are saying you only pass the current across the head.

Al Nawawy: Dr Samir please do not make fatwa yet.

Dr Usama: can I remind you that we have other experts to comment on.

Al Nawawy: If we explain the situation first. Other methods of stunning may affect blood flow? Not all

Dr Samir: Explains in Arabic.

Dr Nawawy: 1st is effect of electrical stunning. Captive bolt similar to hitting the animal in the brain, one perforation in the brain, that's banned now. Other one the animal does not recover.

Dr Samir: In Arabic.

Dr Al Nawawy: Captive bolt leaves more blood in carcass. Other point if Jews accept stunning we shall follow them.

Dr Samir: Arabic.

Dr Al Nawawy: Arabic

Dr Samir: We are talking about the flow of blood, taking out disease.

H Anil: Can I just intervene. There are others who want to contribute. Dr Mohammed Ismail, Prof of Islamic law. Thank you.

Prof Mohammed Ismail: Arabic. Discussion follows.

Dr Samir to translate: Islamic sharia requires flowing of blood regardless of whether microbes stay in the blood. That is the condition.

Prophet said it is a condition to cut off 2 main veins, wind pipe. We make sure blood flows. I was asking what the wisdom of blood flowing out is a requirement,

Al Nawawy: Blood is a good medium for growth of bacteria. When we select animals for slaughter they are healthy. But when a lot of blood stays then they can grow and spoilage and disease can occur.

Dr Samir: He says in case after slaughtering getting the blood out, if signs of disease then we get rid of it.

HA: The fact that blood can retain in carcasses applies to all slaughter methods, you know well Prof Al Nawawy, and you are a Prof of hygiene. But what is clear is that it has been shown no difference in blood loss between stunning and no stunning. That's clear unless shown otherwise.

New contributor: Dr Mohammed: in Arabic. Dr Samir translates: In order to be healthy Sharia suggests separation of blood a source of disease. I should add, Allah has honoured humans. First secure the health of those who s=consume and minimise suffering of animals.

If we can ensure that the animal does not die stunning will be acceptable.

Prof. Dr. Mohammed El-Gazzar: 2 reasons for using stunning: 1) Minimise pain 2) Increase/improve blood loss, especially electrical stunning. Blood pressure goes up to 120 mm to 160 mm mercury.^{2nd}, heart rate goes up and improves blood loss/evacuation. Therefore, no contraindication between stunning and Islamic method.

Another contributor: in Arabic

Mohammed Ismail: translated by Samir. Islamic requires after cutting we must observe blood loss after slaughter.

HA: It is not just the pumping of the heart. Most blood comes out through contraction of muscles and gravity though it may sound strange.

Prof Mohammed continues:

We have to make sure signs of life end after slaughter.

Question: can stunning be used in large animals.

HA: All cattle slaughtered for Middle East are stunned by electrical currents applied on the head, then slaughtered by a Muslim slaughterman.

Q: Question to Dr Samir. Prophet pbu for mankind and animals we have to look for mercy to animals. We have to accept new technology because of that. That's one point.

Flow of blood is another point. It is not a must.

H Anil: The only difference between Shechita and Muslim method is Jews use salt on meat.

Prof Halid Salam: It's impossible to evacuate all blood. Blood is also nutritious. The only haram blood is evacuated blood. We don't need to be that concerned.

Prof Al Nawawy: We came to agreement that we are open minded. Electrical stunning helps move blood out of animal. But captive bolt can interfere. But if there is interference with our religion then Sharia experts should comment.

H Anil: that's why we are here to ask the experts. One point about CB stunning. It should not be equated to a blow on the head with an object, killing it in an inhumane way. What it does is its extremely fast, 120m per second with huge amount of energy being imparted. Concussion occurs instantaneously and animal collapses. So, brain function goes instantaneously. I think that should be regarded as a humane way. The other point is there is no evidence that blood loss is affected. And also animal does not die from CB stunning.

M Miele: I just want to say I am very happy to have been here. It's been extremely interesting. We will write a report and circulate to participants.

One thing I learnt since we sit around and discuss problems relating to how we treat animals and look at quality of healthy/lawful food we can find common ground. We have to find a way to live together in a better way.

H Anil: I knew Usama when he was doing his PhD, he was a very popular person. I would like to thank him for organising this meeting and also Prof Faouda.

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WP Co-ordinator
Dr Karen von Holleben
and **Prof Dr Jörg Luy**
BSI Postbox 1469
Schwarzenbek
21487
Germany
tel: **+49(0)41517017**
fax: **+49(0)4151894046**
e-mail: info@bsi-schwarzenbek.de
www.dialrel.eu

The DIALREL project is funded by the European Commission and involves partners from 11 countries. It addresses issues relating to religious slaughter in order to encourage dialogue between stakeholders and interested parties. Religious slaughter has always been a controversial and emotive subject, caught between animal welfare considerations and cultural and human rights issues. There is considerable variation in current practices and the rules regarding religious requirements are confusing. Consumer demands and concerns also need to be addressed and the project is collecting and collating information relating to slaughter techniques, product ranges, consumer expectations, market share and socio-economic issues. The project is multidisciplinary and based on close cooperation between veterinarians, food scientists, sociologists, and jurists and other interested parties.

EC funded project. N°: FP6-2005-FOOD-4-C: from 1 November 2006 until 30 June 2010.

The text represents the views of the author(s) and does not necessarily represent a position of the Commission, who will not be liable for the use made of such information.

Project Co-ordinator
Dr Mara Miele
School of City and
Regional Planning
Cardiff University
Glamorgan Building
King Edward VII Avenue
Cardiff
CF10 3WA
United Kingdom
tel.: **+44(0)2920879121**
fax: **+44(0)2920874845**
e-mail: mielem@cardiff.ac.uk
www.dialrel.eu

ISBN 1-902647-87-4