

# PRE-SLAUGHTER STUNNING OF BIRDS AND ANIMALS: ITS IMPACT ON ANIMAL WELFARE AND THE LEGISLATION OF HALAL SLAUGHTER

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## ABSTRACT

The process of converting animals into pieces suitable for human consumption is a very important issue, not only from a shariah point of view but in terms of providing healthy meat with high nutritional value that is beneficial to consumers in general. Therefore, this decisive moment of the killing is governed by strict regulations regarding food hygiene and safety, working conditions and animal welfare. This paper explains and discusses the process of slaughtering animals and birds by following the traditional method of slaughter according to shariah law and the methods of pre-slaughter stunning accepted by some Islamic authorities and their impact on maintaining animal welfare to reduce their suffering and pain before and during slaughter. Information was collected through previously published scientific works as well as scientific publications related to the subject in addition to legal information derived from the Noble Qur'an and the honourable Sunnah of the Prophet (PBUH). The paper come out with some commandments and suggestions, which focused on the importance of practising the traditional method of slaughter following the teachings of the Noble Qur'an and the Sunnah, taking into account the use of the latest modern technologies to facilitate the process of slaughtering animals and birds and emphasizing the training of management and workers in this sector to take into account animal welfare and thus produce Halal and quality meat to keep the Muslim consumer away from falling into the area of forbidden and suspicious.

**Keywords:** Animal Welfare, Halal Complaint, Halal and Thayyib, Hygienic Meat.

## 1. Introduction

The word halal and tayyib have been stated frequently in the Holy Qur'an. Nevertheless, it's the perception by numerous Muslims is shallow. Many understand that food is halal as long as it does not contain liquor or pork. The word halal in Arabic means something permissible. From the *Fiqh* perspective, the word means an option that is permitted by the shariah law. This means an individual has a choice either to do or not to do it. In another word, it is synonymous with another Arabic word *mubah*.

The opposite is haram which means completely forbidden or not allowed and must be avoided according to shariah law. The features of halal and haram are important and should be the main concern in Muslim life. Allah SWT has made it mandatory for all Muslims to consume halal food (lawful) and tayyib (good quality). These dual features will ensure physical health and help increase Muslims' faithfulness and gratitude toward Allah SWT. This is what has been mentioned in verse 172 of Surah Al-Baqarah in the holy Quran:

*O ye who believe! Eat of the good things that We have provided for you, and be grateful to God, if it is Him ye worship.*

It is worth mentioning that any food or drink that lies within the grey area and does not fall clearly under the halal or non-halal category is classified as *shubhah*, instead called

questionable or dubious. The Prophet (PBUH) has given a guideline concerning *shubhah* matters. It is reported by Bukhari, Muslim, Abu Daud, and Ibn Majah as follows:

*“What is Halal is clear. And what is Haram is also clear. And in between those two is a dubious area in which many people do not know about. So whoever distanced himself from it, he has acquitted himself (from blame). And those who fall into it, he has fallen into a state of Haram”.*

Based on the language definition, the word *tayyib* has been translated as pure, good, healthy, safe, and wholesome, both in the physical and ethical sense. If the concept of *tayyib* is applied to animals, it will promote animal welfare. The opposite of it is *al-khabith* which means something that is bad, impure, not perfect, and brings harm.

Therefore, it is compulsory for Muslims to consume halal food and use halal products only because they do not eat and use consumer goods for the sake of pleasure but also for performing their commitments, responsibilities and mission in this world. The general principle concerning food according to Islamic teachings is that everything is halal except impurities (or mixed with impurity), harmful and intoxicants. Therefore, it is obligatory for Muslims to eat good and healthy food and to avoid all that is forbidden as Allah mentions in the Qur'an.

Traditional halal slaughter is a Muslim method of slaughtering animals based on Islamic Laws drawn from the Qur'an and Hadiths (Aghwan et al., 2016). According to this method, the animal intended for slaughter should be alive and performing stable life (*Al-Hayat Al-Mustaqirah*) at the time of slaughtering. For halal-acceptable animals and birds, the procedure for slaughtering animals includes using a well-sharpened knife to make a swift, deep incision that cuts the front of the oesophagus, trachea, the jugular veins and the carotid arteries (Aghwan and Regenstein, 2019).

Halal slaughter without stunning lawful animals is important for Muslims as it is a way that relates to moral principles by following the Prophetic procedure of animal slaughtering and the insistence of the Muslim majority that animals must slaughter whereas they are completely conscious. Additionally, halal slaughter without stunning is a way that relates to economics or finance due to the massive demand for animals slaughtered in this method. This huge demand is justified by the significant number of Muslim populations globally reaching 1.8 billion in 2019, and their population is increasing annually (State of the Global Islamic Economy 2019–2020 Report).

For customers outside the traditions of Islam and Judaism, pre-slaughter stunning of animals is a relatively unproblematic practice during the slaughter of domestic animals such as ruminants and birds (Aghwan and Regenstein, 2019). Pre-slaughter stunning of the animals is not permissible in the majority of Muslim countries because of the apprehension of falling into doubtful practices (Nakyinsige et al., 2013). Yet, a numeral of stunning procedures available at this time has been accepted by several Muslim countries as long as the animal remains alive at the time of cutting. Therefore, the main objective of this review is to describe the main slaughtering and stunning methods of animals and birds in Islam and deliberate the debate surrounding the acceptability of pre-slaughter stunning during halal slaughter. Furthermore, come out with some recommendations to strike the balance from both fiqh and scientific views in the shariah ruling on pre-slaughter stunning of birds and animals.

## 2. The Relevance of Animal Welfare from an Islamic Perspective

Allah Almighty, the Creator of this Universe, allocated space to all His creatures:

*“And the earth He laid [out] for the creatures.”* (Ar-Rahman (55): 10)

This reveals that the planet is not only destined to be used by human beings but nonetheless for all living beings—land or water creatures. However, Al-Qur’an shows that humans are the greatest of creation. The preference was only with the mind that is the mayor of commissioning, and through him, the person knows his Lord and understands His words, and reaches his bliss and the trust of his messengers. God preferred man over other animals with natural, subjective moral things, such as mind, speech, good image, and vertical body. Human is the creature that God Almighty honoured when he said:

*“And We have certainly honoured the children of Adam and carried them on the land and sea and provided for them of the good things and preferred them over much of what We have created, with [definite] preference.”* (Al-Isra’ (17): 70)

And He made him in the land as his successor, where He said to the angels:

*“And [mention, O Muhammad], when your Lord said to the angels, “Indeed, I will make upon the earth a successive authority.....”* (Al-Baqarah (2): 168)

Furthermore, Allah subjugated and facilitated everything in the universe above and below Him to be of service to humans when He said:

*“And He has subjected to you whatever is in the heavens and whatever is on the earth – all from Him. Indeed in that are signs for a people who give thought.”* (Al-Jathiyah (45): 13)

By means of this elevated status comes a high liability. This liability involves how we treat our bodies, actions, and interactions with each other and other creations such as animals (Aghwan, 2021). Islam is an inclusive religion that guides the lives of its followers through sets of rules that govern personal, social and public aspects through the verses of the Noble Qur’an and hadith. All living beings on this globe were located by Allah (SWT) for human value. Allah Almighty raise the value, kindness, compassion, and empathy towards animals to the level that it can drive the forgiveness of human sins. A good deed is as worthy as a good deed to a person, whereas an act of cruelty to animals is as bad as an act of cruelty to humans. Islam teaches us to be very careful in our behaviour with animals and all living things, as there is a huge reward for treating them with kindness and a great punishment for violating their rights.

The Qur’an refers to animals as an independent community to be acknowledged and respected. It is important to acknowledge that Islam respects the intrinsic worth of animals and teaches animal welfare. Allah mentions in the Holy Qur’an:

*“There is not an animal that lives on the Earth, nor a being that flies on its wings, but forms part of communities like you. Nothing have we omitted from the Book, and they all shall be gathered to their Lord in the end.”* (Al An’am (6): 38)

The importance of animals in Islam is obvious from the fact that out of 114 Chapters in the Holy Qur’an, six have been named after them. Among these are Al-Baqarah, Al-An’am, An-

Nahl, An-Naml, Al-Ankabut, and Al-Fil. Furthermore, many verses in different Chapters deal with the animals. A closer look at the teachings of the Qur'an and tradition reveals teachings of kindness and concern for animals. Furthermore, a deep look at the meaning of the creation of animals in the Holy Qur'an will reflect a creation to raise the value of and be grateful to animals such as in Surah An-Nahl (16): 6-7-8, a creation to respect such as the story of Prophet Salih in Surah Ash-Shams (91): 13-14, and a creation of conformity and good manners such as the story of the People of the Cave in Surah Al-Kahf (18): 18 when the faithful dog was accompanying the group of youths.

In light of the above considerations, it shows that animals are not just a resource, but living beings dependent on Allah (SWT). It is realized that the animals have their existence and purpose, value for themselves and to Allah (SWT) and above any material value that they may give to humanity. It is worth mentioning that Al-Qur'an is not the only Islamic reference to humanity's concern for animals. There is a notable tradition of the Prophet Mohammed (PBUH) towards the animal found in the Hadith and Sunna:

Aisha reported: The Messenger of Allah, peace and blessings be upon him, said, *“Verily, Allah is gentle and he loves gentleness. He rewards for gentleness what is not granted for harshness and he does not reward anything else like it.”*  
Source: (Ṣaḥīḥ Muslim 2593)

### 3. Shariah Requirements on Slaughtering Animals and Birds

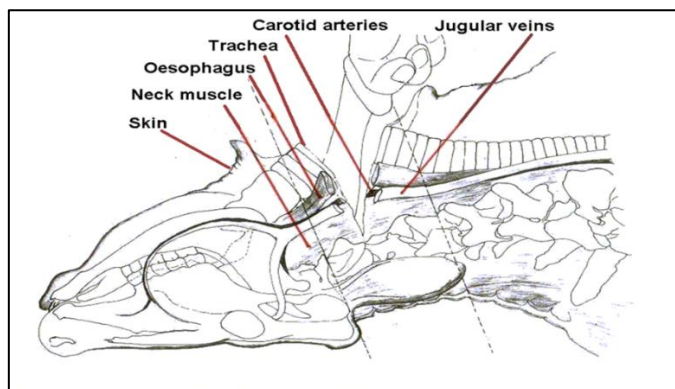
The halal slaughtering of domestic animals for food is a Muslim method of bleeding of animals based on Islamic Laws that cleanses an animal from blood and uncleanness, thus making it good and nutritious for human consumption. Usually, appearance, acceptability, cleanness and meat shelf life are affected negatively by incomplete bleeding of animals. The holy Qur'an referred to what is permitted and prohibited in terms of meat and food. Muslims deduce what is halal and haram from these and similar verses:

*Prohibited to you are dead animals, blood, the flesh of swine, and that which has been dedicated to other than Allah, and [those animals] killed by strangling or by a violent blow or by a head-long fall or by the goring of horns, and those from which a wild animal has eaten, except what you [are able to] slaughter [before its death], and those which are sacrificed on stone altars....”*  
(Al-Ma'idah:3).

*“Today, all good food is made lawful (halal) for you. The food of the people of the scripture is lawful for you, and your food is lawful for them.”* (Al-Ma'idah:5).

*“And eat of what Allah has provided for you [which is] lawful (halalan) and good (tayyiban). And fear Allah in whom you are believers.”* (Al-Ma'idah:88).

*Dhabiḥa* represents the permitted techniques for the halal slaughter of all meat animals, and birds (also the game that is hunted or trapped) excluding halal-acceptable seafood that is fished according to Islamic laws. For halal-acceptable animals and birds, the procedure for slaughtering animals includes using a well-sharpened knife to make a swift, deep incision that cuts the front of the oesophagus, trachea, jugular veins and carotid arteries (Fig. 1).



**Figure 1:** Halal method of slaughtering cattle  
**Source:** Department of Standards Malaysia Ms 1500:2009.

The rule includes lining up the head of the animal to be slaughtered in the direction of the Qiblah (facing towards Mecca). The performance of *dhabiha* is a religious act. Furthermore, approved animals should be slaughtered upon pronouncement of the Islamic invocation ‘*Bismillah Allahu Akbar*’ (in the Name of Allah, Allah is the greatest). The features of halal slaughter have been reported by Aghwan and Regenstein (2019).

The Qur’an contains several verses referencing *dhabiha*, and Allah reminds the believers to mention His name at the time of slaughtering, such as:

*“That they may witness benefits for themselves and mention the name of Allah on known days over what He has provided for them of [sacrificial] animals. So eat of them and feed the miserable and poor.”* (Al-hajj:28).

*“For you the animals marked for sacrifice are benefits for a specified term; then their place of sacrifice is at the ancient House.”* (Al-hajj:33).

*“And the camels and cattle We have appointed for you as among the symbols of Allah; for you therein is good. So mention the name of Allah upon them when lined up [for sacrifice]; and when they are [lifeless] on their sides, then eat from them and feed the needy and the beggar. Thus have We subjected them to you that you may be grateful.”* (Al-hajj:36).

*“So eat of that [meat] upon which the name of Allah has been mentioned, if you are believers in His verses.”* (Al-An’am:118).

#### 4. Welfare Concerns about Halal Slaughter without Stunning

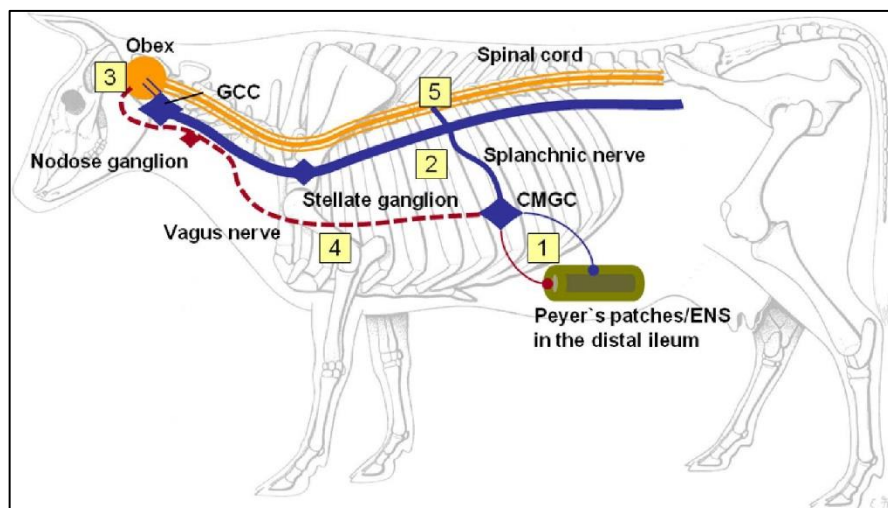
Findings of several studies Gibson et al., (2009); Grandin, (2010); Grandin & Regenstein, (1994); Gregory, (2005); Ndou et al., (2011) have indicated concerns about the maintenance of animal welfare in halal slaughter without stunning such as the stress caused by restraint within the slaughter box, whether the wound is painful, whether the animal is in undue distress during bleeding and the time for the animal to be unconscious. Studies of how long it takes animals to lose consciousness during slaughter without being stunned have raised controversial results. Evaluation of the time of brain failure or stimulated activity using an EEG or ECG machine showed that the calves lost brain function immediately (Gregory & Wotton, 1984; Nangeroni & Kennett, 1963; Schulze et al., 1978). By contrast, other studies have shown that some animals take a relatively long time to lose consciousness or to develop changes in spontaneous or awakened activity (Bager et al., 1992; Blackmore, 1984; Daly et



al., 1988; Gregory et al., 2010; Newhook & Blackmore, 1982). The authors have attributed the failure to unconsciousness within a short period of time (approximately 60 seconds) to swelling of the vertical ends of the carotid arteries called false aneurysms. False aneurysms occur as a result of the regression of the end of the severed artery within the sheath of the connective tissue that surrounds it (Gregory et al., 2006), which leads to a delay in the time in the loss of consciousness and during this period nociceptive neuronal signals can reach the brain (Gibson et al., 2009; Gregory et al., 2010). The findings of Gregory et al. (2008) have indicated that when cattle are slaughtered without stunning, the carotid arteries will be prone to developing false aneurysms at the severed cardiac ends. Arresting flowing of blood due to the artery may become blocked, which may lead to continued blood flow to the brain through the vertebral arteries will maintain the collateral vertebrobasilar plexus which can be observed especially well in cattle (and these are not found in sheep).

Grandin (2010) reported that suctioning of blood into the lungs is an additional welfare concern for halal slaughter without stunning. Although it is claimed that drawing blood into the upper respiratory tract and lungs causes suffering during slaughter without stunning (Gregory et al., 2009; Von Wenzlawowicz & von Holleben, 2007; Webster, 1994), there may be no suffering as incoming signals are activated by lung irritants are relayed by neurons in the vagus nerves (King, 1999), and are cut off during halal slaughter (Figure 2).

**Figure 2:** Adapted from Martin, Kaatz et al., 2012



## 5. Methods of Stunning Accepted in Islam

Several Islamic authorities approved different stunning techniques to render the animal unconscious (Fuseini et al., 2018). Yet, in practice, stunning procedures can be malfunction and done poorly if the equipment is undersupplied or workforces are not accurately trained and managed (Anil et al., 1998), and pre-slaughter handling possibly will expose animals to bad welfare (Warriss, 1998).

Pre-slaughter stunning can be performed by either mechanical, gas or electrical methods, but not all of these methods have been approved for halal slaughter. Two main methods have been used in the mechanical stunning namely penetrating and nonpenetrating captive bolts. The main stunning technique used in the European Union for slaughtering cattle is the penetrating captive bolt. Yet, this method is not halal-compliant. It has even been implicated in the transmission of bovine spongiform encephalopathy (BSE), in particular, the risk of diffusion of central nervous system (CNS) substances through blood circulation

to edible organs/tissues in cattle (Anil et al., 2002). For the nonpenetrating captive bolt method, observations showed that the tool is less effective on cattle with more hair than on those with less hair. Furthermore, it is not recommended for adult livestock and can only be used for certain types of animals (Collins et al., 2020).

The non-penetrative captive bolt is accepted by some Muslim scholars for use in the halal slaughtering of cattle and buffalo nevertheless the bolt must neither penetrate nor break the head. Any damage caused must not be permanent and the animal's skull should be checked after skinning for any permanent injuries. Percussive bolt stunning is acceptable by Islamic authorities because the bolt does not invade the brain, thus there is less likelihood of intracerebral haemorrhage. Furthermore, this stunning procedure should be reversible. Another stunning method using gas mixtures of carbon dioxide and argon or nitrogen is currently being used in some countries to stun pigs, lamb and poultry. Yet, this method is not allowed prior to halal slaughter. In comparison with electrical and captive bolt stunning, this method is more stressful for the animals (Llonch et al., 2012). According to Gregory (2007), head-only stunning and head-to-body stun is the most widely used electrical stunning methods and are economical, convenient for high yields, can be automated and humane for appropriate animals. Stunning can be reversible or irreversible by inducing heart failure depending on the time and frequency of the current passing through the brain (Grandin, 2010). Head-to-body stunning is not a halal-compliant method. However, head-only-stunning is the only approved electrical stunning method for the halal slaughter of all animals. Furthermore, a water bath stunner is the only halal-acceptable method for poultry. Nevertheless, stunning must not damage the heart or brain or cause physical disability or death. However, ineffective stunning may happen as a result of differences in electrical resistance because of differences in body size, skull thicknesses, body muscle and fat content, and plumage condition (Aghwan et al., 2016). Electrical stunning is probably more akin to human electroconvulsive therapy (ECT) than to epilepsy, and some of the negative aspects of unmodified ECT may be present during electrical stunning. Unmodified ECT is considered cruel in humans and is thus prohibited (Zivotofsky and Strous, 2012).

Finally, two more stunning techniques have been proposed and are still under testing namely; single pulse ultra-high current (SPUC) and the use of microwave energy (Fuseini et al., 2016). The first is a novel system of head-only stunning of cattle using a SPUC generated by a capacitance current spike of a minimum of 5,000 V and a current of 70 A (Robins et al., 2014). The SPUC charge provided as a biphasic-pulse waveform, resulted in a high level of stunning efficacy, with unconsciousness lasting for up to 4 min. While the second proposed stunning technique is Diathermic Syncope (DTS) which is a novel system for rendering animals insensible prior to slaughter, utilizing microwave energy to induce a rise in temperature in the brain to a point at which the animal is expected to lose consciousness (Small et al., 2013). Diathermic Syncope stunning technique that uses Electromagnetic energy focused into the brain using selective heating: Above 43°C and Below 50 °C.

## 6. Halal Compliant pre-slaughter Stunning Methods

In some societies, pre-slaughter stunning is not yet accepted while in some developing countries there is a general lack of stunning facilities, which calls for the provision of an alternative. Additionally, for every stunning method, there will be miss-stuns (Zivotofsky & Strous, 2012), which makes it necessary to have a backup system. There is a huge need for information on strategies to improve animal welfare on a practical level (Grandin, 2010). It is worth mentioning and according to several previous findings that the primary reasons for animal welfare problems at slaughter plants consist of; stressful equipment and methods,

impediments that hinder animal movement, dearth of employee training, poor equipment maintenance and poor conditions of the animals arriving at the plant, practical ways must be suggested to improve humaneness of halal slaughtering.

The stunning apparatus in the slaughterhouse should be tested for compliance with halal standards. Furthermore, the reversibility of the stunning should be confirmed before enormous trading production begins. Monitoring the animal's performance is a simple way that can be used to evaluate the efficiency of stunning. Usually, animals reflect typical behaviour patterns and physical reflexes during and immediately after stunning and this will depend on the method and species involved. These can be used to observe the efficiency of stunning under commercial conditions. It has been reported that the recognition of rhythmic breathing actions designates the first stages of recovery and is therefore an essential measure for monitoring the effectiveness of the stunning treatment (Velarde et al., 2002). Rhythmic breathing immediately after stunning shows that stunning was ineffective. Other behavioural indicators of regaining consciousness include corneal reflex which can be elicited by touching the cornea of the open eye with a feather, fingertip or pencil, response to painful stimuli such as repeated nose prick with a hypodermic needle and attempts to raise the head (Nakyinsige et al., 2013).

**Table 1:** Halal and non-Halal compliant stunning methods for cattle, goats, sheep, poultry, and ostriches

No	Animal	Halal-compliant stunning method	Non-Halal compliant stunning method
1	Cattle	Non-penetrating captive bolt. Head-only electrical stunning.	Penetrating captive bolt.
2	Goats	Head-only electrical stunning (lack of scientific evidence).	Head-to-body electrical stunning, Penetrating captive bolt.
3	Sheep	Non-penetrating captive bolt stunning. Head-only electrical stunning.	Head-to-body electrical stunning. Penetrating captive bolt.
4	Poultry	Water bath electrical stunning.	Gas stunning.
5	Ostriches	Head-only electrical stunning.	Penetrating captive bolt.

**Source:** Nakyinsige et al., 2013

It is worth mentioning that observation in three different plants include more than three thousand veal calves and cattle following animal slaughter without stunning in the United States that were using the upright restraint system where animals feel little or no response while their being throat is cut (Grandin and Regenstein 1994). A slight trembling was observed when the blade first touched the throat, but this was significantly less vigorous in comparison with the response of an animal when an ear tag was put on. No extra response was recognized as the cut progressed. It seems like the animals were not aware that their throat was being cut.

## 7. Recommendations and Suggestions

The following are some suggestions through which solutions or answers can be found to the concerns on the part of animal rights organizations or some European societies related to the maintenance of animal welfare when Halal slaughter without stunning is performed:

1. Formation of an internationally recognized body that includes specialists from both shariah and scientific fields. The main task is to set standards and recommendations for Halal slaughter without stunning and animal welfare from the farm to the consumption point following the requirements of shariah law. This authority is exclusively responsible



for granting Halal certificates to slaughterhouses for all types of animals, as well as following up and monitoring slaughterhouses by application. This committee will reflect to the whole world the seriousness and interest of Muslims on the issue of halal slaughter as well as resolve differences and unify opinions about the slaughter process and animal welfare.

2. Not allowing any permit to be given for the Halal certification of slaughterhouses by private Halal certification bodies, and this task is exclusively entrusted to the cooperation between the government Halal granting bodies and a joint committee (Islamic and scientific) affiliated with the above-mentioned an internationally recognized body.
3. Conducting workshops for Muslim scholars to highlight and explain the harms resulting from the stunning process to come out with conviction on this subject and unify opinions about the harms of stunning and its bad consequences for animals and human health, as well as to maintain the integrity of Halal status for produced meat.
4. Cooperation between the authorities and scientific institutions to carry out accurate applied scientific research to show the disadvantages of the stunning on the continuity of life for the animals and the entry of meat produced from stunned animals into the circle of doubt or uncertainty in terms of its legal suitability for consumption by Muslims.
5. Carrying out training courses periodically for the management of slaughterhouses, their employees and the owners of livestock farms to update their theoretical and practical information regarding their duties in animal management and its requirements in the farm and the slaughterhouse and informing them of the latest technologies used in the Halal supply chain from the source of origin to the consumption point.
6. Issuing periodic bulletins and videos clarifying and emphasizing the requirements of Halal slaughter without stunning, the animal management process, the validity of the produced meat, and its conformity with the conditions of shariah and health conditions during the Halal supply chain from the farm to the consumption point.
7. Support from the Islamic Development Bank in equipping slaughterhouses with the modern tools and devices required in the process of managing, slaughtering, cutting, storing and transporting meat to help them implement the production steps for Halal meat that align with shariah law and high health specifications. It should be noted here the importance of the good design of the restrainer for livestock and the shackling chain through which poultry is tightly controlled before being slaughtered. Furthermore, providing the slaughterhouses with knife sharpness test devices is vital to assure the sharpness of the slaughter knives. The manufacturing of such tools during slaughter will lead to an acceleration of the bleeding process and reduce the time between the slaughter of the animal and loss of consciousness, thus reducing the pain of the slaughtered animals, which in turn will close the door on the most important criticisms against slaughter without stunning. On the other hand, tight control over the animals during slaughter will give a better opportunity for the slaughterman to carry out his duty perfectly.

## 8. Conclusion

At the outset, it is worth mentioning that all methods of slaughtering or killing, whether done with or without stunning, are stressful and cause pain to animals. It is therefore important that all staff involved in stunning and slaughtering are qualified and properly trained and have a positive attitude towards animal welfare.

From all of the foregoing and what has been reviewed of observations and scientific facts, whether by Muslim and non-Muslim researchers, there is a consensus that the methods

of stunning animals or birds, whether mechanical, electrical, or gaseous are not ideal in terms of sustaining the life of the animal and taking care of it, in addition to some negative effects on the quality of the produced meat and its contamination.

The aforementioned can be inferred from the definition of the stunning process in the second article (f) of European Union Council Regulation (EC) No 1099/2009 of 24 September 2009 on the protection of animals at the time of the killing, which states that ‘stunning’ means any intentionally induced process which causes loss of consciousness and sensibility without pain, including any process resulting in instantaneous death. Furthermore, it is out of the question that some cases of death or severe harm to stunned animals may occur as a result of the inefficiency of the stunner or because of some technical errors due to the inefficiency or maintenance of mechanical, electrical, and gaseous stunning equipment. Besides, differences in weight, and size, as well as the density of wool and hair for ruminants and the density of feathers for birds, which are difficult to standardize may affect negatively the efficiency of stunning and these differ according to the method of stunning. Consequently, the meat produced from these animals may fall under taboo or suspicion, and therefore in both cases, it is obligatory for Muslims not to consume it.

Accordingly, the process of stunning animals will create a state of confusion or doubt among the Muslim consumer, so it is better to have a deep and objective study based on evidence and constants in deciding to consume meat resulting from the process of pre and/or post-stunning animals. It is also known that, in such circumstances or situations for Muslims, the priority is given to shariah in decision-making, and what comes after is subjected to study and discussion. What is meant here is considering animal welfare, and this does not mean that Islam ignores animal kindness, on the contrary, the shariah law [derived from the Holy Qur’an and the tradition of the honourable Prophet (PBUH)] for more than thousand and four hundred years ago, confirmed and laid the correct foundations for the protection of animals and their rights, as a living being who has their community that must be protected and appreciated. In this regard, the author wonders if the practice of stunning animals was obligatory during the time of the Holy Prophet or his honourable companions, was it difficult for them to manufacture a simple tool to stun the animals?

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