Animal Welfare in Slaughter Houses

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Awareness session for the private sector
Al Ain
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Animal Welfare  5 Freedoms

1- Freedom from hunger and thirst: by ready access to fresh water and a diet to maintain full health.

2- Freedom from discomfort: by providing an appropriate environment including shelter and a comfortable resting area.

3- Freedom from pain, injury and disease: by prevention or rapid diagnosis and treatment.

4- Freedom to express normal behavior: by providing sufficient space, proper facilities.

5- Freedom from fear and distress: by ensuring conditions and treatment which avoid mental suffering.

الصحة الجيدة ، الراحة ، الغذاء المناسب

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Why Animal Welfare matters?

The Animal is capable of being aware of its surroundings, of sensations in its own body, including pain, hunger, heat or cold and of emotions related to its sensations. It is aware of what is happening to it and its relations with other animals, including with humans.

In other words, it matters to them how they are treated.
Animal Welfare can be achieved by

Verification
Legislation
Pre-slaughter
and
Slaughter
Process

Experience
Practices
Training

Reduce the
factors that
may cause
discomfort
for the animal

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Legal Framework

  Article no. (13) Slaughter of Animals in Merciful Manner
- Gulf Standard 714 / 1997 Transportation regulation of livestock by Rail, Road, and Ships.
- Gulf standard 1330/2002 Requirements for Transportation of broilers.

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Animal Welfare in Slaughter house

High stress levels before slaughter have a negative effect on meat quality, resulting in poorer flavor, lower acceptability, darker color and decreased shelf-life.

So, what can be done to prevent it on a practical level?

- Pre slaughter: Unloading, moving, lairage, restraint,

- Slaughter and bleeding of Animals.

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## Parameters

<table>
<thead>
<tr>
<th>Welfare principle</th>
<th>Welfare Criteria</th>
<th>Example of measures</th>
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<tr>
<td>Good Feeding</td>
<td>Absence of prolonged hunger</td>
<td>Body condition score</td>
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<tr>
<td></td>
<td>Absence of prolonged thirst</td>
<td>Dehydration signs, nutrition deficiency signs.</td>
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<td>Absence of deficiencies</td>
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<td>Good Housing</td>
<td>Comfort around resting</td>
<td>Bursitis, time needed to lie down, shivering, panting, huddling, space/animal, access to outdoors</td>
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<td>Thermal comfort</td>
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<td>Ease of movement</td>
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<td>Good Health</td>
<td>Absence of injuries</td>
<td>Lameness, wounds on body mortality, coughing, prolapsed, tail docked, pain vocalizations???</td>
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<td></td>
<td>Absence of disease</td>
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<td></td>
<td>Management procedures</td>
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<tr>
<td>Appropriate Behavior</td>
<td>Expression of social behavior</td>
<td>Agonistic and cohesive behavior, functional grooming behavior, rooting behavior, fear of human, avoidance distance, qualitative behavioral assessment</td>
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<td>Expression of other behavior</td>
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<td>Good human animal relationship</td>
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</tbody>
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## Animal Welfare Key factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Role</th>
<th>Examples</th>
<th>Corrective actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>Handle, restrain, slaughter, moving care, unloading</td>
<td>Veterinarians, Workers</td>
<td>Sufficient numbers, training, patient, competent practical experience</td>
</tr>
<tr>
<td>Animal</td>
<td>Behavior (Fear, panic)</td>
<td>Variation (age, sex, breed, temperament of individual or groups of animals)</td>
<td>Animals that are likely to hurt each other should not be mixed. Flight zone, previous contact with human, slaughter house smell loud noise, sudden noise</td>
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<tr>
<td></td>
<td>Senses (hear, smell)</td>
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<tr>
<td>Distractions</td>
<td>Cause the animal to stop, turn back</td>
<td>Shiny metal floor, slippery floor, dark entrance, sharp protrusions, dead ends, sudden drop in the floor, chains hanging from the ceiling</td>
<td>Appropriate facility, new facilities, maintenance, removal, Curve passage, Proper equipment and operation equipment</td>
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DFD meat is caused by high levels of pH

- The average level of pH in normal livestock muscle, whilst they are alive, is 7.0.
- As soon as the animal has died the acidity of the meat begins to increase.
- Just 24 hours after slaughter the meat reaches what is known as the 'ultimate pH' of 5.5. This, produces a 'natural and desirable' meat, and it is the acidity inside it that actually helps to 'keep the meat.'

The process that converts the meat to the ultimate pH is fuelled by glycogen in the blood.

- This is converted into lactic acid post-mortem, so the final pH content is relative to the initial content of glycogen in the blood at the time of slaughter.

If an animal is stressed, or has exercised recently before slaughter then 'there is a chance' that it may have used up so much of the glycogen in its blood that there will not be enough left over to convert the pH to this 'optimum level'.
REQUIREMENTS FOR TRANSPORTATION OF BROILERS

- This standard is concerned with transportation of broilers ready for slaughter at the age of marketing in crates by special means of transportation to lower the death rate of birds as a result of heat stress, or damage in legs, wings and trauma due to the difficulty of transporting birds separately.

- Cages and transportation vehicles shall be cleaned and disinfected at least once daily. The premises shall be provided with separate areas for waste dumping or with adequate storage facilities for waste.

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Requirements for catching

- To avoid bruises or loss of birds during catching and transportation the following shall be taken into account:
  - 4.2.1 Catching of birds
  - 4.2.1.1 Catching of birds shall be in the early morning or in the evening time and loading in midday time shall be avoided to prevent the effect of sun heat on birds.
  - 4.2.1.2 Running of exhaust fans with the full capacity during catching of birds to exhaust dust, especially in closed houses.
  - 4.2.1.3 Removal of feeders so that birds may not bump against them or be prevented by them during catching of birds.
  - 4.2.1.4 Make internal partitions to divide the birds into groups to facilitate catching them.
<table>
<thead>
<tr>
<th>AW Issue</th>
<th>Situation</th>
<th>Corrective action</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>1- Overcrowding</td>
<td>Less space to move</td>
<td>Breeding system</td>
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<td>Heat stress</td>
<td>Decrease no. of birds reared/sqm</td>
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<td>Air pollution</td>
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<td>Lame</td>
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<td>Uneasy to reach for food</td>
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<tr>
<td></td>
<td>and water</td>
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<td></td>
<td>Foul litter</td>
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<td>2- Catching</td>
<td>Deprivation of food</td>
<td>Experienced personnel</td>
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<td></td>
<td>Bruises, injuries</td>
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<td>3- Transport</td>
<td>Transportation crates, vehicles'</td>
<td>GSO</td>
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<tr>
<td>4- Slaughter</td>
<td>Hung by their feet in shackles while conscious</td>
<td>Islamic Law Guide</td>
<td></td>
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</table>
Lairage / waiting pens / livestock

Design / construction

Must Provide protection from unfavorable climatic conditions.

1- one way flow of animals
2- minimum number of corners and protrusions
3- Inspection of animals at all time
4- sufficient suitable accommodation.
5- floor, ventilation, space, ventilation, light, temperature.

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Handling and Restraining

Should be AS SHORT and brief AS POSSIBLE
Minimize the period and reduce stress

1- leg restraint (Rope casting, Tying 3-4 legs)
2- rotating box
3- casting

Poultry
1- poultry shackle (suspension of the birds)
Cause stress and pain if the legs are broken

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Risk Factors in restraining large animals

1- Slippery floors
2- Excess pressure during restrain
3- Sharp edges
4- Sudden movement

Animal welfare concerns
➢ Stress, pain,

Corrective Actions
1- Competent Animal handlers
2- suitable Equipments
3- Keep the restraint as short as possible

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Animal welfare in Slaughter Houses

Ministerial Decree No .(384) of the year 2008

Article no.(13 ) Slaughter the Animal in a Merciful Manner

Good animal welfare shall be observed during and before slaughtering of animals which shall be merciful .
The directive guide should include the required terms and conditions for merciful slaughter .

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Slaughtering Requirements According to the Islamic law /Gulf Standard 993/1998 Animal

- **Slaughter (Dabh)** Sheep, Cattle, Poultry.
Cutting of the animals’ trachea, esophagus and jugular veins.
- **Slaying (Naher)** Camels
Stabbing the animal in the lower part of the neck, then serving, with knife, down through the upper parts of the chest

*When a very large transverse incision is made across the neck a number of vital tissues are transected including:*

1. skin, muscle, trachea [wind pipe], oesophagus [gullet],
2. carotid arteries [the major blood vessels supplying blood from the heart to the brain], jugular veins [the major blood vessels returning blood from the brain to the heart],
3. major nerve trunks (e.g. vagus and phrenic nerves) plus numerous minor nerves.

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Slaughter and evisceration

- **4.5.1** Slaughtering shall be carried out in accordance with the Gulf standard mentioned in 2.7.
- **4.5.2** Bleeding shall be completed to ensure the death of the bird and shall be carried out so properly that any blood flowing outside the slaughter area shall not cause contamination of carcasses.

The slaughter tool shall be made from any material except bones or nails.
- The slaughter tool shall be clean and sharp that cuts by its sharp edge and not by its weight.
- Slaughter (dabh): Involves cutting of the animal’s trachea, esophagus and jugular veins. This method is mostly used in case of sheep, cattle and birds.

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BLEEDING

The time to loss of consciousness following neck cutting varies widely between species, *the time between cutting through the major blood vessels and insensibility [unconsciousness], as deduced from behavioral and brain response, is up to 20 seconds in sheep, up to 2 minutes in cattle, up to 2½ or more minutes in poultry.*

Some individual animals may take longer to lose consciousness.

- The time taken for animals to lose consciousness is also affected by the method of bleeding used (including the location of the cut and which major blood vessels are severed).
دليل الاشتراطات الصحية والشرعية لإنشاء وتشغيل المقصوب الآلية في دولة الإمارات العربية المتحدة

جميع الحيوانات القادمة للذبح لا بد أن تأخذ فترة راحة قبل الذبح.
أن يتم الذبح وفقًا للشروط الشرعية (أن يكون الذبح من الأمام من جهة الصدر)
أن يتم قطع أربعة عروق (أ لود جان و الحلقوم و المرئ)
ان تكون الذاح حادة.
لا يتم ذبح الحيوان إلا بوجود طبيب بيطري.
يجب ذبح الحيوانات عند وصولها إلى نقطة الذبح و عدم تأخيرها.
يجب إتمام عملية نزف الحيوان قبل البدء بعملية السلخ.
إعطاء الوقت الكافي لعملية النزف.
سنن و مستحبات

- يعرض الماء على الحيوان قبل ذبحة ولا يذبح جائعاً
- لا يذبح حيوان أمام الآخر
- تحد السكين قبل الذبح
- الذبح في للطير والغنم والبقر في الحلقة وهو أعلى عنق مما يلي الرأس
- يضع جسم الغنم والبقر على الجانب الأيسر مشدودة القوائم إلا الرجل اليمنى ليستريح بتحرككنها وأخذ الذبح
- السكين بالليمين وأمسك رأس الحيوان باليسار لنل يضرب الحيوان حالة الذبح في حال الذبح

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Good Practices Indicators

✓ Knowledge of the legal obligations
✓ Record keeping and documentation (PLAN).
✓ Animal identification
✓ Hygiene and disease prevention
✓ Training on different levels
Animal Welfare Monitor level / Assessment

1- Bruises, injuries, broken bones, dislocated joints.
2- mortality
3- lesions
4- behavior
5- thermal shock

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Animal Welfare main problems

Fact # 1
The best slaughterhouses can provide a high standard of welfare, however, billions of animals each year are at risk of suffering if slaughter is not carried out humanely and according to standards of best practice.

Investigations have revealed illegal and humane practice instances

- Cruelty in animal handling and moving at slaughterhouses,
- This is sometimes the result of a lack of knowledge or training, but it is sometimes deliberate,
- Rough or incompetent handling, slippery floors, noise and unsuitable building layout can cause fear, distress and injury before slaughter.
- There are instances of inhumane handling of casualty animals, that are unloaded at slaughterhouses but are unable to walk.
Large and high-throughput slaughterhouses (Eid Festival)

• When large numbers of animals are being slaughtered and processed at high speed, there is a potential for welfare problems to be unnoticed and workers can become too tired to make welfare a priority.
• Globally, regulations on animal welfare at slaughter are too often ignored and slaughter personnel are poorly trained.
• Many, or even most, countries fail adequately to inspect slaughterhouses and to enforce the law sufficiently rigorously.

Regulations on animal welfare at Slaughter Houses are too often ignored or in inadequately implemented.
Improving Animal Welfare at Slaughterhouses

1- Training
2- Equipment, buildings, inspection, enforcement and auditing of standards and progress.
3- Some existing practices cause suffering should be acted upon urgently by reforming or prohibiting
4- Slaughtering animals close to their place of rearing rather than transporting them long distance to Slaughterhouses would also much reduce stress and potential suffering.
6- Some welfare assurance schemes insist that transport times to slaughter are limited.
Before slaughter

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Before slaughter

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Before slaughter
Before slaughter

19/6/2012
Before Slaughter
Corrective Actions for Animal Welfare

- All handling stress should be kept at a minimum.
- Keep animals in a position free of heat stroke.
- Provide shade at all times.
- Make cool water readily available for drinking.
Questions and discussion ????????????????

Thank you for your Attention