

Last week in Canada

A holiday with some of my family members

The Thailand comment that it is imperative to adapt to the local realities while being true to the underlying principles

This is true for:

- a. Weather conditions
- &
- b. Animal husbandry and humane destruction practices





World Organisation
for Animal Health

Coefficient
Giving

ICFAW
INTERNATIONAL COALITION
FOR ANIMAL WELFARE

Humane Killing of Animals for Disease Control Purposes

Ch. 7.6

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in
Animal Welfare, Disease Control and Humane Destruction

**Regional Animal Welfare Training Conference
25 - 26 February 2026 Vang Vieng, Lao PDR**



Brief Introduction

- An overview of the **Training of Trainers (ToT) in Lao PDR** on *Humane Killing of Animals for Disease Control Purposes (Chapter 7.6)*, including the topics covered
- Key highlights, discussion points, and major takeaways
- Challenges and opportunities identified
- Other relevant points to summarise the ToT in Lao PDR on Chapter 7.6
- Summary and conclusions



General Planning

1. Skill Set, physical condition of staff
2. Facility – design, condition
3. Animal species, size, age range, condition, existing stressors
4. Animal handling
5. Killing outcome – immediate and humane
6. Monitoring – by government staff
7. Equipment / Setup needs to facilitate humane destruction

Challenges

1. Experience
2. Knowledge
3. Effective plan
4. Suitable equipment and supplies for setup and kill
5. Killing is/was often not immediate and humane



Organizational Structure

1. Led by an official veterinarian (or very experienced technician)
2. Specialist Teams – Experienced.
 - with a designated experienced Lead and Co-lead
 - Leads and Co-Leads part of the process from the beginning

Challenges

1. In Canada we struggle to obtain staff that have knowledge and experience.
2. Especially during large, or prolonged outbreaks



Methods of Humane Destruction

1. Firearm
2. Penetrating captive bolt &
3. Non-Penetrating captive bolt
4. Electrical
5. CO2 and Nitrogen
6. Barbiturates

Challenges

1. Firearms – local by laws/availability
2. Penetrating captive bolt
 - targeting
 - bolt length/energy – not for large animals
 - strength of charge (important)
 - maintenance (very important)
3. Non-Penetrating captive bolt
 - less than 20 lbs (10 kg)
 - targeting
 - maintenance
4. Electrical
 - constant amps, variable volts device
 - input volt 220
 - input amperage 15 to 20 A
 - batteries insufficient volts and amps (inhumane)
 - scissor type tongs
 - positioning/landmarks
 - duration of stun
5. CO2
 - not practical
6. Barbiturates
 - slow, excellent restraint required
 - controlled substance



Responsible People

Team members must have the skill set necessary to assess the situation and be capable of making timely changes to ensure everything functions well.

1. Team Lead and Co-Lead
2. Veterinarian(s)
3. Animal handlers
4. Animal killing personnel
5. Farmers / owners / managers
6. Biocontainment (field biocontainment as opposed to laboratory biocontainment)

Challenges

1. Knowledge and experience are very important.
2. Canada sometimes struggles to find people with experience and it shows.
3. Biocontainment is of critical importance and one of the primary reasons we struggle with disease control.



Field Experience Suggestions

Humane Destruction – Getting Ready

1. Killing Method - use what is most effective & practical - given the facility, species, age, size, local laws, availability
 - what is the backup method?
2. Resources (human & technical) – can destruction be achieved in one day given the resources & conditions?
3. Heat Exhaustion/Stress
 - do the facility set up the day or evening before
 - arrive at the farm in the dark, put on PPEs, be ready to start before sunrise, when the first light appears
 - be prepared for some low-level supplementary lighting, shield from animals,
4. Team Composition - ensure there is a core of experienced people, **at all** positions,
 - bring trainees (succession planning)
5. Knowledge Base for the On-Site Team - Biocontainment, Animal Behavior, Setup, Humane Destruction, Removal & Disposal
6. Cleaning and Disinfection – is the next stage in the response



Field Experience Suggestions

Day of the Humane Destruction

1. Lead and Co-Lead, in charge of monitoring the assembly/movement, euthanasia & removal of animals
2. All workers – are responsible for being aware of the overall process, doing their tasks, and to report and/or make corrections as required.
3. Set Up – to facilitate good animal handling, humane destruction, & the wellbeing of staff and animals
4. Equipment Maintenance & Communication – throughout the day - critically important
5. First Aid Person in Hot Zone – clearly identified on the outside of their PPEs.
6. Buddy System – be paired with another, to monitor for heat exhaustion and stress
7. Heat and Air movement – shade from the sun (tarps or roofs) with open sides for air movement
8. Triage (evaluate) animals – process compromised, non-ambulatory and/or recumbent animals first
9. Animal movement, restraint and humane killing - be quiet and calm, move slow and deliberately.
- monitor routinely, adjust as required



Field Experience Input

Day of the Humane Destruction

10. Biocontainment Best Practices

- block effluent openings and drainage,
- prevent virus movement off the farm
- boot baths are on the warm side of the cold/warm line and on the warm side of the warm/hot line

11. Disposal Options and Considerations (given the resources on-site) – plan before start the kill

- includes site layout, soil type, water table
- Is on-site composting an option? (given the temperature and humidity)
- with mesh fencing to keep scavengers out ?
- what are the transmission concerns after the destruction process (stray dogs, cats, birds, foxes)

12. Mental Health - Team Debrief within 48 hours of the destruction activity

- for everyone to freely discuss what went well, what did not
- make plans for going forward

Facilities

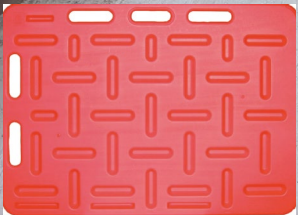
FACTORS

- The options available for each situation will vary
- Plan and implement the response accordingly
- Includes; small traditional swine operations, very open facilities and pigs in commercial operations





An Option
*Feed Withdrawal
&
*Feeding Outside
the Enclosure





Moving Piglets



Quietly, Deliberately, Gently





Part of the brain important in
Electrical Stunning

Forebrain

Cerebral Hemispheres

- higher functions

Brainstem

Medulla Oblongata

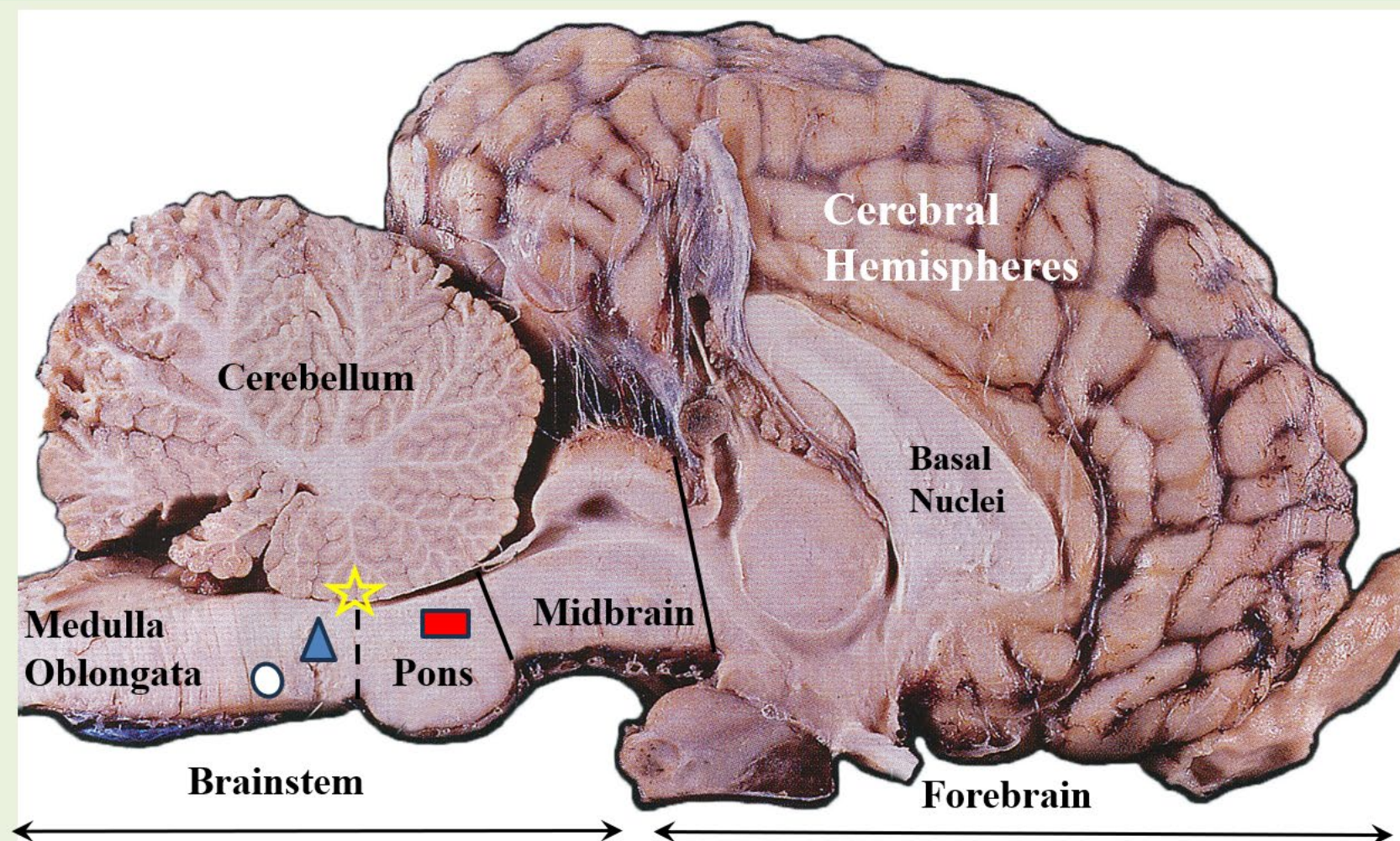
1. Circulatory Center ○
2. Respiratory Center ▲

Pons

1. Center of Consciousness ■
- primary center

Midbrain

- role in consciousness



Part of the brain important in
physical methods of stunning



Buckshot

.410 Shells



$2\frac{1}{2}$ inch = 6.4 cm

$2\frac{3}{4}$ inch = 7.0 cm

3 inch = 7.6 cm





Non-Penetrating Captive Bolt



Piglets



Electrical Equipment – Humane Destruction

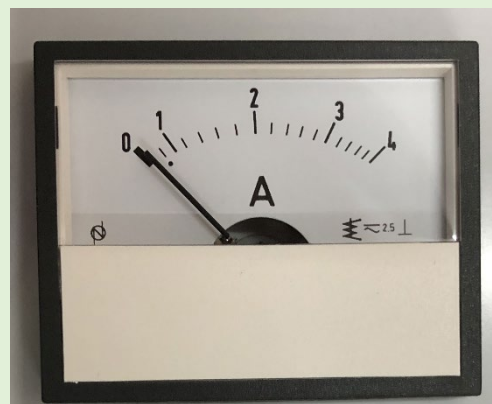
Scissor type

Amps
(fixed)

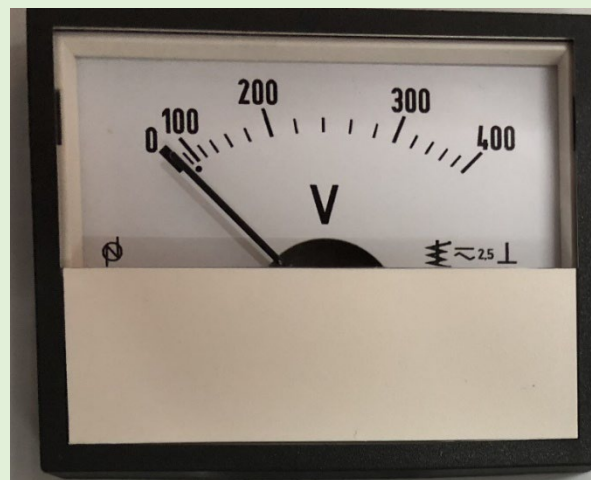
Volts
(variable)

Stunner

Inputs: Voltage 220 Amperage 15 – 20 Amperage



**2.3 Amps, 300+ Volts
for sows and boars**



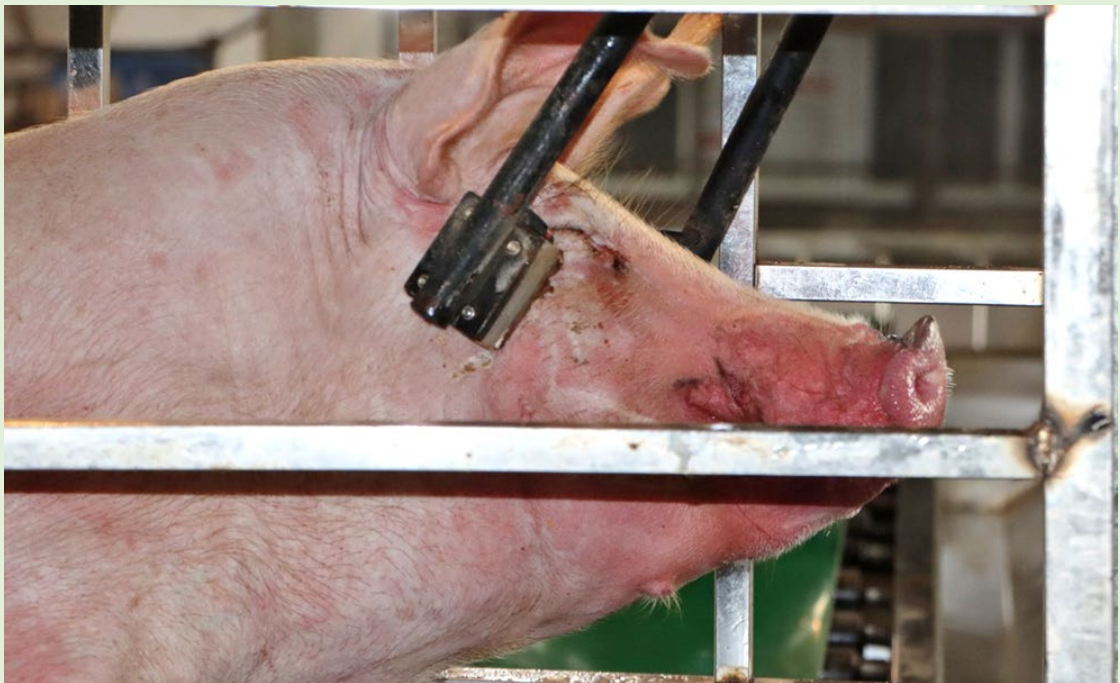




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Euthanizing with a Battery Electrical source

1. Insufficient Amperage and voltage
2. *Extremely painful
3. *Prolonged death
4. *Conscious for much of the time.
5. *Animals die of suffocation and/or cardiac fibrillation





Summary and Conclusion

****DAY OF HUMANE DESTRUCTION**

1. **Core Team** - chosen well in advance, well trained, hands-on practical skills, all aspects of H.D.
(from set-up to carcass removal)
2. **Set-Up** - Training on setup, previous hands-on practical experience, tools and equipment, develop a plan
3. **Animal Handling & Movement** – training, previous hands-on animal movement experience, develop a plan
4. ***Humane Destruction** – training, previous practical hands-on HD experience
- 5a. ***Monitoring Humane Destruction** – training, previous hands-on animal HD experience, proper targeting
- 5b. ***Monitoring Sensibility / Return to Sensibility** – training, previous hands-on monitoring for animal
Sensibility/Return to Sensibility experience,
6. **Carcass Removal** (not disposal) – training, previous hands-on animal carcass experience, develop a plan
7. **Biocontainment** (field biocontainment, not lab biocontainment)
8. **Mental Health & Safety**

NATIONAL(INTERNATIONAL) LEVEL

1. National Infrastructure (International Cooperation if possible)
2. National Resources (human, technical and Information database, international if possible)
 - Who/Where are the knowledge keepers



Thank you !

1.  World Organisation
for Animal Health  Coefficient
Giving  iCEAW
INTERNATIONAL COALITION
FOR ANIMAL WELFARE
2. All the presenters, participants and facilitators

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