

# **SEMINAR FOR OIE NATIONAL FOCAL POINTS FOR ANIMAL WELFARE, TOKYO, JAPAN**

30 November – 2 December 2011

## **ANIMAL WELFARE - KILLING OF ANIMALS FOR DISEASE CONTROL PURPOSES**

Dr. Rasto Kolesar (WSPA)

# OVERVIEW

- Essentials of humane killing
- Risks
- Traditional methods
- New developments

# MASS CULLING - SOCIETAL CONCERNS

Societal concerns with stamping out:

1. Waste of food resources in a time of global hunger
2. Environmental concerns of carcass disposal
3. Societal aversion to mass killing healthy animals
4. Challenges to assure humane killing in field
5. Animal suffering on farms - re secondary movement restrictions and animal welfare related killing of healthy animals

Ref: Whiting 2003 CVJ

# Prevention





## Flaws in Wiping Out Pigs



Shawn Baldwin for The New York Times

Pigs were the champion garbage consumers in Cairo. Other animals just don't seem up to the task.

# DEPOPULATION

- ***Depopulation is killing animals for public health, animal health, animal welfare or environmental reasons under the supervision of the competent authority***

# FMD UK 2001 (Whiting,T 2003)

## “welfare slaughter”

From: [Can Vet J. 2003 October; 44\(10\): 805–815.](#)  
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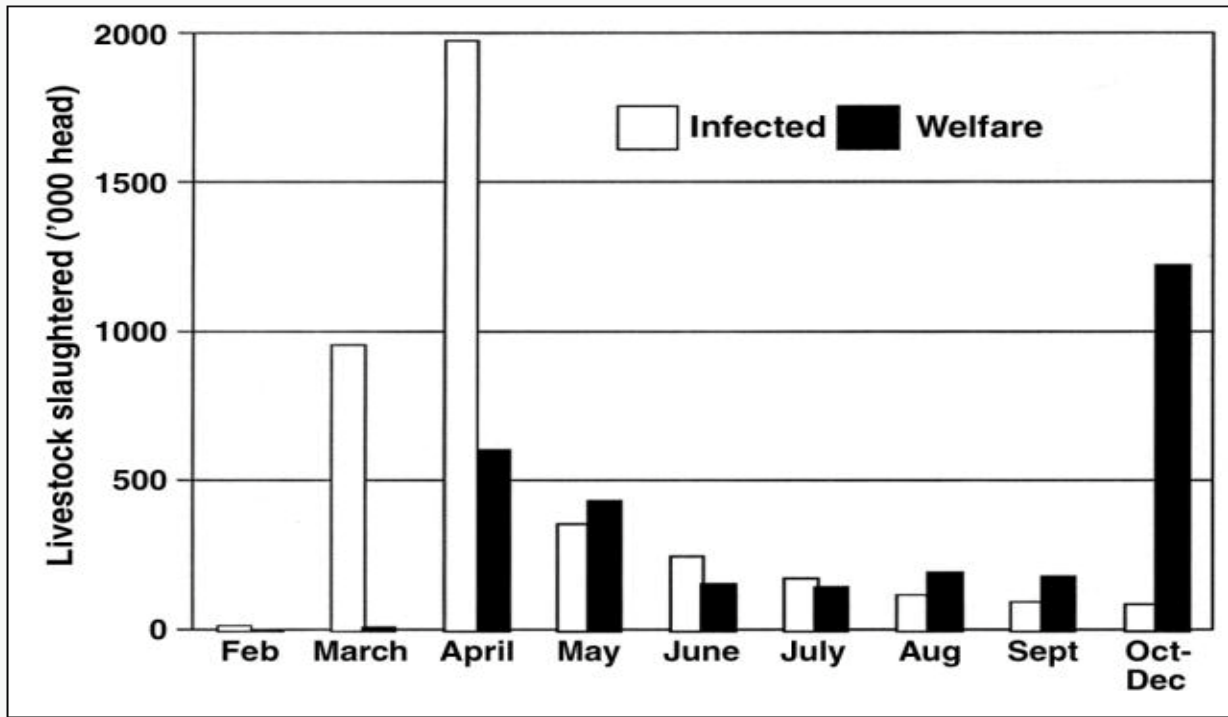
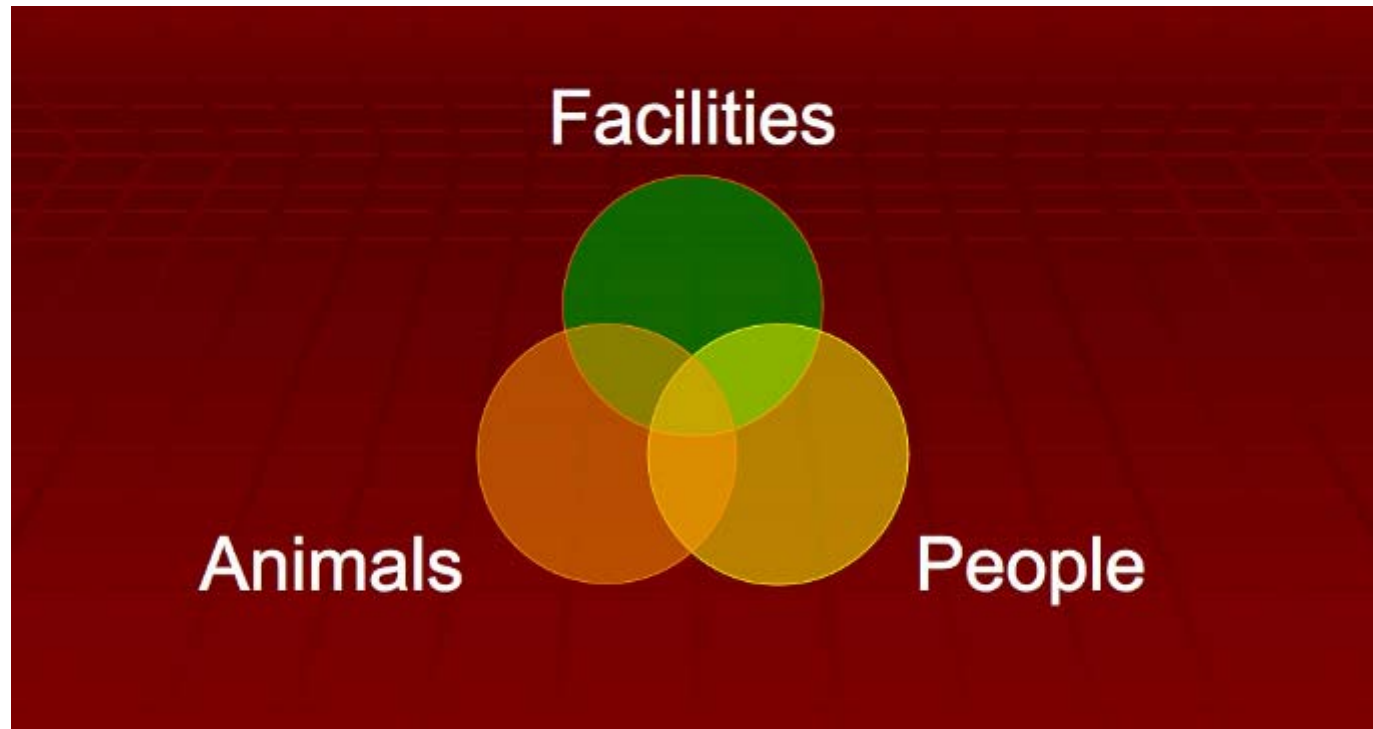


Figure 3. Temporal distribution of animal slaughter for disease control and animal welfare reasons in the 2001 foot and mouth disease epidemic in the UK. Time period is on the x-axis. There was a large increase in animal welfare slaughter in the final stages of the disease eradication due to the Livestock Welfare Disposal Scheme-Light Lambs, which was initiated to deal with slaughter lambs that could not be marketed because of a ban on exports and other movement controls, and that could otherwise have faced severe welfare problems to overwinter (27).

# POST CULLING REPORT

- No policy, planning, training, oversight, equipment, no vet drugs available or not used or not used appropriately.
- Animals burnt, beaten, buried alive, bled without stunning, immobilised with succinyl choline only, chest stick or neck cut fully conscious - all usually after stressful herding, capture and restraint.
- Lack of vet personnel (quality and quantity)
- Disposal / burial logistics competition
- No monitoring

# HUMANE KILLING - THREE ESSENTIALS



# EFFECTIVE PREPARATIONS

- Contingency planning including animal welfare
- Training in advance (key staff)
- Engagement with stakeholders in advance
- List of key experts and team members required
- To some extent people who have other jobs and duties will need to be requested to be available for immediate engagement at very short notice

# HUMAN FACTOR IN HANDLING

- Sufficient number of staff
- Staff availability from beginning till end of the operation
- Variety of skills
- **Welfare implications of lack of staff with required skills are poor performance, stress, and rough handling resulting in animal panicking, baulking and sometimes suffocating**

# WORKFORCE AND EXPERTISE

- Team leader
- Veterinarian(s)
- Animal handlers
- Animal killing personnel
- Carcass disposal staff
- Farmer's knowledge and experience
- Other assistance

# HANDLING

- **Handlers are experienced and well trained**
- They understand the behaviour patterns of animals and the underlying principles necessary to carry out their tasks.
- **Under no circumstances should animal handlers :**
  - crush or break tails of animals
  - grasp their eyes or pull, lift or drag them by the ears and body parts such as their tail, head, neck, horns, limbs, wool, hair or feathers
  - Throw, drag or drop animals

# HANDLING



# FACILITIES

- setup of functional handling systems to facilitate good handling and killing ( i.e pens, raceways, stunning or killing pens)
- set up of efficient carcass removal



# LIMITS AND CRITERIA

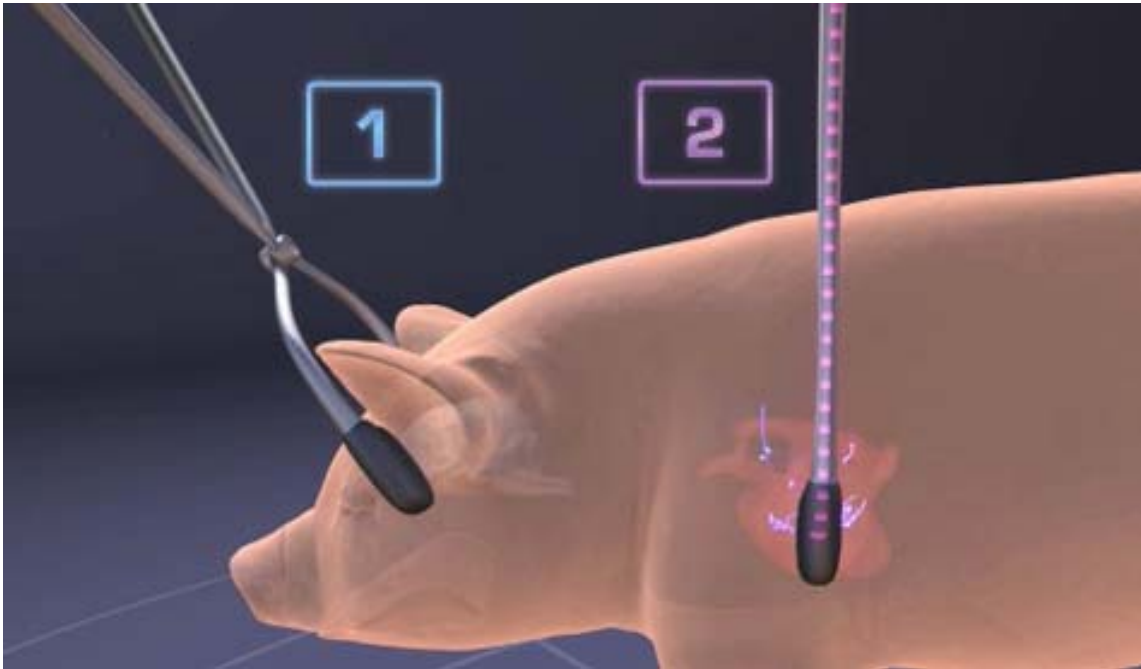
- approach and method of choice according to:
- species
- category of animals i.e.
  - pig finishing unit
  - breeding unit - old sows and boars right down to day old piglets.
- location and terrain (transport of equipment)
- isolated outbreak or multiple outbreaks
- commercial farming or backyard or mixture of both
- infrastructure available

# HUMANE KILLING

- Humane killing is carried out as soon as it is required/possible
- Method of choice should
  - minimise animal fear, suffering, pain and distress
  - cause instantaneous death
  - or instantaneous loss of consciousness that lasts until death
  - if the loss of consciousness or death is not immediate, induction must be non aversive

# USE OF ELECTRIC CURRENT- ELECTROCUTION

- Method of first choice in the field



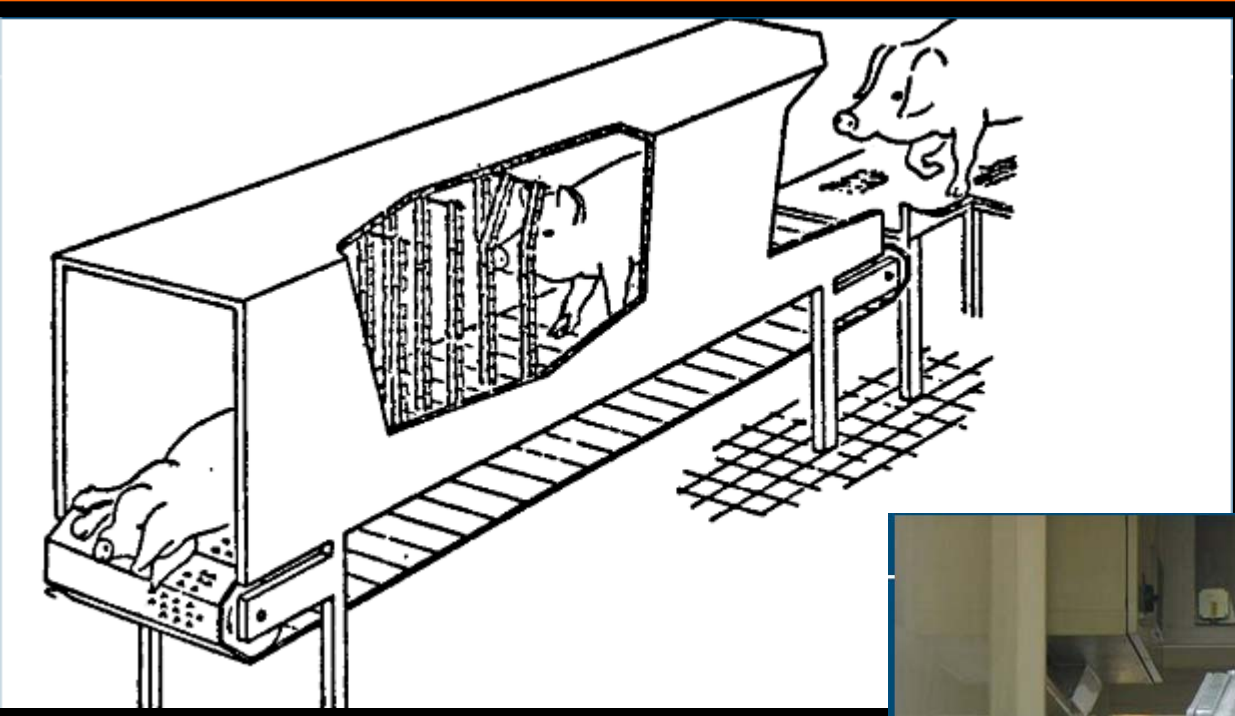
# USE OF ELECTRIC CURRENT - VIDEO



# USE OF ELECTRIC CURRENT IN SOME COUNTRIES

- **Smaller countries with few outbreaks e.g. Sweden**
  - Use of manual application (work intensive but animal welfare friendly)
- **Larger countries e.g. France, Spain**
  - Use of automatic electrical mobile systems (large numbers of animals destroyed (certain animal welfare concerns reported))
- **Other countries e.g. Germany, Slovakia**
  - Use of multiple electrical tongs applied manually in adult pigs plus use of controlled gas systems when killing piglets

# MOBILE TRAILER UNIT



Recommended to use  
only in larger animals  
over 30 kg





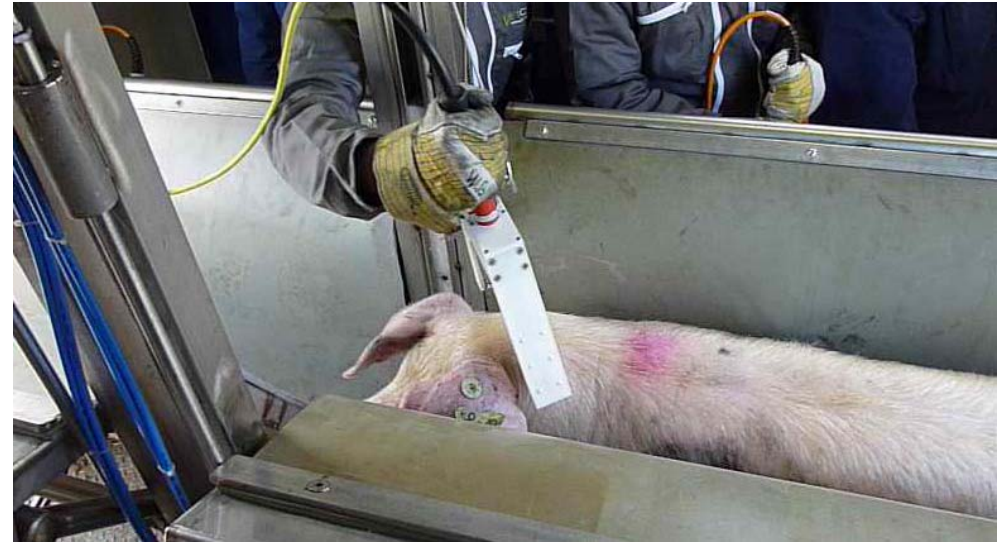
# ELECTROCUTION USED IN ADULT PIGS ALONGSIDE WITH GAS UNIT FOR KILLING PIGLETS



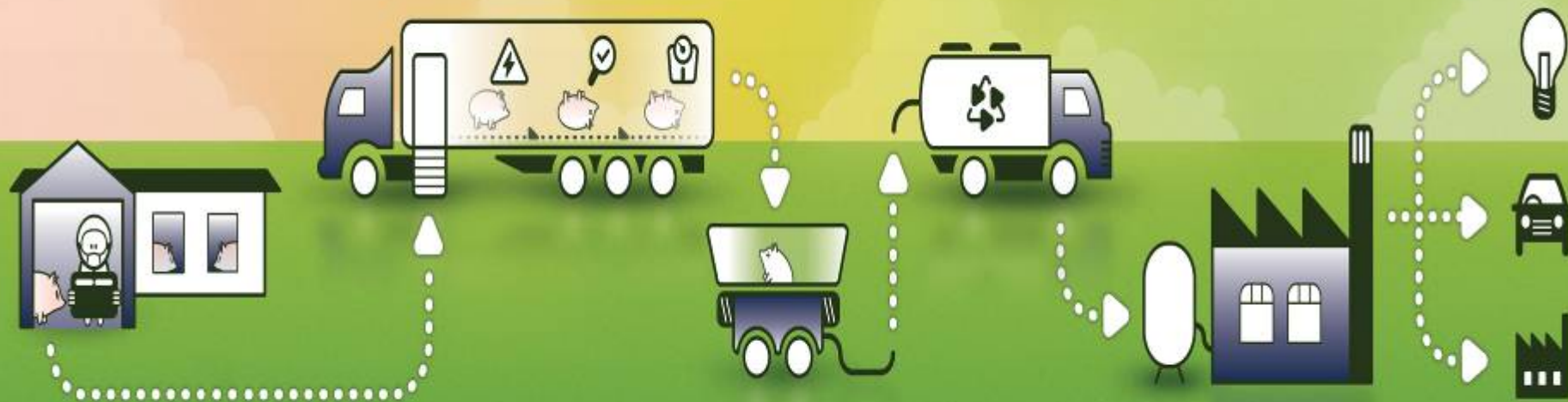
**WSPA**



# NEW DEVELOPMENTS (2011)



# NEW DEVELOPMENTS



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# USE OF CAPTIVE BOLT GUN



**WSPA**

## USE OF CAPTIVE BOLT

- Penetrating captive bolt should be used only in combination with pithing.
- Can be used in cattle sheep and pigs
- Should not be used in neonates
- Non penetrating captive bolt
- Can be used in neonates only
- Bleeding should be performed as soon as possible

**BIOSECURITY !!!!!!**

# ATTRIBUTES OF EFFECTIVE STUNNING

- Correct position of gun
- Animal collapses immediately
- Absent peripheral sensitivity
- Absent corneal reflex
- Absent rhythmic breathing
- Clonic convulsions in pigs,
- Tonic position in sheep and cattle

# ATTRIBUTES OF INEFFECTIVE STUNNING

- Animal does not collapse
- It has eyes rolled out
- Nystagmus can be observed – shaking of eyes
- Rhythmic breathing can be observed
- Standing kicking or escape behaviour

**In such a situation animal must be re - stunned immediately again**

# CAPTIVE BOLT USE FOLLOWED BY PITHING- VIDEO



# FREE BULLET rifle, shotgun, humane killer



# FREE BULLET USE - VIDEO



# MONITORING OF DEATH



# ROLE OF VETERINARIANS

- Understanding good practice and critical performance points ( e.g handling immediate loss of consciousness, signs of good stun, signs of death)
- Supervision and control of welfare and standards on site. Vets have to lead by example but accept they might not have the practical skills of professional slaughter crews and animal handlers

**THANK YOU FOR YOUR  
ATTENTION**