CCAC training module on:
the ethical use and care of farm animals in science

Reference and Resource Handout

Note:
This is a list of all the relevant references and resources cited within this module. Animal users should consult relevant experts and scientific literature for the most recent information on the species and techniques under consideration.

Care has been taken to ensure that any provided web links are up-to-date; however, the dynamic nature of the internet may mean that some links will become out-of-date. Therefore, keyword search suggestions are provided for situations in which links to additional resources may be broken. The keywords can be entered into any standard internet search engine.

Slide 3    Training Module Outline

Slide 7    What is Animal Welfare?


Slide 8  Regulations & Guidelines Concerning Farm Animals

Federal – Transport: *Health of Animals Act* (Part XII)

- The regulations associated with this act outline the conditions necessary for humane transportation of all animals. It prohibits undue suffering caused by transporting sick or injured animals, as well as by continuing to transport animals that become unfit to travel. In addition to designating appropriate types of vehicle design and bedding requirements, the regulations also require that animals not be mixed with incompatible individuals and that they not be overcrowded to the point that injury or suffering will result. Maximum times for transportation and feed and water deprivation are indicated for different species.

- It should be noted that the *Health of Animals Act* (Part XII) only addresses the needs of animals during transport, and does not apply to the care and handling of animals outside of transportation situations.

- Administered and enforced by the CFIA


Federal – Humane Handling and Slaughter: *Meat Inspection Act* (Sections 61 – 80)

- This act sets standards for the humane handling and slaughter of food animals in federally registered slaughter facilities. It prohibits handling that causes avoidable animal distress and pain, including the use of goads and electric prods on sensitive (anal, genital or facial) regions of the animal. The act also prohibits mixing of different species and addresses the need for food and water prior to slaughter.

- Administered and enforced by the CFIA


Federal – Suffering: *Criminal Code of Canada* (Section 444 – 446)

- This federal code prohibits any person from willfully causing an animal to suffer from neglect, pain or injury. Section 444 refers specifically to cattle, whereas 445 – 446 are applicable to all other animals, including birds.

- Enforced by police forces, societies for the prevention of cruelty to animals (SPCAs) and humane societies.


(Note: if any of the above links are broken, search for: Department of Justice Canada and then use the tabs “Statutes by Title” and “Regulations by Title” to locate the specific act and regulation).

Federal – Drug and Vaccine Studies

- Studies involving the testing of new drugs and vaccines in food animals may require approval from the CFIA or Health Canada.

- For new vaccines, contact the Veterinary Biologics Section of the CFIA: http://www.inspection.gc.ca/english/anima/vetbio/vbpbve.shtml (Note: if link is broken, search: CFIA Veterinary Biologics)

- For new drugs, contact the Veterinary Drugs Directorate of Health Canada:


Provincial and Non-Governmental Organizations

• All provinces and territories have legislation governing the care of animals. Numerous non-government organizations also produce recommendations related to the care and use of animals. A summary of the available regulations and guidelines, including details of the individual provincial and non-government organizations’ guidelines can be found at: http://www.inspection.gc.ca/english/animal/trans/infrae.shtml (Note: if link is broken, please search: CFIA Animal Welfare in Canada).

• The National Farm Animal Care Council (NFACC) develops voluntary Recommended Codes of Practice for the Care and Handling of Farm Animals. All currently available codes of practice are available from the NFACC website: http://nfacc.ca/code.aspx (Note: if link is broken, please search: NFACC codes).

When research must be directly relevant to the agricultural industry, these codes of practice should be used as minimum standards, but require approval by the animal care committee (ACC).

Slide 9 A Note on Agricultural Industry Standards

CCAC guidelines on: the care and use of farm animals in research, teaching and testing (2009). Visit the CCAC website at www.ccac.ca to access and consult this guidelines document.

Slide 10 Standard Operating Procedures (SOPs)


Food Animal Residue Avoidance Databank, FARAD: http://www.farad.org) (Note: if link is broken, please search: Food Animal Residue Avoidance Databank)

Slide 12 Feed and Water


Canadian Council of Ministers of the Environment’s Canadian Water Quality Guidelines for the Protection of Agricultural Water Uses: http://ceqg-rqce.ccme.ca/ (Note: if link is broken, please search: CCME Water Quality Guidelines for the Protection of Agricultural Water Uses)


**Slide 14  Housing Requirements**

*CCAC training module on: environmental enrichment* (2003). Visit the CCAC website at www.ccac.ca to access and consult this training module.

**Slide 16  Animal Welfare Effects of Facility Maintenance Issues**


**Slide 17  Environmental Improvement**


**Slide 18  Improving Farm Animal Environments**


**Slide 19  Environmental Enrichment**

*CCAC training module on: environmental enrichment* (2003). Visit the CCAC website at www.ccac.ca to access and consult this training module.

Slide 21 Importance of Proper Acquisition


Slide 22 Transporting Farm Animals for Use in Science

Part XII of the Federal Health of Animals Regulations: http://laws.justice.gc.ca/en/showdoc/cr/C.R.C.-c.296/boga:l_XII//en (Note: if links is broken, search for: Department of Justice Canada and then use the “Browse Statutes by Title” to the Health of Animals Act)


Slide 23 Importance of Proper Identification and Animal Record Keeping

CFIA's Livestock Traceability Information: http://www.inspection.gc.ca/english/animal/trac/trace.shtml (Note: if link is broken, please search: CFIA livestock)

CCIA's Cattle Identification Information: http://www.canadaid.com/ (Note: if link is broken, please search: CCIA cattle)

Slide 25 Quarantine: Essential for Maintaining Good Health and Welfare

CCAC training module on: occupational health and safety (2003). Visit the CCAC website at www.ccac.ca to access and consult this training module.

Slide 29 Avoiding Fear Response


Slide 30 On-Farm Human Safety

Canadian Agricultural Injury Reporting (http://cair-sbac.ca/tecrep.html) (Note: if link is broken, please search: CAIR-SBAC)

Handling Farm Animals Safety. (Farm Safety Association, 2002): http://nasdonline.org/document/44/d001612/handling-farm-animals-safely.html (Note: if link is broken, please search: NASD handling farm animals safely)
On-Farm Safety Manuals: *Protect Yourself from Livestock Injuries* (Nova Scotia Department of Agriculture, 2004): http://www.gov.ns.ca/agri/farmsafety/livestock/index.shtml (Note: if link is broken, please search: farm safety protect yourself from livestock injuries)

**Slide 33  Consequences of Restraint Devices**

CCAC guidelines on: choosing an appropriate endpoint in experiments using animals for research, teaching and testing (1998). Visit the CCAC website at www.ccac.ca to access and consult this guidelines document.


**Slide 34  Routine Invasive Procedures and their Effect on Welfare**


**Slide 35  Pain Management**


**Slide 36  Specialized Procedures**

CCAC training module on: farm animals used in biomedical research (2010)

CCAC training module on: genetically-engineered farm animals (2010)

**Slide 40  Blood Sampling Guidelines**


**Slide 41  Blood Volumes: Single Sample**


Slide 42  **Blood Volumes: Multiple Samples**


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Slide 43  **Surgery**


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Slide 46  **Fistulation / Catheterization**


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Slide 48  **Endpoints**

*CCAC guidelines on: choosing an appropriate endpoint in experiments using animals for research, teaching and testing* (1998). Visit the CCAC website at www.ccac.ca to access and consult this guidelines document.

*CCAC guidelines on: the care and use of farm animals in research, teaching and testing* (2009). Visit the CCAC website at www.ccac.ca to access and consult this guidelines document.

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Slide 50  **Emergency Euthanasia**

*CCAC guidelines on: the care and use of farm animals in research, teaching and testing* (2009). Visit the CCAC website at www.ccac.ca to access and consult this guidelines document.

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Slide 51  **Disposal of Farm Animals Used in Science**


- (Note: if any of the above links are broken, search for: Department of Justice Canada and then use the “Browse Statutes by Title” to locate specific act and regulation.)

*Recommended Codes of Practice for the Care and Handling of Farm Animals* (http://www.nfacc.ca/code.aspx)  
(Note: if link is broken, please search: NFACC codes)

Veterinary Biologics Section of the CFIA: http://www.inspection.gc.ca/english/anima/vetbio/vbpbve.shtml  
(Note: if link is broken, search: CFIA veterinary biologics)

Veterinary Drugs Directorate of Health Canada:

  (Note: if link is broken, search: Health Canada emergency drug release)

  (Note: if link is broken, search: Health Canada experimental studies certificate for veterinary drugs)