

PURPOSE

The purpose of these procedures is to define the requirements for the transportation of all animals used in the research and teaching programs at the University of Saskatchewan and its related facilities.

SCOPE

These procedures apply to the transport of all experimental animals used in the research and teaching programs at the University of Saskatchewan; the transport of animals from one animal facility to another; and, the temporary movement of animals to and from laboratories or specialized equipment.

The transport of animals is regulated by Part XII (Transportation of Animals) of the Health of Animals Regulations (HAR), 2020 and applies to all aspects of animal transport and related confinement, including:

- Selection of animals that are fit for intended transport
- Feed, water, and rest
- Handling animal(s) for the purpose of loading
- Loading the animal(s)
- Transport of animals
- Unloading animals

Regulated parties include owners, transporters and animal handlers.

The Saskatchewan Animal Protection Act and Regulations 2018 reference National Farm Animal Care Council (NFACC) Codes for acceptable animal handling practices.

All animals transported to, from and within the University of Saskatchewan must be transported in compliance with these procedures, federal and provincial legislation, and applicable Canadian Council on Animal Care (CCAC) guidelines including CCAC guidelines on procurement of animals used in science.

RESPONSIBILITY FOR OVERSIGHT

Responsibility for oversight of these animal transportation guidelines rests with the University Animal Care Committee (UACC).

GENERAL PRINCIPLES

Transport of animals can result in significant stress, and have a significant impact on the animals' welfare. All transportation of animals should be planned to minimize transit time (point-to-point transport without stopping, if possible), address any occupational health risk, and protect the animals from physical trauma, the risk of infection, temperature extremes and overcrowding. As noted in the CCAC guidelines on procurement, "The objective of any method of transportation is to ensure the safety, security and comfort of the animal, while moving it efficiently to its destination. Adherence to principles of humane transportation and handling during the transport period and on arrival at the institution should help ensure that, when the animal is used in research, teaching or testing, the results are meaningful and scientifically valid."

Generally, temperature extremes are to be avoided when animals are transported and special precautions or postponement should be considered when temperatures are beyond the animals' comfort zone.

All experimental animal transport must be described in the Animal Use Protocol or an attached Standard Operating Procedure (SOP) and approved by the Animal Research Ethics Board (AREB). Animals can only be transported to other facilities (e.g., laboratories, study areas) outside of the animal facilities for which the principal investigator has received approval from the AREB. For scheduled animal relocations a relocation request form should be submitted to the facility manager or his/her designate where the animals are permanently housed a minimum of two business days in advance of the scheduled transport day. Emergency transport (e.g., to the Veterinary Medical Centre or Prairie Diagnostic Services) may occur from time to time.

All animal transport between facilities (buildings) should preferably be done by trained animal care staff to ensure compliance with the CCAC guidelines and these procedures, but may be done by appropriately trained researcher personnel. Those overseeing the transportation of animals must be able to assess and/or perform:

- Species-specific animal behaviour and handling
- Fitness for transport
- Space requirements
- Segregation and isolation of incompatible animals
- Feed, water, and rest requirements
- Protection/care of animals during transport and transport monitoring
- Conveyance and container requirements, including labelling and documentation
- Transfer of care
- Required training for handlers and transporters
- Contingency plans

It is essential that contingency plans are considered and every attempt is made to anticipate potential delays during transport, e.g., vehicle breakdowns, weather delays, customs clearance, to ensure that the comfort and health of the animal is assured. Emergency contact lists must be provided, and emergency response instructions should be included in SOPs.

Some animal relocations may require quarantine, isolation, health assessment, and management to identify any health concerns and control disease before the animals are used for research.

All animals in transit should be accompanied by the appropriate documentation. Such documentation should be consistent with the regulations where applicable, e.g., livestock manifests.

TRANSPORT CONTAINERS and VEHICLES/CONVEYANCES

Conveyances and Containers must be designed, constructed, equipped and maintained to prevent suffering, injury or death. All animals must be transported in approved transport containers and vehicles. Transport containers and vehicles must be approved by the University Veterinarian.

Approved containers are those which will ensure the comfort of the specified species for the duration of transport, and be durable, stable and free of projections that could cause injury. Floors must prevent tripping, slipping or falling. Bedding material should be provide to absorb water, urine and feces, and keep animals warm and dry.

Containers must be properly secured to the conveyance. Care must be exercised in handling containers holding live animals. Containers must not be tossed, dropped, needlessly tilted, stacked in a manner which may reasonably be expected to result in their falling, or handled in any manner which may cause physical trauma or stress to the animals.

Space should be provided so that animals can stand (poultry must be able to squat or sit) with a full range of head movements without touching the container, and lie down without overlying other animals. Animals incompatible due to their nature, temperament, sex, weight or age, must be segregated.

In most cases, the containers provided by a reputable commercial supplier and the method used for transport are acceptable. However, it is the condition of the animal when it arrives at its destination that will provide the ultimate decision on whether a transport container and/or method was suitable. Animals received in poor condition from commercial suppliers should not be transported in a similar manner, unless extenuating circumstances can be demonstrated to have taken place.

TRANSPORT CONTAINERS

Animals should be transported in animal specific types of animal transport carriers designed for that purpose (e.g., enclosed filtered cages for rodents, sanitizable metal or plastic carriers for small mammals, or disposable cardboard containers for poultry chicks, etc.). Transport containment should provide appropriate temperature and adequate ventilation with minimum visualization of the animals. When in public spaces, the container should be covered to minimize stress to the animal and to ensure less visibility for the public.

Some of the specific requirements for transport caging are:

Laboratory rodent transport:

Laboratory rodents must be transported in opaque filtered transport containers specifically designed for that purpose, or micro-isolator filter top holding cages, with accompanying food

and hydrating gel sufficient for the duration of their stay. Transport container lids must be fastened to ensure the animals cannot escape should the cage be inadvertently dropped. If the primary enclosure (cage) is clear plastic or does not have a secured lid, that cage should be placed within a sanitized secondary container.

The transport of genetically modified animals must also comply with regulatory requirements for security. As well, genetically modified animals may have specific welfare issues and requirements with respect to transport that must be considered.

Density of rodents being transported: The number of rodents per transport cage should not exceed industry standards for air transport crates.

Laboratory rabbit transport:

Laboratory rabbits must be transported in crates approved for that species, with accompanying food and water sufficient for the duration of their stay.

Dog and cat transport:

Dogs and cats must be transported in crates approved for those species.

Aquatic species transport:

The transport of fish should be in accordance with the CCAC guidelines on fish and methods should be suited to species and density. Fish must be transported in opaque enclosed containers (such as buckets with lids) or properly sealed plastic bags sold commercially for this purpose, containing the appropriate amount of water and oxygen for the duration of their stay. It is essential that the temperature of the container is effectively controlled to keep the fish within their range of thermal tolerance. For cold water species, the bags or containers should be transported on ice in larger containers. The use of an air pump to supply oxygen to a container can be used, but this requires a container that will allow the passage of an airline but prevent the escape of fish or spilling of water.

Amphibians and reptiles: refer to the CCAC's Species Specific Recommendations on Amphibians and Reptiles.

Farm animals:

The transport of farm animals should be in accordance with the species-specific requirements within Transport Sections in Canada's NFACC Codes of Practice. These are available for beef and dairy cattle, deer, goats, horses, sheep, poultry, bison and rabbits. The Recommended code of practice for the care and handling of farm animals – Transportation (CARC, 2001) is currently being updated and due to be published in 2023.

Smaller farm animals (e.g., piglets, lambs) should be transported in approved containers appropriate to their species and age-specific needs.

Poultry transport:

Poultry must be transported in approved containers for those species. Refer to the Poultry Service Association's Poultry Handling and Transportation Manual for additional information.

Wildlife:

The transport of wildlife should be in accordance with the CCAC guidelines on the care and use of wildlife (2003).

ANIMAL TRANSPORT VEHICLES

Vehicles used to transport animals should be appropriate for the size, environmental requirements and species of animal being transported. For large animals or animals that are not able to be transported in a suitable container within the transport vehicle, the transport vehicle should be appropriate for transporting the species in question or approved by the University Veterinarian. Approval by the University Veterinarian must be requested well in advance of the anticipated transport date.

When transport by approved USask vehicles is not feasible, an approved outside vendor must be used for the movement of animals.

Animals must not be transported in personal vehicles unless approval has been obtained from the University Veterinarian or delegate (e.g. Animal Care and Research Support Veterinarian). Animals must not be transported by public transportation (e.g., buses or taxis.)

ANIMAL RECEIVING

Facility managers will only accept animals on approved animal orders, as per UACC SOP A102 Animal Acquisition and Reporting. Before animals are delivered and transfer of care can occur, the facility must be notified to ensure that appropriate housing is available and prepared, and that trained personnel will be present to receive the animals, ensure they are in good condition, and place them in the appropriate holding location. Received animals should always be placed in quarantine until their health can be adequately assessed in order prevent the spread of disease.

TRANSPORTING LIVE OR DEAD ANIMALS CONTAINING BIOHAZARD RISKS

Transport of bio-hazardous materials in general poses special problems. This is significantly amplified (e.g., potential spread through excreta) when the material is contained in an animal. It is therefore important that appropriate precautions are incorporated both during the transportation and after the animals have arrived at their destination.

BIOSECURITY AND SANITATION PRACTICES

Transport must adhere to the biosecurity protocol requirements of animal suppliers and receiving facilities. Transport vehicles may require external washing and disinfection, as well as 'down-time' between transport events. Vehicle cargo areas used to transport animals must be thoroughly cleaned and sanitized. Containers must be sanitized before re-use.

NON-COMPLIANCE

Failure to comply with these procedures will be reported to the UACC and can be subject to specific action including suspension of research privileges with animals.

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UACC Approved: