

Standard Operational Procedures
for the
Department of Animal, Dairy and Veterinary Sciences
North Logan Farm (NLF)

This SOP will facilitate the use of animals at the North Logan Farm (e.g., Animal Physiology Farm, Horse Facility, Old Dairy Farm, Poultry Unit and Veterinary Science Farm) for teaching, research and extension. The SOP will assist the Farm Manager (FM) in the routine care and management of animals maintained within the facilities. The SOP also delineates specific responsibilities of the clinical veterinarian (CV), attending veterinarian (AV), principle investigator (PI) and FM.

I. Facilities and facility use

The NLF facilities comprise barns, pens and pastures at the Animal Physiology Farm, Horse Facility, Old Dairy Farm, Poultry Unit and Veterinary Science Farm. Whenever possible, the Dept. Head will provide facilities at the NLF projects that involve animals in teaching, research and extension. Requests for facility use will be reviewed by the North Logan Farms Committee (NLFC). In the planning stage of a project, the PI should discuss the Dept. Head and FM the need for facilities and then submit a request for facility use to the NLFC. If facilities are not available and/or require the building of new or the modifying of existing facilities, the costs for building and construction must be discussed with the Dept. Head well in advance of initiation of the project. In some cases the Dept. and/or UAES may be able to share in the costs; however, the PI may have to bear the entire construction or renovation costs. The NLFC will not approve a facility use request without having IACUC approval.

II. Animal Species

The SOP has been developed primarily for cattle, sheep, goats, horses and poultry. Other animal species such as mink may be handled on an individual basis upon approval of the Dept. Head, CV and the North Logan Farms Committee (NLFC).

III. Definition of animal ownership

The ownership of animals falls into one of three categories and costs for maintenance and care of animals depends on the category of ownership:

- A. Category 1 - animals that are owned by UAES (production animals).
- B. Category 2 - animals that have been purchased by UAES, USU or extra mural funds but, are not owned by UAES (project animals).
- C. Category 3 - animals that are privately owned (private animals).

The use and maintenance of private animals at USU-ADVS/UAES owned/operated farms for

teaching, research and extension is acceptable. Private animals are recognized as those owned by the rancher, farmer, private company, pet owner or entities other than USU-ADVS/UAES. The responsible faculty member is expected to complete a Private Use Disclosure Form with copies provided to the owner and the ADVS Dept. Head prior to private animals entering ADVS/UAES owned/operated farms.

The purpose, intended use, and associated responsibilities of the private animals should be clearly identified and agreed upon with the animal's owner/agent. When we assume custody of private animals, it becomes our responsibility to care for them with even more vigilance than we might USU-ADVS/UAES owned animals in order to avoid any liability attributable to negligence. Agreements with private owners/agents should identify our responsibility in the event of injury or illness to the private animal not directly attributable to our actions or inaction. The agreement should also define actions permissible in case of illness and give permission for euthanasia if deemed necessary. The average and/or range of value of the animals should be indicated in the agreement. Because of the uncertainty that may exist as to the cause of such injury, illness, or death, we assume the risk of liability for the resulting damages.

The University's insurance administered by the State of Utah does provide coverage for liability claims and property losses. There is a \$1,000 deductible for property loss claims and the responsibility for payment lies with the faculty member in charge.

IV. Biosecurity levels

A. Level 1 - Animals will be used for short-term teaching, research or extension purposes and will not be maintained longer than six months within the facility. Level 1 animals will be kept separated from other production, project or private animals. Approval for Level 1 animal requests will be handled by FM and the Chairman of the NLFC, unless the Chairman deems it necessary to bring the request for facility use before the NLFC. Level 1 animals must meet the entrance requirements (see below) before they will be allowed into facilities.

B. Level 2 - Animals will be used for long-term teaching, research or extension purposes which exceeds six months of facility use. NLF facility use by Level 2 animals must be approved by the NLFC. Animals in this category must meet the entrance requirements (see below) before they will be allowed into the facilities.

C. Level 3 - Animals that require facilities with restricted access and are usually maintained for longer than six months. NLF facility use by Level 3 animals must be approved by the NLFC. Specific pathogen free (SPF) animals, and possibly transgenic animals, fall into this category. Animals placed in SPF designated areas must first be screened and found negative for specific pathogens and/or antibodies (see SPF status below). Level 3 animals must also meet the entrance requirements (see below) before they can be allowed into the facilities.

V. Animal Entrance Requirements

Before an arriving animal(s) is/are placed into NLF facilities, the CV, AV and FM must be given a seven day prior notice. If animals are brought in as groups over 2-3 three week period, the PI

needs to inform the FM in the initial seven day notice. The PI is responsible for obtaining signatures on the Federal health certificate and/or the ADVS Pre-entry Animal Information Form (the original to the CV, and copies to the AV and FM). Animals must be identified for use on a UAES or ADVS approved project. The use of facilities must have prior approval by the NLFC and the animal(s)/project must have IACUC approval. Failure to comply with these requirements will result in delay of the animal(s) being placed in NLF facilities. The PI will be responsible for finding other facilities until compliance. The FM is responsible for observing compliance and any willful violations will be reported to the Chairman of the NLFC and the Dept. Head.

A. Animal identification

All animals that enter NLF facilities must be identified by some sort of numerical ascription affixed to the body (i.e., ear tags, neck tags, tattoos, subcutaneous electronic tags, etc.).

B. Animals originating from outside the state (interstate)

Animals transported interstate to NLF facilities must be accompanied with a federal health certificate. A state entry permit number is required on out-of-state generated health certificates. The permit number will be given only to the inspecting veterinarian within the state of origin of the animals. An ADVS Pre-entry Animal Information Form (ADVS PAIF - see attachment 1) is also required. The ADVS PAIF must be given to the Farm Manager, along with a verbal or written notice, seven days prior to arrival of the animal(s). The animal(s) must also have had prior NLFC and IACUC approval. Copies of the health certificate with permit numbers are given to the CV (original), AV, PI and FM. The PI needs to make sure that the health certificate is properly distributed. The PI will maintain the original permit after it has been reviewed by the CV. Disease screening measures for interstate transport of animals into Utah are set as minimum requirements by the Utah State Department of Agriculture and changed as deemed necessary by the State Veterinary Office. Information on disease screening requirements can be obtained by contacting the State Veterinarian's office at (801)538-7160. Additional screening measures may be necessary if animals come from areas where herds/flocks have a known history of specific infectious disease(s). If a disagreement arises between the PI and CV or AV on additional screening or testing requirements, the matter may be taken before the NLFC. The NLFC will then make a recommendation to the Dept. Head. The final decision will be made by the Dept. Head. The CV and PI should have thoroughly pursued all possible resolutions prior to bringing their disagreements before the NLFC. Animals that require additional testing should be screened before entering NLF facilities. If that is not possible, they may be screened while in quarantine if approved by the CV. Testing animals while in quarantine may extend the normal quarantine period of 14 days. Testing of animals while in quarantine will be coordinated with the CV, PI and FM. Animals that will use SPF facilities will be required to undergo additional screening (see below). Animals going into SPF facilities have to maintain a standard as high as the animals that are utilizing the facilities. Animals that will be used in transgenic research projects may require more stringent screening measures depending on the intended use of the transgenic animals. In that case the PI must work closely with the CV in selecting tests, screening measures and/or vaccines.

1. Bovine: Disease check: Contact the State Veterinarian's office at (801)538-7160.
Recommended vaccinations: IBR, PI3, BSRV, BVD and 7 or 8-way clostridium.

2. Caprine: Disease check: Contact the State Veterinarian's office at (801)538-7160.
Recommended vaccinations: Clostridium perfringens C and D.
3. Equine: Disease check: Contact the State Veterinarian's office at (801)538-7160.
Recommended vaccinations: Tetanus, Influenza, Rhinotracheitis and Eastern and Western-type encephalomyelitis
4. Ovine: Disease check: Contact the State Veterinarian's Office at (801)538-7160.
Recommended vaccinations: Clostridium perfringens C and D, and possibly sore mouth.
5. Poultry: Disease check: Contact the State Veterinarian's Office at (801)538-7160.
Recommended vaccinations: To be determined by the CV and PI.

C. Animals originating from within the state (intrastate)

Intrastate transport of animals to NLF facilities must be accompanied with an ADVS Pre-entry Animal Information Form. The ADVS PAIF will be given to the CV (original) and FM, seven days prior to arrival of the animal(s). The animal(s) must also have had prior NLFC and IACUC approval. Disease screening measures may be necessary if animals originate from herds/livestocks with known history of specific infectious disease(s). Such additional disease screening requirements, were indicated, may be reviewed by the NLFC. The CV and PI should have explored all possible alternatives before brining the matter before the NLFC. Animals that will use SPF designated facilities (see below) will be required to undergo screening for specific disease or antibodies. Animals going into SPF facilities must meet standards as high as the animals that are currently utilizing the facilities. Animals that will be used for transgenic purposes may also require more stringent screening procedures depending upon the nature of their use. The PI should work closely with the CV whenever additional screening procedures, tests or vaccines might be indicated. Recommended vaccinations are the same as for interstate origin animals.

D. Animals leaving the NLF

The PI will give the CV, AV and FM at least a seven day notice when animals will be leaving NLF. This is absolutely necessary for the CV when health papers are required for the certification of drug clearance and special tests. If special tests are needed, the notice period may require a longer period of time.

E. Quarantine

All animals (except biosecurity Level 1 animals) that receive approval to be maintained at the NLF facilities must be quarantined for a minimum of 14 days. Level 1 animals will be maintained under continuous isolation. The place of isolation will be determined by the CV and FM. The need for special procedures or treatments (immunizations/anthelmintics) must be given prior to release from quarantine which may extend the quarantine beyond 14 days. The feeding and handling of quarantined animals will be done last. Whenever the CV/AV/PI/FM or farm crew enters a quarantine facility he/she should wear coveralls and boots. The boots (if not

disposable) should be changed and immediately washed upon leaving the quarantine facility. The coveralls also should be washed if animals are handled during the observation. The FM will be responsible for observing compliance of quarantine procedures. Any additional costs of maintaining animals in quarantine (i.e., special clothing, foot washes, etc.) will be borne by the PI unless prior arrangements have been made with the Dept. Head.

F. SPF status

Certain types of research require that animals be negative for specific diseases/antibodies and be placed in facilities that have limited access. Requests for use of SPF facilities will be considered in terms of how they will impact current SPF projects. Animals going into SPF designated facilities must meet the same standard of screening as those on current projects. SPF requirements may change from time to time; however, they will never be lower than the requirements specified for ongoing projects. SPF requirements for new projects are determined by the CV, AV, PI and FM. Any additional costs of maintaining animals in quarantine (i.e., special clothing, foot washes, etc.) will be borne by the PI unless prior arrangements have been made with the Dept. Head. If additional SPF designated areas are required, or in some cases where they are no longer necessary, then classification of specific areas will be upgraded or downgraded whichever pertains. Upgrading a facility may require additional costs to the PI. Downgrading of areas will be in agreement with the CV, FM and NLFC. The final disposition of SPF designated areas will be made by the Dept. Head and UAES Director.

G. Permanent Quarantine

Occasionally there are projects (other than level 1 animal use) that require permanent quarantine facilities (PQF). Access into these areas is strictly controlled and entrance requires following specific protocols depending on the nature of the project. Protocols need to be specified at the time the PI makes an application for facility use to the NLFC. PQF requirements for new projects are determined by the CV, AV, PI and FM. Requests for use of PQF facilities will be considered in terms of how they will impact current PQF projects. PQF entrance requirements may change from time to time; however, they will not impact ongoing projects. Upgrading a PQF facility may result in additional cost to the PI. Downgrading areas will be in agreement with the CV, FM and NLFC. The final disposition of PQF classified areas will be determined by the Dept. Head and UAES Director after recommendations by the NLFC.

H. Transgenic Animals

Animals that are used for transgenic research have unique status that may involve special handling, maintenance and disposition requirements. Transgenic founder animals and their offspring must be handled in accordance to approval/recommendations by the Institutional Biosafety Committee for Recombinant DNA Activities. The regulations are described in the, "Guidelines for Research Involving Recombinant DNA Molecules?" Anyone proposing research or having questions about handling transgenic animals can access the regulations through <http://www.orcbs.msu.edu/biological/biolsaf.htm>. The PI must work closely with the CV, AV and FM to meet these guidelines. The maintenance of transgenic animals may require controlled access to facilities. Unique or special handling and maintenance requirements must

be identified at the time of application for facility use. The PI should discuss such needs with the Dept. Head prior to submitting a request to the NLFC. Transgenic projects must have had USU DNA Recombinant Committee and IACUC approval as part of the request for facility use. The disposition of transgenic animals follows specific guidelines depending on the intended use of the animals (e.g., human or animal food, pharmaceuticals or as models to study disease). The PI needs to work closely with the CV, AV and FM on the disposition of all animals to insure that protocol is being strictly followed. The PI is responsible for additional costs for maintaining transgenic status facilities and for disposing confirmed or punitive animals. These costs and the need for special facilities must be discussed with the Dept. Head well in advance of implementation of the project.

VI. Routine Care of Animals

A. Feeding

The FM has the responsibility of making sure that animals are properly fed and bedded seven days a week year around. The FM and NLF crew are responsible for the daily observation of all animals. If special diets are necessary, the PI must coordinate feeding with the FM. If the FM is unable to meet the feeding requirements at the NLF because of a shortage of help, the FM will request that the PIs cost-share for additional help. Cost-sharing may be coordinated through the NLFC and will then make a recommendation to the Dept. Head. The PI(s) may have to pay for part-time help. The PI is ultimately responsible for acquiring the feed and bedding for his/her project, which could require paying for hauling and stacking. The PI must work closely with the FM to insure there is adequate feed and bedding for the project.

1. Production animals - these animals are owned by the UAES and have priority for UAES grown feed (hay). Whenever the amount of feed provided by the UAES is insufficient, the PI will be responsible for additional feed costs.

2. Project animals - the PI has full responsibility for all feed costs. Surplus feed may become available through the UAES and will be allocated to the PIs by the FM as agreed upon by the Dept. Head. The FM may also utilize pastures to reduce feed costs. The FM will ensure that surplus feed or pastures are used equitably among PIs. The PI can request the type of feed (e.g. hay, pellets, grain, special diets) to be fed. If the request results in the need for additional help, the PI will be charged accordingly. Disagreements between the FM and PI on costs of feeding will be brought before the NLFC and a recommendation by that Committee will be made to the Dept. Head.

3. Private animals - all feed costs will be the responsibility of the PI and/or owner. Surplus feed or pasture use will not be allocated to privately animals unless approved by the Dept. Head. If private animals are maintained on UAES pastures, the PI will be charged a per diem equivalent to the cost of feeding hay which shall be used to offset cost of feeding project animals. The FM will be responsible for enforcing this policy.

B. Health Care

It is the policy of the Department that the routine health care of Production and Project animals be handled by the CV and FM at no cost to the PI. The PI will be expected to work closely with the CV, AV and FM on the treatment of animals. The AV must coordinate health care issues with the CV. Unless otherwise indicated by the Dept. Head, the PI will be responsible for all health care costs of private animals. Daily observation of animals is the responsibility of the caretakers (CT). Whenever an animal is judged to need veterinary care, the FM/CT must contact the PI and CV, or the PI should contact the CV and FM, whichever is the most expedient. The CV will be responsible for the diagnosis and treatment of animals. The CV should work closely with the PI, but has the final decision on how best to treat an animal, if and when an animal is healthy enough to be released for research, and whether or not an animal should be euthanized. The PI may recommend euthanasia. The AV must coordinate all treatments with the CV. If an animal on a project dies, the FM must take (or supervise the taking) of the animal to the Diagnostic Laboratory for necropsy unless told not to by the CV or AV. Necropsy costs for animals that die due to sickness or unknown causes will not be charged to the PI if the animal is submitted to the diagnostic laboratory through the CV or AV. If an animal is delivered for necropsy without the knowledge of the CV/AV, the PI will be charged for the service. The CV has the final say on whether an animal should be necropsied. Animals that die within the NLF must be taken to the Diagnostic Laboratory for disposal unless permission for another means of disposal is granted by the Dept. Head. If euthanasia and necropsy are part of the protocol of a project, the PI is responsible for costs.

Occasionally post-surgical complications occur even when IACUC approved procedures are stringently followed. Under those conditions, the treatment of animals and/or necropsy will be covered at no cost to the PI. However, if the complications are due to procedures that deviate from IACUC approval and are caused by unqualified cooperators (as determined by the CV and AV), the costs for treatment and/or necropsy will be borne by the PI. The PI can bring his/her complaints to the NLFC and Dept. Head.

1. Establishment of an immunization and anthelmintic program

The CV and FM will establish a general/standardized health care program for all animals at the North Logan Farm. In addition, the CV/AV and PI may establish a health care program for individual projects based upon the needs and circumstances of the animals in use. The FM/PI will see that this program is carried out. General health care needs that require drenches, general vaccines (e.g. Clostridium sp.), dipping and foot baths, trimming hoofs etc. will be handled by the FM at no cost to the PI. If the NLF crew has insufficient help to handle the health care needs of animals, the PI will be expected to provide help or pay for the hiring of part-time help. Costs of vaccines and/or other treatments that are specific to a research project and any other treatments/medications that go beyond the routine health care of the animal(s) will be borne by the PI. The PI should work closely with the CV, AV and FM on health care needs and programs that involve animals used for research, teaching or extension.

2. Other health-care matters

Animals may need special assistance (i.e., lambing and calving, surgical alterations, etc.) that go beyond routine daily care. Under those circumstances, the PI must coordinate special handling

with the CV and FM. The PI will be expected to provide help or pay for the hiring of part-time help if the NLF crew is unable or unavailable to assist. Special handling procedures must be coordinated with the CV to minimize any loss of newborns. The CV and AV may charge to perform special procedures (i.e., fistulation, castration, etc.) beyond basic health care.

VII. Responsibilities of the principals

The routine operation of the NLF for teaching, research and extension is dependent on the cooperation of the principals involved. Principals must recognize lines of authority of other principals and respect their area(s) of jurisdiction.

A. The PI has the ultimate responsibility to insure that animals under his/her responsibility are managed and cared for as prescribed in the NLF facility use request and as described in the IACUC application. The PI must work closely with the CV on health care issues and with the FM on the routine daily care of animals and the maintenance of facilities.

B. The CV is ultimately responsible for health care of all animals at the NLF. The AV, if different from the CV, must coordinate all health care matters with the CV. In cases of sickness or disease, the CV has the final authority over treatment or disposition of sick or dead animals unless otherwise specified by the Dept. Head. The CV must work closely with the PI and FM. If in situations where the CV/AV feels that treatment is not a feasible approach, the CV has the authority to euthanize the animal in question after informing the PI. If the AV is not the CV, a recommendation for the disposition of a terminally sick animal must be made to the CV.

C. The FM has full responsibility for the routine feeding, bedding and care of animals, maintenance of facilities and supervision of the NLF crew (full and part-time employees). The FM must coordinate animal health care with the CV, AV and PI. Whenever an animal appears to be sick, in need of treatment or is found dead, the FM contacts the PI and CV/AV. The PI and CV/AV must discuss method of treatment of sick and disposition of dead animals. A standard protocol for the treatment of various diseases should be established by the CV and provided to the PI and FM. This will alleviate the need to discuss each diagnosis and treatment and allow for a treatment to proceed more rapidly.

VIII. Arbitration of conflicts

All principals at the NLF are expected to become familiarized with and follow the policies as set forth in this document. The PI and FM must work closely with the CV and AV on the implementation of health care issues and policies. The AV must recognize the role of the CV in making final decisions on health care matters, quarantine procedures, the treatment of sick animals and the disposition of dead animals. If a conflict arises that prevents orderly cooperation between the PI, FM, CV and AV, the NLFC can be petitioned to review the problem. If the problem involves a member on the NLFC, that individual will be asked to excuse himself/herself from the NLFC meeting during the deliberation of the problem. The NLFC will make a recommendation to the Dept. Head and the Dept. Head will rule on the matter.