



### Inspection Report

North Dakota State University  
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Customer ID: **1565**  
Certificate: **45-R-0002**  
Site: 001  
NORTH DAKOTA STATE UNIVERSITY  
  
Type: FOCUSED INSPECTION  
Date: 23-MAY-2018

**2.33(b) REPEAT**

**ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE.**

Eleven Romanov lambs died during weaning and processing in the ANPC building on March 23, 2018. At the time of the event, the lambs were under IACUC approved protocol #A16045. The current NDSU IACUC Adverse Event and Protocol Deviation Reporting document requires that the PI and/or animal care staff must report an unanticipated adverse event or protocol deviation within 72 hours to the IACUC Office. The IACUC Office in turn notifies the attending veterinarian. The document also stipulates that animals that die unexpectedly, or are euthanized unexpectedly in a research study, must be submitted to a veterinary diagnostic laboratory for necropsy. The institutional attending veterinarian was not informed about the lamb deaths until May 04, 2018. This was approximately 6 weeks after the adverse event occurred. Additionally, none of the eleven lambs that died were presented for necropsy to a veterinary diagnostic laboratory.

Direct and timely communication with the attending veterinarian and appropriate diagnostic testing are essential to the well-being of all institutional animal herds, flocks and colonies when unexpected mortality or morbidity occurs. A mechanism of direct and frequent communication is required so that timely and accurate information on problems of animal health, behavior and well-being is communicated to the attending veterinarian.

**2.131 CRITICAL**

**HANDLING OF ANIMALS.**

On March 23, 2018, while weaning and processing Romanov lambs in the ANPC building, facility personnel found eleven Romanov lambs dead inside a temporary holding pen located along the east wall of the sheep area. The

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sheep were under IACUC approved protocol #A16045 at the time of the event. The attending veterinarian for the institution was informed of the lamb deaths by ANPC personnel on May 04, 2018. On May 11, 2018, following an investigation of the deaths, the attending veterinarian contacted the USDA inspector (VMO) to inform the USDA of the adverse event and investigation results.

The holding pen was empty at the time of USDA inspection on 05-23-2018. Discussion with facility personnel revealed that 150 lambs and 63 ewes had been placed into the pen on 03-23-2018 for the purpose of staging the lambs for weaning, elastrator band placement and vaccinations. Approximately ninety minutes after the pen had been filled, barn personnel discovered the sheep had piled to one side of the pen and eleven lambs had died. The lambs, which were 8 to 13 weeks of age at the time, had not yet undergone any of the weaning procedures described above. Square footage of the pen was measured at the time of USDA inspection and was found to be approximately 348.5 square feet (25' 2" L (length) X 13' 2" W (width), with an additional 10' 11" L X 4" W wall cove area).

Handling of all animals shall be done as expeditiously and carefully as possible, and in a manner that does not cause trauma, overheating, excessive cooling, behavioral stress, physical harm, or unnecessary discomfort. Failure to restrain and handle animals properly may result in increased animal distress, injury or death.

During the inspection, facility representative proffered corrective actions to help prevent future mortalities during weaning and processing of lambs. The corrective actions include: reduced ewe and lamb group sizes in holding pens when processing, additional training for students and personnel on handling, increased observation frequency during processing, and timely communication with the attending veterinarian when issues occur.

Correct this date forward.

#### 3.130 CRITICAL

##### WATERING.

On May 09, 2018, a water line supplying drinking water to fourteen hogs located in pen 6 in the commercial room of the swine unit building, was found to be non-functional by facility personnel. The fourteen hogs were then moved to another pen with water on the same day. One of the fourteen hogs was found dead later during the day of May 09. Another hog in the group subsequently died on the morning of May 10. A third hog from the group, which had become debilitated, was euthanized on May 11. The affected hogs were under IACUC approved protocol #A17043 and were 6 months of age at the time of the event. The remaining eleven hogs from the pen survived and were

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reported to have no outward signs of distress nor debilitation. The facility attending veterinarian was contacted by the swine unit manager on the morning of May 10. The facility attending veterinarian contacted the USDA inspector (VMO) on the morning of May 11 2018 to inform the USDA of the adverse event.

No hogs were present in pen 6 during USDA inspection on May 23, 2018. Discussion with facility representatives revealed that ceiling work had been done in the room prior to the event and the hogs had been temporarily moved to another pen in the room. According to the corrective action report supplied by the facility, a nylon fitting on the valve of the water line supplying water to the pen had been found to be defective at the time the hogs were initially removed from pen 6. The hogs were then moved back into the pen (pen 6) on May 02. Facility personnel discovered that the water line fitting had not been repaired and the line was non-functional on May 09 2018. Subsequent necropsy of one of the hogs that died (VDL Ascension Report #18-5104) revealed findings consistent with dehydration and water deprivation.

If potable water is not accessible to the animals at all times, it must be provided as often as necessary for the health and comfort of the animal. Failure to provide potable drinking water at adequate frequency or amounts may result in undue stress, dehydration, debilitation or death.

During the inspection, facility representative proffered corrective actions to help prevent potential future mortalities. The corrective actions include: a daily observation checklist which includes all watering devices, timely reporting of animal issues to the attending veterinarian, and a reporting system to the facility manager and personnel when broken or non-functional equipment is found. Newly installed dry erase boards for reporting equipment issues were also observed to be present in the swine unit at the time of USDA inspection.

Correct this date forward.

The inspection and exit interview were conducted with the Attending Veterinarian and the IACUC Coordinator on May 23 and May 24 2018.

This amended inspection report replaces report id # 2016082569157896 previously submitted, signed and dated on 05-24-2018.

(Amended inspection report sent on 05-31-2018 by certified mail # 7013 2630 0002 3415 1518)

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### Species Inspected

Cust No	Cert No	Site	Site Name	Inspection
1565	45-R-0002	001	NORTH DAKOTA STATE UNIVERSITY	23-MAY-18

Count	Scientific Name	Common Name
000081	<i>Ovis aries aries</i>	SHEEP INCLUDING ALL DOMESTIC BREEDS
000009	<i>Sus scrofa domestica</i>	DOMESTIC PIG / POTBELLY PIG / MICRO PIG
<b>000090</b>	<b>Total</b>	