

Freetly, Harvey

From: Engle, Chad
Sent: Friday, April 13, 2012 8:19 AM
To: Fitzgerald, Jim
Cc: Freetly, Harvey
Subject: 25 area snake

Jim

A week or so ago when doing biopsies at AREA 25, we had a pile up in the snake and we ended up killing a cow. We also had 2 people get injured while we were doing the biopsies. Harvey and I have talked about this some and we have got a couple of ideas to run past you sometime about altering the snake. Let me know when a good time might be to discuss this.

Thanks

Chad Engle
USMARC Livestock Operations Manager
402-762-4124 - office
[(606)] cell

Engle, Chad

From: Johnson, BJ
Sent: Monday, April 01, 2013 2:03 PM
To: Engle, Chad
Subject: FW: GPE horns follow up

----- Forwarded Message

From: "Felber, Doug" <Doug.Felber@ARS.USDA.GOV>
Date: Mon, 1 Apr 2013 10:20:36 -0500
To: BJ Johnson <BJ.Johnson@ars.usda.gov>
Cc: "Engle, Chad" <Chad.Engle@ARS.USDA.GOV>
Subject: RE: GPE horns follow up

B.J., when we work them we do check for horns. In the fall heard we only work them once at prebreeding , we use and Iron and also cut off any horns that we see. Pole shed managers are making an effort to dehorn anything that they see!! If you think they are not your boys can come out and try themselves Dougt

From: Johnson, BJ
Sent: Monday, April 01, 2013 10:12 AM
To: Engle, Chad; Jones, Shuna
Cc: Felber, Doug; Rademacher, Wayne
Subject: Re: GPE horns follow up

The deal is we can do a calf every 30-45 sec. when it doesn't have big horns. We will spend 3-6 min. on a calf with horns. It's one of those deals unless you are right there working them day after day. You don't think much of it. Take 32-hd. X av. 4.5 and that is the extra time five or six people wait. While two work to take horns off and then get the bleeding stopped. I think maybe one thing that bother's them, is that most of the horns they take off have never had any thing done to them. Pole Shed Mangers/people are not making any effort to remove horns at birth or pre-weaning. Pre- breeding for Fall calves. No place can get them all we even have some come out with stub horns. But we do check heads on 4000 plus calves or closer to 6000 by the time both set are weaned. Managers should step up and try to improve this. It shouldn't be a volunteer deal we've seen how that works.

PS: We use 5cc per horn of lidocaine per/horn as per animal welfare. And the boys can always spend two three days working calves at the yard too get the full effect.

Thanks !

Bill Johnson (BJ)
USMARC Feedlot Bull Crew Manager

Engle, Chad

From: Engle, Chad
Sent: Wednesday, May 01, 2013 8:49 PM
To: Wheeler, Tommy; Pollak, E. John
Cc: Herman, Bucky
Subject: RE: Animal Handling

Thanks for the info, Tommy. Always good to be aware of what's going on out there.

If FSIS implements new guidelines such as these, it would affect every plant in the US; and we would comply with all documents and notifications of any changes that we receive.

We have FSIS annual animal handling audits currently at the kill floor and have passed the requirements for training and handling without incident for as long as I've been involved, as well as many years prior.

Let me know if you hear anything else.

C.E.

From: Wheeler, Tommy
Sent: Wednesday, May 01, 2013 1:41 PM
To: Pollak, E. John
Cc: Herman, Bucky; Engle, Chad
Subject: Animal Handling

FYI

I don't know to what extent we are emphasizing training for humane animal handling. But we handle a lot of animals. USDA-AMS has just announced that any plant supplying to the Federal Nutrition programs (such as school lunch) has to implement new training and animal handling guidelines. I suspect FSIS may follow suit for all processing plants. Below is a summary of the new requirements.

- An internal steering committee needs to be set up that shall be responsible and accountable for animal handling within the organization;
- An employee training program that's based on the American Meat Institutes (AMI) Recommended Animal Handling Guidelines and Audit Guide, 2012 edition;
- The training must be performed by an employee that's earned and maintained a certification of animal handling and welfare training, such as that offered by the Professional Animal Auditor Certification Organization (PAACO) or an equivalent;
- Training is conducted no less than once a year for each designated employee and requires signed documentation for each employee and confirmation by signature of the designated certified trainer upon successful completion of the training;
- A written quality management plan which addresses all provisions of Chapter 3: Transportation Audit Guidelines, (cores 1 through 7) and Chapter 4 Auditing Animal Handling and Stunning, (cores 1 through 7) contained within the AMI's 2012 edition.

AMI Guidelines may have some application for feedlots and other animal handling situations too.

Tommy

Engle, Chad

From: Engle, Chad
Sent: Friday, August 31, 2012 10:58 AM
To: Pollak, E. John
Subject: FW: feet

From: Jones, Shuna
Sent: Friday, August 31, 2012 10:44 AM
To: Felber, Doug; Rademacher, Wayne; Engle, Chad; Hays, Gordon
Subject: feet

Hi,

We are starting to treat feet at PS18 again now they are coming off the pivot. The cattle carpets need to be addressed for animal welfare/maintenance etc. Maybe it's an odd year with it being so dry, but we have treated a significant number of animals with one cow being euthanized.

Shuna A. Jones, DVM
U.S. Meat Animal Research Center
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<http://www.usmarc.usda.gov>

Engle, Chad

From: Engle, Chad
Sent: Monday, February 27, 2012 7:53 AM
To: Rempel, Lea; Gandy, Devin
Cc: Vallet, Jeff
Subject: RE:

Dr Rempel

For the record, whenever a species manager brings forth to me a concern about the welfare of animals under a study, I will follow through with it until I am satisfied that there is no issue. This will never be considered a waste of time.

I think Devin is to be commended for bringing this issue to all of our attention. It is my understanding from the responses both verbal and email that I've received from Dr Jones and Devin that there is no issue and that the animals and we will continue on as planned. Animal welfare and other animal issues is an item that I will always take very seriously. It is vital that we all do so as this is in the best interest of the research center on many levels.

Just to be clear, we will always check into animal welfare issues, and it will never be considered a non-issue or a waste of time. If feel you would like to discuss this further, please feel free to come see me.

Chad Engle

Chad Engle
USMARC Livestock Operations Manager
402-762-4124 - office

[6666] cell

From: Rempel, Lea
Sent: Friday, February 24, 2012 7:40 AM
To: Gandy, Devin
Cc: Engle, Chad; Vallet, Jeff
Subject: FW:

Devin,

Thank you for inquiring into the welfare of the gilts we have on test right now in Building 2. I feel that I need to address the matter of proper space myself after your verbal inquiry following Dr. Jones' response to your initial communication. As I have discussed with you, and Dr. Jones, these gilts have adequate room in which their movement is not constrained.

According to the FASS guidelines, you have misinterpreted the space requirements for these animals. The constraints you have brought forth of the 6.5 linear feet for a young adult and 7 linear feet for an adult is within a stall environment. Also in a stall setting animals require at least 2 ft in width thus giving you approximately 14 square feet. The gilts on our project are within pens with a square footage of 16 ft, thus 2 square feet larger than recommended by these guidelines. Furthermore the document indicates that individually penned animals only need enough length in which they can lie comfortably without any extremities and/or limbs required to lie upon items within the pen such as feed or water troughs.

Dr. Jones has indicated to me that these animals are not in any harm due to the pens and they appear to be comfortable after she took the time out of her day to monitor these animals on Thursday, February 23. A lot of time has been wasted

addressing a non-issue by several people. I do not have a problem looking into legitimate concerns, but there is and never has been a problem with the pen space allotments for these animals. At this juncture the outline has been approved and the animals are already on test. If whoever raised the concerns with you, maintains a disagreement with the current housing it is advised by Dr. Jones that they file a complaint with the USMARC ACUC.

Lea A. Rempel
Research Physiologist (Animal)
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USDA/ARS
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From: Leymaster, Kreg
Sent: Wednesday, June 15, 2011 4:44 PM
To: Pollak, John
Cc: Jones, Shuna ; Madson, Terry; Wallace, Mike
Subject: Predation

Dr. Pollak,

These self-explanatory pictures of our pasture lambs were taken yesterday. I am greatly concerned from an animal well-being perspective as well as the impact of predation on our research program that focuses on genetic effects on lamb survival. In the past four days, 12 lambs were lost due to predation. I understand the difficulties and challenges of effectively managing the predator issues.

I would like to visit with you personally concerning this issue.

Kreg Leymaster

US Meat Animal Research Center

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United States

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Web Site: <http://www.ars.usda.gov/npa/marc>

From: Jones, Shuna
Sent: Friday, February 03, 2012 1:02 PM
To: Pollak, E. John
Subject: predators

Dr. Pollak,

We have had 10 predator kills on ewes in 16A in the last two weeks. Yesterday, we put ewes in 25B3N and in less than 24 hours two were killed and two are injured with guarded prognosis.

I realize this is a sensitive issue. I don't think we will get ahead of the coyotes without trapping and it would be more humane to do that now when they are breeding before whelping.

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April 9, 1998

Minutes MARC ACUC Meeting

The meeting was called to order at 2:35 PM. The following committee members were in attendance: Sherrill Echtenkamp, Steve Mohling, Wayne Peshek, Wade Smith, Sam Townsend, J. T. Yen, and Gary Ross. The purpose of the meeting was to gather information from Cattle Operations personnel regarding animal care issues resulting from the winter weather conditions during this calving season.

Present situation: The calving season begins in February with a majority of the calves born in March. Seventy-five percent of calves are born by the end of March. The Spring calving herd consists of approximately 4800 cows and heifers (approximately 1000 heifers). The heifers start calving 2-3 weeks in advance of the cows. As a result of increased AI success and a more fertile bull battery, calving distribution is heavy during the early to mid calving season. This combination of the timing of the calving season and the heavy calving rate in the earlier part of the season results in a large number of calves being at risk to the affects of severe winter weather. During this calving season "night calvers" were on duty in the four heifer calving areas for three weeks ending 3-15-98. Many of the calves that were lost were found dead in the morning from exposure and hypothermia before being able to stand and walk. This was a problem in both heifer and cow calving pastures.

Pole Sheds are generally too small to handle the number of pairs being produced if shelter is needed for the first 2-3 days post partem. During a typical full calving day in the Spring approximately 120 calves are being born on the Center and 20-30 calves at the busiest Pole Sheds. Maximum pair stalls at the largest Pole Sheds are 20 stalls.

The next step to be taken is the preparation of a set of recommendations to be presented to the Center Director to alleviate the problems experienced during this year's severe winter weather. This plan will have general recommendations that will have to be tailored to meet the specific needs of each Pole Shed management area. The Chairmen has asked Dr. Gary Rupp to submit to him a list of recommendations from the perspective of the Great Plains Veterinary Education Center. Dr Leroy Hahn has been asked to prepare information on meterological information that could be used to forewarn management personnel to take steps to protect animals from severe weather events.

The meeting was adjourned at 3:40 P.M.

Gary S. Ross, D.V.M.



FILE COPY

September 16, 2005

SUBJECT: Calving Difficulty and Guidelines for Animal Care

TO: Shuna Jones
Herd Health Veterinarian

FROM: Larry V. Cundiff
Acting Center Director

I met with Gordon and Wade to discuss the calving difficulty issues. They agreed to adjust their schedule in the twinning herd to observe calving from 4 PM to 12 Midnight. This was all they could do with available labor.

Thanks for your support and help since January. I have appreciated your efforts and the opportunity we have had to become better acquainted this year.

Enclosure

USDA:ARS:NPA:MARC:LVCUNDIFF:llk:762-4110:9/16/05

Nierman, Janel

From: Jones, Shuna
Sent: Thursday, February 13, 2014 8:09 AM
To: Vallet, Jeff
Subject: RE: HOD again rejects measures to stop foreign accreditation

Hi Jeff,

Devon, Ron, Chad, and I have met to discuss how to shut the wings down similarly to what we did with PRRS. Ron did forward an email to the unit about signs to look for, reviewing biosecurity etc. We do test everything that vomits and has diarrhea, and I think they do a good job of euthanizing sick animals with slim to no chance of survival.

We do not use blunt force trauma to euthanize piglets. The only time that was done was during the PRRS outbreak when Devon thought it would be easier and it caused a lot of problems for people in the unit. I give Wayne and Michelle beuthanasia to use and we dispose of the piglets in the dead pit. That is the method I think is easiest on them, and the piglets.

Shuna

From: Vallet, Jeff
Sent: Thursday, February 13, 2014 8:03 AM
To: Jones, Shuna
Subject: RE: HOD again rejects measures to stop foreign accreditation

Thanks for sending this Shuna,

So given that PED spreads on the wind it is only a matter of time before it comes to us. If we haven't already, we should probably think about what will happen to us when this occurs. I also found the other article interesting in that Tyson wants contractors to stop using blunt force trauma to euthanize piglets. What would be the next best option for piglets, should this become a uniform standard?

Jeff

From: Jones, Shuna
Sent: Thursday, February 13, 2014 7:38 AM
To: Vallet, Jeff
Subject: FW: HOD again rejects measures to stop foreign accreditation

fyi

From: JAVMA News Bulletin - March 1, 2014 [<mailto:avmabulletin@avma.org>]
Sent: Wednesday, February 12, 2014 2:00 PM
To: Jones, Shuna
Subject: HOD again rejects measures to stop foreign accreditation

Trouble viewing this newsletter? [Read it online.](#)



THE MARCH 1, 2014, ISSUE OF JAVMA NEWS IS

HOD again rejects measures to stop foreign accreditation



Foreign veterinary college accreditation has been debated by AVMA members and leaders for the past few years. In June 2013, a consensus had been reached by the Executive Board that the AVMA Council on Education should continue to accredit foreign veterinary colleges. Then, this January, the House of Delegates voted against stopping foreign accreditation. Those actions apparently resolve the matter for now.

[more](#)

Veterinary economics a priority in 2014



The 2014 AVMA Veterinary Leadership Conference, held Jan. 9-12 in Chicago, gathered the House of Delegates, Executive Board, state and allied veterinary association leaders, and emerging and future leaders in one place. AVMA governance reform continued to be a hot topic. That, and strengthening the economic viability of the profession, will be top priorities for the

Association in 2014. [more](#)

AVMA eases membership requirements

In January, the AVMA House of Delegates voted to eliminate a requirement that applicants for AVMA membership must be a member of an organization represented in the HOD, be a diplomate of a veterinary specialty recognized by the American Board of Veterinary Specialties, gain endorsements from two voting members of the AVMA, or graduate as a member of an organization represented in the Student AVMA House of Delegates. [more](#)

Pork companies want changes in pig housing, handling



Tyson Fresh Meats and Smithfield Foods, two of the nation's largest pork companies, are asking that suppliers make changes intended to improve pig welfare. Tyson is asking that contract farms add video monitoring, eliminate use of manual blunt force trauma for euthanasia of piglets, use pain mitigation for tail docking and castration, and ensure that housing for pregnant sows provides room for some movement. Smithfield is asking that suppliers stop using gestation stalls by 2022. [more](#)

HOD again rejects measures to stop foreign accreditation

Veterinary economics a priority in 2014

AVMA eases membership requirements

Pork companies want changes in pig housing, handling

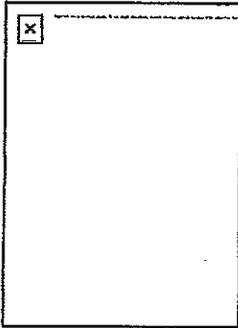
Pig virus may spread by wind

APCA University of Florida offers masters in veterinary forensic

Additional Headlines

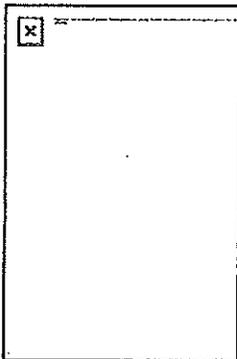
Announcement

Pig virus may spread by wind



Researchers in Minnesota found indications the virus responsible for porcine epidemic diarrhea could spread among farms through aerosols carried by wind. The virus has sickened and killed pigs, particularly the youngest pigs, in at least 20 states since it was found in the U.S. for the first time in April 2013. Recent study of spread of the virus in the Oklahoma Panhandle and southern Kansas has found RNA from the virus in wind samples as well as a correlation among wind patterns and the direction of spread of the virus to naive farms. [more](#)

ASPCA, University of Florida offer master's in veterinary forensics



The American Society for the Prevention of Cruelty to Animals and the University of Florida have announced a new online program that will give students the opportunity to earn a Master of Science degree in Veterinary Forensic Sciences. [more](#)

ADDITIONAL HEADLINES:

[AVMA delegates want members to help investigate pet illnesses](#)

[Trust connects members with medical, other insurance](#)

[AVMA releasing guidelines on humane slaughter](#)

[Veterinary mobility bill clears Senate](#)

[Method improves test for heartworm infection in cats](#)

[Dennis, a pioneer of veterinary law](#)

[Obituaries](#)

ANNOUNCEMENT:

[**AVMA seeks comments on principles of ethics**](#)

Nierman, Janel

From: Vallet, Jeff
Sent: Friday, October 12, 2012 8:43 AM
To: Jones, Shuna
Subject: hernias from UHO

Shuna,

Jenell tells me that we have some possible hernias as a result of the recent UHO surgeries we did. The animals are relatively young. She indicated that one is quite large, so that one probably needs to be dealt with relatively soon. The others are smaller, and I am going to go over and check them today to find out if they are in fact herniated or just swollen at the incision site. For animals that are confirmed with hernias, do you want us to euthanize them immediately or can we wait a little bit for them to grow up before we send them over to the abattoir? If they are not too bad, does that make a difference on how we handle them, or would you prefer we take care of them uniformly? Not sure why this happened, the first set we did was all OK. I believe we were all using interrupted stitches like we did the last time we did these. Perhaps we just got the stitches a little too far apart. I think there is an advantage to the interlocking mattress, because it is not so reliant on getting the stitches close together. For the interlocking mattress, the key is that one has to make sure that the right layers are stitched together. This is harder to do on older fatter animals, but these young ones should have been obvious. On the other hand, the younger the animal, the less robust the tissue. We made every effort to keep the incisions small. Very frustrating.

Jeff

Nierman, Janel

From: Jones, Shuna
Sent: Thursday, February 23, 2012 7:46 AM
To: Gandy, Devin; Rempel, Lea; Vallet, Jeff
Cc: Engle, Chad
Subject: RE: Gilts in Building 2

Good Morning,

The FASS guidelines are recommendations used for agriculture animals in research. If a protocol is justified and approved by ACUC, as this one has been for a short term project it is acceptable to proceed and keep monitoring animals during the experiment. Unless we start observing problems with the gilts I see no need to change anything. They can move and lay down, this experiment is not much longer then gestation stall length time in the unit.

Shuna

From: Gandy, Devin
Sent: Wednesday, February 22, 2012 4:45 PM
To: Rempel, Lea; Vallet, Jeff; Jones, Shuna
Cc: Engle, Chad
Subject: Gilts in Building 2

Dr. Rempel,

I checked on the gilts in building 2 today and noticed that they appeared cramped. According to FASS "Guide for the Care of Use of Agricultural Animals in Research and Teaching" swine between the BW of 125 – 275 pounds require 14 ft². The pens in building 2 are 4'x4', 16 ft². Yet, the FASS also states that the minimum length for mature adults is 7 ft for males and 6.5 ft for females. I checked the space requirement prior to approving the experimental outline, but I did not check the minimum width and length.

What can we do?

Thank you,

Devin Gandy
Swine Operations Manager
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E-Mail: devin.gandy@ars.usda.gov

Nierman, Janel

From: Jones, Shuna
Sent: Friday, April 22, 2011 10:55 AM
To: Pollak, E. John; Pooschke, Ron; Vallet, Jeff
Cc: Madson, Terry; Herman, Bucky; Nierman, Janel; Grummert, Carol
Subject: RE: swine health

Dr. Pollak,

I'm sorry I sent that email, this is a scheduling nightmare we have pigs everywhere. Ron and I are going to continue going thru options this afternoon, and I'll get back to you. There are no easy answers for all areas.

Shuna

From: Pollak, E. John
Sent: Friday, April 22, 2011 8:02 AM
To: Jones, Shuna; Pooschke, Ron; Vallet, Jeff
Cc: Madson, Terry; Herman, Bucky; Nierman, Janel; Grummert, Carol
Subject: RE: swine health

Let's plan on this and I would like to be at the meeting so Carol will schedule for a time next week. Perhaps a good time would be right after the managers meeting on Monday which should be over by 3:15 to 3:30.

From: Jones, Shuna
Sent: Friday, April 22, 2011 7:47 AM
To: Pooschke, Ron; Vallet, Jeff
Cc: Pollak, E. John
Subject: swine health

Good morning,

We are continuing to have health issues (worse than normal in the swine unit). We had 4 litters of scours last week and 3 this week. We had to run Nuflo thru a nursery group for respiratory issues related to crowding in 64. Wayne Peshek suggested scheduling a week off in the production schedule which I think is a great idea. In fact I think we should schedule two weeks down during the year. One in July which is always a difficult farrowing month anyway with the heat, and maybe one at Christmas before the new tag series starts.

If these barns do not stand down to get washed and have a chance to be disinfected and dry I think these issues will continue to get worse. We have a lot of disease issues we have handled in the past because we have been very clean and observant of the "all in all out" system. This system may be common in industry but they are not managing our health issues on one site.

I think the scientists should regroup and discuss this. There are other issues with projects and pigs right now maybe it would be good to discuss them too?

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April 21, 2004

SUBJECT: Minutes of the MARC Animal Care and Use Committee Meeting, April 20, 2004

TO: Bob Cushman Gary Rohrer
Deb Loudon Mel Sukup
Mike Overturf Sam Townsend
Lee Peshek John Kuehn

FROM: S. E. Echternkamp
Acting Chairman



Members present: S. Echternkamp, R. Cushman, M. Overturf, and G. Rohrer
Members absent: D. Loudon, L. Peshek, M. Sukup, S. Townsend and J. Kuehn

The meeting of the Animal Care and Use Committee was called to order by S. Echternkamp, Interim Chair, at 2:00 p. m. on April 20, 2004. The meeting agenda was reviewed and approved as distributed. Minutes of the previous meeting were approved.

Old Business:

1. Review of facility inspections:
Mid-year facility inspection reports were reviewed and discussed. In general, animals were in good health and facilities were clean and well maintained.
2. Animal care and use training:
Dr. Gary Ross will conduct a presentation at 2:00 p.m. on April 29, 2004, entitled "Diagnosis and prevention of scrapie and other transmissible spongiform encephalopathy (TSE) diseases."

Dr. Echternkamp will contact Dr. John Kuehn to schedule a presentation on Rabies and West Nile Virus for May.

New Business:

1. Review of USDA, ARS Directives 130.4 and 635.1:
Dr. Echternkamp distributed copies of the ARS Animal Care and Use Policies and Procedures, Directives 130.4 and 635.1, to the members and highlighted the responsibilities of the MARC Animal Care and Use Committee as well as the responsibilities of the scientists for the humane care and use of animals. A few comments

on ARS Animal Care and Use Policies and Procedures are being added to the new employee orientation packet for incoming scientist.

2. Review of research in progress:
A committee member received a report of some very thin cows on a nutrition study in Building 47, Area 25. A review of the situation indicated that the cows are now in a re-alimentation phase and gaining body weight. Feces analyses indicated that several of the cows were infected with parasites and they are being treated appropriately.
3. Comments from the members:
Shuna Jones, DVM, has accepted the MARC veterinarian position and will report to work on June 14, 2004.

A copy of the "Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching," 1999, is being purchased for each research and livestock operations unit at MARC.

The meeting was adjourned at 2:45 p.m.

cc:

S. Kappes
G. Becker
T. Madson

August 31, 2004

SUBJECT: MARC Animal Care and Use Committee Meeting, August 25, 2004

TO: Bob Cushman Gary Rohrer
Deb Loudon Mel Sukup
Mike Overturf Sam Townsend
Lee Peshek Shuna Jones

FROM: S. E. Echternkamp 
Acting Chairman

Members present: R. Cushman, S. Jones, D. Loudon, M. Overturf, L. Peshek, G. Rohrer,
M. Sukup and S. Townsend

Members absent: None

A meeting of the MARC Animal Care and Use Committee was called to order by S. Echternkamp, Interim Chair, at 2:00 p.m. on August 25, 2004. The meeting agenda was reviewed and approved as distributed. Minutes of the previous meeting were approved.

Old Business:

- A. Training sessions. The two training sessions conducted since the last committee meeting were discussed. Feedback from attendees at these sessions was generally positive. Presenters and topics were Dr. Gary Ross "Diagnosis and prevention of scrapie and other transmissible spongiform encephalopathy (TSE) diseases" and Dr. John Kuehn "Rabies and West Nile Virus."

New Business:

- A. Informational update. S. Echternkamp provided a synopsis of a training seminar entitled "Farm Animal Welfare Audit Program: Reality Check," he attended in St. Louis on July 25, 2004. Several animal welfare audit programs have been developed and implemented in slaughter facilities and the development of welfare audit programs for production facilities is in progress. Potential topics for employee training for the next fiscal year were discussed briefly; mentioned topics were: 1) animal welfare audits (Janice Swanson or Angela Baysinger), 2) assessment of animal health and welfare, and 3) a review of Center policies and protocols on the management, handling, and treatment of animals.

- B. Review of research projects in progress.
- Cattle – The confinement of some young cattle in Area 25 resulted in a few animals exhibiting swollen legs and sore feet. Experimental protocols were revised to alleviate the conditions.
- Sheep – Experiments are progressing with no problems.
- Swine – Experiments are progressing with no problems.
- C. Facility inspections. Committee members were assigned to teams as follows:
- Swine area – D. Louden and G. Rohrer
 - Sheep area – L. Peshek and S. Townsend
 - Cattle area – R. Cushman and M. Sukup
 - S. Jones and S. Echterkamp
- S. Echterkamp distributed a list of suggested criteria and guidelines to use in conducting animal and facility inspections. The list was assembled from examples provided at the FASS Welfare Audit session. D. Louden reported that a new form for recording an animal's health status has been developed and implemented for swine.
- D. Appointment of a new Committee Chair. Dr. Shuna Jones, Herd Health Veterinarian, will become the Permanent Chair of the MARC Animal Care and Use Committee with the initiation of the new fiscal year. The Chair/Committee also needs to select a Committee Secretary.
- E. Visitors. It was noted that some of the KSU veterinary students visiting MARC last week were members of PETA. The Committee believes that MARC's Animal Care and Use Policies and Procedures are appropriate and should not warrant concern.

The meeting adjourned at 2:45 p.m.

Enclosure: Suggested Guidelines and Criteria for Animal Care and Use Inspection/Audit

cc:

S. Kappes

G. Becker

**SUGGESTED GUIDELINES AND CRITERIA FOR ANIMAL CARE AND USE
INSPECTION/AUDIT:**

1. Audits should include observing animals being handled.
2. Audits should include an interview with employees on company procedures and policies for livestock management and for animal care and welfare.
3. General observations of animal facilities.
 - General animal management
 - Feed & water access and quality
 - Herd health/injuries
 - Facilities
 - Housing and pen space, including windbreaks, shelters, etc.
 - Animal behavior (falling down, vocalization, flighty, etc.)
 - Special needs management (e.g. use of nursery)
 - Handling & transportation, including methods for moving injured animals
 - Handling temperature (ambient; record on data records)
 - Use of hot shots or other prodding devices
 - Replacement cattle
 - Emergency plan and equipment for confinement units, including regular equipment checks
 - Environmental conditions and air quality
4. Observations or information on individual animals.
 - Body condition score
 - Locomotion score
 - Injuries
 - Swollen hocks/knees (e.g., Swine Area and Area 25)
 - Animal footing/movement (e.g., falling in alleyway or out of chute)
 - Animal hygiene/manure contamination
 - Stocking rates
 - Animal behavior during handling
 - Animal jumping or running
 - Animal vocalizing
 - Flighty behavior
 - Colostrum to newborn
 - Culling rate/longevity
 - Tail docking

MAY 09 RECD

File

May 7, 1990

SUBJECT: Investigation by the MARC Animal Care and Use Committee
(ACUC) of a Livestock Neglect Incident at Poleshed 73

TO: D. B. Laster
Center Director

FROM: GARY S. ROSS *SR*
Chairman
Animal Care and Use Committee

During the week of March 14-20, 1990, 116 calves were born at Poleshed 73 which included 18 sets of twins. This large number of new calves and sets of twins (which require additional stall time) coupled with inclement weather caused an overflow of Poleshed 73. To provide the additional inside stall space, Gale Mach, ART II and Poleshed 73's Supervisor, instructed his coworkers: Harlan Sorensen (AT III), Phillip Peter (AT II), Mark Vogler (AT II, temporary), and Roger Stokes (ART I) to first use the igloo (ammunition bunker) located in Section 63D and then the igloo in Section 82C for supplemental shelters. (This was the first year that the igloo at 82C had been needed by Poleshed 73 for supplemental shelter.)

The specific incident investigated started Sunday, March 18, 1990, when Harlan Sorensen and Mark Vogler (early shift), Phillip Peter (late shift), and Roger Stokes (night shift) were on work duty. In the absence of Gale Mach, Harlan Sorensen was the Acting Poleshed Supervisor. Phillip Peter transported 2 Twinner project cows with their 4 calves to the igloo at Section 82C. They were unloaded and placed in pens within the igloo. The animals were fed and watered with sufficient provisions to last for approximately 24 hours. The following day, March 19, Harlan Sorensen (early shift), Gale Mach and Mark Vogler (late shift), and Roger Stokes (night shift) were the work crew at Poleshed 73. Phillip Peter was off duty. There is some confusion as to whether any inquiries were made regarding the presence of cattle in the igloo at 82C on Monday, but Gale Mach is certain that by Tuesday he had inquired as to the presence of cattle in the 82C igloo and was told the cattle had been removed. The specific person making this response could not be recalled. The work crew on Tuesday was Phillip Peter (early shift), Gale Mach and Mark Vogler (late shift), and Roger Stokes (night duty). Harlan Sorensen was off duty
[(6) (6)]

During the week of March 21-27, the number of calves born at Poleshed 73 was significantly lower. This decrease in the number of calves born and improved weather conditions resulted in decreased housing requirements for Poleshed 73 and no further need to utilize the igloo at 82C.

On Thursday, April 19, John Hicks, a member of the work crew at Poleshed 82, went to the igloo in 82C and discovered the carcasses of the 6 animals placed in there on March 18.

The ACUC finds this incident most regrettable for several reasons:

1. The lack of proper management protocol that lead to the suffering and needless death of six animals that were powerless to facilitate their survival.
2. The needless loss of valuable research animals.
3. The overall negative effect such incidents can have on the perception of the various research and animal care activities of the Center.

However, the ACUC also recognizes that this was an accidental happening that occurred during a very busy time. The actual act which precipitated the loss of these animals was done with their welfare in mind (protection of the cows and their young calves from inclement weather that could have been life threatening). This incident now must serve as a catalyst to insure that steps are taken to prevent such an incident from occurring in the future.

The ACUC recommends that the following steps be implemented:

1. A tracking system be developed by cattle operations personnel to pinpoint the location of animals when they have been removed from their major groupings at the time of calving. This should be initiated on a Center-wide basis.
2. Igloos that are used for emergency shelter must either have an opening in the side, such that cattle within the igloo can be seen or heard by a passerby, or be equipped with a device or flag which can be easily seen that will signify that livestock are being housed within the igloo.
3. Cattle operations--along with the other livestock units at MARC--should participate in the ACUC's programs to increase awareness for the animal welfare requirements of the livestock species at MARC.

cc:

B. Doupnik
T. G. Jenkins
H. G. Klemcke
W. T. Smith
J. S. Tichota
J. A. Wood

SEP 07 RECD

Dr. Hester
File

September 6, 1990

SUBJECT: Report to MARC Animal Care Committee on
Animal Loss During Exp. 5438-36000-002-0-13

TO: Dr. Gary Ross
Chairman, Animal Care Committee

FROM: G. LeRoy Hahn
Agricultural Engineer



Situation: Phase 1 of subject experiment was being conducted as scheduled in the 5 controlled-environment chambers of Bldg 18. All conditions were according to schedule from 0700-1100 Sept 2, when the animal caretaker (Dawn Mazour) fed the animals and cleaned the stalls. Approximately 1450 on Sept 2, there was a compressor overload on the main chiller supplying cold brine to all 5 chambers, causing the chiller to shut down. This caused dry bulb and dewpoint temperatures in all chambers to increase above controller setpoints (to approximately 38-42°C in 4 chambers, and to about 37°C in the other) and remain there until 0700, Sept 3 when the animal caretaker returned. Normally, these out-of-tolerance conditions would have triggered the alarm system (Neco Alarm Co., Lincoln) to alert us by telephone to check on the problem in time to correct it before the animals' lives were endangered. However, the alarm system was not triggered because of an undetected broken wire between the sensor and the alarm unit; as a result, no alarm was triggered and 8 steers (~750-900 lb) died, 2 ea in Ch 1, 2, 3 and 5. Chamber 4 animals survived (with one animal reaching a peak tympanic temperature of 42.1°C and the other a phenomenal 46.7°C - the latter steer was $\geq 45.0^\circ\text{C}$ for about 9 hrs) because the brine pump also shut down for that chamber, and it consequently did not get quite as hot.

Post-Mortem Analysis of Animals and Equipment: Dead animals were determined at autopsy by Dr. Ross to have died of heat exhaustion. After the chiller shut down, animal deaths occurred within approximately 3-5 hrs in the hottest chamber, and within 6-12 hrs in the other 3 chambers (as determined from dataloggers recording tympanic temperatures). The appended figure illustrates thermoregulatory function as indicated by tympanic temperatures for about 3 hrs immediately preceding death in an example steer (90566).

Analysis of equipment problems indicated a voltage change caused the compressor overload which caused the chiller shutdown (several items of computer equipment in Bldg 18 were also affected). The broken wire on the alarm system was at a terminal strip adjacent to the alarm unit; the likely cause was having been bumped by a chair at the desk by the alarm unit. The last record of an alarm triggered by chamber conditions in the Neco Alarm Co. logbook prior to Sept 2 was at 0427 on Aug 24. Although risk can never be completely eliminated, analytical "hindsight" of this event indicates some weak links in the physical system and experimental protocol. First is the rapid rise in temperature and humidity in the environmental chambers when the chiller shut down - a fail "unsafe" situation. Second is the disabled alarm system as a result of a crucial broken lead wire. Third is the reliance on the alarm system without a suitable testing schedule. Each of these is addressed in the next section.

Actions to Further Reduce Risk:

1. An improved alarm system which will detect broken lead wires is being considered (Terry Madson is checking into this). The Neco Alarm Co. System used for the past few years has been a considerable improvement over the prior "tape-machine alarm" system we had, which was unreliable.
2. Experimental protocols are revised effective immediately to include a manual check each Friday afternoon when animals are in the chambers to be sure an alarm signal reaches Neco Alarm in Lincoln.
3. The terminal strip where the broken alarm lead wire occurred has been protected by a metal box to prevent accidental contact by chairs, etc.
4. A meeting is scheduled at 1:30 pm, 9/12/90 to discuss possible ways of making the environmental control systems in Bldg 18 more "fail-safe" through interlocks between chillers, brine pumps, and water-spray pumps. Joe Warrick, Jack Dowse, Eldon Shetler, Roger Eigenberg, Jack Nienaber and LeRoy Hahn will attend.

Final Thought: My father had a saying, "If foresight were as good as hindsight, we wouldn't be here [with this situation] by a darn sight".

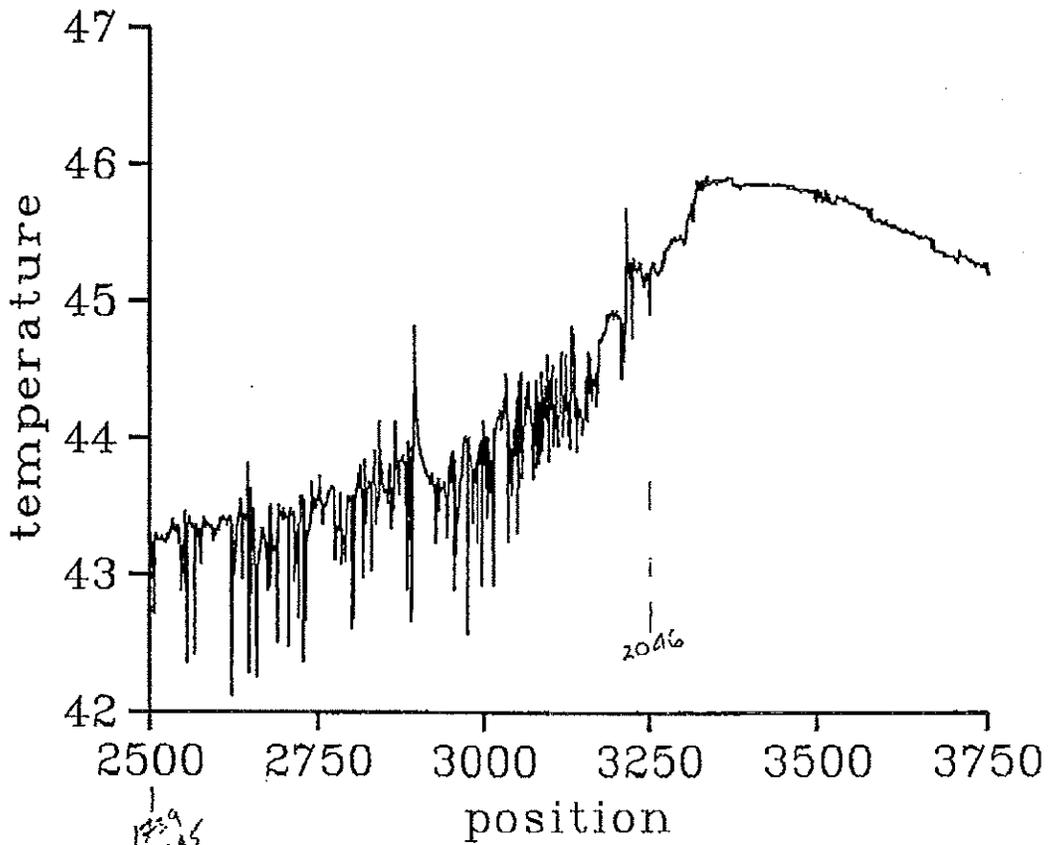
cc: ✓ D.B. Laster
J.A. Nienaber

SE:ARS:NCR:NPA:RLHUSMARC:GLHahn:sls 9/6/90

'90 Steer Study - Bldg 18 Environmental Chamber 3

animal 5 (90566)

data set: 245.tc



1829
245
(9/2/00)

DEC 16 REC'D

File

December 13, 1991

SUBJECT: Animal Safety in Building 18

TO: Gary Ross, Herd Health Veterinarian

THROUGH: Dr. LeRoy Hahn, Research Leader
Biological Engineering Research Unit

FROM: John Nienaber, Agricultural Engineer

Attached find a report of the loss of animals in Building 18 on November 7, 1991. In addition to the changes in the alarm system, we have also completed cleanup of the air handling system using acetic acid, followed by clorox to disinfect the air handlers. We have a filtration system on order to continuously remove material that passes through the filters in the chambers. Finally, the maintenance crew is obtaining a disinfectant to add to the no frost (glycol) system on a regular basis. We hope these changes improve conditions for both personnel and animals.

cc:

Dr. Laster

SE:ARS:NCR:NPA:RLHUSMARC:GLHahn:ejp 12/13/91 f:\jack\loss-memo

Report to MARC Animal Care Committee on
Animal Loss During Experiment 5438-36000-003-7

During the 12th week of this 16 week study, we experienced a combination of equipment failures which resulted in the loss of six 80 kg gilts to heat prostration. On November 7, in the late afternoon, MARC experienced a series of power dips in our electrical power supply. At about 4:00 p.m. I witnessed a computer in our unit shutting off and then immediately restarting as the lights flickered. At 4:45 p.m., according to temperature changes on a recorder, the hot brine circulating pump stopped, probably a result of a power dip. Approximately 3 hours later, the dewpoint hygrometer which senses the chambers' humidity, malfunctioned in chamber 3. As a result, the humidifier controller called for humidity which was in the form of live steam, and held the call to maximum input for six hours (the length of time between automatic self-checks by the dewpoint hygrometer). During this time, chamber 3 temperature which had been set at 28°C and then dropped to 20°C by the loss of hot brine (heat source for the environmental chambers) increased to 39°C and 100% relative humidity. After six hours, the dewpoint hygrometer came back on line (after a self-check), sensed the high humidity, and brought humidity to its control level of about 15°C dew point. When Eldon Shetler arrived on November 8 at 7:00 a.m., he found that all heat was off in Building 18, as well as in the chambers. He also found that six animals were dead in chamber 3. Three animals survived. When Jack Dowse reset the hot brine pump for the chambers, temperatures in both chambers 2 and 3 quickly increased above the alarm setpoint of 30°C; however, he noted that no alarm was signaled. For the three occurrences of chamber temperatures above 30°C (the fatal occurrence late at night in chamber 3 and the 2 short-term temperature excursions in chambers 2 and 3 after 7:00 a.m.), there were no alarms received by Neco Alarm Company in Lincoln. The alarm setpoints were checked at 7:30 a.m. and found to be 30°C for both 2 and 3. It was also noted in subsequent checks that the dead band setting for the chamber 2 controller alarm was set at 20°C instead of .6°C (the setting of all other controllers). Since the high temperatures were sensed by the controllers (strip charts recorded these occurrences which were confirmed by independent recorders in the chambers) one or more of 3 failures must have occurred:

- 1) The temperature controller failed to recognize the alarm temperature. We confirmed that the correct 30°C setpoint was contained within the memory of each chamber 2 and 3 controllers at 7:30 a.m. November 8.
- 2) The controller recognized the alarm condition but the output card of the controller failed to relay the signal to the sentry.
- 3) The sentry received the alarm but failed to place the telephone call to the operator in Lincoln. There was no computer log of any alarms until after the alarm failures noted above.

With the cooperation of an electronic specialist at Fisher Controls (Dave Kirschbaum, R.S. Stover Co. of Marshalltown, IA) and at Neco Alarms (Don Nielsen, Lincoln) I tested every possible mode of failure of each system on November 8 but no failures occurred. It was found

that the incorrect setting of the alarm dead band (20°C instead of .6°C) would cause an alarm condition to be maintained until the temperature dropped 20°C below setpoint or until the setpoint was raised 20°C above the temperature. Since November 8, we have had high temperature alarms on November 13, 16, and 17--each time associated with power dips. There has been no further evidence of failure of either the control system or the alarm system.

My conclusion is that the power dip or dips of November 7 predisposed the chamber controllers to failure, although the exact mode of action is not clear. However, since chamber 2 alarm dead band was 20°C, if the controller had put out an alarm, that alarm would not have reset. The facts seem to say an alarm was never recognized or sent by the controller. Dave Kirschbaum of Fisher Controls said that memory is one of the controller elements that could be affected by fluctuations in power, although he did not see how that could happen without evidence of an error code output. No such error code was seen on November 8. Changes in controller parameters have been noted before, but had been considered to be a result of operator error. However, I believe now that parameters probably were reset to incorrect values by power fluctuations. If this is true, 2 actions will improve the security of the system.

- 1) Replacement of the control system. This was already under consideration, with initial contacts made with Fisher Controls to evaluate a new control system. Representatives were on site November 19 and 20 to install a controller on chamber 2 for our evaluation.
- 2) Installation of a temperature sensing system, operating completely independent of the chamber controllers, monitored by the Neco alarm system. This could be installed quickly and without disrupting ongoing experiments. Thermostats have been ordered and should be installed the week of December 2.

Finally, in reviewing the conclusions for actions to reduce risk outlined by Dr. Hahn (ref. letter to MARC Animal Care Committee 9/6/90) all 4 actions were completed. An expanded alarm system was installed which regularly tests for broken wires. There are regular checks of the system with Neco Alarm Co. The terminal strip which led to the previous incident was removed and the chiller was directly linked to the alarm system. The actions I am proposing will further improve the level of security in the environmental chambers. However, we remain dependent on mechanical systems and compound problems can still lead to problems that have not been previously experienced or anticipated. Also, we have had occasions where weather (blizzard) prevented us from reaching the animal chambers. This could happen when an alarm occurs and would represent a reasonable risk. I remain open to further suggestions to reduce reasonable risk.