According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2017

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

#### 1. REGISTRATION NUMBER

73-R-0001

HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

OKLAHOMA STATE UNIVERSITY

203 Whitehurst

STILLWATER, OK 74078

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)			
Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)	
4. Dogs	0	257	10	0	267	
5. Cats	0	78	46	0	124	
6. Guinea Pigs	0	0	0	0	0	
7. Hamsters	0	0	0	0	0	
8. Rabbits	0	8	8	384	400	
9. Non-human Primates	0	0	0	0	0	
10. Sheep	0	1	51	0	52	
11. Pigs	0	169	2	6	177	
12. Other Farm Animals	0	129	109	0	238	
13. Other Animals	0	1056	118	112	1286	
ASSURANCE STATEMENT:						

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL (Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))  I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).	
	DATE SIGNED 30-JAN-2018

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

**OMB APPROVED** 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2017

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

73-R-0001

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

OKLAHOMA STATE UNIVERSITY

203 Whitehurst

STILLWATER, OK 74078

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)					
A. Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
CATTLE	0	387	117	0	504
GOATS	0	31	1	0	32
LLAMA	0	1	0	0	1
BATS	0	33	0	0	33
BEARS	0	0	0	112	112
SHREWS	0	2	0	0	2
WILD MICE	0	395	0	0	395
WILD RATS	0	207	0	0	207
ASSURANCE STATEMENT					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL (Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))  I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).	
	DATE SIGNED 30-JAN-2018

NP 1/15/18

## **Column E Explanation**

This form is intended as an aid to complete the Column E explanation. It is not an official form and its use is voluntary. Annual Reports and explanations should NOT include PII information such as names (principle investigators and research staff), addresses, protocols, meeting notes (either in part of in full), the animals room numbers, grant information, veterinary care programs, and the like. A Column E explanation must be written so as to be understood by lay person as well as scientists.

1.	Registration Number:
2.	Numberof animals categorized as column E used in this study.
3.	Species (common name) Bears of animals used in this study.
4.	Explain the procedure producing pain and/or distress. Explanations should include a brief description of the procedure, but also explain what the animal's experience, examples of which may include, but are not limited to: Neurological signs, seizures, tremors, paralysis, lethargy, inappetance, respiratory signs, GI distress, vomiting, and diarrhea.
	Wild-caught bears were anesthetized for a single dental extraction. Although no signs of pain or distress were observed, it was assumed that mild discomfort from the tooth removal occurred once the analgesic wore off.
5.	Attach or include with the reason(s) for why anesthetics, analgesics and tranquillizers could not be used. (For federally mandated testing, see Item 6 below).
	Although the bears were anesthetized during the extraction and were administered analgesic medication, they could not be administered repeat doses of analgesics because they were released back into the wild upon anesthetic recovery.
6.	What, if any, federal regulation require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g. APHIS, 9 CFR 113.102): If the requirement is per a guidance document, such as an Agency notice or harmonization guideline, please provide specific sufficient information to identify the cited document.
	AgencyCFR

21 DEC 2017

# **Column E Explanation**

This form is intended as an aid to complete the Column E explanation. It is not an official form and its use is voluntary. Annual Reports and explanations should NOT include PII information such as names (principle investigators and research staff), addresses, protocols, meeting notes (either in part of in full), the animals room numbers, grant information, veterinary care programs, and the like. A Column E explanation must be written so as to be understood by lay person as well as scientists.

73-R-0001

1.	Registration Number: 73-R-0001
2.	Number6 of animals categorized as column E used in this study.
3.	Species (common name) $\underline{\hspace{1cm}}$ Of animals used in this study.
4.	Explain the procedure producing pain and/or distress. Explanations should include a brief description of the procedure, but also explain what the animal's experience, examples of which may include, but are not limited to: Neurological signs, seizures, tremors, paralysis, lethargy, inappetance, respiratory signs, GI distress, vomiting, and diarrhea.
	Pigs were exposed to a respiratory virus that can infect both pigs and people in order to investigate novel antiviral compounds and determine their efficacy against this virus. The respiratory infections were allowed to progress to an advanced stage before the pigs were humanely euthanized.
5.	Attach or include with the reason(s) for why anesthetics, analgesics and tranquillizers could not be used. (For federally mandated testing, see Item 6 below).
	Pain relieving medications could have altered the clinical course of the disease, masking the effects of the antiviral compounds being studied. Euthanasia earlier in the course of the infections would not have allowed testing to see if the antivirals were effective in late stage disease.
6.	What, if any, federal regulation require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g. APHIS, 9 CFR 113.102): If the requirement is per a guidance document, such as an Agency notice or harmonization guideline, please provide specific sufficient information to identify the cited document.
	AgencyCFR

21 DEC 2017

## **Column E Explanation**

This form is intended as an aid to complete the Column E explanation. It is not an official form and its use is voluntary. Annual Reports and explanations should NOT include PII information such as names (principle investigators and research staff), addresses, protocols, meeting notes (either in part of in full), the animals room numbers, grant information, veterinary care programs, and the like. A Column E explanation must be written so as to be understood by lay person as well as scientists.

1.	Registration Number: 73-R-0001
2.	Numberof animals categorized as column E used in this study.
3.	Species (common name) Rabbits of animals used in this study.
4.	Explain the procedure producing pain and/or distress. Explanations should include a brief description of the procedure, but also explain what the animal's experience, examples of which may include, but are not limited to: Neurological signs, seizures, tremors, paralysis, lethargy, inappetance, respiratory signs, GI distress, vomiting, and diarrhea.  Rabbits were used to feed small ticks as part of a project to produce ticks. Non-animal methods of feeding ticks have not been successful. The rabbits exhibited mild dermal erythema where the ticks attached and increased twitching or movement of their ears.
5.	Attach or include with the reason(s) for why anesthetics, analgesics and tranquillizers could not be used. (For federally mandated testing, see Item 6 below).
	Thus far, medications have not been identified that could lessen the rabbits' discomfort without causing adverse side effects and without harming the ticks' ability to reproduce. The University is planning research studies to try and identify such medications for future use.
6.	What, if any, federal regulation require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g. APHIS, 9 CFR 113.102): If the requirement is per a guidance document, such as an Agency notice or harmonization guideline, please provide specific sufficient information to identify the cited document.
	AgencyCFR

21 DEC 2017

2017 USDA Annual Report Addendum Oklahoma State University Registration Number 73-R-0001

#### **Exception:**

Two IACUC-approved exceptions to USDA's standards occurred:

Ten dogs were housed in indoor-outdoor pens with beds. When necessary to close off access to the outdoor portion of the pens for temperature control or other reasons, the indoor portion of the pen has less than the minimum specified floor space after the space taken up by the bed is subtracted. As the beds provide comfort to the animals for their benefit, this exception was approved.

Eight rabbits were used in a study investigating the transmission of a tick-borne disease. For a few days while ticks were present, it was necessary for E-collars to be placed to prevent the rabbits from dislodging the ticks. The E-collars prevented the rabbits from accessing the feed in their J-feeders, and it was necessary to place small food bowls on the floor of the cages. The cages had less than the minimum specified floor space after the space taken up by the bowls was subtracted. The IACUC approved the temporary floor space exception in advance.

Print Name (if different from above)

### 25 MAY 2018

Kenneth W. Sewell, PhD VP for Research **Facility Contact:** To: Insitutional Official 2017 AR Review Coordinator Facility Name: Oklahoma State University Facility Reg. No.: 73-R-0001 Facility Fax: 405-744-6244 No. of Pages: 405-744-7076 Date: Facility Phone: NO ANNUAL REPORT ATTACHMENTS SUBMITTED TO AC FOR 2017 ☐ We did not submit AR Attachments to AC for 2017. NO OBJECTIONS RESPONSE We have no objections to the release of our AR Attachments as received and do not intend to seek judicial review to bar release of these documents REDACTIONS PURSUANT TO EXEMPION 4 REQUESTED ☐ We object to the release of our AR Attachments as received and ask that you consider the enclosed justification statement and suggested redactions. **COMMENTS** Signature Kenneth W. Sewell, PhD