

FY2008 APHIS FORM 7023 Submission

This report is required by law (7 USC 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.

See below for additional information.

Interagency Report Control No 0180-DOA-AN

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE ANNUAL REPORT OF RESEARCH FACILITY (TYPE OR PRINT)	1. Registration No: 55-R-0005 / 842	FORM APPROVED OMB NO. 0579-0036
	2. Headquarters Research Facility (Name and Address, as registered with USDA, include Zip Code): NORTH CAROLINA STATE UNIVERSITY CAMPUS BOX 7514 RALEIGH, NC 27695-7514 T: (919) 513-8142 / F: (919) 513-6283	

3. Reporting Facility (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Please verify that all Sites are listed below. To list additional Sites, select the link below.)

FACILITY LOCATIONS (sites) [List Additional Sites](#)

3a. NORTH CAROLINA STATE UNIVERSITY PO BOX 7003 RALEIGH, NC 27695-7003	3b.
3c.	3d.

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY [View Column Definitions](#)

A	B	C	D	E	F
4. Dogs	14	7	189	0	196
5. Cats	9	1	105	0	106
6. Guinea Pigs	0	0	20	0	20
7. Hamsters	0	6	4	0	10
8. Rabbits	0	0	279	0	279
9. Non-Human Primates	0	0	0	0	0
10. Sheep	0	20	43	0	63
11. Pigs	0	199	787	36	1022

APHIS FORM 7023 (Replaces VS FORM 18-23 (OCT 88), which is obsolete) (AUG 91)

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REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY Column Definitions

Column Definition

- 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 for 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 in these animals and the reasons such drugs were not used must be attached to this report).
- F Total number of animals (Cols. C + D + E) -- Computed By System

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INSTRUCTIONS FOR COMPLETION OF APHIS FORM 7023

(Refer to 9 CFR Part 2, Subpart C, Section 2.33 and 2.36)

- ITEM - 1:** Registration number as assigned to the Research Facility by United States Department of Agriculture (USDA).
- ITEM - 2:** Complete name and address of the Headquarters Research Facility as registered with USDA.
- ITEM - 3:** Location of each Facility or Site where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes.
- ITEMS 4 - 13:** **DO NOT** enter numbers in Column A. **DO NOT** add numbers entered in Column B into the total in Column F. **Column F** is to show total of numbers entered in Columns **C + D + E**. An opportunity to explain Column E entries will be provided.
- ITEM - 12:** List by common name all other farm animal species. **Use APHIS Form 7023A.**
- ITEM - 13:** **Other:** List, by common name, all other warm blooded animal species covered by the Regulations. *(This will include all wild or exotic species.) Use APHIS Form 7023A.*
- Certifications:** Information supplied on the APHIS Form 7023 must be certified by the Chief Executive Officer (C.E.O.) of the Registered Research Facility or other Institutional Official (I.O.) having authority to legally commit on behalf of the Registered Research Facility. You will be required to acknowledge this responsibility prior to submitting APHIS Form 7023. Your name and title will be requested at that time.

Public reporting burden for this collection of information 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. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, ORIM, Room 404-W, Washington, D.C. 20250; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

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Annual Report Checklist

Note: The intent of this checklist is to aid in the completion of the APHIS 7023 Form (Annual Report). It is not intended to be the only reference. Please check with your Animal Care Inspector or the Regional Office if you have further questions or concerns. For your information: Annual reports will become available through the FOIA.

- Only one Annual Report submission is authorized per facility.

- Report must be legible and all applicable blanks must be completed.
- The certification signature, by the legally responsible official, and date block must be completed without exception.
- Animals are counted only once per year, regardless of the number of protocols they were in.
- Animals used in more than one protocol are counted in the most painful/distressful category.
- Common names of animals must be used under "Other Animals" and "Other Farm Animals".
- Report wild rodents. Do not report the use of laboratory rats, laboratory mice, birds, or other animals which are exempt from regulation under the AWA.
- A summary of exceptions to the regulations and standards, specified and explained by the principal investigator and approved by the IACUC, must be attached.
- Column E explanation(s) must be attached and must contain: (See attached optional Column E reporting form).
 - facility registration number,
 - number and species of animal for each Column E study,
 - description/explanation/purpose of study,
 - scientific or regulatory justification for withholding of pain/distress relief (A justification that merely states that pain relief may interfere with test results is not adequate.) and
 - multiple Column E explanations must state the number and species or animal used for each one.
- Studies involving "death as an endpoint" or LDxx studies, must be well documented and justified.
- You do not need to include the following in your annual report:
 - | Protocols
 - | Complete site addresses in Block #3 (Location descriptions such as "Biology Department" are acceptable).
 - | Names of IACUC members or Principal Investigators
 - | Program of Veterinary Care

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Additional Site Entry

Please list any additional site(s) where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Please list additional sites in the following format:

Site A Name
Site A Address
Site A City, State Zip

Site B Name
Site B Address
Site B City, State Zip

Please note that this will **NOT** register Sites with Animal Care. This information will strictly be used for proper reporting of Form 7023.

Site A Name: NCSU College of Veterinary Medicine (CVM)
Site A Address: Laboratory Animal Resources (LAR)
Site A City, State Zip: Raleigh, NC 27695-8401
Site B Name: NCSU CVM
Site B Address: Teaching Animal Unit (TAU)
Site B City, State Zip: Raleigh, NC 27695-8401

Site C Name: NCSU CVM

Site C Address: Equine Health Center at Southern Pines (EHCSP)

Site C City, State Zip: Southern Pines, NC 28387

Site D Name: NCSU College of Agriculture and Life Sciences (CALSS)

Site D Address: Biological Resource Facility (BRF)

Site D City, State Zip: Raleigh, NC 27695-7549

Site E Name: NCSU CALS Swine Education Unit (SEU)

Site E Address: Lake Wheeler Field Laboratories (LWFL)

Site E City, State Zip: Raleigh, NC 27695

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FY2008 APHIS FORM 7023A Submission

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See below for additional information.

Interagency Report Control No
0180-DOA-AN

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE ANNUAL REPORT OF RESEARCH FACILITY (TYPE OR PRINT)	1. Registration No:	FORM APPROVED OMB NO. 0579-0036
	2. Headquarters Research Facility (Name and Address, as registered with USDA, include Zip Code):	

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY [View Column Definitions](#)

A	B	C	D	E	F
12. Other Farm Animals Horses	0	28	90	0	118
12. Other Farm Animals Cattle	0	73	48	0	121
12. Other Farm Animals Goats	0	55	4	0	59
13. Other Animals Llama	0	1	0	0	1
13. Other Animals Alpaca	0	0	6	0	6
13. Other Animals Red Wolves	0	2	0	0	2
13. Other Animals Pallas Cats	0	6	0	0	6
13. Other Animals Woodchucks	0	0	8	0	8
13. Other Animals Gerbils	0	0	2	0	2
13. Other Animals Ferrets	0	0	22	0	22

APHIS FORM 7023A (Replaces VS FORM 18-23 (OCT 88), which is obsolete)
(AUG 91)

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REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY Column Definitions
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- F Total number of animals (Cols. C + D + E) -- Computed By System

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INSTRUCTIONS FOR COMPLETION OF APHIS FORM 7023A

(Refer to 9 CFR Part 2, Subpart C, Section 2.33 and 2.36)

ITEM - 1: Registration number as assigned to the Research Facility by United States Department of Agriculture (USDA).

ITEM - 2: Complete name and address of the Headquarters Research Facility as registered with USDA.

ITEM - 12: List by common name all other farm animal species.

ITEM - 13: **Other:** List, by common name, all other warm blooded animal species covered by the Regulations. *(This will include farm species used in biomedical or non-agricultural research, and all wild or exotic species.)*

DO NOT enter numbers in Column A. **DO NOT** add numbers entered in Column B into the total in **Column F**. Column F is to show total of numbers entered in Columns **C + D + E**. Entries in Column E must be explained on attached sheet(s).

Certifications: Information supplied on the APHIS Form 7023A must be certified by the Chief Executive Officer (C.E.O.) of the Registered Research Facility or other Institutional Official (I.O.) having authority to legally commit on behalf of the Registered Research Facility. You will be required to acknowledge this responsibility prior to submitting APHIS Form 7023A. Your name and title will be requested at that time.

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December 1, 2008

**ADDENDUM TO THE FY2008 APHIS FORM 7023 SUBMISSION FOR
NORTH CAROLINA STATE UNIVERSITY USDA REGISTRATION # 55-R-0005 / 842**

**EXCEPTIONS TO STANDARDS REPORT FOR THE REPORTING PERIOD OF
OCTOBER 1, 2007 THROUGH SEPTEMBER 30, 2008**

Protocol #1

Species: Dogs

Number affected: 2

Exception to Standards: Fasting dogs for 36 hours prior to an endoscopy training session.

Standard: 9 CFR Ch.1, Pt. 3, Subpt. A, Sec. 3.9 (a) Feeding: Dogs and cats must be fed at least once each day, except as might be required to provide adequate veterinary care.

Justification: A fast of at least 36 hours is required for colonoscopy. The procedure cannot be performed effectively unless the colon is completely empty of solid material. Reference: Jones, BD. Endoscopy of the lower gastrointestinal tract. Vet Clin N Amer: Small Anim Pract 20: 1229-1242, 1990.

Protocol #2

Species: Pigs

Number affected: 6

Exception to Standards: Pigs are housed individually in farrowing crates to prevent potential damage, displacement and/or destruction of intravenous catheters.

Standard: 9 CFR Ch.1, Pt. 3, Subpt. F, Sec. 3.128 Space Requirements: Enclosures shall be constructed and maintained so as to provide sufficient space for each animal to make normal and social postural adjustments with adequate freedom of movement.

Justification: Intravenous catheters are necessary for multiple blood draws over a period of several days, both for the safety of the technicians taking the sample and the comfort of the pigs. If pigs are housed in normal pens while these catheters are in place, there is a very high likelihood that they will roll in urine and feces play in water troughs and/or otherwise contaminate their catheter site or displace or destroy their catheters. In group-housed pigs, there is the additional concern that other pigs will chew on and displace or destroy the catheters. Placing these 100 kg pigs in farrowing crates designed for larger sows (150 kg), provides sufficient space for them to be comfortable, but will not permit them to roll or engage in other activities that could contaminate, dislodge or damage their catheters.

Protocol #3

Species: Pigs 42

Number affected: **Exception to Standards:** A group of sows in the Teaching Animal Unit (TAU) are housed in gestation crates to recreate an environment similar to that found on the majority of pig farms in North Carolina. The gestation crates measure 2 ft. wide by 7 ft. 1 in. long, and do not permit the full range of species typical movements or postural adjustments.

Standard: 9 CFR Ch.1, Pt. 3, Subpt. F, Sec. 3.128 Space Requirements: Enclosures shall be constructed and maintained so as to provide sufficient space for each animal to make normal and social postural adjustments with adequate freedom of movement.

Justification: The overall teaching objective and purpose of the TAU are explained in the **Teaching Animal Unit Manual**. "This unit has been designed and is operated to provide veterinary students with live animal laboratory learning experiences with large animals. These units are operated in a manner similar to commercial food animal production units" (page 1 TAU Manual, 2004). One of our goals is to provide students the opportunity to recognize and understand commercial food animal production practices and management, as they would be exposed to in the field as veterinarians. All of our farm animal units are operated as close to commercial standards as possible. The swine unit is a confinement swine operation, farrow to finish. We teach agricultural practices to veterinary students including pig flow, management of the pregnant sow, farrowing, piglet processing, nutrition, ventilation in confinement swine facilities, disease prevention, biosecurity, and pregnancy diagnosis in a natural commercial setting."

Protocol #4

Species: Dogs

Number affected: 9

Exception to Standards: Dogs were maintained in metabolism units that permit most postural adjustments and movements but do not meet the floor space requirements. Smaller dogs were originally requested for the study but were not available. The dogs were housed in these units for periods of up to 48 hours for drug metabolism and pharmacokinetic studies.

Standard: 9 CFR Ch.1, Pt. 3, Subpt. A, Sec. 3.6 (c) (1) (i) and (iii) Primary enclosures –Additional requirements for dogs - Space: Each dog housed in a primary enclosure must be provided a minimum amount of floor space, calculated as described in this portion of the regulations. The interior height must be 6 inches higher than the head of the dog.

Justification: The University Attending Veterinarian and members of the IACUC examined the metabolism units and considered them adequate for the limited period that the dogs will be housed in them. The dogs used for this study ranged from 34-37 inches - nose to tail head length (11.1 to 12.8 sq. ft. floor space required). The metabolism units, after allowing for removal of space for water bowls, provide 10.6 sq. ft. and approximately 2-4 inches above the top of the head (vs. USDA requirements for 6 inches space above the top of the dog's head). Because the dogs were being provided less than the required floor and head space, the investigator agreed to the following accommodations:

- No dog was kept in the metabolism units for more than 48 hours (during sampling portion of the protocol).
- Each dog was removed from the unit at least once each hour during the first 6 hours and allowed to exercise in the room for 5 minutes. Throughout the remaining duration of stay in the metabolism units, each dog was exercised on a leash for 5-10 minutes every two hours during the study, with the exception of the night-time hours when the lights are turned off in the room.
- Unit hygiene was maintained by cleaning as frequently as necessary whenever soiling of the cage was observed.
- Dogs received an approved diet and continual access to water while in the metabolism units.
- The Principal Investigator or his colleague, both licensed veterinarians, inspected each dog throughout the stay in metabolism units for any clinical signs or lesions associated with this period of confinement.

Protocol #5**Species:** Pigs**Number affected:** 16 piglets**Exception to Standards:** Pre-term (105-108 days gestation) and full-term (115 days gestation) piglets are group-housed (4 - 8 piglets/pen or incubator) in intensive care-type pens or an incubator providing 4 square feet floor space.**Standard:** 9 CFR Ch.1, Pt. 3, Subpt. F, Sec. 3.128 Space Requirements: Enclosures shall be constructed and maintained so as to provide sufficient space for each animal to make normal and social postural adjustments with adequate freedom of movement.**Justification:** Both pre-term and full-term piglets are dependent on a feeding tube, and need to be housed in a warm environment with mats, heating pads and heat lamps or similarly equipped incubators with oxygen supplementation that will allow for constant visual monitoring and the ability to provide oxygen to all piglets if needed. Piglets will be humanely euthanized after 30 hours. The IACUC approved the use of the pens/incubators for group housed piglets since they will be able to make all postural changes and adjustments and have adequate room to move for this limited time period.