



United States Department of Agriculture



OFFICE OF INSPECTOR GENERAL

# ARS' Animal Welfare Act Controls to Prevent Mistreatment of Animals Used For Researching Parasitic Diseases

## Audit Report 02601-0001-24

We identified the animals ARS used for parasitic disease research and determined that ARS no longer uses animals subject to the Animal Welfare Act for this type of research.

### OBJECTIVE

To identify animals used by ARS to perform research on parasitic diseases, determine if ARS established internal controls that ensured the agency complied with Animal Welfare Act requirements while animals were in its possession, and determine if ARS' internal controls effectively prevented violations of the Animal Welfare Act.

### REVIEWED

We reviewed the Animal Welfare Act, ARS guidance for fiscal years 2016 through March 2019 covering farm animals that are used in activities regulated by the Animal Welfare Act, and Animal Use Protocols.

### RECOMMENDS

We are not making any recommendations.

### WHAT OIG FOUND

The Office of Inspector General (OIG) initiated an audit to determine if ARS complied with Animal Welfare Act requirements when using animals to perform parasitic disease research. Following significant attention in the media regarding ARS' use of cats in parasitic research, ARS issued a press release on April 2, 2019, stating that it had discontinued the use of cats to research Toxoplasmosis, a parasitic disease. Any remaining cats in ARS' possession were scheduled to be put up for adoption.

As of August 2019, ARS had 13 ongoing parasitic disease research projects involving live animals such as cattle and chickens, and used nine different types of animals to perform these research activities. This research was performed with animals not subject to Animal Welfare Act requirements. Accordingly, we did not assess ARS' internal controls to adhere to Animal Welfare Act requirements and did not determine if these internal controls prevented Animal Welfare Act violations. Therefore, we are not making any recommendations to ARS in this report.





United States Department of Agriculture  
Office of Inspector General  
Washington, D.C. 20250



DATE: September 30, 2019

AUDIT  
NUMBER: 02601-0001-24

TO: Chavonda Jacobs-Young  
Administrator  
Agricultural Research Service

ATTN: Lisa Baldus  
Associate Deputy Administrator  
Administrative and Financial Management

FROM: Gil H. Harden  
Assistant Inspector General for Audit

SUBJECT: Agricultural Research Service Controls to Prevent Mistreatment of Animals Used  
for Researching Parasitic Diseases

This report presents the results of the subject review. We are not making any recommendations in this report. No further action by your staff is required.

We appreciate the courtesies and cooperation extended to us by members of your staff during our audit fieldwork and subsequent discussions. This report contains publicly available information and will be posted in its entirety to our website (<http://www.usda.gov/oig>) in the near future.



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# Background and Objectives

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## Background

The Agricultural Research Service (ARS) conducts in-house scientific research for the Department of Agriculture (USDA), with a focus on developing solutions to agricultural problems of high national priority. According to the USDA budget summary for fiscal year 2020, ARS carries out 690 research projects in its 90 research locations throughout the United States and in several foreign countries. While ARS conducts research studies using plants and animals as test subjects, this audit focuses strictly on parasitic disease research involving animals. Based on data ARS provided, we determined that, in addition to Toxoplasmosis, 12 of 690 research projects relate to parasitic disease research involving animals, and these research projects used a total of nine different living animals, including Atlantic salmon, cattle, and mice.<sup>1</sup>

Parasitic diseases are types of infectious diseases caused or transmitted by parasites.<sup>2</sup> ARS strives to reduce parasitic diseases in livestock and poultry, and also reduce the risk of these diseases being transmitted to humans. The types of animals used by ARS to perform parasitic disease research depend on the objective of each research project. Once animals are in ARS' possession, ARS is responsible for adhering to Animal Welfare Act requirements if the animals meet the definition of "animal" in the Animal Welfare Act. This protection extends to live or dead animals being used—or intended for use—in research, teaching, testing, experimentation, or exhibition, or as a pet, including:

- dogs,
- cats,
- nonhuman primates,
- guinea pigs,
- hamsters,
- rabbits, or
- any other warm-blooded animals.<sup>3</sup>

If the animal ARS uses in a research project meets this criteria, then ARS must adhere to humane handling requirements as outlined in 7 United States Code (U.S.C.), Chapter 54. 7 U.S. Code, Chapter 54, provides guidance on the transportation, sale, and handling of certain animals for those that use animals for research purposes/studies.

The Animal Welfare Act excludes certain animals, including birds, rats of the genus *Rattus*, and mice of the genus *Mus*, bred for use in research; horses not used for research purposes; and other farm animals such as, but not limited to, livestock or poultry used or intended for use as food or

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<sup>1</sup> The eight different animals used in research as of August 2019 were: Atlantic salmon, catfish, cattle, chicken, Eastern oysters, mice, rat, and ruminants. ARS intended on using a ninth animal, pigs, for research, but had not started at the time of our review.

<sup>2</sup> A parasite is an organism that lives on or in a host organism and gets its food from or at the expense of its host.

<sup>3</sup> 7 U.S.C. Chapter 54, Section 2132(g).

fiber, or livestock or poultry used or intended for use for improving animal nutrition, breeding, management, or production efficiency, or for improving the quality of food or fiber.<sup>4</sup> If animals used by ARS meet these exclusions, then ARS is not required to adhere to Animal Welfare Act requirements while the animals are in the agency's possession.

Animal Use Protocols are guidance documents that ARS officials create at the time they initiate each research project. Each research project has its own unique Animal Use Protocols that detail how ARS officials will carry out the objectives of the research project, including sections describing how ARS officials will care for the animals. Specifically, Animal Use Protocols include sections relating to animal procedures, restraint, hazards, and euthanasia/disposition. Furthermore, Animal Use Protocols include a section for ARS officials to sign, stating that they will ensure the humane treatment of animals and minimize animal discomfort.

On May 7, 2018, a member of Congress wrote to the Secretary of Agriculture regarding Toxoplasmosis research involving cats, performed by the ARS Animal Parasitic Diseases Laboratory in Beltsville, MD. The research in question involved breeding hundreds of cats, feeding them Toxoplasmosis-infected raw meat for 2–3 weeks, collecting their feces to harvest parasites, and then euthanizing the cats and discarding them by incineration. Based on these concerns, we initiated an audit to determine if ARS complied with Animal Welfare Act requirements when using animals to research parasitic diseases.

## Objectives

Our objectives were to identify animals used by ARS to perform research on parasitic diseases, determine if ARS established internal controls ensuring the agency complied with Animal Welfare Act requirements while animals were in its possession, and determine if ARS' internal controls effectively prevented violations of the Animal Welfare Act.

As noted in Section 1, we addressed the first objective by identifying the animals ARS used to perform research on parasitic diseases. However, soon after our audit started, ARS discontinued using cats for its research projects and did not use any other animals subject to Animal Welfare Act requirements. Therefore, we did not determine if ARS established internal controls to ensure the agency complied with Animal Welfare Act requirements while animals were in its possession and if these controls prevented violations of the Animal Welfare Act.

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<sup>4</sup> 7 U.S.C. Chapter 54, Section 2132(g).

## Section 1: ARS No Longer Uses Animals for Parasitic Disease Research Subject to the Animal Welfare Act

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On April 2, 2019, ARS announced that it would no longer use cats for research purposes and scheduled all cats in its possession to be put up for adoption. Following its decision to stop parasitic disease research activities involving cats, ARS no longer possessed animals for parasitic disease research that would be subject to Animal Welfare Act requirements. Specifically, the nine remaining types of animals that ARS used in the 13 ongoing parasitic disease research projects met various exclusion criteria as outlined in the Animal Welfare Act's definition of an animal.

The Animal Welfare Act, as codified in 7 U.S.C. Chapter 54, defines “animals” as any live or dead dog, cat, nonhuman primate, guinea pig, hamster, rabbit, or any other warm-blooded animal, which is being used—or is intended for use—for research, teaching, testing, experimentation, or exhibition, or as a pet. This term excludes birds, rats of the genus *Rattus*, and mice of the genus *Mus*, bred for use in research; horses not used for research purposes; and other farm animals such as, but not limited to, livestock or poultry used or intended for use as food or fiber, or livestock or poultry used or intended for use for improving animal nutrition, breeding, management, or production efficiency, or for improving the quality of food or fiber.

ARS provided us with a list of 13 active parasitic disease research projects that used animals as the test subject. In total, ARS used nine different types of animals for these various projects. For example, *Babesia* and *Anaplasma* are two types of tick-transmitted bacterial parasites found in cattle. One current research project looks to reduce the loss of cattle from these types of parasites by trying to identify ways to vaccinate these tick-borne diseases. The Animal Welfare Act, as codified in 7 U.S.C. 54, Section 2132, excludes livestock used for purposes such as livestock management from Animal Welfare Act requirements. Therefore, the *Babesia* and *Anaplasma* research activities are for livestock management purposes, which excludes these cattle from Animal Welfare Act requirements.

Similarly, we determined the types of animals used in the 12 remaining parasitic disease research projects were exempt from Animal Welfare Act protections because the animals used in these research projects were excluded from the definition of “animal.” While the Animal Welfare Act does not apply to the animals we reviewed, ARS officials stated that its staff treat animals humanely in every step of the research process, even if the animals do not fall under the Animal Welfare Act. See Table 1 below, which shows the nine different animals that ARS used in its animal-related parasitic disease research activities, along with the reasons we believe they are exempt from Animal Welfare Act requirements.

**Table 1. List of Animals ARS Used in Parasitic Disease Research Projects and the Reason These Animals Do Not Qualify for Animal Welfare Act Protection**

<b>ANIMAL</b>	<b>AWA PROTECTED?</b>	<b>REASON NOT PROTECTED</b>
<b>ATLANTIC SALMON</b>	No	Not a warm-blooded animal
<b>CATFISH</b>	No	Not a warm-blooded animal
<b>CATTLE</b>	No	Livestock or poultry used or intended for use for improving animal nutrition, breeding, management, or production efficiency, or for improving the quality of food or fiber
<b>CHICKENS</b>	No	Livestock or poultry used or intended for use for improving animal nutrition, breeding, management, or production efficiency, or for improving the quality of food or fiber
<b>EASTERN OYSTERS</b>	No	Not a warm-blooded animal
<b>MICE (<i>MUS</i>)</b>	No	Mice of the genus <i>Mus</i> are excluded if bred for use in research
<b>PIGS<sup>5</sup></b>	No	Livestock or poultry used or intended for use for improving animal nutrition, breeding, management, or production efficiency, or for improving the quality of food or fiber
<b>RATS (<i>RATTUS</i>)</b>	No	Rats of the genus <i>Rattus</i> are excluded if bred for use in research
<b>RUMINANTS</b>	No	Livestock or poultry used or intended for use for improving animal nutrition, breeding, management, or production efficiency, or for improving the quality of food or fiber

ARS officials agreed with our determinations that the animals used in the 13 parasitic disease research projects described in this report are excluded from Animal Welfare Act requirements. Since ARS' parasitic disease research is being performed with animals not subject to Animal Welfare Act requirements, we are not making any recommendations to ARS in this report.

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<sup>5</sup> As of August 2, 2019, ARS officials stated that they have only used mice for its project relating to molecular approaches to control intestinal parasites that affect the microbiome in swine and small ruminants.

## Scope and Methodology

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We performed this audit at the ARS field office located in Beltsville, Maryland, between March and September 2019. We analyzed a list of active research projects as of April 11, 2019, based on project objectives and the types of animals used during research activities. Based on this analysis, we determined that ARS had 13 total ongoing research projects during the time period we performed our audit. To accomplish our objectives, we:

- interviewed ARS officials to learn their program operations and how ARS handles animals in its possession;
- obtained Animal Use Protocols for 7 of the 13 parasitic disease research projects, dated between July 26, 2016, through May 24, 2019;<sup>6</sup>
- analyzed ARS' Animal Use Protocols to determine if the research project animals would fall under Animal Welfare Act requirements; and
- interviewed Animal and Plant Health Inspection Service officials to obtain an understanding of the Animal Welfare Act as it pertains to research activities.

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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<sup>6</sup> We did not obtain protocols for 6 of the 13 projects. We did not ask for the Animal Use Protocols for two projects that involved fish and two projects that involved mice because we determined ahead of time that fish and mice were not subject to the Animal Welfare Act. In addition, we did not obtain the Animal Use Protocols for two projects involving poultry because we reviewed poultry protocols for three other projects and determined they were not subject to the Animal Welfare Act.

## Abbreviations

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ARS.....Agricultural Research Service  
OIG .....Office of Inspector General  
U.S.C.....United States Code  
USDA.....Department of Agriculture

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