

PRIVATE LANDOWNERS ASSESSMENTS OF FERAL HOGS AND UAS APPLICATIONS IN ARKANSAS PILOT COUNTIES

A Technical Report



TABLE OF CONTENTS

| | |
|---|-----------|
| ACKNOWLEDGMENTS | 1 |
| EXECUTIVE SUMMARY | 2 |
| INTRODUCTION | 3 |
| Economics | 3 |
| Public Response and Partnerships | 3 |
| Study Objectives | 4 |
| Study Area | 5 |
| METHODS | 6 |
| Landowners Receiving Trapping Services | 6 |
| Neighboring Landowners | 7 |
| Project Area Landowners | 8 |
| Experimental UAS Applications | 8 |
| RESULTS | 9 |
| Reduction of the Feral Hog Population on Private Landholdings | 9 |
| Reduction in Agricultural and Environmental Damage | 10 |
| Program Effectiveness at Reducing Feral Hog Numbers and Damages | 11 |
| Experimental Use of Drones | 11 |
| DISCUSSION | 14 |
| LITERATURE CITED | 16 |
| APPENDICES | 17 |
| Appendix A: Tables | 17 |
| Appendix B: Figures | 20 |
| Appendix C: First Telephone Interview | 22 |
| Appendix D: Second Telephone Interview | 28 |
| Appendix E: Mail Survey | 34 |
| Appendix F: Respondent Comments | 42 |

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EXECUTIVE SUMMARY

Feral hogs are an invasive, non-native species whose destructive habits have affected agriculture, clean water, and natural habitats in Arkansas and the United States. The pilot project described here created a collaborative effort between the USDA Natural Resources Conservation Service, USDA APHIS Wildlife Services - Arkansas, the Arkansas Conservation Districts and other partners in the effort to eradicate feral hogs. The expected outcome was a reduction in feral hog numbers, agronomical damage and environmental impact throughout the 12-county pilot project area. The project included a monitoring component for measuring its success with results presented in this report. Another objective was the experimental use of UASs (unmanned aircraft systems, a.k.a. drones) to collect quantitative data about feral hog damage.

Conservation District trappers and partnering agencies raised awareness and facilitated the coordination of local trapping and removal efforts for feral hogs on multiple private properties. This “boots on the ground” approach was successful and effective at removing more feral hogs locally to new landowner audiences who had not interacted with wildlife agencies beforehand about feral hog removals. About one-third of those who received trapping services had not removed feral hogs before signing up for the Conservation District trapping service.

Data were collected about the perceived reduction in feral hog numbers and associated agricultural and environmental damage as measures of success for the pilot project. After three years or less of receiving trapping services, landowners indicated significant localized reductions in feral hog populations and associated damage. Initially, these landowners reported

observing more feral hogs and damage than other landowners in the study. This implies Conservation District trappers effectively located and removed feral hogs where this service was most needed. There was some evidence of a spillover effect, with slightly more neighboring landowners and those in the pilot area reporting decreased feral hog populations while trapping services were underway.

Another learning experience concerned survey methodology. The results pose a caution when applying repeated measures of economic estimates of feral hog damage. After trapping services were initiated, most landowners reported increases in economic estimates of damage and expenditures, though this was in opposition to the majority reporting damage declining overall. These contradictory results were indicative of a response-shift bias in which the initial survey caused landowners to become more aware of feral hog damage, yielding inflated responses in subsequent surveys.

Through exploring the potential use of UASs, we discovered practical and research applications for detecting and calculating damage, improving trapping efficiency and estimating populations. Each UAS platform and associated lenses had its strengths and limitations relative to flight objectives. DJI Matrice 300 and DJI Mavic 3 thermal UASs were successful at collecting data about feral hogs and associated damage under certain field conditions (e.g. presence of photosynthesis, cooler temperatures for body heat detection, lack of leaf cover) in Arkansas. Automating counts of local feral hog populations and their GPS coordinates appears possible, but requires collecting additional flight recordings for comparing feral hogs to other species.

INTRODUCTION

Feral hogs (a.k.a. feral swine, wild boar, wild pigs) were introduced by early explorers and settlers as a low maintenance free-ranging food source. For a century or more, their range was confined to rural bottomland hardwoods in the southern part of the state. They have spread statewide and are considered an invasive, non-native species whose destructive habits have affected agriculture, clean water, and natural habitats in Arkansas and elsewhere in the United States. It has been suggested that relocations and releases of domestic hogs for hunting purposes have led to their spread. Once established, feral hogs have several characteristics contributing to their proliferation including their (1) mobility and adaptability to various environments, (2) high reproductive potential and lack of non-human predators, and (3) ability to learn and avoid traps and humans.

Despite issues associated with an established feral swine population, there is a cultural affinity towards feral hogs in the state. Since 1909, the razorback has been the popular mascot of the flagship campus University of Arkansas and for many decades a living animal has represented this mascot at athletic events. This living mascot is not a true feral hog, as it is tended, tame, and confined as domestic livestock.

ECONOMICS

Feral hog populations continue to grow and expand rapidly across Arkansas and neighboring states. USDA estimates more than 6 million feral hogs are in the United States, resulting in “\$2.5 billion in damage to U.S. agriculture annually” (USDA Southwest Climate Hub, 2024). USDA estimates \$41.3 million in agricultural damage are attributed to feral hogs annually in Arkansas, based on \$19.6 million in damage to soybeans, corn, wheat, and rice (Anderson et al. 2016), \$14.4 million in damage to hay, pecans, and cotton (McKee et al. 2020) and \$7.3 million in damage to livestock (Anderson et al. 2019). Other surveys have yielded similar results (e.g., Tian et al. 2023, McPeake et al. 2019). Feral hog damage to wildlife and their habitat are difficult to quantify,

though work is underway in the state by the U.S. Geological Survey and the University of Arkansas – Fayetteville.

Feral hogs also pose a health risk, according to Brown et al. (2020). Domestic livestock, people, pets and wildlife are at greater risk from bacteria, diseases, and parasites spread by feral hogs.

PUBLIC RESPONSE AND PARTNERSHIPS

The expansion and detrimental habits of feral hogs in Arkansas were noted as early as 1999 when the University of Arkansas Cooperative Extension Service facilitated a multi-agency working group resulting in initial state laws regarding their control. In 2016, a state Feral Hog Eradication Task Force was formed by legislative mandate among partnering agencies and organizations to address feral hog issues and continues to meet periodically. Given that most land privately owned in Arkansas, the focus of the task force is to assist landowners with reducing feral hog damage on private property. The task force keeps members informed on feral hog activities and collaborates on (1) control and management practices, (2) education and outreach and (3) policy and law, leveraging opportunities for funding and support when available. Partnering agencies and organizations conducted workshops and field demonstrations about current practices and available resources before and during this pilot project.

Partners on the task force applied for a USDA grant initiative for piloting this approach to addressing feral hogs. Task force members’ previous work experiences and discussions guided its focus on providing direct service to landowners, in order to supplement current trapping services by the USDA APHIS Wildlife Services and other partners who had provided education and/or traps to landowners. The logic was that private landowners who attended workshops and learned about protocols encountered barriers to applying recommended protocols and practices. Although such programs improved participants’ knowledge and awareness about feral hogs and trapping protocols, rarely did participants implement

trapping on their own after attending (R. McPeake, unpublished data).

Trapping feral hogs represents a significant investment of time and financial resources. Additionally, it requires an understanding of technology applications (when game cameras and cellular trapping systems are deployed, for example). Some landowners have limited financial resources and limited ability to apply technologies associated with feral hog removals. Absentee landowners often are unable to follow through on time-sensitive protocols. Landowners who were early adopters of trapping tended to be large acreage farmers with commercial crops in the southern region of the state (J. Caraway, unpublished comm.). These landowners had the capacity to purchase traps and dedicate hired workers to carry out tasks to protect their livelihoods. Where feral hog damage are transient, unpredictable, and not tied to someone's livelihood, it can be difficult for landowners to justify the expense of purchasing and deploying a trap system. Therefore, the proposal for this feral hog pilot project was to help overcome these barriers by offering trapping services to private landowners in four pilot project areas in the state.

STUDY OBJECTIVES

The objective of the pilot project was to create a collaborative effort between the USDA Natural Resources Conservation Service, USDA APHIS Wildlife Services - Arkansas, the Arkansas Conservation Districts, and other partners in efforts to educate the public and eradicate feral hogs. The expected outcome was a reduction in feral hog numbers, agronomical damage and environmental impact throughout the pilot areas.

The project included a monitoring component for measuring success, the results of which are presented in this report. Data were collected about the reduction in the feral hog population from landowners and Conservation District trappers; data about the reduction in agricultural and environmental damage were collected from landowners. These measurements were collected at three levels:

- Level 1: On-farm damage as reported by landowners receiving trapping services;
- Level 2: local feral hog damage in the vicinity of or adjacent to landowners receiving trapping services, or also called neighboring landowners; and
- Level 3: landowners with parcels > 20 acres in pilot region areas.

A scientifically defensible estimate of feral hog populations in the state is unavailable. Removing a specific number of feral hogs in a particular location is an unreliable measure of success, as an unknown number of remaining feral hogs are expected to continue causing damage to crops, pastures and timber. Experts with the USDA APHIS Wildlife Services, Arkansas Game and Fish Commission, US Fish and Wildlife Service and others provided county or regional estimates of feral hogs (e.g., very high, high, medium, low, and very low) (Table A1, Appendix 1). Their estimates are based on producer complaints of damage and fieldwork in those areas.

Since there is no defensible estimate of feral hog numbers, the goal of the pilot project was to decrease feral hog damage, rather than relying solely on the number of feral hogs removed as a measure of success. Data about the number of feral hogs removed was collected, however, given that the number present and damage complaints were expected to be correlated to some degree.

Feral hog experts expressed concern about the ability to detect measurable impacts from feral hog removals within the project's three-year timeframe, particularly in pilot project areas with large feral hog populations. Removing enough feral hogs to reduce damage – in addition to environmental recovery and remediation from damage – could require several years, with most experts preferring a minimum five-year gap between initiating trapping services and assessments of feral hog population and damage reductions.

Another objective was the experimental use of UASs (unmanned aircraft systems, a.k.a. drones) to collect quantitative data about feral hog damage in pilot projects and surrounding areas. Objectives became more refined as new data and applications were explored.

These objectives were:

- Compare different types and applications of UASs and sensors for collecting and quantifying data about feral hogs and their associated damage.
- Evaluate RGB, multispectral, and thermal sensor capabilities for assessing feral hog damage.
- Compare thermal daytime and nighttime detection capabilities.
- Evaluate real-time surveillance to inform and assist feral hog technicians with active control efforts for removal of difficult-to-capture (evasive) feral hogs on private properties.

- Conduct proof-of-concept trials for estimating local feral hog populations for informed trapping and active feral hog control efforts on cooperating private properties.

COVID responses further slowed the project timetable and should be considered.

STUDY AREA

The Arkansas Feral Hog Eradication Task Force and federal partners debated and selected pilot project areas (Appendix A) representing different attributes for conducting feral hog removals via Conservation District trappers. Four Arkansas pilot project areas consisting of 12 counties with various levels of estimated feral hog populations in the state (Figure 1). Each pilot project area hired Conservation District technicians who focused on trapping and the removal of feral hogs on private lands (Central Ozark, 2; Western River Valley, 2; Southeast, 3; Southwest 3). Feral hog experts and partnering agencies initially requested a 5-year project to allow adequate time for technicians to remove enough feral hogs so that a reduction in their population size and associated damage would be discernible to landowners. Delays in federal funding and

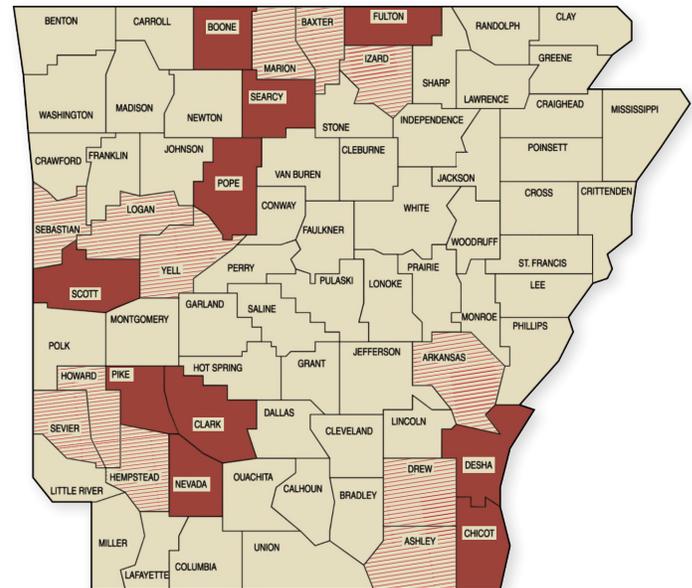


Figure 1. Locations of the four pilot project areas in Arkansas. Tier 1 represents counties included in this study with possible expansion into Tier 2 counties.



METHODS

Measures of success were collected for (1) reduction of the feral hog population and (2) reduction in agricultural and environmental damage throughout the pilot areas. Landowners who received trapping services were initially questioned about their feral hog activities before initiating trapping services and afterward, the effectiveness of the pilot project in reducing damage. All respondents were asked a series of questions about their risk perceptions concerning the impact of feral hogs on the state's economy, environment, livestock, people, and pets. Additionally, UAS applications were explored for future use by collecting field measurements of feral hog damage before and after trapping.

Arkansas producers apply agricultural practices on various land types which are susceptible to feral hog damage. Three major land types are crop, pasture, and forest lands. Some producers perform multiple types of production on the same land base, such as pastures within forests for livestock and timber production (e.g., silvopasture). Feral hogs also cause surface damage to roads, fields, and wetlands. Many landowners in the state plant food plots to attract deer and other game species to their properties, and some derive income from hunting leases. Feral hogs are known to disturb food plots and other habitats.

LANDOWNERS RECEIVING TRAPPING SERVICES

Measures of success were collected on the individual farm where trapping services were provided. A portion of these landowners who received trapping services were interviewed by telephone shortly after enrollment and before the project end from 2020 to 2023. Conservation District technicians hired as feral hog trappers were responsible for enrolling eligible landowners in the program, providing removal services, and conveying their enrollments to the Arkansas Department of Agriculture and the University of Arkansas. These trappers partnered with USDA APHIS Wildlife Service technicians in coordinating and expanding trapping efforts in the pilot project areas. Conservation

District trappers were not authorized to dispatch feral hogs, so other entities such as USDA technicians, game wardens and local police were enlisted when a landowner did not have the ability to euthanize their trapped feral hogs. State law requires the lethal removal of a feral hog upon capture.

Participants signed a Landowner Release Agreement with their name, address, and phone number which qualified them for the Conservation District feral hog trapping program. A postcard-sized announcement was prepared and distributed to trappers alerting landowners of their eligibility for a cost-share payment by participating in an interview. Each survey respondent was eligible for a \$150 payment for each telephone interview, or \$300 maximum. Respondents could refuse any question, including all questions, and still receive payment. However, the majority of respondents answered all questions.

The first interview occurred shortly after trapping services had started and another before the project concluded. Originally, Conservation District technicians were to send release agreements to the Arkansas Department of Agriculture which coordinated the grant. To expedite payment processing, the Department let the University collect release agreements from trappers and convey them to the Department once interviews were completed. Monthly reports (or more frequently upon request) were provided to the Arkansas Department of Agriculture for distribution to the Conservation Districts which processed landowner payments. Despite repeated requests by university staff, the Arkansas Association of Conservation Districts and at group meetings in November 2019 and December 2022 with Conservation District trappers, it was discovered in August 2023 that about half the trap technicians did not fully report all their landowner contacts to the University nor the Department of Agriculture. The resulting interviews thus reflect an unknown portion of the landowners who participated in the pilot project.

Landowners were deemed eligible for interviewing once their release agreement, contact information, and trapping location

had been verified. Landowners could either call or schedule an appointment online, or they would receive a call from the University. For most respondents, interviewers called and left messages about the best time to call. At least six to eight attempts were made to contact each landowner. The first attempt to contact a landowner was by phone. Then interviewers called about every week at different times and on weekends. After six to eight attempts by phone, the last two contacts were by mail. Those who did not respond were moved to a dormant file. A few of these landowners eventually responded and completed an interview. A second telephone interview was conducted near the end of the project after trapping services had been received. An alert postcard was mailed to notify participants of the upcoming interview a week or more before receiving a phone call. As before, interviewers called and left messages about the best time to call for most respondents.

Each interview typically was from 15 minutes to over 1 hour depending on the type of owned or rented property and extent of feral hog damage. Some enthusiastic respondents spoke with interviewers at length beyond the requested question responses resulting in extended conversations about feral hog problems. Landowners participated in the program from a couple of months to years. The initial interview focused on feral hogs and damage before trapping services had begun. The last interview asked most of the same questions as the first interview plus some additional program evaluation questions. Questions were repeated to maintain the consistency of responses. The interview questions were based on a draft prepared by the USDA National Wildlife Research Center and Texas A&M University. Revisions to the national survey were made after the Arkansas survey was finalized and initiated. Only data that aligned with the national database were entered into the national database, requiring some adjustments. The interviews were also reviewed and approved by the University of Arkansas Institutional Review Board. Respondents could refuse to respond to any question and receive a cost-share payment.

NEIGHBORING LANDOWNERS

In addition to landowners who received trapping services, those with landholdings which bordered trapping efforts were questioned about feral hog damage. Since feral hogs do not recognize property boundaries, adjacent landowners were hypothesized to benefit from trapping efforts on neighboring properties. These adjacent landowners were mailed a letter addressed to the owner(s) requesting their participation in an enclosed mail survey conducted by the University of Arkansas System Division of Agriculture

Cooperative Extensions Service. The cover letter was personalized such that the landowner's name and address appeared at the top of the cover letter and their name in the salutation, and the county in which the landholding occurred was included in the letter. For the first mailing, each respondent received a 4" x 6" addressed envelope containing a cover letter, booklet survey, and return envelope with a postage stamp (2022) or metered return postage (2023). Additionally, in 2022, each respondent received a flyer regarding where to receive assistance with feral hog issues. Respondents were offered the opportunity to complete the survey online at a link provided in the cover letter and the inside cover of the survey booklet. After about two to three weeks, a postcard reminder was mailed. After another three weeks, nonrespondents were mailed another personally addressed cover letter, survey booklet, and return stamped envelope. The fourth and final mailing was a reminder postcard. The survey booklet and protocol were developed and approved by the University of Arkansas Institutional Review Board.

Adjacent landowners were identified using publicly available information from tax records and online searches. A GPS coordinate, parcel number or address of the trap location was gathered from the Landowner Release Agreement or from the Conservation District trapper. If a parcel number was provided, the tax records of that county were searched and a GPS coordinate or address from the tax record of that parcel was assigned. ArcGIS map viewer was used to identify the parcels and their ownership surrounding the trapping location. The location of the trap's parcel polygon was verified to be located within the pilot project area for eligibility in this project. Adjacent or neighboring landowners were identified as those who owned parcels which shared a border where trapping occurred. Adjoining parcels owned by the same landowner where trapping occurred were considered part of the trap area. Private landowners and their addresses were recorded in a database. Publicly owned property (e.g., parks) adjoining trap locations were recorded but not mailed surveys. Relevant data for each trap location was recorded in a spreadsheet including the landowner name and identifying code, GPS of trap location, parcel identification number and county, plus data about their adjacent landowners including an identification number, tax owner business name, tax owner first/last name, parcel ID, county, street address, city, state, zip code.

In some cases, adjacent landowners in 2022 became enrolled and received trapping services from the Conservation District. Those discovered landowners who received trapping services (by sorting and inspecting names and addresses in the spreadsheet) were removed from the 2023 mailing list. Additional landowners partic-

ularly in the North Central Ozarks received mail surveys in 2023 to reflect those newly enrolled landowners receiving trapping services.

PROJECT AREA LANDOWNERS

A sample of agricultural-classified property owners with more than 20 acres in each pilot area were questioned about feral hog damage. These general public landowners, who may or may not have encountered feral hogs in the pilot area, were randomly sampled to receive a mail survey. Landowners who owned property in each of the four pilot project areas received practically the same survey mailed to the neighboring landowners, with the exception of a University of Arkansas – Little Rock return address.

Since there are no formal, publicly available datasets for agricultural landowners in Arkansas, the University of Arkansas at Little Rock Survey Research Center coordinated with the Arkansas Geographic Information Systems Office to create an original dataset. The determination was to combine available statewide Land Assessment geographic datasets with 911-point data which resulted in a database with physical locations, owner data, and indicators of land/property as “Agricultural.” The agricultural land classification broadly includes timber, livestock pastures and row crop farming. The original data set for the 12 pilot counties included 184,848 addresses but only 101,036 contained enough information to construct a mailing address (e.g., owner name, street address, city and zip code). The 101,036 entries were divided into four groups corresponding with the four geographic project areas for the 12 counties. Random samples were drawn without replacement from each group. The resulting randomly sampled addresses were then overlapped with the postal service information on outgoing mail surveys to confirm the accuracy of the recipient information with the physical mailing address. Mailing addresses that did not align with Postal Service data were excluded from mailing. Mail surveys were sent out in waves of 1,000 until an adequate number of responses were received. The mail surveys were coded to ensure anonymity and to allow for respondents to enter their code for completing the survey online, if preferred over returning mail surveys. A website was created that aligned with the mail surveys (<https://www.arferalhogsurvey.org>). Those who preferred responding online were directed to the website.

Surveys were sent in five waves of 1,000 surveys in March – September 2021 and in waves again in February – July 2023. Since the protocol required an overlap of addresses coded as “Agricultural” from both State Assessors data and 911-point data,

the alignment with the Postal Service data on deliverable addresses served as an additional check on the data validity and that the survey was sent to a deliverable mailing address.

EXPERIMENTAL UAS APPLICATIONS

Flights were conducted on public and private property in feral hog pilot project areas and where landowners were actively working with Conservation District feral hog technicians from October 2021 to August 2023. Additional test flights were conducted at other locations to prepare for these flights. Equipment for these flights included (1) the Matrice 300 RTK (SZ DJI Technology Co., Ltd., Shenzhen China) with (1a) a Zenmuse H20T sensor (iFlight Tech Company Ltd. Shenzhen, China) with RGB and thermal capabilities to capture specific heat signatures for thermal recording or (1b) the MicaSense RedEdge-MX multispectral sensor (Seattle, Washington, USA) for analyzing agricultural crop health indices including spectral bands (blue, green, red, red edge and near-infrared); (2) the Enterprise DJI Mavic 3 Thermal (Shenzhen, China) equipped with an integrated RGB lens, and thermal lens, (3) Enterprise DJI Mavic 3 Multispectral (Shenzhen, China) equipped with an integrated multispectral lens series and RGB composite lens, and (4) a Parrot ANAFI USA (Westborough, Massachusetts, USA) with an integrated thermal and RGB composite lens approved for flight on federal lands. Pix4DMapper (Version 4.8.0) was used to orthorectify individual multispectral imagery into five spectral band layers (Red, Green, Blue, RedEdge, and NIR) using the “AG Multispectral” template. ArcGIS Pro (version 3.0.1) was used to analyze imagery and estimate damaged areas, and to annotate, train, and test detection models.

A few producers were asked and granted permission for researchers to experiment using various lenses on drones to collect feral hog damage data on their land, and for detection of animals to improve trapping efficiencies. Several sensor types were tested, including (1) spectral band separation to generate vegetation index measurements for detecting plant damage caused by feral hogs, (2) thermal sensor imaging for detecting animals, and as an alternative to using the spectral band for detecting and measuring crop damage, and (3) aerial surveying lens for creating 2-D or 3-D models of extensive rooting and wallowing damage. The drones were flown before, during, and after feral hogs were trapped. Images from the drone were (1) verified on the ground initially to ensure that plant damage is from feral hogs and no other sources, and (2) analyzed to quantify rooting and damage to vegetation in croplands and pastures.

RESULTS

District Conservation trappers reported 259 landowners receiving trapping services. An unknown portion of landowners who received trapping services were unreported to the University and the Arkansas Department of Agriculture. Of the known landowners receiving trapping services, 32 either declined, did not respond after multiple attempts, or were ineligible to participate, resulting in 227 completed interviews. After receiving trapping services, these 227 landowners were contacted but only 195 completed interviews with 32 declining or not responding after multiple attempts.

Landowners who had adjoining properties to those receiving trapping services were mailed surveys with the option of completing them online. Overall, response rates were high (89 percent in 2022, 75 percent in 2023) and attributed to personalized and repeated correspondence requesting their responses. The pilot project area with the highest response rate was the Western River Valley (102 mailed, 102 responses in 2022; 108 mailed, and 103 responses in 2023), which also had the lowest number of individuals receiving trapping services of the four pilot project areas. North Central Ozarks was mailed 169 surveys with 164 returned in 2022 and 264 mailed and 180 returned in 2023. Southeast pilot area landowners were mailed 293 surveys and returned 231 responses in 2022 and mailed 309 surveys and returned 214 in 2023. Southwest pilot area landowners were mailed 153 surveys with 143 returned in 2022

and 151 mailed and 124 returned in 2023. Not all surveys were completed as some were blank or with little information.

A sample of landowners in the pilot project areas were mailed surveys in 2020 and 2023. In 2020, from the original 5,000 addresses randomly selected across the survey waves, 1,953 were marked as non-deliverable when aligned with existing Post Office datasets. Thus, 3,047 surveys were mailed to valid agricultural landowners across the four geographic regions for 2020. In total, 218 surveys were returned, resulting in an overall response rate of 7.15 percent. Given the random probability sampling methodology, the Margin of Error was determined to be ± 6.63 percent at the 95 percent confidence level. From the total responses, the different geographic regions' responses were tabulated as a proportion of the whole. For the 2020 surveys, the geographic breakdown was: Ozark, 28 percent (n=62); River Valley, 28 percent (n=60); Southeast, 21 percent (n=46); & Southwest, 23 percent (n=50); while the 2023 survey geographic distributions were: Ozark, 26 percent (n=45); River Valley, 29 percent (n=50); Southeast, 21 percent (n=36); and Southwest, 23 percent (n=40). The 2023 survey response rate was calculated at 8.5 percent with a margin of error of ± 7.0 percent at the 95 percent confidence level.

REDUCTION OF THE FERAL HOG POPULATION ON PRIVATE LANDHOLDINGS



Landowners reported the number of hogs removed before and after receiving trapping services. Self-reports of feral hogs removed on landowner properties were slightly different between Conservation District trappers and the landowners on whose property feral hogs were removed (Figure 2). Over the three-year project timeframe, Conservation District trappers reported removing 6,052 feral hogs, whereas landowners reported that Conservation District trappers removed 6,623 from their properties, with some indicating they “didn’t know” the number of feral hogs removed. Landowners indicated that an additional 3,458 feral hogs were removed by themselves or others while Conservation District trappers conducted their removals. The

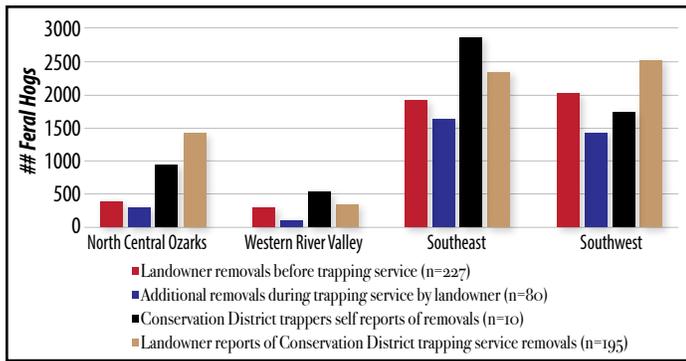


Figure 2. Number of feral hogs removed from 2019 – 2023 in pilot project areas as reported by landowners receiving trapping services and Conservation District trappers.

year before receiving trapping services, two-thirds (66 percent, n=152) reported removing 4,614 feral hogs. One-third (33 percent, n=75) did not remove feral hogs the year before.

Those who previously removed feral hogs did so mostly themselves (84 percent, n=128) and/or with assistance from family members (47 percent, n=72), or neighbors (22 percent, n=34) (Figure B1, Appendix B). Only a few (5 percent, n=11) reported working with state or federal agencies. Most removed feral hogs by shooting during daylight hours (78 percent, n=118) or trapping (61 percent, n=92) (Figure B2, Appendix B). These landowners reported spending \$232,059 on equipment and supplies for feral hog removal (Appendix A). The majority of expenditures were in the Southeast pilot area (Ozark=\$36,120, River Valley=\$10,060, Southeast = \$120,249, Southwest= \$61,630). When adding a modest hourly rate for their time (\$14.16/hour farm labor wage), \$664,368 in time and money had been invested the year before on removing feral hogs. Geospatially, those receiving trapping assistance spent the most on average (\$1,706, n=227) compared to the neighboring landowners (\$969, n=170) and those in the larger pilot area (\$638, n=176).

Landowners receiving trapping services, their neighbors, and those living in the pilot area were asked about the number of feral hogs seen on their property in the past year before and after trapping services (Figure B3, Appendix B; Table 1). Almost all landowners who received trapping services (97 percent, n=220) reported seeing feral hogs before trapping services had begun. Some landowners reported not seeing hogs directly but saw signs such as rooting as evidence of their presence. After receiving trapping services, only 61 percent (n=138) reported seeing feral hogs. The estimated number of hogs seen dropped from 13,327 to 4,614. Their neighbors reported seeing more feral hogs after trapping services (62 percent to 73 percent,

Table 1. Number and percent of landowners who saw feral hogs in the past year before and after trapping services were initiated on their property or area.

| LANDOWNER TYPE | SURVEY | #PROPERTY OWNERS | % WHO SAW HOGS | TOTAL #HOGS |
|----------------------------|--------|------------------|----------------|-------------|
| Trapping Service (Level 1) | Before | 227 | 97% | 13,327 |
| | After | 195 | 61% | 4,614 |
| Neighbors (Level 2) | Before | 170 | 62% | 3,313 |
| | After | 252 | 73% | 6,562 |
| Pilot Area (Level 3) | Before | 176 | 50% | 2,543 |
| | After | 234 | 80% | 8,974 |

3,313 to 6,562), as did landowners in the pilot areas (50 percent to 80 percent, 2,543 to 8,974). The average number of feral hogs seen increased after trapping services started (Figure B3, Appendix B).

Landowners were also asked whether they thought the feral hog population had increased or decreased, either somewhat or substantially, during the three previous years. Almost one-third (31 percent) of those receiving trapping services changed from believing the population had substantially increased the three years prior (48 percent to 17 percent) compared to their neighbors (6 percent decrease, 24 percent to 18 percent) and those in the pilot project area (3 percent change, 28 percent to 25 percent) (Figure B4, Appendix B).

REDUCTION IN AGRICULTURAL AND ENVIRONMENTAL DAMAGE

Most landowners who received trapping services reported a decrease in feral hog damage after receiving trapping services. Those receiving trapping services were asked specifically, “Since receiving trapping services, would you say that damage caused by feral hogs have increased, decreased, or remained the same on your property?” The majority (82 percent) indicated that damage by feral hogs had decreased after receiving trapping services and only 4 percent reported an increase in damage (Figure 2).

When viewed by the pilot area (Appendix A), proportionally fewer in the Southeast reported a decrease in feral hog damage, an area predominately row crop agriculture whereas timber and livestock production were prominent in the remaining pilot areas. Although experts estimated the Southwest and Southeast to have a higher feral hog population, the proportion who reported a decrease in damage in the Southeast was similar to

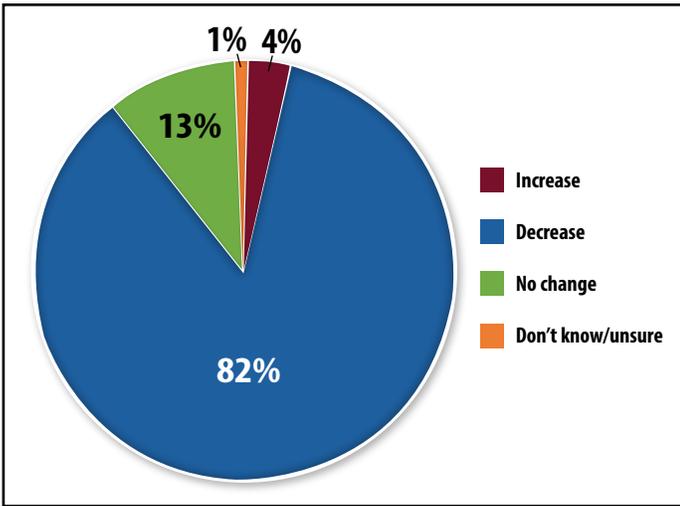


Figure 2. Percent of respondents receiving trapping services (n=194) who reported an increase, decrease, or no change in damages from feral hogs after receiving trapping services.

the Ozark and River Valley areas which reportedly had comparatively lower feral hog populations. Results were problematic when comparing estimated damage by feral hogs of landowners before and after trapping services. Respondents were asked in-depth about economic estimates for the damage to commercial crops, pastures and haylands, livestock, forests, wildlife food plots, and surface and property damage. This included estimated losses in income, repair expenses, hired labor, and unpaid hours associated with feral hog damage. Apart from surface damage, most landowners reported higher cost estimates after feral hog trapping services were provided, even when cost estimates were paired for each respondent (Figure B5, Appendix B). This was contrary to other previously mentioned findings which indicated landowners had less damage overall (e.g., Figure 2; Table 1).

RISK PERCEPTIONS OF THE FERAL HOG POPULATION AND DAMAGE

Respondents were asked about their risk perceptions of the feral hog population and risk assessments regarding feral hog damage in the state. When asked about their ideal feral hog population in Arkansas, the majority in each pilot project area reported “no pigs – completely eradicated,” which changed little before and after the trapping service had been implemented, but varied somewhat by pilot area (Ozarks 69 percent, 66 percent; River Valley 58 percent, 53 percent; Southeast 69 percent, 70 percent); Southwest (71 percent, 69 percent) (Figure B6, Appendix B).

Landowners were asked about their level of concern regarding the cost of feral hog damage to the state economy, damage to streams, wildlife and woodlands; and risks to livestock, people and pets. Most landowners in each pilot area, when asked before and after receiving trapping services, reported being very concerned (43 percent - 67 percent) about these issues (Figures B7-B9, Appendix B). Most landowners lacked confidence about protecting their land from risks associated with feral hogs, both before and after trapping services had been initiated (Figure B10, Appendix B).

PROGRAM EFFECTIVENESS AT REDUCING FERAL HOG NUMBERS AND DAMAGE

Several programmatic questions were asked to ascertain whether it met objectives for removing feral hogs and their associated damage, the importance of the trapping service for controlling feral hogs and the optional \$150 cost-share payment, and their methods for carcass disposal.

The program received high marks in the pilot project areas with scores of 8.5 or more on a 10-point scale, with 10 being the highest rating (Appendix A). Most respondents indicated the pilot project was very successful at removing feral hogs and reducing damage. Most also indicated the pilot project was key to controlling feral hogs on their property.

In terms of the \$150 payment, about two-thirds had received at least one payment before the second interview (Appendix A). Additionally, 5 percent to 25 percent in each pilot project area indicated that the payment was very important for their participation in the program, while 20 percent to 39 percent indicated it was not at all important (Figure B11, Appendix B). Payments were less important (somewhat not important or not at all important) to those in the North Central Ozarks compared to other pilot areas.

One of the program responsibilities for landowners who received trapping services was disposing of the carcasses (Appendix A). Most reported carcasses were moved some distance from the trap (41 percent) with about one quarter (24 percent) reporting feral hogs were consumed (i.e., butchered and consumed, or given to others for consumption).



Figure 3. Comparison of single band imagery (NIR) (left), RGB imagery (middle), and calculated NDVI (right) for detecting feral hog damage to a pasture.

EXPERIMENTAL USE OF DRONES

More than 33 landowners/farmers were visited at 49 sites in pilot areas for 64 flights and over 44 hours of flight time from October 2021 to September 2023 on forested and agricultural lands in Arkansas. The following are descriptions of what was learned about using drones for detecting feral hogs and their associated damage.

- **Compare different types and applications of UASs and sensors for collecting and quantifying data about feral hogs and their associated damage.** Four UAS and three sensor types were deployed to inform and test proof-of-concept for measuring damage in row crops and pastures, improving removal efficiencies, and estimating local feral hog populations before and after removal efforts (Table A7, Appendix 1). The Matrice 300 provided the most flexibility for collecting data which addressed a variety of objectives. The remaining smaller UAS platforms were easier to transport, faster to set up, and had quicker flight times, but were limited by their integrated sensors to perform only some objectives. A “Blue UAS Cleared List” platform manufactured in the United States was included in comparisons to similarly evaluate an approved option for flying federally owned lands. However, the Parrot ANAFI USA was unable to achieve most objectives other than the immediate detection of heat-reflecting animals or objects in the field without the ability to retrieve data.
- **Evaluate RGB, multispectral, and thermal sensor capabilities for assessing feral hog damage.** Certain field conditions and sensors were better suited for calculating feral hog damage using UASs. Normalized difference vegetative index (NDVI) was effective at measuring damage in crop fields and pastures with highly contrasting plant versus soil features (Figures 3 and 4). Damage could also be calculated from optical cameras in fields with distinctive structures such as standing versus flattened corn stalks (Figure 5). Detection

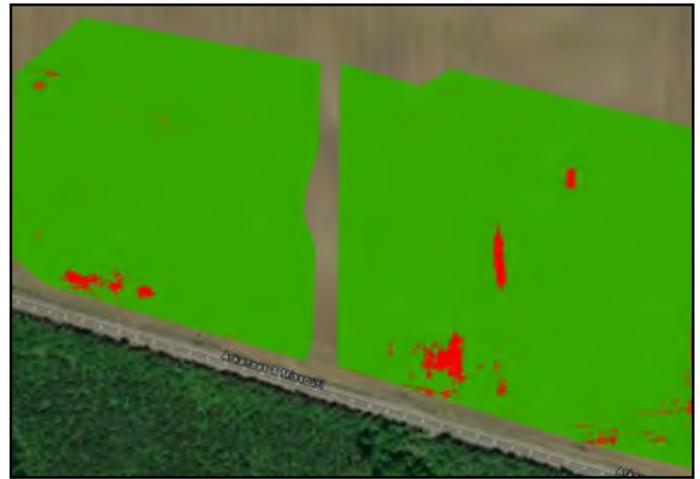


Figure 4. Classified NDVI of two pastures with red indicating feral hog damages.

of feral hog damage with multispectral and optical lenses was challenging when both soil and dried field grasses were visually similar, even with the approximate 60 cm deep rooting present. Therefore, a P1 photogrammetry lens was tested for applying 3-D modeling to detect differences in soil elevation. However, more field testing was required before making a determination of this proof-of-concept.

- **Compare thermal daytime and nighttime detection capabilities.** Observationally, thermal cameras were more effective when the difference between air temperature and a hog’s body temperature (101.5 - 102.5 degrees F) was maximized and no leaf canopy was present to obscure emitted radiation from warm animals (Figure 6). The equipment worked best at night with higher contrasting temperatures and little to no leaf cover. Detections were more challenging when ambient nighttime temperatures approached 80 degrees F and a full leaf canopy was present. By transitioning between thermal black-hot settings and thermal white-hot settings, feral hogs were more visible to quantify and locate for immediate control efforts. Flying the UAS even at max altitude (or 400 ft) startled feral hogs at some locations presumably from noise produced by the UAS. At other locations, feral hogs were undisturbed by the UAS.
- **Evaluate real-time surveillance to inform and assist feral hog technicians with active control efforts for removal of difficult-to-capture (evasive) feral hogs on private properties.** Efforts at reducing feral hogs and their associated damage are thwarted when hogs learn to evade these efforts. Using a UAS offers a tactical advantage in locating evasive feral hogs when undisturbed by flight noise. Thermal real-time video streams were highly effective for pilots to inform technicians about feral hogs. Real-time video was



Figure 5. Optical image of upright and flattened corn stalks.

particularly useful for locating elusive feral hogs that had learned to avoid trapping and other removal methods. In a case study, eight feral hogs were identified in a 80-ac field where ground imaging (trail cameras) only suggested there was one. Their location was relayed to technicians for active feral hog control. Tactics to minimize noise, such as hovering the UAS in one location for a longer period, may diminish disturbance and improve detection.

- **Conduct proof-of-concept trials for estimating local feral hog populations.** UASs were tested for assessing



Figure 6. Detection from Matrice 300 UAS with H20T sensor demonstrating heat reflectance from a feral hog in center compared to surroundings (left) and zoomed-in optical image of same feral hog (right).

feral hog population numbers for informed trapping and active feral hog control efforts on cooperating private properties. Drones were flown in winter months after deciduous trees had lost leaf cover. Thermal imagery was used to train a custom object detection algorithm that successfully counted unique warm bodies in video footage to test a proof-of-concept for locating and enumerating feral hogs in drone footage. Improvements in machine learning and AI will likely benefit further developments such as automating counts of local feral hog populations and their GPS coordinates. This appears possible conceptually but requires collecting additional flight recordings to compare feral hogs versus other species.

DISCUSSION

Through this pilot effort, Conservation District trappers and partnering agencies raised awareness and coordinated feral hog trapping and removal efforts on multiple private properties. Landowner surveys indicated significant localized reduction in feral hogs and their associated damage. Landowners who received trapping services reported this pilot effort was successful at reducing feral hogs and their associated damage in the pilot project areas. There was some evidence of a spillover effect, with slightly more neighboring landowners and those in the pilot area perceiving a decrease in feral hog populations while trapping services were underway (e.g., Figure B4, Appendix B).

Most landowners in every pilot area preferred that feral hogs be eradicated. Most were concerned about the implications for the state economy, wildlife habitat, health and disease issues caused by feral hogs. Educational outreach about feral hogs was conducted before and during this pilot effort that informed landowners about feral hogs and their invasive qualities and damage to agriculture, wildlife habitat and the environment.

This “boots on the ground” approach was successful and effective at removing more feral hogs locally to new landowner audiences which had not interacted with wildlife agencies beforehand, and about one-third which had not removed feral hogs before Conservation Districts offering trapping services. Overall, more of those receiving trapping services had removed feral hogs themselves before receiving assistance when compared to their neighbors and general landowners in the pilot areas. This suggests Conservation District trappers successfully identified those landowners in greatest need of trapping services. Only a few of those receiving trapping services reported working with other state or federal agencies at feral hog reductions before the Conservation District. The role of a Conservation District is to provide technical assistance to producers, implementing conservation practices in farming communities. Practically all landowners in the pilot project represented new audiences reached by Conservation Districts, resulting in more feral hog removal. Landowners reported a reduction in the number of



feral hogs observed and less damage after receiving trapping services and wanted such services to continue. Many noted it was only a matter of time before feral hogs would repopulate and return to their property. Evidence implied a spillover effect in which not only those receiving trapping services benefited from such services, but also their neighbors (e.g., Figure B4, Appendix B).

Another learning experience concerned survey methodology. The results pose a caution when applying repeated measures of economic estimates of feral hog damage to landowners as a measure of success. Landowners at each level reported increases in economic estimates of damage and expenditures for most categories after trapping services were initiated. Although landowners who received trapping services reported seeing fewer hogs, neighboring landowners and those in the pilot areas reported seeing more feral hogs between the first and second surveys. This was in direct opposition to other responses in which most landowners indicated damage had declined overall. These “paradoxical and counter-intuitive findings” in survey research are likely a result of a response-shift bias which can occur in longitudinal studies (Vanier, Antoine et al. 2021). Presumably, contacting landowners triggered them to become more aware of feral hogs and damage after receiving the initial survey. This change in perspective

carried forward as they went through new life experiences and encountered feral hogs. Some may not have experienced feral hog damage or recognized it as such when contacted initially. Local educational efforts may have also heightened awareness of feral hogs as a problem.

According to survey researchers, those responding to evaluation-based self-reports are especially prone to a response-shift bias which can change in meaning over time (Vanier et al. 2021). When collecting economic data about feral hog damage, future studies should investigate methods to control response-shift bias such as employing a retrospective method only, rather than a pre-test/post-test design. The initial survey applied a retrospective method asking about lost income, repair expenditures and time spent on feral hog damage the previous year. These economic results may therefore be more comparable to other feral hog surveys.

Through exploring the potential use of UASs, we discovered practical and research applications for detecting and calculating

damage, improving trapping efficiencies, and conducting population estimations. Each UAS platform had its strengths and limitations relative to flight objectives. DJI Matrice 300 and DJI Mavic 3 thermal UASs successfully collected data about feral hogs and associated damage under certain field conditions (e.g. photosynthesis, temperature, leaf cover) in Arkansas.

The next step is applying precision agriculture to further improve damage calculations. We plan to explore linking crop damage data from UAS with harvest data from a field combine. Detection of rooting, even deep ruts, in fields with turned soil and/or brown grasses was undetectable with a multispectral sensor and somewhat detectable with an optic sensor, with investigations ongoing using a P1 sensor. Feral hog detections improved when differences in ambient vs. hog body temperatures were maximized and leaf cover absent, specifically in winter. Automating counts of local feral hog populations and their GPS coordinates appears to be possible conceptually, but requires collecting additional flight recordings for comparing feral hogs versus other species.

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APPENDIX A: TABLES

Table A1. Description of pilot project areas by county, estimated feral hog population size, number of trappers, and primary land uses.

| PILOT PROJECT AREA | COUNTIES | ESTIMATED FERAL HOG POPULATION BY EXPERTS | #CONSERVATION DISTRICT TRAPPERS | PRIMARY LAND USES |
|----------------------|---------------------------|---|---------------------------------|----------------------------|
| North Central Ozarks | Baxter, Marion, Izard | Lower | 2 | Livestock, pasture, timber |
| Western River Valley | Logan, Sebastian, Yell | Lower | 2 | Livestock, pasture, timber |
| Southeast | Arkansas, Ashley, Drew | Higher | 3 | Livestock, pasture, timber |
| Southwest | Hempstead, Howard, Sevier | Higher | 3 | Agriculture crops |

Table A2. Money spent one year prior by landowners receiving trapping services on equipment, supplies and unpaid time (\$14.16/hour) for feral hog removal activities.

| RESPONDENT TYPE | NORTH CENTRAL OZARKS | WESTERN RIVER VALLEY | SOUTHEAST | SOUTHWEST | TOTAL | AVERAGE |
|---|----------------------|----------------------|-----------|-----------|-----------|---------|
| Landowners before trapping services began (n=227) | \$67,017 | \$22,818 | \$189,985 | \$107,466 | \$387,286 | \$1,706 |
| Neighboring adjacent landowners (n=170) | \$6,828 | \$19,624 | \$92,217 | \$46,043 | \$164,712 | \$969 |
| Pilot area landowners (n=176) | \$11,542 | \$15,406 | \$43,529 | \$41,983 | \$112,370 | \$638 |
| Total | | | | | \$664,368 | |

Table A3. Percent of landowners (n=194) in each pilot area indicating an increase, decrease, or no change in damages caused by feral hogs since trapping services had begun.

| CHANGE IN DAMAGES CAUSED BY FERAL HOGS SINCE TRAPPING SERVICE | PERCENT OF RESPONDENTS | | | | TOTAL |
|---|------------------------|---------------------|------------------|------------------|-------|
| | Ozark (n=56) | River Valley (n=19) | Southeast (n=68) | Southwest (n=49) | |
| Increased | 2% | 0 | 7% | 2% | 4% |
| Decreased | 84% | 89% | 78% | 84% | 82% |
| Remained the same | 14% | 11% | 13% | 12% | 13% |
| Don't know/ no response | 0 | 0 | 1% | 2% | 1% |

TABLES CONTINUED

Table A4. Averaged responses by landowners receiving trapping services on 1 (low) to 10 (high) scale about the trapping service and degree of success at removing feral hogs, reducing feral hog damages, and importance of service (n=177).

| QUESTION | PILOT AREA | | | | AVERAGE |
|--|----------------------|----------------------|-----------|-----------|---------|
| | North Central Ozarks | Western River Valley | Southeast | Southwest | |
| How successful was the trapping service at removing feral hogs from your property? | 8.9 | 8.5 | 9.0 | 8.7 | 8.8 |
| How successful was the trapping service at reducing damages by feral hogs on your property? | 8.8 | 8.9 | 8.7 | 8.7 | 8.8 |
| How important was having this trapping service available to you for controlling feral hogs on your property? | 9.8 | 9.8 | 9.5 | 9.4 | 9.6 |

Table A5. Percent responses by landowners receiving trapping services about whether they had received the \$150 cost-share payment for participating in the first interview.

| RESPONSE | PILOT AREA | | | | TOTAL |
|------------|----------------------------|-----------------------------|------------------|------------------|-------|
| | North Central Ozark (n=56) | Western River Valley (n=19) | Southeast (n=69) | Southwest (n=49) | |
| Yes | 63% | 58% | 72% | 65% | 66% |
| No | 34% | 16% | 20% | 22% | 24% |
| Don't know | 4% | 26% | 7% | 12% | 9% |

Table A6. Methods for disposing of feral hog carcasses as reported by landowners receiving trapping services in the pilot areas (n=173).

| CARCASS DISPOSAL METHOD | PERCENT OF RESPONDENTS (N=173) | | | | TOTAL |
|---|--------------------------------|-----------------------------|------------------|------------------|-------|
| | North Central Ozarks (n=51) | Western River Valley (n=14) | Southeast (n=62) | Southwest (n=46) | |
| Left on the ground near where trapped | 6% | 9% | 1% | 10% | 6% |
| Moved a distance away from the trap on ground | 38% | 18% | 42% | 53% | 41% |
| Buried | 6% | 23% | 7% | 10% | 9% |
| Composted or fertilizer | 5% | - | 3% | - | 2% |
| Butchered and consumed | 15% | 14% | 10% | 10% | 12% |
| Given to others for consumption | 12% | 14% | 15% | 7% | 12% |
| Other | - | 18% | 3% | 2% | 3% |
| Don't know | 18% | 5% | 18% | 8% | 14% |

TABLES CONTINUED

Table A7. Comparison of different types of UAS platforms and sensors and compatibility with objectives for detecting feral hogs and their damages in Arkansas.

| UAS AND LENS | DEPLOYMENT PURPOSE | EVALUATION |
|---|--|--|
| Matrice 300 and RedEdge sensor | Collect multispectral imagery of damaged crop and pasturelands | The multispectral sensor was better suited for collecting data when plants were actively growing and presented a higher contrast than the surrounding soil. |
| Matrice 300 and H2OT sensor | Collect thermal and optical imagery of damaged crop and pasturelands and locate feral hogs for detection and population analysis. | Thermal and optical sensors were better suited for collecting data when comparative plant structures were visible, such as upright versus flattened corn stalks. Detecting feral hogs was best in cold winter months which maximized air versus body temperatures in open areas or forests lacking leaf cover. |
| Matrice 300 and P1 sensor | Collect elevation data for detecting rooting and wallowing. | Initial proof-of-concept indicated 3-D modeling landscapes would detect soil disturbance, however more field testing is required. |
| Mavic 3 with integrated multispectral sensor | Collect multispectral imagery of damaged crop and pasturelands | Smaller platform which flew faster and collected more data in a shorter timeframe compared to the Matrice 300. The integrated lens limits testing objectives to quantifying damage to crops and pastures with high contrast. |
| Mavic 3 with integrated thermal sensor | Collect thermal and optical imagery for detection and population analysis of feral hogs | Smaller platform which flew faster and collected more data in a shorter timeframe compared to the Matrice 300. The integrated lens limits testing objectives to detecting structural damage to crops and live animals. |
| Parrot ANAFI USA with integrated thermal sensor | Collect thermal and optical imagery for detection and population analysis of feral hogs with a USA-made (non-foreign) UAS platform (approved for use on federal lands) | Though comparable in size to the Mavic 3, we had difficulty adapting its functionality to research uses, such as enabling thermal recordings. Automated flight plans enabled by DJI platforms were better suited for uniform and repeated data collection at estimating feral hog numbers when compared with manual flight plans with Parrot ANAFI USA. Software incompatibilities were also an issue and have yet to be resolved. No assistance or service was provided from the manufacturer despite repeated attempts. Therefore, this model is not recommended for collecting data about feral hogs. |

APPENDIX B: FIGURES

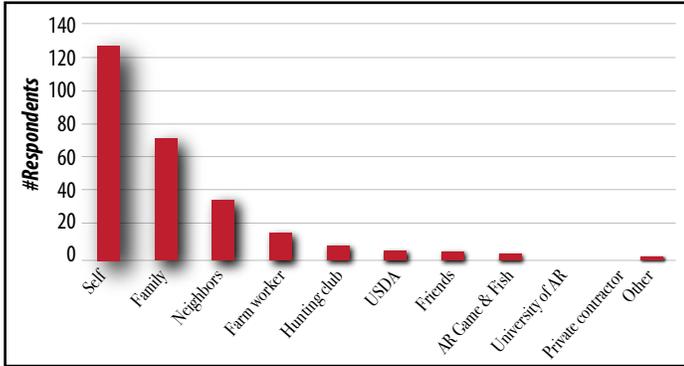


Figure B1. Landowners (n=157) reporting who conducted feral hog removals on their property the year before they received trapping services in pilot project areas.

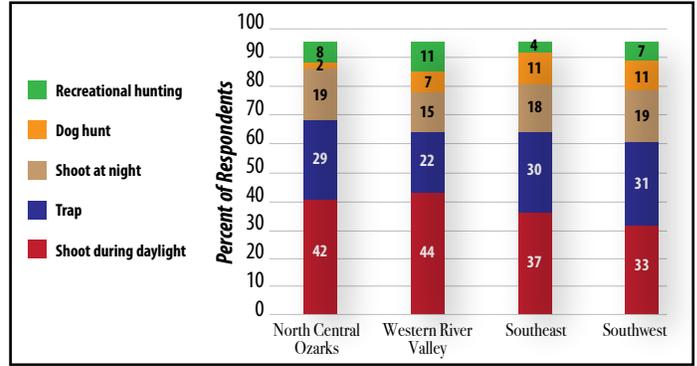


Figure B2. Landowners (n=157) reporting types of feral hog removal activities on their property the year before receiving trapping services in the pilot project areas.

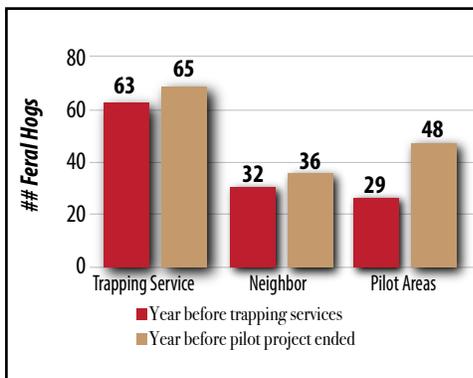


Figure B3. Average number of feral hogs seen the year before and after trapping services were provided by respondents who received trapping services (n=227, 197), those on neighboring properties (n=170, 252), and landowners in the pilot project area (n=176, 234).

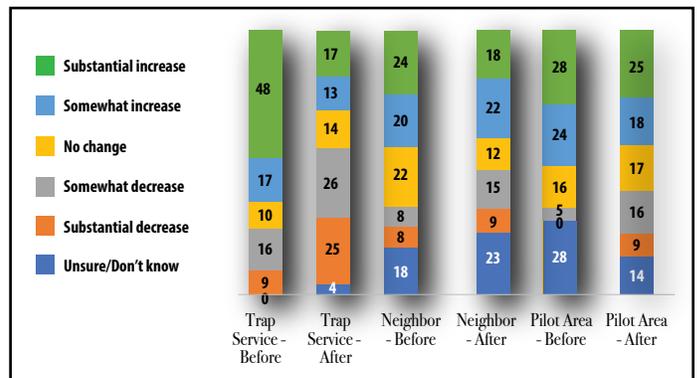


Figure B4. Percent reporting a substantial or somewhat increase, decrease, or no change in the feral hog population three years prior to the survey by respondents who received trapping services (n=227, 194), those on neighboring properties (n=165, 244), and in pilot project area (n=173, 228).

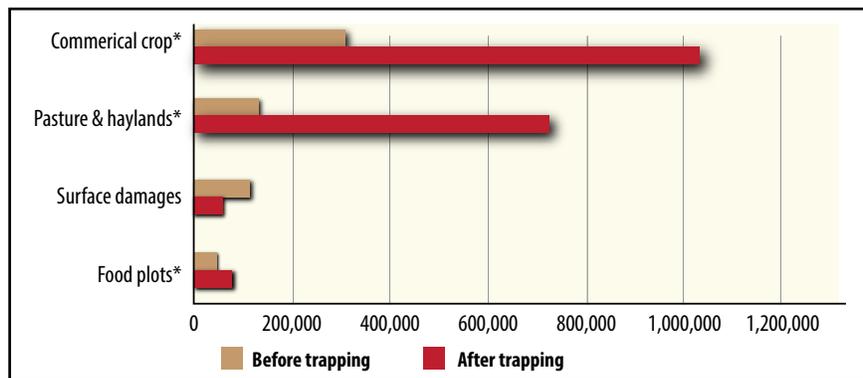


Figure B5. Dollar amount (USA) in feral hog damages as reported by those receiving trapping services by surface damages (n=140, 125) and paired responses before and after trapping by respondents with commercial crops (n=16), pasture and haylands (n=37), and food plots (n=64).

FIGURES CONTINUED

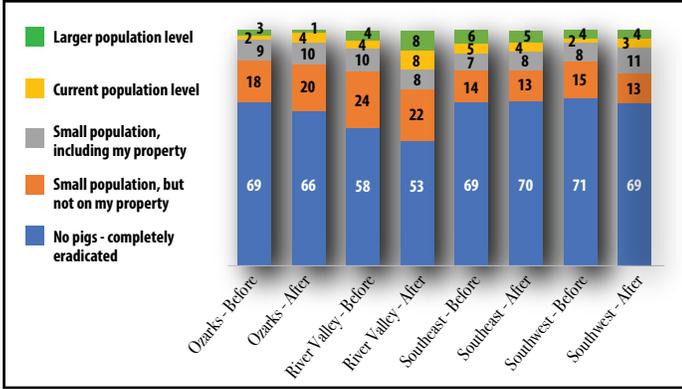


Figure B6. Percent of landowners indicating a particular preference for the feral hog population in Arkansas by respondents who received trapping services (n=227, 194), those on neighboring properties (n=165, 244), and in pilot project area (n=173, 228).

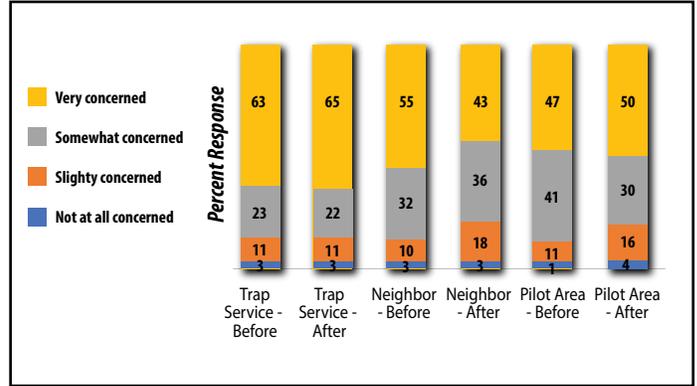


Figure B7. Percent of landowners concerned about the costs to Arkansas' economy caused by feral hogs by respondents who received trapping services (n=227, 194), those on neighboring properties (n=165, 244), and in pilot project area (n=173, 228).

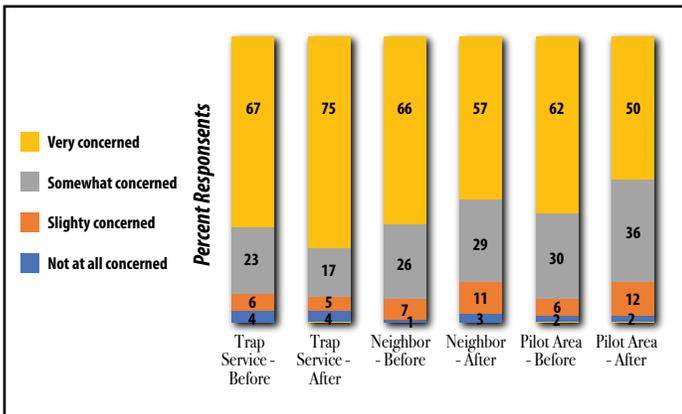


Figure B8. Percent of landowners concerned about damages to Arkansas streams, wildlife and woodlands caused by feral hogs by respondents who received trapping services (n=227, 194), those on neighboring properties (n=165, 244), and in pilot project area (n=173, 228).

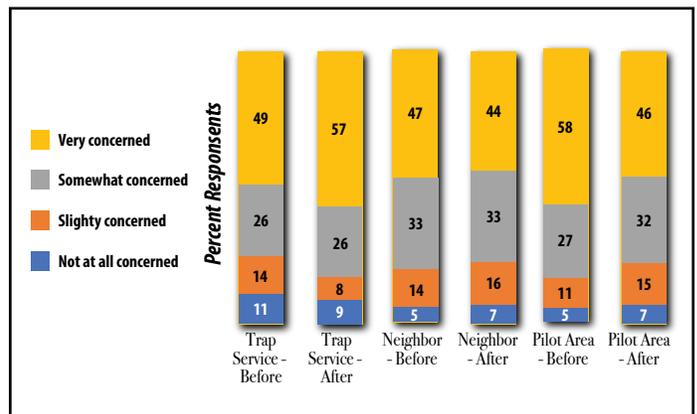


Figure B9. Percent of landowners concerned about risks to livestock, people and pets caused by feral hogs by respondents who received trapping services (n=227, 194), those on neighboring properties (n=165, 244), and in pilot project area (n=173, 228).

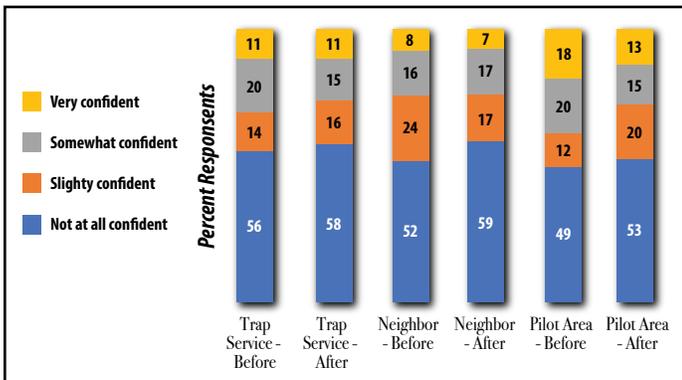


Figure B10. Thinking about your land, how confident are you that you can protect your land from the risks from feral hogs? by respondents who received trapping services (n=227, 194), those on neighboring properties (n=165, 244), and in pilot project area (n=173, 228).

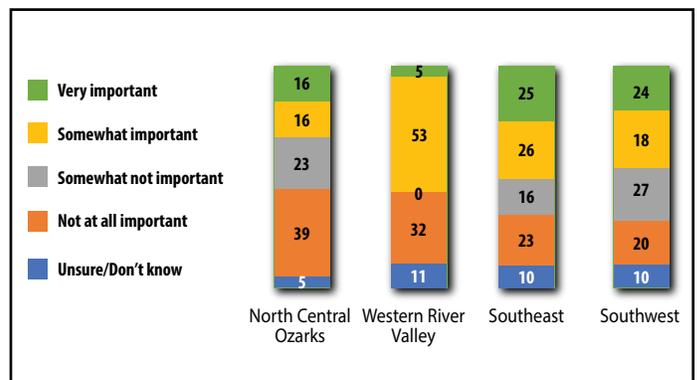


Figure B11. Percent of landowners who received trapping services indicating the importance of the cost-share payment to participating in the Conservation District feral hog program in the second interview.

APPENDIX C

FIRST TELEPHONE INTERVIEW

Hello, I'm _____ from the University of Arkansas. May I speak to: _____?

I'm calling to get information about feral hogs on your property as part of the Conservation District's feral hog trapping program. This interview may take about 30 minutes, depending on how much damage you have experienced from feral hogs.

1. Is now a good time to talk about feral hog activities on your property?

_____ YES - Ok, great, let's get started.

_____ NO - When would be a good time for me to call back?

2. First, I need to verify: Are you currently receiving assistance from a feral hog trapping technician through your Conservation District to remove feral hogs from your property? (If waffling, then may mention the trapper's name; or remember signing the release agreement)

_____ YES - The information we collect will be reported to federal funders, state legislators, researchers, and anyone from the general public who is interested in this pilot program. Be assured your responses will be confidential. Your responses will be grouped with other responses and therefore your responses will not be associated with your name. To qualify for an optional cost-share PAYMENT of \$150, we will inform the Conservation District that you have participated in this interview; but we will not provide your specific interview responses to them. Those are confidential and will be grouped with other responses when reported. Your participation in this interview is completely voluntary. You can decline to answer any question, or you can stop the interview at any time, and still qualify for the cost-share payment. However, we do request your full participation, so that we can accurately convey outcomes to those who will be making future decisions about whether or not to continue this pilot program. Are you ready to continue?

_____ NO - I'm sorry, there must have been a mistake with my contact information. Is it possible that someone else in your household has been working with a Conservation District trapper? (If no -) Thanks for your time.

First, we would like to understand how many feral hogs you had on your property, BEFORE you received trapping services.

3. Approximately how many feral hogs have you or others actually SEEN on this property in the YEAR BEFORE receiving trapping services from the Conservation District? This can include hogs seen on a trail camera or in person, such as during daylight hours.

3a. Have you or others attempted to control feral hogs on this property the YEAR BEFORE receiving trapping assistance?

_____ NO - Skip to #4 _____ YES

3b. Did you conduct control efforts yourself or with assistance from others, such as family, neighbors, state or federal agencies, or another trapping service? [If yes, who conducted control efforts?] _____ self _____ family _____ neighbors _____ farm workers or other hired labor _____ Arkansas Game and Fish Commission _____ USDA APHIS Wildlife Services _____ University of Arkansas _____ Arkansas Farm Bureau _____ private feral hog trapper/contractor _____ Other (specify):

- 3c. Approximately how many feral hogs have you or others killed on this property the YEAR BEFORE receiving trapping services? _____ number of feral hogs (If none, put 0 in the blank.) _____ I cannot recall
- 3d. During the year before receiving trapping services on this property, did you or others:
- hunt hogs for recreation and enjoyment?
 - hunt feral hogs with dogs?
 - put out hog traps?
 - shoot hogs during daylight hours?
 - shoot hogs at night?
 - harass hogs, such as with noise?
 - use repellents, such as scents or pepper spray?
 - put up fences?
- 3e. Next I'll be asking about how much money you spent in the past year for equipment and supplies to CONTROL or REMOVE feral hogs? About how much was spent on:
- trail cameras, batteries, SD cards
 - bait, feeders, other dispensers
 - firearms, including ammunition or scopes, specifically for removing feral hogs
 - purchase/maintain trap systems (include monthly cell service charges)
 - purchase/maintain fencing, repellents, or frightening devices
 - hired a professional
 - other (please describe)
- 3f. About how many HOURS of unpaid time was spent by you or others, such as family or neighbors, to CONTROL or REMOVE feral hogs on this property in the past year?
4. Did you raise any commercial crops on this property the season before trapping services began? [Clarification – by commercial crops, we mean crops that produce, or is intended to produce, income for your farming operation, as opposed to a hobby which may provide fresh food, but no income, for your family and friends.] _____NO – skip to #6 _____YES
- Which commercial crops did you raise?
 - How many acres did you plant last year?
 - Was this crop damaged by feral hogs? YES/NO (Skip to #5)
 - How many acres were a PARTIAL LOSS and how many were a COMPLETE LOSS because of feral hogs?
 - What was the dollar value per acre in yields for this crop?
 - How many acres did you replant after this loss from feral hogs? (# acres) If 0, SKIP to 4i
 - What was your TOTAL cost of replanting, including seed, fuel, hired labor, etc. \$/0/DK
 - How many dollars did you spend to restore or repair damage caused by feral hogs, including fuel, materials and labor? [If they had replanting expenses, ask – “Please ignore your replanting expenses which we just talked about.”]
 - About how many hours of unpaid time was spent by you or others, such as family or neighbors, to restore or repair damage caused by feral hogs?
 - About how much money do you guess you would have lost in income from commercial crops this past year if feral hogs had remained on your property?
5. These next couple questions are about changes made to your commercial crop operation because of feral hog damage at any time in the past.
- Specifically, are there any crops you use to plant, but no longer, because of feral hogs? _____NO – skip to #6 _____YES
 - What was the original crop?
 - How many acres were converted?
 - What is the new crop or crops?
 - In what year did you convert or switch to the new crop [or crops]?

- 5f. About how many dollars did it cost for equipment, supplies, or additional labor when you converted to the new crop, such as for purchasing new implements or replacement seed? \$__
6. Did you own livestock, hunting dogs, or any other working animals, not including pets, before trapping services began? ____NO – skip to #7 ____YES
- 6a. Have you experienced any LOSSES or INJURIES to livestock or other animals because of feral hogs in the year before trapping services were provided? __NO –skip to #7 __YES
- 6b. What types of livestock or other animals have been affected?
- 6c. How many were affected by feral hogs?
- 6d. What was the value per head before they were injured or lost?
- 6e. How many were a producing female? (IF none, 0 & skip to 6g)
- 6f. About how many additional offspring do you estimate could have been produced? #
- 6g. How many dollars did you spend replacing livestock or other animals? \$/0/DK
- 6h. What was the total cost for treating injuries, including vaccinations, vet costs, or other treatments? \$/0/DK
- 6i. About how many hours of unpaid time was spent by you or others, such as family or neighbors, to take care of or replace livestock or other animals, because of feral hogs? ____
- 6j. About how much money do you guess you would have lost from livestock or other animals if feral hogs had remained on your property? \$_____
7. Were there trees, woodlands, or forests on your property before trapping services began? ____NO – Skip to #8 ____YES
- 7a. Did feral hogs damage your trees in the year before trapping services were provided?
____NO – Skip to #7f ____YES
- 7b. Do you or your heirs intend to harvest timber FOR PROFIT sometime?
____NO – Skip to #7f ____YES
- 7c. About how many acres of pine, if any, were damaged?
- 7d. About how many acres of hardwoods, like oaks and sweet gum, were damaged, if any?
- 7e. Would it be okay if we contact you later with a list of forestry consultants in your area, one of which you can select to contact about doing a damage estimate for this survey? ___ Yes ___ No, don't want one. ____ No, already have one – Can we contact your forestry consultant for a damage estimate? What is his or her name? ____
- 7f. Did feral hogs damage your tree seedlings in the past year? __NO – skip to #8 __YES
- 7g. What species were the tree seedlings?
- 7h. Were these bare root or containerized seedlings?
- 7i. How old were the tree seedlings when they were damaged? months/years
- 7j. How many acres were a partial loss and how many were a complete loss?
- 7k. How many acres did you replant after this loss, if any?
- 7l. What species of tree seedlings did you replant?
- 7m. Were the tree seedlings bare root or containerized?
- 7n. What was your TOTAL cost of replanting, including contract time, fuel, seed, etc.
- 7o. We will ask a little later about costs for repairs to roads and other surface damage associated with feral hogs. Besides roads, how many dollars have feral hogs cost you for repairing or replacing structures or equipment, such as replacing tree seedling containers, field leveling, etc.?
- 7p. About how many hours of unpaid time was spent by you or others, such as family or neighbors, to restore or repair damage caused by feral hogs to your trees?
- 7r. About how much money do you guess you would have lost in income from timber in the past year if feral hogs had remained on your property?

8. Were there food plots on this property before trapping services began? To clarify, food plots are small areas of annual or perennial grasses, forbs, shrubs, or trees (such as persimmon or crabapple) designed to attract deer, turkey doves, waterfowl, or other wildlife species. ____NO – Skip to #9 ____YES
- 8a. Have feral hogs damaged your food plots in the year before trapping services were provided? ____NO – Skip to #9 ____YES
- 8b. What specific seeds, seed mixtures, or plants were damaged?
- 8c. About how much did you or others spend?
- 8d. About how many acres did you or others plant?
- 8dd. How many acres were a partial loss and how many were a complete loss?
- 8e. How many acres did you replant because of feral hog damage, if any? (Skip 8f if 0)
- 8f. What was your TOTAL cost for replanting, including fuel, seed, tractor rental, etc. for your damaged plot?
- 8g. About how many hours of unpaid time was spent by you or others to restore or repair damage caused by feral hogs?
- 8h. Do you lease this property to hunters or other recreational users?
- 8i. About how much INCOME, if any, have you lost in the past year before receiving trapping services as a result of feral hog damage to food plots or other rental activities?
- 8j. About how much money do you guess you would have LOST in damage or income from food plots in the past year if feral hogs had remained on your property?
9. Did feral hogs cause surface damage to your ground before trapping services began? For example, by rooting or wallowing up roads, pastures, streambanks, or levees? ____YES ____NO – Skip to # 1
- 9a. I have a list of categories. Let me know if any of these were damaged. Crops, non-commercial (e.g., cover crop, between row crop plantings); Dirt road or trail; Garden or flowerbed; Gravel or rock; Hay field (grass): type; Lawn or turf; Levee; Old field with native vegetation; Pasture: improved; Pasture: unimproved; Parking area for equipment or vehicles; Stream or pond bank; Forest or woodland; Wetland, marsh, or swamp; Other.
- 9b. How many acres were damaged?
- 9c. How many acres did you restore or repair, if any? # acres (If 0, skip to 9e)
- 9d. What was your cost in dollars, including replanting, seed cost, fuel, hired labor, etc.?
- 9e. About how many hours of unpaid time was spent by you or others, such as family or neighbors, to restore or repair damage caused by feral hogs?
- 9f. About how much money do you guess you would have lost in surface or ground damage in the past year if feral hogs had remained on your property?
10. Did feral hogs damage your equipment or supplies, such as fencing, tractor damage from running through rough fields or breaking an implement, livestock or deer feeders, or any other damage to equipment, before trapping services began? ____NO – Skip to # 11 ____YES
- 10a. What property was damaged by feral hogs? Fencing; Tractor damage; Implement damage; Trough; Deer feeder; Other:
- 10b. How many dollars did you spend on repairing or replacing _____?
- 10c. Were there any additional expenses, such as hiring extra labor, or loss of income associated with this damage? (If 0, skip to 10d)
- 10d&e. What type of additional expense and how much did it cost? Rental; Hire extra labor; Loss of income; Other:
- 10d. About how many hours of unpaid time was spent by you or others, such as family or neighbors, to restore or repair property damage caused by feral hogs?
- 10e. About how much money do you guess you would have lost in equipment or supplies in the past year if feral hogs had remained on your property?

11. Did you store any commodities for use on your own property or others property, that were damaged by feral hogs before trapping services began? These commodities could include livestock or wildlife feed and minerals, hay bales, stored post-harvest crops, or even seed that was stored for crop planting. ____NO – Skip to #12 ____YES
- 11a. What type of commodity was damaged? Livestock/wildlife feed; Livestock/wildlife mineral; Hay bales; Stored post-harvest crops; Stored seed; Other:
- 11b. How much was lost?
Indicate: # bushels or # tons or # bales of hay - and of what size? _____ what approximate weight? _____
- 11c. What was the dollar value of these damaged goods? \$/0/DK
- 11e. How much did it cost to replace these damaged goods? \$/0/DK
- 11f. Was this self-produced for self-use, such as using hay you harvested for feeding your own cattle?
- 11g. About how many hours of unpaid time was spent by you or others, such as family or neighbors, to restore or repair damage caused by feral hogs?
- 11h. About how much money do you guess you would have lost in stored commodities in the past year if feral hogs had remained on your property?
12. Thanks for sticking with me, we are almost done. The next couple questions are about your opinions about feral hogs.
- 12a. In your view, how has the feral hog population changed, if at all, over the past 3 years in your county? Would you say Substantially decreased; Somewhat decreased; No change; Somewhat increased; Substantially increased; Unsure; Don't know/refuse.
- 12b. In your view, what is the ideal feral hog population in Arkansas? Would you say No pigs, or completely eradicated; Small population, but not on my property; Small population, including my property; Current population level in the state; Larger population than presently exists in the state; Don't know/refuse.
- 12c. How concerned are you about the costs to Arkansas' economy caused by feral hogs? Would you say very concerned; somewhat concerned; slightly concerned; not at all concerned; don't know.
- 12d. How concerned are you about damage to Arkansas streams, wildlife or woodlands caused by feral hogs? Would you say very concerned; somewhat concerned; slightly concerned; not at all concerned; don't know.
- 12e. How concerned are you about the risks to livestock, people, and pets caused by feral hogs? Would you say very concerned; somewhat concerned; slightly concerned; not at all concerned; don't know.
- 12f. Would you view the presence of feral hogs on your land as positive, negative, or both positive and negative? Would you say positive, negative, both positive and negative, don't know.
- 12g. Thinking about your land, how confident are you that you can protect your land from the risks from feral hogs? Would you say very confident; somewhat confident; slightly confident; not at all confident; don't know.
- 13a. Finally, in order to compare your responses to other landowners in the area, how many total acres do you OWN in the county where you are receiving trapping services?
- 13b. How many total acres do you LEASE in the county where you are receiving trapping services?
14. Thank you for your time today. We anticipate calling you back in another year or two to follow up on feral hog damage. Do you have any comments you wish to add?
15. If you would like phone numbers for the survey or compliance coordinator, I would be happy to provide that to you. Or if you don't have a pencil and paper handy, ask your Conservation District trapper, and they can provide the contact information.
- If you have questions or concerns about this survey, or confidentiality of responses, call Dr. Becky McPeake, University of Arkansas, 501-671-2285.
 - If you have questions or concerns about your rights as a research participant, please contact Ro Windwalker, the University's IRB Compliance Coordinator, at 479-575-2208 or irb@uark.edu.

IF ASK ABOUT RESULTS: Findings from this research will be reported to federal funders, state legislators, researchers, and others. We plan to send a postcard with a link to the website once results are posted, and information about where you can receive a printed report.

ASK ABOUT PAYMENT: We will be turning in your name to the feral hog coordinator for participating in this survey before the end of the month. Contact your Conservation District for additional details.

THANK YOU AGAIN FOR YOUR TIME!

APPENDIX D

SECOND TELEPHONE INTERVIEW

Hello, I'm [interviewer name] from the University of Arkansas. May I speak to: [name of landowner participant]? This is a follow-up call about feral hogs and the trapping services you received. We contacted you initially for information about feral hog damage before Conservation District technicians began trapping on your property. Now we are following up to learn more about feral hog damage after you received trapping services.

Like the previous interview, this may take 10 minutes to half an hour depending on the types of property you own and your reported damage by feral hogs.

1(1). Is now a good time to talk about feral hogs and trapping? _____YES - Ok, great. _____NO – 2(x). When would be a good time for me to call back?

Your participation in this interview is completely voluntary. You can decline to answer any question, or stop the interview at any time, and still qualify for the optional \$150 cost-share payment. We will alert the Arkansas Department of Agriculture of your participation, but your responses will be stored with a code rather than your name. We request your full participation if possible so that we can accurately convey outcomes to those who will be deciding whether or not to continue this pilot program.

Your responses will be grouped and analyzed with other landowners and reported to federal funders, state legislators, researchers, and the general public. All information collected will be kept confidential to the extent allowed by law and University policy. If you have any questions or concerns, the Principal Investigator of this project is Dr. Rebecca McPeake who can be reached at 501-671-2285 or rmcpeake@uada.edu. If you have questions or concerns about your rights as a research participant, please contact Ro Windwalker, the University's IRB Coordinator, at 479-575-2208 or irb@uark.edu.

First, we would like to talk about the Conservation District feral hog program which provided trapping services.

3(x). About what month and year did the Conservation District technician first visit your property?

3a(3). From the time you first received services from the Conservation District until today, about how many feral hogs have you or others seen on your property? This can include hogs seen on a trail camera, and those reported to you by the Conservation District technician.

3b(x). At any point did the technician set a trap on your property?

3c(x). How many feral hogs were trapped by the Conservation District technician, if any?

3d(x). Did the Conservation District technician find someone to dispatch the trapped hogs, or did you handle it? Technician found someone; Respondent handled it; Don't know

3e(x). What happened to the hog carcasses? Were they: (check all that apply) left on the ground near where they were trapped; moved a distance away from the trap and left on the ground; buried; composted; butchered and consumed ("put in the freezer"); given to others for consumption; Other.

- 3f(x). Did any hogs escape trapping to your knowledge?
- 3ff. About how many?
- 3g(x). On a scale of 1 to 10, how successful was the trapping service at removing feral hogs from your property? A score of 1 is very unsuccessful and a score of 10 is very successful at removing hogs from your property.
- 3h(x). On a scale of 1 to 10, how successful was the trapping service at reducing damage by feral hogs on your property? A score of 1 is very unsuccessful and a score of 10 is very successful at reducing damage on your property.
- 3i(x). On a scale of 1 to 10, how important was having this trapping service available to you for controlling feral hogs on your property? A score of 1 means that the availability of the trapping service was very unimportant and a score of 10 means it was very important for controlling feral hogs on your property.
- 3j(x). Were any other feral hogs removed from your property, not counting those removed by Conservation District technicians?
- 3k(3jj). About how many additional feral hogs were removed?
- 3l(x). At any time, have you received trapping services from agencies or businesses other than the Conservation District?
- 3ll. How did the Conservation District compare? Would you say that the Conservation District feral hog program was: better than others; the same as others; worse than others,
- 3m(x). Have you received your \$150 cost-share payment for participating in the first interview?
- 3n(x). How important is this cost-share payment to your participation in the Conservation District feral hog program? Would you say that this payment is: Very important; Somewhat important; Somewhat unimportant; Very unimportant; Don't know/unsure

You may recognize these next series of questions about feral hog damage. They are similar to those we asked before.

- 4(6). Do you own livestock, hunting dogs, or any other working animals, not including pets, since receiving trapping services?
 NO – skip to #5; YES – list livestock type
 - 4a(6a). Have you experienced any LOSSES or INJURIES to livestock or other animals because of feral hogs since receiving trapping services? NO –skip to #4m; YES
 - 4b(6b). What types of livestock or other animals have been affected?
 - 4c(6c). How many were affected by feral hogs?
 - 4d(6d.) What was the value per head before they were injured or lost?
 - 4e(6e). How many were a producing female?
 - 4f(6f). About how many additional offspring do you estimate could have been produced?
 - 4g(6g). How many dollars did you spend replacing livestock or other animals?
 - 4h(6h). What was the total cost for treating injuries, including vaccinations, vet costs, or other treatments?
 - 4j(xx). How many dollars did you spend to restore or repair damage caused by feral hogs, including fuel, materials and labor since receiving trapping services.
 - 4k(6j). About how many hours of unpaid time was spent by you or others, such as family or neighbors, to take care of or replace livestock or other animals, because of feral hogs since receiving trapping services?
 - 4l(6j.) About how much money do you guess you would have lost in income from livestock or other animals if feral hogs had remained on your property since receiving trapping services?
 - 4m(x). Have you raised a hay crop or other crop harvested for your livestock since receiving trapping services? NO YES
 [Report under 5a, Commercial Crop Damage (as opposed to surface damage)]
 - 4n(x). Did your livestock graze on any wheat since receiving trapping services? NO YES [Report under 5a, Commercial Crop Damage (as opposed to surface damage)]
- 5(4). Did you raise any commercial crops on this property since receiving trapping services? Crops may include row crops and hay or seed. [Clarification – by commercial crops, we mean crops that produce, or is intended to produce, income for your farming operation, as opposed to a hobby which may provide fresh food, but no income, for your family and friends.]

- 5a(4a). Which commercial crops did you raise? List crop types.
- 5b(4b). How many acres did you plant (# acres)
- 5c(x). Was the crop irrigated?
- 5d(4d). Was this crop damaged by feral hogs?
- 5e(4e). How many acres were a PARTIAL LOSS and how many were a COMPLETE LOSS because of feral hogs?
- 5f(4f). What was the dollar value per acre in yields for this crop?
- 5g(4g). How many acres did you replant after this loss from feral hogs? (# acres)
- 5h(4h). What was your TOTAL cost of replanting, including seed, fuel, hired labor, etc.
- 5i(4i). How many dollars did you spend to restore or repair damage caused by feral hogs, including fuel, materials and labor since receiving trapping services? [If they had replanting expenses, ask – “Please ignore your replanting expenses which we just talked about.”]
- 5j(4j). About how many hours of unpaid time was spent by you or others, such as family or neighbors, to restore or repair damage caused by feral hogs since receiving trapping services?
- 5k(4k). About how much money do you guess you would have lost in income from commercial crops if feral hogs had remained on your property since receiving trapping services?

6.(5) These next couple questions are about changes made to your commercial crop operation because of feral hogs since receiving trapping services.

- 6a(5a.) Are there any crops you use to plant, but no longer, because of feral hogs since receiving trapping services? ____NO – skip to #6f ____YES
- 6b(5b). What was the original crop?
- 6c(5c). How many acres were converted?
- 6d(5d). What is the new crop or crops?
- 6e(5e). In what year did you convert or switch to the new crop [or crops]?
- 6f(x). Are there any new crops you are planting since receiving trapping services?
- 6g(x). What was the original crop?
- 6h(x). How many acres were converted?
- 6i(x). What is the new crop or crops?
- 6j(x). In what year did you convert or switch to the new crop [or crops]?
- 6f(5f). About how many dollars did it cost for equipment, supplies, or additional labor when you converted to the new crop, such as for purchasing new implements or replacement seed since receiving trapping services?

7a(7). Were there trees, woodlands, or forests on your property BEFORE trapping services began? __ YES ____NO – 7aa(x).

Are there trees on your property SINCE receiving trapping services? ____YES ____NO – Skip to #8

- 7b(x). Were any of these trees planted? __NO – Skip to #7k __YES
- 7c(x). What species were planted?
- 7d(x). How many acres?
- 7e(x). How many trees per acre?
- 7f(x). What year were they planted?
- 7g(x). Did feral hogs damage any of these trees before trapping services began?
- 7h(x). About how many acres were damaged?
- 7i(x). About how many acres did you replant, if any?
- 7j(x). What was the total cost to replant these acres?
- 7k(7a). Have feral hogs damaged your trees since receiving trapping services? __NO – Skip to #8 ____YES
- 7l(7b). Were any of these trees planted? ____NO – Skip to #8 ____YES
- 7m(x). What tree species were damaged?

- 7n(x). About how many acres were damaged?
- 7o(7h). Were these bare root or containerized seedlings?
- 7p(7i). How old were the tree seedlings when they were damaged? months/years
- 7q(7j). How many acres were a partial loss and how many were a complete loss?
- 7r(7c, 7d) About how many acres did you replant, if any?
- 7s(x). What was the total cost to replant these acres, including contract time, fuel, seed, etc?
- 7t(7o). We will ask a little later about costs for repairs to roads and other surface damage associated with feral hogs. So besides roads, how many dollars have feral hogs cost you for repairing or replacing structures or equipment, such as replacing tree seedling containers, field leveling, etc., since receiving trapping services?
- 7u(7p). About how many hours of unpaid time was spent by you or others, such as family or neighbors, to restore or repair damage caused by feral hogs to your trees since receiving trapping services?
- 7v(7r). About how much money do you guess you would have lost in income from timber if feral hogs had remained on your property since receiving trapping services?
- 8(8). Were there food plots on this property since receiving trapping services? [To clarify, food plots are small areas of annual or perennial grasses, forbs, shrubs, or trees (such as persimmon or crabapple) designed to attract deer, turkey doves, waterfowl, or other wildlife species.] ___NO – Skip to #9; ___YES
- 8b(x). What specific seeds, seed mixtures or plants do you have?
- 8c(8d). How many acres did you plant?
- 8d(8c). About how much did you or others spend? \$/0/DK
- 8e(x). Did you irrigate or water your plots?
- 8f(8a). Was your food plot damaged by feral hogs?
- 8g(8dd). How many acres were a PARTIAL LOSS and how many were a COMPLETE LOSS because of feral hogs?
- 8h(8e). How many acres did you replant after this loss from feral hogs?
- 8i(8f). What was your TOTAL cost of replanting including seed, fuel, hired labor, etc.
- 8j(8g). About how many hours of unpaid time was spent by you or others to restore or repair damage caused by feral hogs since receiving trapping services?
- 8k(8h). Do you lease this property to hunters or other recreational users? ___NO–Skip to 8m(8j) ___YES
- 8l(8i). About how much INCOME, if any, have you lost as a result of feral hog damage to food plots, hunting leases, or other activities since trapping services began?
- 8m(8j). About how much money do you guess you would have LOST in food plot damage or rental income if feral hogs had remained on your property since receiving trapping services?
- 9(9). Did feral hogs cause surface damage to your ground since receiving trapping services? For example, by rooting or wallowing up roads, pastures, streambanks, or levees? ___YES ___NO – Skip to #10
- 9a(9a). I have a list of categories. Let me know if any of these were damaged. Crops, non-commercial (e.g., cover crop, between row crop plantings); Dirt road or trail; Garden or flowerbed; Gravel or rock; Hay field (grass): type; [only if not grazed or harvested] If wheat, go back to Commercial Crops 5a & report there]; Lawn or turf; Levee; Old field with native vegetation; Pasture: improved (used for grazing); Pasture: unimproved; Parking area for equipment or vehicles; Stream or pond bank; Forest or woodland; Wetland, marsh, or swamp; Other:
- 9b(9b). How much was damaged? Acres/ft/mi
- 9c(9c). How many acres/feet did you restore or repair, if any? (If 0, skip to 9e)
- 9d(9d). What was your cost in dollars, including replanting, seed cost, fuel, hired labor, etc.?
- 9e(9e). About how many hours of unpaid time was spent by you or others, such as family or neighbors, to restore or repair damage caused by feral hogs since receiving trapping services?

- 9f(9f). About how much money do you guess you would have lost in surface or ground damage if feral hogs had remained on your property since receiving trapping services?
- 10(10). Did feral hogs damage your equipment or supplies, such as fencing, tractor damage from running through rough fields or breaking an implement, livestock or deer feeders, or any other damage to equipment, since receiving trapping services?
 ___NO – Skip to #11; __YES
- 10a(10a). What property was damaged by feral hogs since receiving trapping services? Fencing; Tractor damage; Implement damage; Trough; Deer feeder; Other:
- 10b(x). What did it cost to buy?
- 10c(x). How old was it?
- 10d(10b). How many dollars did you spend on repairing or replacing ____?
- 10e(10c). Were there any additional expenses, such as hiring extra labor, or loss of income associated with this damage? (If 0, skip to 10d)
- 10f(10d&e). What type of additional expense and how much did it cost? Rental; Hire extra labor; Loss of income; Other:
- 10g(10d). About how many hours of unpaid time was spent by you or others, such as family or neighbors, to restore or repair property damage caused by feral hogs since receiving trapping services?
- 10h(10e). About how much money do you guess you would have lost in equipment or supplies if feral hogs had remained on your property since receiving trapping services?
- 11(11). Did you store any commodities for use on your own property or others property, that were damaged by feral hogs since receiving trapping services? These commodities could include livestock or wildlife feed and minerals, hay bales, stored post-harvest crops, or even seed that was stored for crop planting. ____NO – Skip to #12; __YES
- 11a(11a). What type of commodity was damaged since receiving trapping services? Livestock or wildlife feed; Livestock or wildlife mineral; Hay bales; Stored post-harvest crops; Stored seed; Other:
- 11b(11b). How much was lost?
- 11c(11c). What was the dollar value of these damaged goods?
- 11e(11e). How much did it cost to replace these damaged goods?
- 11f(11f). Was this self-produced for self-use, such as using hay you harvested for feeding your own cattle?
- 11g. About how many hours of unpaid time was spent by you or others, such as family or neighbors, to restore or repair damage caused by feral hogs since receiving trapping services?
- 11h. About how much money do you guess you would have lost in stored commodities if feral hogs had remained on your property since receiving trapping services?

We are almost done! Only a few questions left.

- 12.(x) Since receiving trapping services, would you say that damage caused by feral hogs have increased, decreased, or remained the same on your property?
- 12a(12a). In your view, how has the feral hog population changed, if at all, over the past 3 years in your county? Would you say Substantially decreased; Somewhat decreased; No change; Somewhat increased; Substantially increased; Unsure; Don't know/refuse
- 12b(12b). In your view, what is the ideal feral hog population in Arkansas? Would you say No pigs, or completely eradicated; Small population, but not on my property; Small population, including my property; Current population level in the state; Larger population than presently exists in the state; Don't know/refuse
- 12c(12c). How concerned are you about the costs to Arkansas' economy caused by feral hogs? Would you say very concerned; somewhat concerned; slightly concerned; not at all concerned; don't know.
- 12d(12d). How concerned are you about damage to Arkansas streams, wildlife or woodlands caused by feral hogs? Would you say very concerned; somewhat concerned; slightly concerned; not at all concerned; don't know.

- 12e(12e). How concerned are you about the risks to livestock, people, and pets caused by feral hogs? Would you say very concerned; somewhat concerned; slightly concerned; not at all concerned; don't know.
- 12f(12f). Would you view the presence of feral hogs on your land as positive, negative, or both positive and negative? Would you say positive; negative; both positive and negative; don't know.
- 12g(12g). Thinking about your land, how confident are you that you can protect your land from the risks from feral hogs? Would you say very confident; somewhat confident; slightly confident; not at all confident; don't know.

13a(13a). Finally, in order to compare your responses to other landowners in the area, how many total acres do you OWN in the county where you are receiving trapping services?

13b(13b). How many total acres do you LEASE in the county where you are receiving trapping services?

14(14). Thank you for your time today. Do you have any comments you wish to add? [Try writing comments word for word, use next page or back of pages if necessary]

15a(15). If you would like phone numbers for the survey or compliance coordinator, I would be happy to provide that to you.

Interviewer answer: was this information requested? _____No _____Yes

- If you have questions or concerns about this survey, or confidentiality of responses, call Dr. Becky McPeake, University of Arkansas, 501-671-2285.
- If you have questions or concerns about your rights as a research participant, please contact Ro Windwalker, the University's IRB Compliance Coordinator, at 479-575-2208 or irb@uark.edu.

Q&A

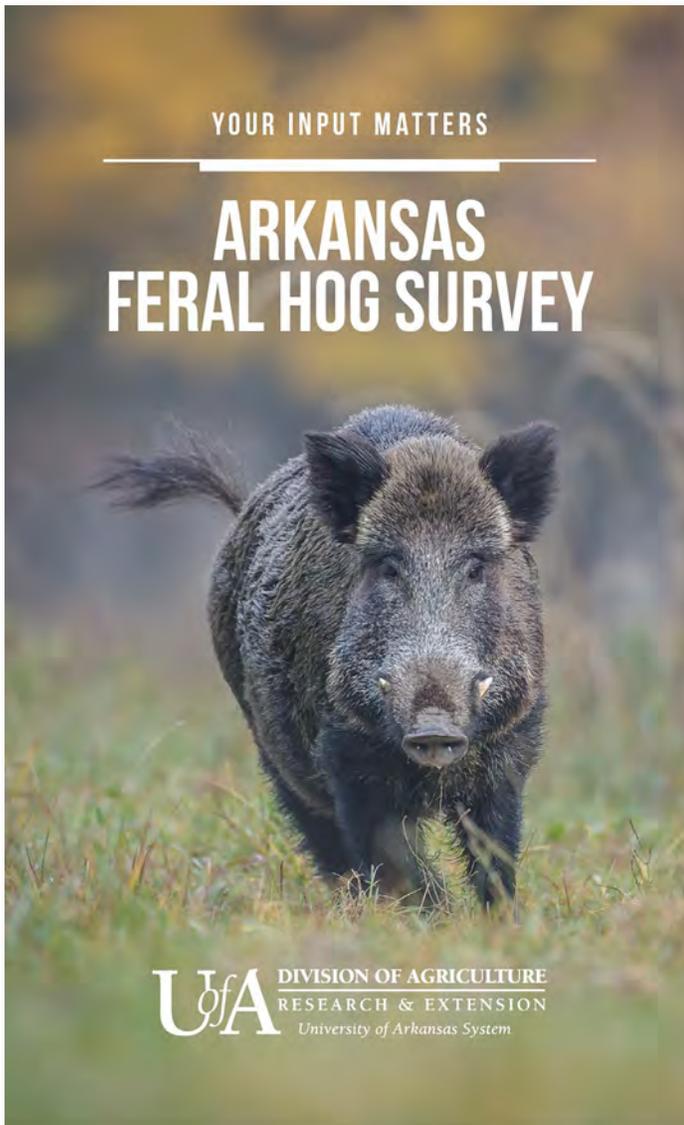
Check IF ASKED –

- _____QA1. RESULTS: Findings from this research will be reported to federal funders, state legislators, researchers, and others. We plan to send a postcard with a link to the website once results are posted, and information about where you can receive a printed report.
- _____QA2. COST SHARE PAYMENT: We will be turning in your name to the feral hog coordinator at the Arkansas Department of Agriculture confirming your participation in this survey. Contact your Conservation District for additional details about where your payment is in the process.
- _____QA3. TRAPPING SERVICES CONTINUATION: Currently these services are set to expire on October 1st of this year. It may be extended depending on whether federal funding will be renewed.
- _____QA4. WHO ELSE CAN I TALK TO ABOUT CONTINUING THE PROGRAM? This is part of the Farm Bill Program which is a federal program. Contact your U.S. Senator or U.S. House of Representatives from your district.
- _____QA5. OTHER QUESTIONS.
- _____Feral hog information. You can check out our website for more information. Search for University of Arkansas Feral Hog Control.
- _____That I don't know. I can leave a message with Dr. Becky McPeake to call you back [and see if we can find an answer.]

THANK YOU AGAIN FOR YOUR TIME!

APPENDIX E

MAIL SURVEY



The University of Arkansas is conducting a survey about feral hog activities in your area. Feral hogs are known by other names including feral swine, wild pigs, and wild boars.

- Your participation is completely voluntary and confidential.
- Your responses will be grouped with other responses, and therefore your answers will not be associated with your name.
- The information we collect will be reported to federal funders, state legislators, researchers, and others interested in feral hogs.
- A report will be available to the public. It will be posted at the University of Arkansas Cooperative Extension Service website at www.uaex.uada.edu.
- The survey may take about 10 to 15 minutes to complete.
- If you have questions or concerns about this survey, or confidentiality of responses, call Dr. Becky McPeake, University of Arkansas, at 501-671-2285.
- If you have questions or concerns about your rights as a research participant, please contact Ro Windwalker, the University's IRB Compliance Coordinator, at 479-575-2208 or irb@uark.edu.

DIRECTIONS: We would like the person with the most knowledge of any possible feral hog activity on your land to answer this survey. If that person is not you, please ask that person to answer this survey.

If preferred, this survey is available to take on-line at www.ArFeralHogSurvey.org. Please enter the 5-digit code on the back of this survey. This code is used to confidentially track responses and avoid sending additional reminders to your address about answering this survey.

MAIL SURVEY CONTINUED

1. Approximately how many acres of land do you (or someone at this address) own or lease in each of these counties? If none, leave blank or enter 0. (If you do not own or lease land in ANY of these counties, please indicate 0 in each blank, and return this survey. We appreciate your time.)

| HOW MANY ACRES | | |
|----------------|------|--------|
| COUNTY | OWN? | LEASE? |
| Sample County | 100 | 0 |
| Arkansas | | |
| Ashley | | |
| Baxter | | |
| Drew | | |
| Hempstead | | |
| Howard | | |
| Izard | | |
| Logan | | |
| Marian | | |
| Sebastian | | |
| Sevier | | |
| Yell | | |

2. In your view, how has the feral hog population changed (if at all) over the past three years in your county?

- SUBSTANTIALLY DECREASED
- SOMEWHAT DECREASED
- NO CHANGE
- SOMEWHAT INCREASED
- SUBSTANTIALLY INCREASED
- UNSURE

3. In your view, what is the ideal feral hog population in Arkansas?

- NO PIGS (COMPLETELY ERADICATED)
- SMALL POPULATION, BUT NOT ON MY PROPERTY
- SMALL POPULATION, INCLUDING MY PROPERTY
- CURRENT POPULATION LEVEL IN ARKANSAS (NO CHANGE)
- LARGER POPULATION THAN PRESENTLY EXISTS IN ARKANSAS

4. How concerned are you about the costs to Arkansas' economy caused by feral hogs?

- VERY CONCERNED
- SOMEWHAT CONCERNED
- SLIGHTLY CONCERNED
- NOT AT ALL CONCERNED
- DON'T KNOW

MAIL SURVEY CONTINUED

5. How concerned are you about damages to Arkansas streams, wildlife or woodlands caused by feral hogs?

- VERY CONCERNED
- SOMEWHAT CONCERNED
- SLIGHTLY CONCERNED
- NOT AT ALL CONCERNED
- DON'T KNOW

6. How concerned are you about the risks to livestock, people, and pets caused by feral hogs?

- VERY CONCERNED
- SOMEWHAT CONCERNED
- SLIGHTLY CONCERNED
- NOT AT ALL CONCERNED
- DON'T KNOW

7. Would you view the presence of feral hogs on your land as positive, negative, or both positive and negative?

- POSITIVE
- NEGATIVE
- BOTH POSITIVE AND NEGATIVE
- DON'T KNOW

8. Thinking about your land, how confident are you that you can protect your land from the risks from feral hogs?

- VERY CONFIDENT
- SOMEWHAT CONFIDENT
- SLIGHTLY CONFIDENT
- NOT AT ALL CONFIDENT
- DON'T KNOW

Now we have a few questions about feral hog activity on your land.

9. Thinking about the land you own or lease, have there EVER been feral hogs or SIGNS of feral hog activity on your land?

- YES
- NO (Skip to Question 13.)
- CANNOT RECALL (Skip to Question 13.)

10. Approximately how many feral hogs have you or others actually seen OVER THE PAST YEAR on your property? (This can include hogs seen on a trail camera or in person, such as during daylight hours.)

- NUMBER OF FERAL HOGS (If none, put 0 in the blank.)
- CANNOT RECALL



MAIL SURVEY CONTINUED

11. OVER THE PAST YEAR on your property, did you or others:

- a. hunt hogs for recreation and enjoyment?
____ YES ____ NO ____ CANNOT RECALL
- b. hunt feral hogs with dogs?
____ YES ____ NO ____ CANNOT RECALL
- c. put out hog traps?
____ YES ____ NO ____ CANNOT RECALL
- d. shoot hogs during daylight hours?
____ YES ____ NO ____ CANNOT RECALL
- e. shoot hogs at night?
____ YES ____ NO ____ CANNOT RECALL
- f. harass hogs, such as with noise?
____ YES ____ NO ____ CANNOT RECALL
- g. use repellents, such as scents or pepper spray?
____ YES ____ NO ____ CANNOT RECALL
- h. put up fences?
____ YES ____ NO ____ CANNOT RECALL

12. Approximately how many feral hogs have you or others killed over the past year on your property?
____ NUMBER OF FERAL HOGS (If none, put 0 in the blank.)
____ CANNOT RECALL

13. Approximately how much money have you spent in the past year on equipment and supplies to CONTROL or REMOVE feral hogs from your property? (If none, put 0 in each blank.)

- a. trail cameras, batteries, SD cards \$ _____
- b. bait, feeders, other dispensers \$ _____
- c. purchase/maintain firearms (include ammunition or scopes) \$ _____
- d. purchase/maintain trap systems (include monthly cell service charges) \$ _____
- e. purchase/maintain fencing, repellents, or frightening devices \$ _____
- f. hired a professional \$ _____
- g. other (please describe): _____
\$ _____



14. About how many HOURS of unpaid time was spent by you or others (such as family or neighbors) to CONTROL or REMOVE feral hogs on this property in the past year?
_____ HOURS
(If none, put 0 in the blank.)

MAIL SURVEY CONTINUED

The next several questions are about the type of land you own or lease, and feral hog activity on these lands.

15. Is any portion of the lands that you own or lease PASTURE lands? This includes land used for livestock grazing, hay production, or grassland managed for other purposes.

___ NO (Skip to Question 16.)

___ YES

- a. How many acres do you own or lease in which is in PASTURE land? _____ ACRES
- b. Approximately how many acres of your PASTURE land have had ANY FERAL HOG ACTIVITY over the past year? _____ ACRES (If you have had no feral hog activity, enter 0 and skip to Question 16.)
- c. How much actual money have you SPENT on REPAIRS as a result of hog damages in the past year? For example: replanting, damages to equipment, hiring labor?
\$ _____
- d. How much money would you estimate was LOST due to hog damages over the past year? For example: loss of INCOME from selling hay, livestock depredation, additional tractor time & fuel, decreased land VALUE, erosion or other losses? \$ _____
- e. About how many HOURS of unpaid time was spent by you or others (such as family or neighbors) on fixing PASTURE damages caused by feral hogs in the past year? _____ HOURS

16. Is any portion of the lands that you own or lease in FOREST, TIMBER, or WOODLANDS? This includes any land that is covered mainly with trees.

___ NO (Skip to Question 17.)

___ YES

- a. How many acres do you own or lease which is in FOREST, TIMBER, or WOODLANDS?
_____ ACRES
- b. Approximately how many acres of your FOREST, TIMBER, or WOODLANDS have had ANY FERAL HOG ACTIVITY over the past year?
_____ ACRES (If you have had no feral hog activity, enter 0 and skip to Question 17.)
- c. How much actual money have you SPENT on REPAIRS as a result of hog damages in the past year? For example: replanting or damages to equipment?
\$ _____
- d. How much money would you estimate was LOST due to hog damages over the past year? For example: loss of income from reduced production, additional tractor time & fuel, decreased land value, erosion or other losses? \$ _____
- e. About how many HOURS of unpaid time was spent by you or others (such as family or neighbors) on fixing FOREST, TIMBER OR WOODLAND damages caused by feral hogs in the past year?
_____ HOURS



MAIL SURVEY CONTINUED

17. Is any portion of the lands that you own or lease in a commercial CROP from which you earn income? This includes land used for growing row crops, fruit or vegetable crops, orchards, or any other commercial crop in which you make money. It does NOT include gardens for personal use.



___ NO (Skip to Question 18.)
___ YES

- a. How many acres do you own or lease which is in CROPLAND? _____ ACRES
- b. Approximately how many acres of your CROPLAND have had ANY FERAL HOG ACTIVITY over the past year? _____ ACRES (If you have had no feral hog activity, enter 0 and skip to Question 18.)
- c. How much actual money have you SPENT on REPAIRS as a result of hog damages in the past year? For example: replanting or damages to equipment? \$ _____
- d. How much money would you estimate was LOST due to hog damages over the past year? For example: loss of income from reduced crop yield, additional tractor time & fuel, decreased land value, erosion or other losses? \$ _____
- e. About how many HOURS of unpaid time was spent by you or others (such as family or neighbors) on fixing CROP damages caused by feral hogs in the past year? _____ HOURS

ARKANSAS FERAL HOG SURVEY | 11

18. Is any portion of your lands that you own or lease a WETLAND, also called a SWAMP or MARSH? A wetland, swamp, or marsh is a type of land which holds water either part or most of the year. (Feral hogs tend to be attracted to these types of wet areas.)

___ NO (Skip to Question 19.)
___ YES

- a. How many acres do you own or lease in which is in WETLAND? _____ ACRES
- b. Approximately how many acres of your WETLAND have had ANY FERAL HOG ACTIVITY over the past year? _____ ACRES (If you have had no feral hog activity, enter 0 and skip to Question 19.)
- c. How much actual money have you SPENT on REPAIRS as a result of hog damages in the past year? For example: repairing holes, water control structures, or damages to equipment? \$ _____
- d. How much money would you estimate was LOST due to hog damages over the past year? For example: loss of income, additional tractor time, decreased land value, erosion or other losses? \$ _____
- e. About how many HOURS of unpaid time was spent by you or others (such as family or neighbors) on fixing WETLAND damages caused by feral hogs in the past year? _____ HOURS



12 | ARKANSAS FERAL HOG SURVEY

MAIL SURVEY CONTINUED

19. Is any portion of your lands that you own or lease in managed primarily for your own personal outdoor RECREATION, or a HUNTING LEASE, or other type of access lease?

___ NO (Skip to Question 20.)

___ YES

a. How many acres do you own or lease in which is used for RECREATION? _____ ACRES

b. Approximately how many acres of your RECREATIONAL LANDS have had ANY FERAL HOG ACTIVITY over the past year?

_____ ACRES (If you have had no feral hog activity, enter 0 and skip to Question 20.)

c. How much actual money have you SPENT on REPAIRS as a result of hog damages in the past year? For example: replanting or damages to equipment?

\$ _____

d. How much money would you estimate was LOST due to hog damages over the past year? For example: loss of income, additional tractor time, decreased land value, erosion or other losses?

\$ _____

e. About how many HOURS of unpaid time was spent by you or others (such as family or neighbors) on fixing damages to your RECREATIONAL LAND caused by feral hogs in the past year?

_____ HOURS

20. Do you own or lease any other types of land?

___ NO (Skip to Question 21.)

___ YES – Please explain this land type:

a. How many acres do you own or lease which is used for this land type? _____ ACRES

b. Approximately how many acres have had ANY FERAL HOG ACTIVITY over the past year?

_____ ACRES (If you have had no feral hog activity, enter 0 and skip to Question 21.)

c. How much actual money have you SPENT on REPAIRS as a result of hog damages in the past year? For example: replanting or damages to equipment?

\$ _____

d. How much money would you estimate was LOST due to hog damages over the past year? For example: loss of income, additional tractor time, decreased land value, erosion or other losses?

\$ _____

e. About how many HOURS of unpaid time was spent by you or others (such as family or neighbors) on fixing damages caused by feral hogs in the past year?

_____ HOURS



APPENDIX F

RESPONDENT COMMENTS

PILOT AREA LANDOWNERS: FIRST (PRE) MAIL SURVEY

Although I know they are in our county, I have not seen any on my property. I encountered them while horseback riding near the Buffalo River. Very large and I would consider aggressive.

Areas that have feral hogs should be encouraged to shoot or trap and/or poison these critters.

Even though I have not seen activity on my property I have seen many that have been run over on state highway near home and recently hit one myself

Feral hogs are a huge problem. Gonna get worse unless we get government help.

Feral hogs need eradication because of the diseases they transmit and the damage to land.

Have not had any hogs rooting things up in the past few months. But about the time I think I am done with them they will show up one or two nights an root up a few acers. I was told that the state trapped several just east of my property about a half mile. Not sure when they trapped them, but maybe that is why I have not seen any in a month or more. They got pretty bad on my farm 3 -4 years ago but not as bad lately.

Have not seen hogs on our property, don't go in woods. Wife rides horse in woods, no report of hogs.

Hog pressure seems concentrated to the western part of this country.

Hogs are increasingly getting worse and need to be eradicated.

Hogs are not needed and mess a lot of things up. People should continue to hunt them as they do.

Hogs are not resident on my property.

Hogs bad on 378 outside Mansfield, Hackett, Hartford, West Hartford.

Hunting lease owned by several different timber companies.

I also turkey hunt in northern Crawford County and ran across quite a bit of hog sign in that area for the first time.

I am thankful for the great job USDA has done trapping hogs for me the past three years. Thanks!

I am willing to allow trapping by the state on my leased land to get rid of the hogs. Turkey numbers are also way down since hogs moved in and roads become impassable. It's been hell.

I completed the survey, but I live in Horseshoe Bend on two city blocks. We do have woods all around the area with healthy deer, raccoons, foxes, and Coyotes population. This survey is geared to people owning many acres of land so, most questions do not apply to us. We do not own any other land in Arkansas. Hope this helps.

I have a house lot and have never seen a hog here before.

I have friends in other Arkansas counties that report terrible feral hog populations. Other family land in Oklahoma has significant in population and I am afraid to walk in those woods, pastures.

I have land in another county that has more hog problems. Trapping and hunting hogs only temporarily gets rid of them. After time they come back causing the same problems. I worry about the diseases they carry and get tired of the digging and rooting of the land that they do. They are probably destroying other wildlife habitats. More needs to be done to manage their nuisance.

I have not had any feral hogs in the past 2 years on my land. However, there are plenty of feral hogs in the wetlands of this area.

I have only seen a few on my property in the last few years, but sure don't want too anymore. They are very invasive and take away from other game animals.

I have seen hogs on Blue Mountain on the south side of the lake.

I have used the FSA/USDA hog trappers on my land where we have tried to trap hogs on my place. Though not successful on my farm, they were successful on my neighbor's farm south of me. In the early spring they caught approx. 40 wild hogs.

I haven't had any problems with hogs on my place, but my neighbor has had problems about three miles away from my farm.

I haven't noticed any hog activity in my area.

I know that the hog population can't be eliminated, but more needs to be done. I wish that WMA and NWR would allow permits to some of these guys that hunt with dogs. I've hunted with and have had them come to my property with great success. These hogs spread faster than Covid virus!

I like deer hunting and feral hogs ruin hunting. Eradicate them all!

I live near Mountain Home, AR and have never seen or heard of feral hogs in the area.

I live on a regular lot in the center Fort Smith. This survey is not applicable to this location. Thank you.

I think hogs are fine but not on my land. They like to come out at night.

I used to hunt hogs in Bradley County on land and lease. Wild hogs BBQ well. The downside is they do a lot of damage. They are bad to damage crops, fields, and timberland.

I, personally, have not seen any hogs or signs on my property but some friends that are only a few miles away have seen a lot. Probably just a matter of time until they are on my property too.

I'VE NEVER SEEN ANY HOG, FERAL OR OTHERWISE, ON MY PROPERTY.

I've only seen hogs on my deer camera one time.

I'm just happy that I have no wild hogs.

Most feral hog activity is across my creek on my daughter's land & above my property on neighbors' acreage!

Most of my land is bordered by Mt. Magazine WMA/Nat Forest and the hogs I do see normally come off the forest onto my property and neighboring lands I lease for hunting

My land goes downhill across a creek. I have seen hog activity on other persons land, but it is about 5 miles from me along the Cossatot River.

No hogs on my property but they are nearby & I know a lot of people who have had their land torn up by hogs.

Our farm is very close to a wildlife refuge, so my son and I are watching this very close.

Our main problems are when water levels are at flood and during deer season when everyone is feeding corn.

Please rid our state of this scourge.

Thank you for the survey. The control of feral hogs in Arkansas must be done and the sooner the better.

Thanks for ANY help you can give!

The hogs get in and around the pond. They dig up the grass and make a mess. I don't hunt so I only see the digging while I am mowing.

The hogs will sometimes be on the trails that we ride our horses on. We had to ride in different areas in our county. The hogs will charge at the horses and scare them which could cause injuries to both the riders and the horses.

The large number is a club. The farm numbers are smaller and farther away from marsh areas. May we suggest more of a mapping system bu county, by sightings, by encounters, & kills? This year so far has been terrible with damage and sighting. We have plenty of pictures and videos if interested? Thanks for the opportunity

These things are a terrible nuisance!

This is a continual problem. The hogs ruin pastureland and make it hard to drive over.

We did have 152 acres in Logan County for 14 years we did sell 2 years ago. But we had a terrible problem with them there. All in our hay fields and up around our barn. They were terrible there. Since moving to Sebastian County, we have 3 acres and they have been in our yard rooting up the grassy areas. Please try and help get these animals under control.

We have luckily had no problems with feral hogs where we live.

We have met with and started working with Feral Hog Swine program technician, Patrick Thompson. This just in past couple of months.

Patrick has been trapping with success in neighboring properties

We have met with and started working with Feral Swine Program, Technician Patrick Thompson. This just in past couple of months. Patrick has been trapping with success neighboring properties.

We have never experienced any feral hog activity on our property. It seems to be a growing problem in Arkansas though. They are a danger to people, and that concerns me.

We have seen feral hogs on game cameras but they're on unimproved land so they're not really causing any problem yet. I don't think there's a large number of them at this time.

We live in town, but we are aware of the damage the hogs do. We also worry about threat to animals and humans. They need gone!

We live in town in Fort Smith, I went hog hunting on a farmer's land. In his words it was overrun with hogs. I saw 0.

We own 117 acres in the middle of the Ozark National Forest. No-one lives there. It is mostly wooded with the exception of a couple of acres that we mow. Hogs have rooted around and dug holes in the mowed area several times.

When trap hogs either move them to somewhere that is for hogs to survive and live, or if kill hogs(trapped) as well, it should go for good use, not just wasted and dead.

While I do not have any problems with hogs in my area, they are common about 50 miles away. I have read about the damage they are capable of and do not want this to become a problem where I live.

RESPONDENT COMMENTS PILOT AREA LANDOWNERS: SECOND (POST) MAIL SURVEY

15-20 years ago, neighbor let 15-20 hogs loose on my property every day on purpose. This went on for 6-8 weeks. They told me off record to shoot them. Would not tell me that on the record. Finally told me to shoot them on the record. Owner was told that also. Had one hog come back after that. Since learned all hogs are feral if there every day.

A manageable population of wild pigs is a positive, allowing families to hunt for food and sport.

The most asinine management practices are carried out by the Park Service/ AGFC on the Buffalo National River Wilderness area. Since they have restricted hunting hogs to only deer or turkey season is open, the hog destination has dramatically increased

About 8 years ago we had hogs real bad until about 2 years ago and my neighbor let people go on his place and shoot them. I tried to tell him that they were holed up on his place but he wouldn't listen. I have seen as many as 14 hogs at a time. I don't see any now.

All land is leased so I do not know much about hog activity.

At this time, I have not seen any feral hog activity on my 80 acres.

Beavers are causing more damage than feral hogs!

I live 5 miles from [name] Plantation and Bayou Meet Wildlife Management Area. That area has a big population of feral hogs.

Feral hogs are of no benefit. All they do are cause damage to property and cost farmers money.

Have been lucky, have not had many over the years. But I have a firearm of some kind at all times. Keep close check on land fences and livestock daily and find a bullet of some caliber placed in pump station or brain pan seems to control them. Don't wait until they get thickly populated to do something.

Have in past had hogs on my land. But none in the past year. I heard that state trooper set up about a half mile southeast of me a couple years ago. And I have not had any hogs since. In the past, I have spent money on camera and night vision and built traps just none in the past year.

Have seen feral hogs on property adjacent to mine and on highways near my property. Have seen many dead on highways from being struck from vehicles and have also hit one with my vehicle while traveling highway. All of which were near my property also.

Haven't seen one in the last year.

Hogs are a problem. The "numbers" of how many and how fast they increase. "Numbers" is the problem.

Hogs are an extremely bad problem for farmers, and they need to be eradicated!

Hogs were seen in my rice field 7 to 10 years ago. I put a hog trap out and caught 2 sows or 3 an 4 pigs. No more hog activity since then.

I do hunt a neighboring property with permission, mostly, young pine and approx 3-400 acres. Property has had a few hogs 10 or so seen in the past. Hunters shoot on site and leave laying. No intentional hog hunting just opportunistic kills while deer hunting. Estimate 2 kill in past year.

I don't have any feral hogs on my land.

I don't know why but I haven't seen any in last year or two. In years before they were bad.

I had a group come done damage last winter but didn't stay.

If the Game and Fish Commission would do some trapping and controlling on the leased land they have, it would help a lot, but they do very

little to nothing and it's a breeding group for em when there is no season open. And the farmers around that WMA have to take the brunt of it. This has been brought to their attention, but nothing has changed, and I'll be very surprised if this changes anything.

I had hogs on my property several years ago. They uprooted my pasture wherever they were causing damage. No sightings in past few years, my property is rocky and sandy they did not like it.

I had hogs several years ago. None now. I've seen the damage they do on public land and when hunting with others. I'm all for you getting rid of them.

I have had hogs on my land about 4 years ago and local men came and trapped them, since then very little damage to my land.

I have never seen wild hogs in my area. But am interested in keeping it that way.

I have not had any trouble with hogs, but I am concerned.

I have not seen any wild hogs; but my neighbor saw one run across the road near Shoal Creek in Logan County. Moreover, care must be taken in hiking the trails; not only because of feral hogs, but there is panthers and bears here. About 2 am I walked on the front porch to see what the dogs were barking about. Then, the dog quieted the night became silent until I hear a god-awful scream; a scream that was long and loud. I believe I heard a panther, since no woman could scream that loud!

I have only had feral hogs on my property a few times about 5 years ago. After I shot several of them, they left. Haven't had any before or since as far as I know.

I have seen what they have done to other people's land. The yard was all torn up.

I have seen 1 feral hog traveling across our land on a game cam. Neighboring farms are having issues with feral hogs, and I think it's just a matter of time until we do. We look for rooted up areas everywhere but have been fortunate so far.

I hear they are around but have never seen one or evidence of one.

I hope that we can continue to have a hog program to try to eradicate the hog population. I spend a portion of every working day building and repairing electric fencing that I have installed around the bottom of my barbwire fences.

I live next to Pond Creek Wildlife Refuge. It is a breeding ground for feral hogs. They leave the refuge at night and ruin my hayfields over night at times, especially during dry years.

I live/lease land north and south of [name] Rd. I have not seen a wild hog in 10 years. Before that the only ones that I saw were transient passing thru twice a year. Never stayed around long enough to do much damage.

I sure hope there is some way to reduce the hog population in Arkansas. Chemically or physically doesn't matter to me! It has got out of control in the last 20 years and only getting worse! Needs to be a state or federal bounty set on these things to encourage trapping and shooting as many as possible year-round like the pythons in Florida. Wasting money researching. We need to spend the money killing them! Not sure what to do but I hope some good comes out of this!

I used to hunt hogs in Bradley County. I liked to BBQ them. Now I'm too old to dress them. (That's a chore)

I used trapper employed by county/state to trap hogs on my property. It was a great resource.

I would like to know how the feral hog population has changed in Arkansas, so I will be interested to see the study results.

I would love to see them killed out. I see no benefit to having them at all.

I'm hoping LSU Bait gets approved for hogs.

I've only been here for four years. I'm on high ground - mostly rocks and trees. Never seen anything to do with feral hogs but do understand the problem they present and would support any control measures.

In my area of land ownership, overflow is the problem with hog breeding unchecked! Until this is fixed the hogs are going to win!

In response to time or money spent which was zero, they have just now showed up on our farm. This is the first year we have seen problems in the hay fields.

In the past 15 years, I have seen only 1 wild hog on my 1100 acres and found 1 pasture with hog rooting 1 time on my brother's 900 acres. Keep up the good work of getting rid of the hogs. Damon Sebree comes by and checks our land for hogs.

Let us legally use sodium nitrate.

More of a "check" program. Applicable funding for eradication programs. More vigorous efforts during high water.

Need to do whatever it takes to kill every feral hog. Wish they would come up with a poison that would kill them only.

Never seen a hog on my 50 acres since July 2019.

No feral hogs in Baxter County that I know of.

No hog activity noticed in area

No, but thank you for seeking my information.

North Arkansas County. None on my property or neighbors.

Over the last 10 years we have had significant hog damage. (75 head of feral hogs have been trapped & killed over the last 10 years) Hog activity has significantly decreased due government programs & personnel who help us farmers and ranchers eradicate these animals.

Please note, my answers concerning hunting for hogs is in large part for recreational purposes and to a lesser extent for control.

Private citizens who hunt, kill, & give meat to poor people who need it. The good people who care enough to help feed the poor people should be compensated by the state for feeding the poor.

The current trappers with the conservation department are doing a good job of controlling/eradicating the feral hog population. This program needs to continue, or we will have a population explosion.

The damage to flora and fauna in the wetland, creeks, and other areas is way understated in measuring damage feral hogs do.

Though I've not noticed any feral hog activity on my land, there has been and is feral hog activity on neighbor's lands close by.

Want pigs gone. No need *** up pasture and hay fields until they are gone. Have seen hogs in the field when I try to plow and *** fields then move in and like to plow ground.

We appreciate the USDA and the program for helping to eliminate hogs.

We have so many deer and turkey hunters who install feeders "very near or right on, our fences". They sling out corn year around. Of course, the feral hogs like all that corn being slung out year around. This renders a situation making it impossible to control the population of feral hogs. We try to maintain good fences. Our cows like all that corn too. They eat what is thrown into our pasture from the feeders and then look for a place they can push through the fence, get out & eat more corn. We must check & repairs fences almost daily. What can we do. Fix fences. Then we get calls complaining that our cows are eating their corn. We try to be nice about the problem. Sometimes it's hard. Why are their feeders on our fences!????

We saw a feral hog on my game camera about 10 years ago- have not seen one or any signs since.

Wild hogs are a major problem. Any help is.

Wild hogs like to get in the lower edges of the creek and woller out holes and shave the creek banks coming and going. They rut up the pastures and if you have a wind break of hard woods they rut in there and eat all the acorns small animals and deer like to eat. If you like to deer hunt, you will find your lease has less deer because the hogs have been there and eaten all the acorns that deer need to survive. They are a real nuisance and expensive.

RESPONDENT COMMENTS NEIGHBORING LANDOWNERS: FIRST (PRE) MAIL SURVEY

A trapper came on to hunt them. He got some, but there are still feral hogs here.

All of my land is in various stages of timber production; there is very small risk of hog damage to pine trees after established; however, the hogs can damage newly planted seedlings. My hunt lessees have not reported excessive feeder damage, but I cannot accurately tell you what that cost might be each year.

All of these hogs must be removed and destroyed by any means. Currently experiencing damage to hay fields and pastures.

Any help with trapping would help us before wild hogs are out of control.

Arkansas County Trappers have been very helpful in trying to control these damn hogs!

Because of the damage they do and their fast rate of reproduction, they need to be controlled at least if not removed.

Drew County AR Conservation District Trapper Randy Montgomery has been essential to the management of hogs on my family land.

Every day, I spent unpaid time picking up rocks, filling holes and smoothing the ground back out where the hogs have rooted out the rocks while rooting up the ground and the grass. Ground that was smooth and had all the rocks picked up that were of any size at all were all picked up years ago but now tuff as hell when you drive over them and I never stop picking up the rocks and can't seem to ever get them all picked. Thank you very much for caring and sending out the survey.

Farm mainly grows pine trees. I deer hunt two weeks. Shot couple hogs a year during deer season. They compete at deer for the acorn crop

along slew and river. Prime deer attraction [are] white oaks. Heavier hog population during high water.

Feral hogs are in every county in Arkansas. They damage crops, pastures, woodlands, wetlands, destroy bird nests, root up pastures, rice hives and fields. They need to be eradicated. We are not allowed to kill them on federal land. This is not right.

Feral hogs damaged my pine timber, killing many trees from rubbing the bark off.

Five years ago, I was overrun with hogs on my land close to Panel Creek FGR. But I have seen less this year than I have in years.

Five years ago, USDA worked on my property a lot with traps and night hunting.

For all of 2021 I had the USDA trapping hogs on my land at no cost to me. They trapped more than 250 hogs in one year. So, it was difficult for me to answer these questions because I haven't had a hog problem for the last several months but have had a substantial hog infestation in the past. I have just now started seeing hog sign again and the USDA is back to trap again.

Get rid of all of the hogs.

Help!

Hog's bad problem here. They keep your deer run off. Can't feed deer because of hogs.

Hogs are just beginning to show up on our place in numbers. That is why many of my answers are not quite known but I feel sure that they will only increase in numbers.

Hogs have destroyed all the turkey in my area.

I also have 420 acres in Pike County, 120 acres near Little Missouri River. I am starting to see hog signs. I have killed a couple since moving here in September 2021. Hogs are very bad on my land around Patmos and Ozark in Hempstead County.

I am a forest manager working for a client who owns a large acreage in southeast Arkansas. Some of your questions cover a wide area and a lot of people who lease this acreage. Sum it all up, we have a lot of hogs on most of 86,000 acres that a whole lot of people hunt and trap year round. I have dealt with feral hogs on this property as well as a large acreage in Mississippi River Delta and populations continue to increase. Frankly I don't see where there is enough effort that can be made to stop feral hog populations from increasing.

I am unaware of what goes on in property I own other than the land in Columbia county.

I believe the wildlife native to AR. are effectual by the feral hogs the most.

I don't go to my property very often so I don't know the wildlife activity.

I don't have hogs.

I don't know if the feral hog population has changed at our location as we don't see any hogs or signs of hog activity. We have only killed 1 on our property a few years back. I know they were within a couple of miles of us a few years back but haven't heard anything since about activity. I hate them thoroughly and (being retired and love hunting) would dedicate a lot of time to killing them if they were on our property. I would like to thank you for the great work your people are doing to control the hogs. GREATLY APPRECIATED.

I greatly appreciate the efforts to reduce hog population. They are a major nuisance.

I had much more problems and damage from feral hogs but in 2020-2021, USDA trapper Patrick Thompson trapped and killed many hogs on my property. It has been much better since then.

I have had feral hogs on my property...not this year that I am aware of. Some of my nearest neighbors have had them this year.

I have had Tad Huff trap for hogs on my property and we have been somewhat successful. We have scouted on my neighbor's property for signs of hogs. I doubt that we will ever remove all the feral hogs in this area but we must try to control them as they are a nuisance.

I just wish we had been able to get help from someone when the hogs were destroying our hay meadow and stream through our property. Noise fell on deaf ears. We still have not been able to get our hay meadows repaired sufficient to bale hay in them where the hogs rooted. I hope someone will do something about the damn hogs.

I know most folks don't want or like them. However, we like to shoot and eat them when we see them. In the last year, we've seen only 15 at one time. We actually wouldn't mind if there were more for hunting. Only one small area do we see activity. Wish y'all would let folks have some of the ones you catch. Thanks.

I live out of state. We come see my property but 2-4 times annually.

I moved from a farm on [name] creek. It had hogs on a normal basis. One year ago, last August, I had to sell out because of neighbor building supersize chicken houses within rock throwing distance of my house. The chicken dust took my breath. My neighbor told me if I didn't like it, I had to just move. I was a widow, so I had to move from my family farm. The dead chickens brought in a lot of hogs. Something needs to be done about chicken farms to close.

I no longer own property in Izard County.

I own and live on 15 acres of Cedar Glade Rock with very little topsoil. Pig activity increases the erosion, my main concern.

I own the land which came to me through the death of my husband. My parents and I have never lived on either I live in Nashville. I did talk to the person that has leased it since 1995 from my mother. That's what I based my answer on. That land is in Hempstead County.

I own the land. My farmer takes care of it and between he and his employees, they spend a whole lot of their money trying to repair damage those hogs cause. They are out of control, and I can't even go for a walk on my land without fear of encounter them. This is terrible!

I own very little land in Arkansas. We own a large land in Louisiana-Concordia Parrish.

I use the pastureland for hay production, and almost immediately after baling, the hogs destroy huge areas of pasture. They are bedding in the cut-over areas on both sides of us and come over on us at night. Any help would be appreciated.

I used to win 20 acres of land in Sevier County. Now, I only own 1.08 acres. I have seen extensive damage done by the hogs but not this past year as this acre is vacant and I do not know what I am going to do with it.

I would like to express my opinion to keep the feral hog program going, it's not time to slack up on our efforts. We need to commit full time statewide efforts to keep the feral hog population to a minimum. I don't think we'll totally eradicate feral swine, but with continued efforts we can keep the population down to a more acceptable number. The program's removal numbers appear to be working and we need to continue to support our private landowners and assist anyway we can. There is still negative feedback from our hunters who have made a sport competition out of feral swine and more efforts should be made to implement criminal charges of transporting, catching, and releasing feral hogs on others property.

In Sevier County, trappers have made a huge reduction in number of feral hogs. They have worked hard, and I hope funds will still let them continue to trap feral hogs.

It is hard to put a dollar amount to the damage done by feral hogs. If I can be of service, I can be reached at 501-xxx-xxxx.

It is very nice to be able to call for help when the hogs show up!

Just want them gone!

Keep up the good work. Damon is great in helping up.

Loss of land value is subjective. I find damage across my property but not on every acre. It's difficult to estimate how many acres are affected. For the most part I find the pastures mend themselves over time. I have to pick-up the rocks uprooted by the hogs.

Lots of damage in the past but not in the past year.

Most of the hog activity has been taken care by people around our farmland.

My 10 acres are kept mowed with a zero-turn mower. But on the [farm], they have killed several 300 LB plus hogs within 3/4 mile of my acreage, not far from their home within 1/2 mile. I would say I have seen hogs on Hempstead County RD 25 that splits [farm] 1100 acres. My father and myself have managed the hog population for several years. By using our traps and hunting them, we estimate to have rid around 400 feral hogs in the past 5 years. My father's land joins the Lower Buffalo National Park, so it is a hot spot for hogs that have refuge.

My neighbor had the Game and Fish trapping on his land. They trapped and killed around 40 hogs. It has been better since then.

My property borders the U.S. White River Refuge. It would be helpful if they allowed hunters to shoot wild hogs. The Refuge is 100,000 acres breeding ground for wild hogs.

My property joined Ozark National Forest Land and I have seen feral hog activity on it. I believe the AGFC should allow hog hunting in these areas and on WMAs too. Starting now, year-round or at least during deer season. Traps are NOT effective. All I have ever seen in those traps are dead deers. Hunters should be allowed to shoot Feral hogs on site.

My small average is an inholding in [name] WMA, approximately [miles] east of the mouth of the Buffalo River. I primarily spring turkey hunt in that area. Feral hog activity is uncommon on my property, but only a short distance away, I find abundant hog evidence closer to the White River. I know many factors influence wild turkey populations, but over the past 10 years, turkey numbers have plummeted in that area, while hogs have flourished. The past 3 seasons were so bad. I did not even try this spring.

Need to develop some sort of poison to kill them! Hunting and trapping alone will not be enough.

No hogs on my land, but my neighbor has and been trapping and shooting them. His land is low and wet along a creek.

No problems.

Our feral hog population is a real problem on our beef cattle pasture and hay production. Our farm is in an area that has no cell phone

service. Trapping them is a real challenge. Driving across hog rooted has caused our entire family to have spine issues. When you hit a hole that you can't see, the seat bottoms out and it's like an electric shock going up your back.

Our land is in the White River bottoms, adjoining the White River Refuge. Past several years, the land is flooded most of the year. I got one picture of one hog on camera last year. I have never seen any other hogs.

Over the past 30 years, we have only seen evidence of hogs twice.

Over the past year there has been zero hog activity on my land. Before this year, there was a group of 2 to 3 hogs that would pass through my property about monthly. I would get pictures of them on my trail cameras eating my deer corn. This activity seems to have completed stopped.

Own total 15 acres. Last 2 years, I had hogs on property causing damage to property. Spent approximately \$100 - \$175 on repairs including soil, seed, fuel. More damage in wooded area but didn't repair that. Until last 2 years, never had a hog problem. We are worried about pets and livestock safety. Some animals on property are used for source of income.

Only a couple times in past year, hogs have torn up good yard and are on cameras in woods. But over the years, we have had many come through quite often-off and on.

Please keep trapping them so they don't get overpopulated.

Since the increase of feral hogs, the activity of the other wildlife has decreased.

Thank you. Kevin Cook.

That program is vital.

The Arkansas County Conservation District, Damon Sebree, saved our crop by trapping wild hogs. We had quite a lot of damage from deer, replanted some soybeans.

The control of feral hogs is much more successfully done by the government traps than by private individuals.

The cost of dealing with the hogs is on the farmers that lease our crop land. I'm not sure how much time and many they spend dealing with the problem.

The District Trappers (Jackson) was such a pleasing to help us. We had hogs coming in every night. They have trapped and killed 13 more hogs. And has followed up after and has come back and assist for us. Love the program and hope it continues. They have made a dent but if we don't stay on top, it will be back.

The feral hog population moves on of our property. We have snared individual hogs, shot them and occasionally used trapping pen. Sadly, our neighbor likes to hunt wild boar and probably has released a black Russian boar. In the past, the neighbors would cut our fences to ...their hogs. I don't think this has happened in the past 50 years, in part because we gave up.

The hogs have not done much, if any, financial damage to our land. However, our land is for hunting, and they do affect the amount of other wildlife that we see. We see less deer and turkey when the hogs are active.

The hogs were bad two years ago, before our neighbor had them trapped. We are starting to see hogs again.

The last time I saw hogs on the land was 3 years ago

The permits for landowners to kill predators anytime of the year is a good thing. Coyotes, hogs and cats, these take too many turkeys, lawns and game birds.

The trappers are helping in our area.

The trapping program has significantly improved the hog situation on our property. The constant removal of sounders has helped reduce our sittings and damage.

The trapping provided by USDA has helped tremendously!

The whole time we have lived in IZARD County we have only seen 1 hog and that was in Stone County on Hwy 5 near the shooting range. We've not had any activity on our land. Personally, I think the problem is worse in Stone County, according to people we know that own/ lease land within the Ozark National Forest.

These dog hunters that keep turning hogs make it a losing battle. We run two boar buster traps we own 3 thermal scopes plus snare them. Make dog hunting illegal and penalties A felony for this. In corn crops alone, they can destroy \$5,000 worth of crop a night, someone needs to pay for that.

These hogs have ruined several 100 acres of hay and pastureland! AGFC helped trap some, but they soon became too smart to trap. We need help! Lloyd [name], 810-xxx-xxxx.

This is a terrible problem in our area. A new farmer brought hogs to his land for hunting for fun!! Now they are out of control! Nothing can be done to protect us!

This is going to be a real problem.

This property was a tree farm until the final cutting about 3 years ago. We lost 200 trees due to strong winds. The hogs haven't been able to access the land but before that hog damage was visible everywhere. They are still here - not visible.

This year, there were hog footprints, all close to the side of our house. They keep a muddy mess all around a small creek on our property.

Our neighbor has sighted a huge one running between his land and ours.

Two or three hogs were shot, in the last few years very near our property.

Two years ago, we killed one hog and haven't seen anymore. We do know that a few miles east of us they are bad.

Until Pond Creek WMA is given more time on hog hunting, there is never going to be very much change on feral hog population in this area and surrounding areas. Most hunters in this area will pass on a deer kill to kill a feral hog.

USDA has a rent program. Hope everyone can get in board.

We have 430 acres with some wetlands! A 35-acre pond. Last sighting of any hog was in 2020.

We have had people come trap hogs because the hogs get so bad. The hogs don't cost us any money, but they tear up our fields and make hay fields harder to use. We had no problem with hogs until the government put regulations on killing them on the refuge. We owned this land before the government bought the refuge and we did not have a hog problem.

We have used the state trapping services. This has made a difference in the number of wild hogs we have seen. The drought likely has too though. We know this program has made a difference.

Yes! Kevin Koch came in the rainy season with truck and trailer, I told him to stay on main road too wet. You'll make ruts in ground! First thing he does is go through my front yard with truck and trailer, rutting up my front yard! **ed me the hell off!!!

RESPONDENT COMMENTS

NEIGHBORING LANDOWNERS: SECOND (POST) MAIL SURVEY

We still have hogs in our area! They have been bad and caused damage for years.

1) What is question 21? 2) My neighbor, approx 1/2 mile from me, has shown me game camera pictures of hogs on his property this year. There is a large amount of acreage around me with very few homes. I am concerned that there may be or is a potential for a large population of hogs to become establish. I hope someone or some agency is monitoring this on these privately owned properties (Several thousands of acres in IZARD County between Calico Rock and Melbourne).

40 acres of my land is on creek which is bottom land, but my land is not wet. The land next to mine has been known to have hogs and have been [tenps?] of it - but I have not seen any damage on my side of the fence.

A man came on our property and did some good trapping hogs.

All my land is in timber. We do not live on the land. We check on it ~ once a month.

All my property is leased.

Also our land in 2 parishes in LA have had damage to forests and cropland.

Arkansas County Conservation District & Mr. Sebree do a good job of helping trap the feral hogs. Without their help, our losses would be much greater. When the White River floods the White River Federal Refuge, we have a huge problem with hogs and deer.

Cropland = CRP Trees

Damon Sebree is doing an excellent job. Thanks for having [unintelligible] ground here.

Destroy food plots, turkey nest, ground nesting birds.

During my 92 years I have been to various areas which have always had wild hogs, such as in Europe, Asia, and Africa. I believe they should be managed like what other wildlife that we still have left. I have butchered and eaten 2, both were very tender and more flavor than domestic swine.

[An anonymous mail survey respondent from Arkansas County in Stuttgart vicinity – called to respond to the survey. He was very unhappy that feral hogs have been reduced severely. Feral hog control efforts have ruined our sport. Owns hog dogs but they have nowhere to hunt

anymore.]

Feral are a problem I have seen them on my land in Jackson County. Just not in the last 12 months. In AR county they are a real problem. They will be in Jackson County in the future.

Game & Fish did a GREAT job last year trapping and killing 17 wild hogs on my land.

Hog have to eat too, and I eat hogs.

Hog population in Arkansas County & Bayou Meto has increased significantly.

Hogs move around. They come and go. I would like to never see any on my property. Even if you don't see them, you can see where they rooted, and you can smell them. My attempt at trapping has been unsuccessful.

I am 92 years old and now live with my daughter in Tulsa. I haven't seen my property since August 2020. I do not know if we have a hog problem.

I believe the best route to take to control hogs is putting a bounty on them. For example, a \$10 bounty for each snout with a \$100,000 budget would take out 10,000 hogs. Much more cost effective than hiring trappers or helicopters.

I had a 215-acre farm and had a lot of feral hogs roaming there. But I had 8 calves killed by buzzards [when] being born. Buzzards are bad. I had to sell because I was a widow and my new neighbor built chicken houses very close to my house and told me I'd have to move. I didn't like it. All the chicken dust from them choked me and I had to sell out.

I hate hogs! Can we ban dog hunting? Kansas did and it helped get rid of the issue. These guys buy and dump hogs faster than anyone can trap and kill. I'd like these "hog hunters" to pay for all the damage. It's every year. I've invested \$60,000 in equipment to help fix the mess. 2 traps (\$14,000). I'm sick of pigs.

I have had a large hog problem, but not in the last year.

I have heard that feral hogs are on property north of me but have never seen any on our property

I have land around my property that is empty with out of state owners. If I shoot some hogs, I won't see them for awhile and I believe that's where they go. I actually have more destruction from my bears than the hogs.

I have made several calls to you but was unable to reach you. This survey was completed several week ago on the website. This form has been duplicated.

I have never seen a feral hog.

I have never seen any feral hog activity on my land.

I have not been on most of my woodland in years. I know there are feral hogs in the area and others may have hunted, shot hogs on my land.

I have not had any feral hog activity since my neighbor trapped the last one a few years back. Before that I had baby hogs with mother in my yard. Hogs had been on my property for years.

I have worked to mow any and all brushy or sapling over raw areas, only woods and pastures exist.

I hope the feral hogs do not become a problem because they are a big problem not far from us.

I join national forest. It is illegal to hunt hogs with dogs on federal property. I have invested approximately \$20,000 in a hay field. If the Game and Fish are going to continue to protect hogs from any form of harvest, they should be required to pay for damage caused by the hogs. Dogs have been the only effective way to timely remove hogs from my property. Trapping is not practical here as there is no road access to the wilderness.

I know the hogs are a problem for many folks, however, we enjoy watching and eating them when we see them and personally wish we saw them more often. Good eating!

I lease my land to a neighbor who has cattle on it. I talked to him about the hog activity and he couldn't give me any report of there being [unintelligible] of hogs for the past year. I haven't seen any around my house and nearby area.

I let others hunt & fish. Had damage to ponds and planted areas plus eating at feeders.

Mr. Thompson was actively engaged in the removal of feral hogs near my farm and his efforts paid off. The feral hog population has greatly decreased in my area. Thank you for supporting this program.

I own 137 acres that was referred to in this survey.

I own 19.5 acres in Drew County, but I rarely visit the land. I answered this questionnaire as best I could, but I have no direct knowledge of current feral hog activity on my land.

I own 80 ac. It is divided between high ground and bottom land. On the bottom land we have seen signs of hogs (tracks and wallers)

that's all.

I own this but don't live in Arkansas, my answers are from my land manager. He says feral hogs are definitely a big problem.

I think your program is the most unamerican thing I've seen in a while. There are so many ways these hogs could be managed without it costing the taxpayer money and the hogs could be tested and used like they do in our neighboring states. This is all about money. All of this survey is for you pencil pushers to do to try to secure more funds. None of you have a clue.

I understand that Drew County has a temporary hog trapper with the conservation district. It needs to be a permanent position and Arkansas needs feral hog trappers in every county. We seem to be maintaining the population and need to keep control or populations will dramatically increase.

I'm a widow and leave my land for deer hunting. Checked with the person that leaves it and they have seen feral hogs on it.

If state would allow commercial (or private) hog removal from helicopters it would eradicate feral hog population. Not government agency helicopter hunting!

The fellow who rents pasture has seen no sign recently. Another guy who has a hunting lease has not seen damage, however a couple years ago, they were everywhere. Every time he went out, they would see them. The farm next to them has traps. And he thinks they baited them over. He is also wanting to get forestry to burn off the underbrush.

Injury to myself - I have not been in the woods Nov 20-22 - May 26-2023

[Named respondent] is deceased. His children manage the acreage and keep in contact with neighboring landowners. To our knowledge feral hogs have not been a problem in the last 2-3 years.

More worried about habitat destruction.

My 15-acre property is an inholding in Sylamore WMA. Although I have not witnessed hog activity in the past year, I can walk only a short distance and find abundant evidence of their presence. My primary hunting activity there used to be wild turkey, but the population has declined over the past 5-6 years to the point I have not hunted there for 3 seasons. From the mouth of the Buffalo River to Cartney Access & land eastward is where I formerly hunted.

My area has a terrible problem with feral hogs. Also, no sign of changing.

My biggest concern is the impact on the turkey population(s). I've owned this land for 20+ years and there has been a significant decline in wild turkey numbers. This decline coincided with the first feral hog sightings then later the increase/impact in feral hog populations.

My concern is erosion.

My land is a mix of timber - established timber is not affected but new plantings of trees are at risk until maturity.

My land is adjoining the White River Refuge. We have seen no hogs or hog activity in our area. Property is between Crocketts Bluff and St. Charles.

My land is mature hardwood which they can't hurt as much as if it was a young hardwood and I have seen a lot of hogs on camera on my land day and night and I hunt deer and squirrel and have a big ditch runs through my land and that is why I have hogs because of water.

My land is surrounded by farmers controlling hog, so I don't have any hogs on my place that I am aware of.

My land is used only for timber production.

Need to find some means (poison) to eradicate these animals before they totally take over!!!!

Neighbor has had several feral hogs and has had several removed. They just haven't ventured onto my land yet, but I expect them to if they are not controlled.

No hogs in last three years.

It has been two years since visited property. Plans to send survey when he visits in a few months. According to nearby relatives, feral hogs are a major problem.

Number is not decreasing.

Our son killed 1 feral hog 2 years ago and saw their activity on our land when he was hunting. We know this is a big problem which needs to be taken care of. Thanks

Patrick Thompson hunts feral hogs in the vicinity of our land in Baxter County but I am not aware that he has hunted on our property.

People around WMAs Federal and State have not got a chance when the hogs can go back there when chasing them with a dog and you can't go in and kill the hogs. Got to get your dogs off so that makes the WMAs a safe haven for the hogs.

[Name] Farms has been loved, cared for, and operated for, now over 100 years by the same family. Feral hogs were controlled for many of

those years by luring the stray hogs into traps with corn. The traps opened from the outside to let the hogs into the trap but would not open from the inside to let the hogs out. Story now! These feral hogs have year around corn from traps and hangers feeders. Why not gather and feast ad meet up our soil year around. We find it impossible to control their damage. Please use traps with doors that do not open from the inside. Once trapped, stays trapped. Game & Fish should require hunt area to feed game in the middle of the 40 Chey Hamton. This requirement would get the feeders off our fences and we could do something besides fix fences!

Thank you for all the university do to control feral hogs.

Thank you for all your hard work getting these critters under control. We have no use for those hogs.

Thanks for doing this survey! Neighbors have hog problems near us. Just a matter of time before it gets to us.

The hog damage I'm seeing seems to be one hog at a time just passing thru and rooting in my pastures here and there. No evidence of a herd or group of hogs. I've seen only one hog during daylight hours which I killed.

The state can trap hogs on my property any time!

The trapping we have done along with APHIS and Game & Fish & the pilot program has really made a difference in the hog numbers in this area. I would hope that the pilot program could be continued + expanded.

The year of 2019 we trap and shot 49 no signs later.

There are a lot of feral hogs around my property but my entire property is inside a net wire fence which prevents hogs from accessing my property. I do know the feral hog program has reduced the population in my area. I hope the program will continue or the feral hog numbers will be right back to pre-program numbers in no time.

There are a lot of feral hogs down here, but that is all I can tell you, there has been some trapping down there.

There has been no change. A neighbor releases hogs for hunting.

There is 60 acres of timberland adjacent to our property. The hogs live in that timberland and come on our property from there. They root up our pasture and return to the timberland adjacent.

There was hogs on the 40 acres when I bought it, but a man asked me if he could hunt kill and trap these hogs. He stated there were hogs that were dangerous.

This information covers my Hunting Camp in Arkansas County. The remainder of my land is now crop in South Phillips County.

[We] have no feral hogs though they are on the land surrounding them.

This land has been mostly clear-cut of timber. In the state of regrowth. No open fields.

Though I own 8.5 acres in Izard County, I currently live in Yell County and seldom visit the Izard County land.

USDA trapper does a great job he traps all around me. He is the best thing to happen to Logan County in a long time.

Waste of time.

We are absentee owners of this 80-acre tract, which was homesteaded by my great grandfather in the late 1800's. It is primarily timer land and is landlocked. It was last harvested in the mid to late 1950's. The last time I was actually on the land was the summer of 2015. Did not observe any damage or activity at that time. My mother has passed & her interest has been transferred to my sister and myself.

We depend greatly on USDA hog control on & near our land. Without USDA hog control actions, the hog population will get out of control extremely quickly. I feel confident stating that.

We got people tearing stream up in stream with track quip tear bank off push tree off. AN leader won't do nothing about it. I can show you a stream they got tore to h*ll now.

We had substantial damage for two years and traps were set between mine and my neighbors land and 40+ hogs were trapped and disposed of. We replace fence and this year only a few have been seen.

We have gotten great response from the guys that are hired from state and have caught several hogs but they still seem to be increasing. Please continue program because that's all we have. Fifteen hogs can destroy 30 acres of planted corn in one night. One has of corn seed \$300+.

We have just recently had hogs on our place we own, the last 2 years. A technician with the local conservation district has set traps and done a great job. I recently cleared 2 acres of timber for a food plot and noticed hog sign, so we are going to set traps again. I leased 600 acres to deer hunt. I killed a young hog on it 20 years ago Id say. The owner hasn't seen any hogs or sign recently and I haven't either.

We have trapped this land consistently for 5-10 years. The pigs can't be controlled. We have checked literally hundreds & [unintelligible] at the home level. We need a person for total obliteration.

We love eating wild hogs. We need a few around for food.

We need more trapping help from professionals. AGFC helps but has too many places to cover and cannot get to us often enough. Please create a service where landowners can call for trapping help!

We purchased the farm in July 2020. At that time, we saw & shot lots of hogs. Then Jan. of 2021 we have not seen a single hog.

We used to see tons of hogs at both houses. 26 live close to Patrick Thompson and the numbers have decreased significantly! We have a trap and saw a lot of sign and some on our camera - least we've had more issues with leases at Culp recently and haven't messed with the hogs. There hasn't been any sign in the county in over a year lest we don't get much lately to check. Patrick is great at what he does and I wanted to mention that! I gave this to my SIL to chill out and saved it and I'm doing it myself - sorry!!! He is out on the land the most so I wanted his thoughts again sorry!!!!

We were gaining but since we have not trapped this year we are going backwards.

What few hogs we have just come and go for as I know none stay on my land

Where we have hogs present, they impact the roads and larger trees. We have not seen issues to my knowledge of seedling impacts from hogs like we have from deer browsing. We do not trap for hogs, nor do our leasers to our knowledge, however, they are hunted in small numbers across our land base.

Wish they were all gone along with beavers, alligators, & bears all just pests

Without poison we will never be able to control these hogs. We will be as bad as Texas in 10 years.

Without the feral hog program, we would be overrun with hogs. The availability of trappers has greatly helped decrease the population. As we know, feral hogs reproduce rapidly and keeping this program active can help keep hogs in check.

We need to keep the hog programs going. Please keep funding. It is helping but if stopped, it'll just get real bad again.

RESPONDENT COMMENTS

LANDOWNERS RECEIVING TRAPPING SERVICES: FIRST INTERVIEW

I was really happy when Patrick caught a bunch last night.

Program is great - keep it going. Game and Fish need to do a better job on their management areas.

Randy and them did a great job keep up the good work.

We need the bait that will kill them.

We need to keep supporting the trapping services.

A problem that will continue to grow.

All the neighbors need to be in the program to eradicate the hogs.

Anytime they want to come back they are welcome to.

Appreciate all the services.

Appreciate what they do.

Appreciate the service.

Catch them things, I'd greatly appreciate it. If hogs are there, they're interfering with wildlife. Appreciate the help.

Damage were done to the cemetery which we just maintain, not my actual property. Appreciate the service. Did a great job trapping.

Damon and Randy (USDA) are very dedicated to this hog eradication.

Damon is doing a great job.

Did a great job.

Don't want the farm grant to run out. Hogs did a lot of damage, 40 acre pasture, 40 acre woods. I want negative hogs.

Everyone is working together.

Everything is going fine, just keep on trapping.

Get rid of the hogs. The program is working.

Get rid of the pigs.

Get rid of those hogs!

Glad y'all are helping.
Glad y'all could help.
Good luck - keep going!
Gotta figure out how to poison them all. We need them gone.
Great people to work with.
Having trouble with hogs in [name] city park. Costing much more to repair the city parks.
Hog trapping is the way to go.
Hogs have been on property for years but this year they are staying in high numbers.
I am concerned about the turkey population.
I am extremely impressed and was not at all confident in the beginning. The only good hog is a dead hog.
I am glad to see that there is an effort being made. It is going well.
I am impressed with how well the trapping is working. I would not even be oppressed to paying for this service.
I am learning something from the trappers. They have really good traps and are very dedicated to their jobs. We need to re-fund this program.
I am very pleased with USDA's service, they even come out during the weekend's.
I have hope now with the trapping program.
I hope they renew the program.
I like the program - the trapper did an exceptional job.
I love this program! I am thankful for everything they are doing.
I want the hogs completely eradicated.
I would buy a trap if I knew someone would help me maintain one.
I would like for them to continue trapping.
I would like the hogs gone.
It made me so happy to know that this problem I had was taken care of in such a timely manner. There is no sign that the trappers were on my property.
It was difficult to kill without a trap. I need some help with trapping. Get them eradicated with the program intact right now. Let these guys get into the field and remove them.
Jackson did a great job.
Keep catching them.
Keep it going.
Keep it up and if these hogs were affecting the federal funders lives they would want the hogs gone too.
Keep the Program
Keep the program going - I think it is valuable.
Keep trapping hogs.
Keep trapping, seems to be working.
Keep trapping the hogs.
Keep trapping.
Keep up the good work.
Keep up the good work.
Keep up the Good Work.
Keep up the program - I am glad y'all are available to use for trapping.
Keep up the program so we can keep the pigs out.
Keep working on trapping and kill them all. Thank you.
Kill all the * * * of them. I don't care if you have to kill other animals, I want them gone.
Kill every one of them.
Kill them all! Trappers are doing great!
Let's do something about these hog hunters.

Let's get this problem solved.
Like the program, appreciate what ya'll do. I just want enough hogs to kill the snakes.
Local Trapper is doing a great job, easy to work with, and catching pigs.
Need more trappers in Arkansas County.
No concern about livestock. Hay/cattle farmers have issues. Fight hogs all over the place. May not be able to continue.
Not at this time. (Was busy cutting hay.)
Patrick did a great job and we appreciate the program.
Patrick has kept me informed.
Patrick was very helpful - I hope this program continues.
Plan on using the trappers again.
Proud of the support and the grant money.
Randy has done a great job.
Randy is doing a great job and is easy to work with.
Randy, was very thorough and always kept in touch, He stayed on top of them.
Really like what the district trappers are doing and hope it continues.
Saw 30 hogs at one time. He caught 22, but there's still at least 10. Hogs can cause a lot of problems.
Send me bullets so I can kill those hogs.
Steve was on top of things!
Steven and Jackson were very friendly and very helpful. They were also very quick to return my phone calls.
Tanner has been an extremely valuable resource. Best thing to do is keep the program going and inform landowners to quit hunting and start trapping.
The trapping is a huge benefit.
Thankful for the trapping and it needs to continue.
Thanks to Randy the hogs are controllable. Landowner wanted to make note that they do not see a lot of damage they just see the hogs mostly.
Thanks to the people who are coordinating this program.
The feral hog business would probably die off if they quit feeding the deer.
The guys are doing a very good job.
The job that they are doing is great.
The program is great. Keep it up!
The program is working! Keep it up!
The program they have started is wonderful. The Feral Hog trappers are doing a great job.
The public lands need to be opened to hunt on - or else the pigs will keep multiplying.
The trapper is doing a great job!
The trapper is doing a great job.
The trapper is doing an excellent job!
The trapper is right on the ball.
The trapper Steven Pinkerton did a great job! The program needs to continue.
The trapper that came out was super nice.
The trapper was great to work with. He did a great job!
The trappers are doing a great job! Keep up the good work.
The trappers are doing a great job!
The trappers are doing great! I want the hogs gone!
The trappers are doing great!
The trappers are doing so great! I trust them!
The trapping is helping.
The trapping is working, but they need more traps.

They are doing a great job.
They know what they are doing.
They need to keep trapping.
This is a great program.
Trapper did such a good job.
Trapper doing great.
Trapper is doing a great job.
Trapper was very friendly and helpful.
Trappers are doing a great job!
Trappers are great. It is working.
Trappers caught about a dozen and did a great job. No one can trap all the hogs on their own. This program is needed.
Trappers did a great job.
Trapping for 8 years and got 500 pigs off the lease. The hogs just keep coming back.
Trapping the pigs is a great idea. They are coming back again and trapping was in February.
Trapping services helps. Gives us a chance to stop the hogs.
Trapping services is doing a great job!
Very efficient.
Want the grant to continue. Randy did a great job. Hogs didn't show up until earlier this year after my neighbor with dogs moved away and it became quiet.
We hunt a big area that covers several counties and this is the first year that I did not have a camera that didn't have a hog on it.
We must protect our land. If we don't take care of it, no one will. I can't stay up 24/7, so additional help (like the trapping program) is needed. What will I be able to leave my family once I retire and give this to family members?
We need the trappers.
We need to continue with the program and give Tad more traps to use.
Wholeheartedly believe the trappers are making a huge difference.
Why can't I hunt and trap on management areas and can the pigs be donated somewhere once they were trapped instead of the meat being wasted.
Wish they could be controlled.
Wish we could get rid of all of them.
Wish you'd figure out a way to eradicate all of them. On our hunting ground we ain't seen no deer, just hogs.
Glad we are doing something about the hogs.
I'm very concerned about the costs to Arkansas' economy from a farmers perspective.
If or when this program goes away, the pigs will return. The program needs to continue.
I just purchased property 5 months ago and saw a boar hog pass through. But I haven't seen any damage as of right now.
The only way to get all the feral hogs is to poison or medicate (birth control). My property is next to a federal land that is filled with timber/forest and the hogs generally live in that area. I have an easement that requires planting a food plot for deer (soybeans), however the feral hogs completely destroy the food plot.
Not having luck getting Tanner to come back out. I have texted Tanner and told him the hogs were back but he never came back out.
Only trapping on 30 acres
There is now more timber back growing than in past 10-15 years, so hogs are able to stay in habitat. If they would just stay in the woods, it would be fine. I feel hogs do not have an impact on wildlife. They can come and trap some more. There is fresh rooting in my yard.
The trapper was very nice and did a great job.

RESPONDENT COMMENTS

LANDOWNERS RECEIVING TRAPPING SERVICES: SECOND INTERVIEW

I am very thankful for the help Patrick has given us.

I can't brag on the people trying to control these pigs enough. They have done an excellent job.

Around Ashdown at the National Wildlife Refuge, they do not allow you to shoot hogs and I do not understand. We need to be able to shoot them.

We don't have the deer and turkeys we once had. The hogs root around where the hay bales were set after the cattle are done, eating grubs I guess.

Been happy with the services offered, hope they continue.

Damon Sebree is an excellent, excellent person to work with. He was pleasant to be around. Stayed out till 2 AM watching a hog and then came out in the morning after it was trapped with a smile on his face.

Did a good job. Wish there wasn't a darn feral hog in the country.

Did pretty good at removing the feral hogs to me.

Don't stop! Keep it up!

Farmers need these guys more than anybody.

Get more trappers.

I am very pleased with the program.

I appreciate the people and the effort that y'all are putting into the program.

I don't really think that the program is taking this seriously enough.

I hope our law makers see the concern. I hope they expand the program. Since trapping, I have not had to repair. No way I could control them off my property Trap was actually set on adjacent land.

I hope there's some way we can extend the program and keep it going. I put an electric fence around hay meadow in order to protect land. Conservation District is important, but a lot of times is hindered by locals. Hogs destroy the habitat. They're causing damage and spreading disease.

I hope you can keep the trapping service going.

I think the program has been a treat for the people who need it. Obviously their pigs are out of control. I have seen fewer pigs (since trapping). I hope to see this program continue. There are signs of rooting, and their numbers are coming back (after trapping). The program has worked for a while, but the hogs are coming back. I haven't planted food plots since the hogs ate it all. It cost too much money.

I think the program is a good deal.

I think they need to inject the pig with Cholera and kill them.

I think this is a very good program. It's very beneficial, and even though none were captured on my property. It is a service that should continue.

I wasn't sure if the state or government would fund this, which is why I participated in this survey.

I wish the program stays in place.

I wish ya'll would figure out how to take care of the alligator problem.

If you're in the program, you oughta get out in the field and see the damage these things do.

It's been real helpful over the past few years Thankful for the help that we're getting, but we got a long ways to go.

Just appreciate the fact that they're willing to come out and trap.

Just keep this program going. Let's spend our tax money on this instead of the immigrants.

Keep on trapping.

Keep the program going.

Keep the program! If not, we will be over run again in a year or two.

Keep trapping!

Kevin is doing a great job, we just have some hard to trap pigs.

Kudos to you guys. The trapper I had here was very respectful.

Mr. Randy does a dang good job and he's very professional.

Our trapper guy has been awesome to work with.

Seen a few hogs the first year, second year we trapped, and this year we haven't seen any." "I like having a few hogs so I can shoot and eat

them.” “Hasn’t done any damage on land that I’m leasing.

Randy is top notch, very likeable. You can make it as technical as you want, but good programming depends on the quality of its people. My land is located on two sides by Natural Heritage and the other sides by hunting clubs. I don’t think we will ever get rid of them because of their high reproductive rate and those surrounding my land do little to control them.

Tad was great. Want to keep the services around.

The guys do an awesome job. Wish the program stays going.

The hogs need attention; we need continued trapping assistance.

The program is very helpful without the program we could not control the hogs.

The program works in my case. I do know that.

This has been a good process, and Kevin has been easy to work with.

This is a very important program for property owners - we need this program.

This program needs to continue.

Us rednecks, if you just tell them game wardens to turn their eyes, we might kill a deer or two, but we’ll get them hogs. Put a bounty on their ears. Us rednecks will get them.

Very good program.

Very happy with the service provided.

Very important to have trappers available to landowners at all times.

Want the program to keep going.

We need to get rid of all the feral hogs.

Wildlife populations, such as turkey and deer, have decreased substantially.

Wish the state would get together with the Game and Fish and work together on this since it’s such a big issue. Doing a good job with the trapping services but wishes they could set up 2 or 3 traps on the property instead of 1.

Y’all have done an excellent job and appreciate y’all being patient with me. Koch is a good guy. Appreciate the help.

You can take a plane and drop a bomb on the land if you want to and then I won’t have to worry about none of it.

2 -3 years of sign them coming and going. The trapping is much more sufficient.

Afraid we will explode with hogs if they don’t keep the program going. Guys did a great job, Patrick did a great job. We don’t have the damage like it was before trapping.

Biggest concern is how the perception of the big landowners, large company like Warehouse owners don’t realize the effect of the hogs have on the other landowners. Hunting leases for hog hunting is a problem, we should outlaw dog hunting for hogs. We also have a lack of law enforcement to deal with it.

Continue the program please!

Continue to trap and get a good trapper. Steve Pinkerton did a really good job. Spent lots of time, he helped considerably. This trapper now is not as aggressive, really aggravating. Program really helps. I’m all for continuing the program. The fields are rough, and it wears the equipment out and me. There is a loss of land to go around the holes. There could be injuries to the livestock from the holes. I would rather a trapper come in than try to get a couple at a time.

Feral hogs helped eliminate Johnsongrass which I was trying to get rid of. It was just like a rototiller. The topography funnels the hogs to my property. There are bluffs on 3 sides with creeks that are a mile or better from the headwaters. USDA trapped last year with no results. AGFC trapped and got 2. A Catahoula leopard dog saved my life. I was attacked by a sow and knocked to my knees. The sow had 7 young ones. AGFC got all of them. 10 were 500 lbs! The biggest number seen is when it gets dry from June to August. They gravitate to pools of water, where it’s easy digging for them. I ran over a hog with a truck and trailer once and it was gone, no blood. I see more hogs crossing roads than deer. Not seen as many deer. I still see them along the highway but not as many. I haven’t seen as many turkeys until recently, after the hogs left. With CWD moving in, the only species which will be left are hogs. Would like to see as in Texas where they use pellets to keep out raccoons, birth control. Trapping will be forever. Sterilization program exclusive to hogs seems the only logical solution. I haven’t tried fencing (to keep out hogs), don’t want to fence, but may have to. I don’t have any livestock damage since the trapping started, but before that, my dog got gaffed on the nose by a small hog. Near my land, the Forest Service used herbicides on Forest Service property which contaminated the environment and caused cancer to those who applied it.

Get these traps and let the farmers use them.
Give us some financial help to get pastures back up.
Glad it got gone. Wasn't a big pack.
Glad they are trapping.
Glad to call someone for more funding.
Going to take a concerted effort to get rid of them. Whenever they start a beaver or coyote program let me know.
Good group of guys, doing a good job. Trapping helped a lot but they are still here.
He believes we are on the right track and thinks if we stop the program the hogs will get out of control again and we will have to restart the whole project.
He said he came up with an idea that he thinks would significantly decrease the amount of feral hogs. His idea is to "kill the pigs and take their snout and put a bounty on them like they do with the beaver tails." "We'd have to get the state and/or Game and Fish on board with it." He says that all the rednecks would be on board with it.
He said that the situation was taken care of pretty quick.
He said, "Really helped a bunch. You're doing great work."
Hope they continue the program. Hate to see it go away. Appreciate what they do. I know how destructive they are. Get help if you can to eradicate them. Very fortunate they have not damaged ours like neighbors.
Hope they continue the program. Said the trappers did a great job (better than NRCS).
Hope they continue, Damen does a great job. No deer when hogs are around.
Hope they keep trapping. It's more important to get hogs off property. Before trapping we had to disc hay meadow.
Hope y'all continue to trap. It is working.
Hope y'all keep doing it. The boy who trapped did a good job.
I appreciate what they have done and it is helping us a lot. I hope they can keep the program. It's working. It helped us out. Good program. Caught them in time before they did damage. Everybody's got them and it's a mess.
I don't think they will ever get rid of them. We live near the national forest and they have plenty of places to go.
I have pictures of the damage. Seen where they have been. Hogs are coming back. Needs to be controlled. Hogs come at night. Trappers did a real good job, don't have near the problem.
I hope they continue the program. Hunting clubs are turning pigs loose.
I hope they keep trapping. They had moved on when they set a trap on me.
I will call Patrick if I see hogs.
I would rather my tax money go toward trapping. Trapping is definitely helping.
If they don't fund it, we will be in trouble. We need to keep trapping. Patrick has done a great job. I like to hunt them but not on my property. I tried to trap some but I can't do it like Patrick does. It will get out of hand if they stop trapping. I would participate in the trapping if there was no money, the money could go to Patrick.
If they don't keep trapping it is going to be bad. I couldn't do it myself. As soon as I see sign, I report it and they come trap. Good idea to keep program.
If we lose Patrick and this program, I am scared what is going to happen. I give Patrick a 10/10. This program has been the best thing I have had. I see a hog and text Patrick and he is working it.
If we stop the program, the population will skyrocket again.
Just come trap hogs. They need to make an example of the people who are turning the hogs loose to hunt. Trapping is a great service.
Keep the program going. Appreciate what the trappers have done for me. Jackson Lee and Jason, nice man. I can't keep the hogs out like the trappers.
Never could get the sounders to come in regular. Guys have been great, ready to help, very educational. They are doing a good job. I hope they continue. This needs to be a ongoing program. I don't want them to stop, and they can come get the alligators.
Our lease is surrounded by the Casey Jones WMA. They won't trap on WMA, only on private. I don't think that is right, they should be able to trap on state WMA. We have always had hogs, now we have a Russian hogs and we have more hogs now than we ever had. It's pretty bad now. Patrick Thompson has done a fantastic job.

Refuges are the problem. Last 10 years, it has blown out of proportion. If they stop it, I don't know what we will do. I hope they don't stop the program. I wish someone would come out and just look at what these hogs have done. The one that is in charge needs to see the damage. They don't let them trap on the refuge.

Service has been really good. Hogs are still coming back. The program itself is worth a lot. Have not been able to get in hayfield to repair, it's been a total loss for 2 years. This trapping program has helped significantly. Damage on our place has significantly decreased since trapping. Can't do it on my own. Sincerely appreciate the services.

She said that she is happy with the Conservation District and that they are more than willing to come out. She also said that she hardly sees them anymore and that she lives next to a refuge.

Terrified at the thought of them reducing the program. They are kept at bay because of the trapping. Still there, still a problem. They affect the berries, they affect a lot of things. Needing to trap again. Seeing damage around property. If we don't have help it is going to get worse. The cost of ammo, unwanted shooting from other hunters. We need the trappers.

Thank y'all and it's a good program. Whether we get money, we need to keep the program. I will call to get them to keep the program.

The conservation program has made a difference in the past 18 months on our property, have seen a decrease in damage to ground and food plots. Trapping is a improvement to property.

The trapper can't cover the whole area. We bought 2 traps, \$8,000.00 a piece to trap ourselves. I trap October through March. We need more trappers. Hogs are a nuisance!

This program has worked so well. Very good experience. Randy did a good job. With trapping I feel good, if trapping is gone then none whatsoever. Tickled to death. Keep trapping.

Trappers are doing a heck of a job.

Trappers have been doing good.

Trapping has done well, there is minimal sign now on my property. I could tell that 10-15 sounders had come through. The hogs have increased in the county. Would love to see the program in Lafayette County. This trapping is the only thing that has substantially decreased hogs. The hogs are in direct competition for food with livestock and wildlife. Our turkey and deer population have decreased. Hurt wildlife more than anything.

Trapping is a good deal and they should keep doing it. They kept the gates shut. I gave them a key and they brought it back.

Trapping service is a good thing.

Trapping was good while it was there for a month, in two weeks they were back and I had to buy a trap.

Very pleased with program. It definitely helped my place and made a difference on my farm. I can tell the trappers have been on my place in a positive way. I appreciate them. I tell everyone to sign up for this program so we can get rid of these hogs.

We have come a long way but we need to keep at it. We are going the right way. We need to expand the program. They root up the pasture. Getting the hogs gone is more important. Trapping is working. Hogs had killed a fawn, looked like a hog killed it. Slightly confident while y'all are trapping. We need to keep trapping and expand it. Hogs are thicker on river bottom.

We need to continue. It's a good program. Stopped doing food plots and putting out corn because of them. Didn't see any for about a year. Definitely helped. Getting rid of hogs is more important than getting money. The money is nice.

We need to keep this program going. I've heard there has been some in different places. I have grazing loss from the hogs.



University of Arkansas, United States Department of Agriculture, and County Governments Cooperating