FINAL REPORT
COUNTY OF HAWAII
FERAL PIG CONTROL PILOT PROJECT
JULY 1, 2007 TO JUNE 30, 2008

1.0 PROJECT DESCRIPTION

This project was implemented by the United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services (APHIS-WS) under cooperative service agreement number 07-73-15-6072-RA with the County of Hawaii, Department of Research and Development (R&D). APHIS-WS entered into this agreement to assist the R&D in providing wildlife damage management (WDM) services to residents, agricultural farms and public institutions within the County of Hawaii that are posed with human health and safety threats, nuisance, property damage and agricultural damage associated with feral pigs. This 12-month pilot project was implemented per Council Resolution 134-07 to assess the feasibility and effectiveness of a government sanctioned, island wide feral pig control program. This report covers APHIS-WS activities from July 1, 2007 to June 30, 2008.

2.0 PERSONNEL HOURS

APHIS-WS personnel spent 8,036 hours constructing cage traps, doing site visits and conducting control activities to remove nuisance pigs which posed problems within communities and small, noncommercial agricultural farms. This project provided funding for four Wildlife Specialist positions based out of APHIS-WS facility in Hilo.

The initial intent of APHIS-WS was to employ two personnel to service the eastern side of the island, and two for the west, to better assist communities in need and reduce the travel time needed for servicing properties. However, due to staffing complications and budget shortfalls with another County of Hawaii project (*Coqui* frog spray teams and loan sprayer program) that ended on September 30, 2007, APHIS-WS decided to retain the existing staff to service the feral pig project. All of the existing staff was stationed at the Hilo APHIS-WS facility.

3.0 FINANCIAL EXPENDITURES

The total authorized budget for this pilot project was $250,000. A projected $157,354 was budgeted for salaries/benefits, $4,984 for official travel, $20,800 for vehicle maintenance/repair, $14,227 for consumable supplies, $36,900 for equipment, and $15,735 for APHIS-WS administrative overhead. As of June 30, 2008, a total of $250,000 has been spent on the various budgetary line items. Table 1 outlines expenditures by category for the entire agreement period.

4.0 COMMUNITY PARTICIPATION

From July 1, 2007 to June 30, 2008, APHIS-WS received a total of 590 calls regarding feral pig damage. Of these calls, 442 of them were in need of trapping assistance and 148 calls were for general information on feral pigs (Table 2). In most cases, information that was disseminated to the general public included suggested fencing specifications to promote long-term solutions, wildlife disease risks as it relates to the butchering of

possibly contaminated meat, the state-level regulations as it pertains to the control of feral pigs on private property, and specifications for trap building for individuals interested and competent in trapping problematic pigs themselves.

4.1 Carcass Disposition

As owners or lessees of the properties that were serviced, residents and noncommercial agricultural farmers were given the opportunity to assume responsibility of the pig carcasses for human consumption or give it to an interested second party. Every effort was made by APHIS-WS personnel to influence the people being serviced to utilize the meat for human consumption, although the final decision was left to the land owner or lessee. APHIS-WS documented that 206, or 45%, of the 448 pigs captured were consumed. The remaining carcasses were disposed of at the Hilo Landfill.

5.0 METHODS AND RESULTS

Four primary control methods (cage traps, corral traps, leg snares and shooting with suppressed rimfire rifles) were used to remove 448 injurious feral pigs from residential and small agricultural properties throughout the island (Table 3). Despite the assumption that cage traps would be the primary control method when the project was initiated, leg snares were deemed more useful in areas where feral pigs could not be baited into a cage trap, or where there were no suitable areas to place a cage trap. A description of each method and associated results are provided below.

5.1 Cage Traps

Cage traps were deployed and baited with papayas, fermented corn, macadamia nuts and/or bananas to control feral pigs. Over this report period, a total of 134 pigs were captured using cage traps, representing 30% of the total catch.

5.2 Corral Traps

Corral Traps were set in areas where there was a high concentration of feral pigs and there was an opportunity to capture multiple pigs at a time. Corral traps were baited with papayas, fermented corn, macadamia nuts and/or bananas. Over this report period, a total of 69 pigs were captured using the corral traps, representing 16% of the total catch.

5.3 Leg Snares

Non-lethal leg snares were deployed on trails leading into properties and agriculture fields that have been encountering feral pig damages. Over this report period, a total of 206 pigs were captured using leg snares, representing 46% of the total catch.

5.4 Shooting

Pigs were occasionally observed outside of a cage trap or alongside of a pig caught in a leg snare. In these instances, selective opportunistic shooting provided a means to remove problematic individuals that could have potentially been leery, or "trap-shy", of trapping devices. This method was used only when

safe shots were observed. Suppressed rimfire rifles were used to humanely shoot free-ranging pigs at close range. Over this report period, a total of 39 feral pigs were shot, representing 0.08% of the total catch.

6.0 DISEASE SURVEILLANCE

Blood samples were taken from pigs caught in cage traps, leg snares, corral traps and those that were shot to assist in updating the State of Hawaii, Department of Agriculture, Division of Animal Industry's (HDOA-AI) established wildlife disease surveillance program. Blood was extracted from the neck area after proper euthanasia techniques were administered. A viable sample consisted of 30 ml. of whole blood (three 10 ml. test tubes) extracted from a pig with minimal coagulation. The whole blood was then spun down in a centrifuge, and blood serum samples were shipped to the Veterinary Laboratory Branch of the HDOA-AI located in Halawa Valley on Oahu with the assistance of an APHIS-WS Wildlife Disease Biologist. Test results were normally provided by the Laboratory within 2 weeks of submission.

Of the 448 pigs captured, 11 pigs were captured before the blood sampling equipment was purchased and received, 112 pigs did not have enough blood to fill the required vials, and 55 pigs were killed and removed by landowners or neighbors before APHIS-WS could take samples (this is despite the instructions given to landowners by APHIS-WS personnel that trapped pigs are dangerous and should only be handled by trained APHIS-WS personnel). Over this report period, a total of 268 blood serum samples were submitted for disease surveillance (Table 4).

6.1 Blood Serum Results for Swine Brucellosis and Pseudorabies

Current results show that 23 pigs tested positive for swine brucellosis and 44 pigs tested positive for pseudorabies (Table 3 and 4). Districts where brucellosis infected pigs were captured include South Hilo, Hamakua, North Kohala, South Kona, North Kona and Puna. Districts where pigs were infected with pseudorabies were South Hilo, Hamakua, North Kohala, South Kohala, South Kona, North Kona and Puna.

7.0 NATIONAL ENVIRONMENTAL POLICY ACT COMPLIANCE

All federal actions (funding, operational, etc.) are subject to the National Environmental Policy Act (NEPA). NEPA is a public planning and review process put in place by congress that allows the general public to comment on proposed and existing federal actions. APHIS-WS has completed an Environmental Assessment (EA) on the feral pig control pilot project with input from cooperative agencies and the general public, and has published a Finding Of No Significant Impact (FONSI). Copies of this EA are available upon request.

8.0 PROJECT ASSESSMENT AND RECOMMENDATIONS

Proactively holding public meetings to educate people of the intentions of an operational feral pig control program is imperative. With the assistance of officials from the R&D and Councilman Dominic Yagong's office, it was proven that proactively holding meetings to notify the public of the County government's intentions is a valuable tool.

Communities need a forum to address their concerns regarding wide-scale wildlife damage management, planned County expenditures to carry out operational activities, their perceived value of feral pigs, identifying capable hunters within their own communities for assistance, etc. Through the NEPA process, APHIS-WS further allowed the public to comment on the federal government action of operational feral pig control work. The NEPA process also proved valuable to address any public concerns in a legal forum. APHIS-WS holds the opinion that the series of meetings that were held and the EA that was generated by APHIS-WS were major contributing factors to the success of the project.

The feral pig problem within the County of Hawaii is wide spread. It is very apparent that no district is immune to feral pig damage. There were districts (Kau and South Kohala) where less calls for assistance was received, but this could be due to a number of variables. Some of those variables could be 1) that there was a strong hunter base within these communities that made them self reliant, 2) that developed residential and agricultural properties within the district were not immediately adjacent to forested and open land areas that harbor feral pigs, 3) that residents within those districts had a higher tolerance for the presence of feral pigs and associated damage, and 4) that citizens within those districts were not effectively educated on the available service provided by the County of Hawaii. Needless to say, the feral pig problem will continue to persist county-wide, and long term solutions will have to be formulated to curtail future pig damage issues.

With the assistance of wildlife-related agencies and organizations (DLNR-DOFAW, APHIS-WS, Hawaii Island Humane Society, etc.), APHIS-WS recommends that the County of Hawaii offer outreach forums in each community to allow the citizens to come up with wildlife damage solutions. It is naïve to think that one governmental solution will solve all the feral pig problems county-wide. Every situation is unique and requires innovative solutions that address variables of the problem (land ownership, suitable control methods, financial constraints, etc.). Suggestions that were already brought up in public meetings were 1) use DLNR-DOFAW's legal processes to create cooperative hunting units with adjacent private landowners that currently disallow access to increase hunting pressure on feral pigs populations, 2) change County-level regulations associated with the sale of real estate to require developers and landowners to disclose the existence of feral pigs and associated damage on those properties, and 3) invigorate the entrepreneurship of capable, business-minded people to create for-profit business structures that provide feral pig control services to the public. Some suggested solutions could totally exclude government involvement entirely, i.e. provide a forum to allow citizens with pig problems to interact with capable hunters within the community for assistance. There are some legal challenges (landowner liability) regarding this solution, but it is one that is of minimal cost to the County of Hawaii government, and will allow communities to become self reliant.

Continuing to assist the HDOA-AI wildlife disease surveillance program is vital to Hawaii's livestock production industry. The island of Hawaii produces 90% of Hawaii's livestock, and continuing to assist HDOA-AI officials understand the range of certain

wildlife diseases will prove valuable in their regulatory functions. The public will also become more aware of swine brucellosis and pseudorabies, and possibly prevent human ailments associated with some of these wildlife diseases. It is highly recommended that people conducting feral pig control work contact HDOA-AI officials to see how they could assist in the established surveillance program.

The 12-month pilot project was deemed a success by APHIS-WS. This opinion was formed mainly due to the feedback that was given by the public citizens that were serviced. There was, on occasion, negative feedback received from public citizens, but the basis of this feedback was mainly due to the length of time people had to wait until APHIS-WS staff could service them. Although not all reported cases were addressed, the four-man team covered all districts effectively and addressed all reports of human health and safety threats. The success of this project should not be measured by the amount of feral pigs that were removed from the environment, but by the data that was collected in the process of servicing the public. Valuable information (i.e. fencing info, wildlife disease prevention, state wildlife laws, etc.) was delivered to unknowing public citizens regarding what they can do to help themselves curtail damage associated with feral pigs, and valuable information (i.e. spatial data representing the extent of feral pig problems, spatial data associated with porcine wildlife diseases, etc.) was gathered when properties were serviced. This data should be deemed valuable to County of Hawaii government officials as they address future issues related to feral pig damage.

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Table 1: Actual expenditures by County fiscal quarters.

CATEGORY	AUTHORIZED ANNUAL BUDGET	FIRST QUARTER JUL to SEP 2007	SECOND QUARTER OCT to DEC 2007	THIRD QUARTER JAN to MAR 2008	FOURTH QUARTER APR to JUN 2008
Salaries/Benefits	$157,354	$41,682	$29,330	$41,115	$44,583
Travel	$4,984	$4,984	$0	$0	$0
Vehicle Maint.	$20,800	$5,600	$5,067	$5,067	$5,066
Equipment/Supplies	$51,127	$40,457	$4,266	$2,513	$4,535
WS Admin. Support	$15,735	$4,168	$3,856	$3,856	$3,855
TOTAL	**$250,000**	**$96,891**	**$42,519**	**$52,551**	**$58,039**

Table 2: Community participations results presented by judicial district.

	SOUTH HILO	NORTH HILO	HAMAKUA	NORTH KOHALA	SOUTH KOHALA	SOUTH KONA	NORTH KONA	KAU	PUNA	TOTALS
CALLS IN NEED OF ASSISTANCE	110	14	34	25	17	28	80	2	132	442
CALLS THAT WERE SERVICED	73	5	15	10	5	13	37	0	66	224
CALLS SURVEYED BUT (NO PIGS AROUND)	14	4	8	7	9	2	7	1	16	68
CALLS NOT SERVICED (PROJECT ENDED)	23	5	11	8	3	13	36	1	50	150
PERCENT OF RESIDENTS SERVICED	79%	64%	67%	68%	82%	53%	55%	50%	62%	66%

Table 3: Results presented by judicial district.

	SOUTH HILO	NORTH HILO	HAMAKUA	NORTH KOHALA	SOUTH KOHALA	SOUTH KONA	NORTH KONA	KAU	PUNA	TOTALS	PERCENT OF TOTAL
NUMBER OF PIGS CONSUMED	91	6	9	12	3	9	14	0	62	206	45%
NUMBER OF PIGS CAUGHT BY LEG SNARES	61	2	29	22	0	18	27	0	47	206	46%
NUMBER OF PIGS CAUGHT BY CAGE TRAP	71	10	11	2	4	1	11	0	24	134	30%
NUMBER OF PIGS CAUGHT BY CORRAL TRAP	33	13	0	0	2	9	0	0	12	69	16%
NUMBER OF PIGS SHOT OUTSIDE OF TRAP	13	2	4	2	0	0	2	0	16	39	0.08%
TOTAL NUMBER OF PIGS REMOVED	178	27	44	26	6	28	40	0	99	448	
BRUCELOSSIS	2	0	6	6	0	3	5	0	1	23	0.05%
PSUDORABIES	15	0	7	8	1	5	5	0	3	44	0.09%

Table 4: Wildlife disease surveillance test results.

PROPERTY LOCATION	DATE CAUGHT	JUVENILE <50 LBS		ADULT >50 LBS		BLOOD SAMPLE ID #	PIG COLOR	EST. WEIGHT (lbs)	REMARKS: HEALTHY/ SKINNNY	BLOOD RESULTS (positive/negative)	
		M	F	M	F					BRUC	PSUDO
KALOPA	8/20/2007				X	1	BLACK	80	HEALTHY	NEG	POSITIVE
KALOPA	8/21/2007	X				2	BLACK	25	HEALTHY	NEG	POSITIVE
KOHALA	8/29/2007			X		11	BLACK	110	HEALTHY	NEG	POSITIVE
KOHALA	8/31/2007			X		12	BLACK	180	HEALTHY	NEG	POSITIVE
KAUMANA	8/31/2007			X		1010	BLACK	180	HEALTHY	NEG	POSITIVE
KOHALA	9/5/2007				X	13	BLACK	80	SKINNY	NEG	POSITIVE
KOHALA	9/6/2007				X	14	BLACK	60	HEALTHY	POSITIVE	NEG
KAUMANA	9/6/2007				X	1011	BLACK	150	HEALTHY	NEG	POSITIVE
KOHALA	9/13/2007	X				19	BLACK	40	SKINNY	POSITIVE	NEG
KOHALA	9/18/2007			X		24	BLACK	110	HEALTHY	NEG	POSITIVE

KOHALA	9/18/2007			X		25	BLACK	110	HEALTHY	POSITIVE	NEG
KOHALA	9/18/2007				X	26	BLACK	115	HEALTHY	NEG	POSITIVE
KOHALA	9/20/2007				X	29	BLACK	80	HEALTHY	NEG	POSITIVE
KOHALA	9/20/2007			X		30	BLACK	150	HEALTHY	POSITIVE	POSITIVE
	9/24/2007			X		1034 Tube 1	BLACK	180	HEALTHY	NEG	POSITIVE
HAWII	9/25/2007				X	32	BLACK	100	HEALTHY	POSITIVE	NEG
KALOKO MAUKA	9/25/2007				X	1036	BLACK	130	HEALTHY	NEG	POSITIVE
KOHALA	9/28/2007			X		2001	BLACK	120	HEALTHY	POSITIVE	NEG
KOHALA	10/2/2007				X	36	BLACK	60	HEALTHY	NEG	POSITIVE
HOLUALOA	10/5/2007			X		1044	BLACK	140	HEALTHY	POSITIVE	POSITIVE
HOLUALOA	10/5/2007				X	1045	BLACK	80	HEALTHY	POSITIVE	NEG
PEPEEKEO	10/10/2007		X			2010	BLACK	30	HEALTHY	POSITIVE	NEG
KALOPA	10/16/2007	X				9003	BLACK	40	HEALTHY	NEG	POSITIVE

KALOPA	10/16/2007				X	9004	BLACK	80	HEALTHY	POSITIVE	NEG
HOLUALOA	10/18/2007				X	2003	BLACK	80	HEALTHY	POSITIVE	NEG
KALOPA	10/18/2007			X		9006	BLACK	120	HEALTHY	POSITIVE	POSITIVE
KALOPA	10/22/2007				X	9008	BLACK	120	HEALTHY	POSITIVE	NEG
KALOPA	10/22/2007				X	9009	BLACK	100	HEALTHY	POSITIVE	POSITIVE
KAUMANA	10/23/2007			X		9011	BLACK	120	HEALTHY	NEG	POSITIVE
KAUMANA	10/23/2007				X	9012	BLACK	150	HEALTHY	NEG	POSITIVE
KALOPA	10/24/2007				X	9013	BLACK	130	HEALTHY	NEG	POSITIVE
KALOKO MAUKA	10/25/2007				X	2005	BLACK	130	HEALTHY	NEG	POSITIVE
CAPT. COOK	10/26/2007				X	2006	BLACK	130	HEALTHY	NEG	POSITIVE
CAPT. COOK	10/26/2007				X	2007	BLACK	240	HEALTHY	NEG	POSITIVE
HOOKENA	10/30/2007			X		1047	BLACK	180	HEALTHY	NEG	POSITIVE
KALOPA	10/30/2007	X				9015	BLACK	30	HEALTHY	POSITIVE	NEG

KALOPA	10/30/2007	X				9016	BLACK	20	HEALTHY	POSITIVE	NEG
HAKALAU	10/31/2007				X	9017	BLACK	40	HEALTHY	NEG	POSITIVE
HAKALAU	10/31/2007			X		9018	BLACK	100	HEALTHY	NEG	POSITIVE
KALOKO MAUKA	11/1/2007			X		1048	BLACK	200	HEALTHY	NEG	POSITIVE
KALOPA	11/2/2007		X			9020	BLACK	20	HEALTHY	NEG	POSITIVE
PAUKAA	11/16/2007			X		9021	WHITE/ BLACK	80	HEALTHY	POSITIVE	NEG
MT. VIEW	11/21/2007				X	1062	BLACK	120	HEALTHY	NEG	POSITIVE
PARADISE PARK	12/5/2007				X	1069	BLACK	120	HEALTHY	POSITIVE	NEG
HAKALAU	12/19/2007	X				9044	BLACK	45	HEALTHY	HEMO	POSITIVE
MT. VIEW	12/20/2007			X		1081	BLACK	100	HEALTHY	HEMO	POSITIVE
CAPT. COOK	2/6/2008				X	1083	RED	150	HEALTHY	NEG	POSITIVE
HOLUALOA	2/13/2008			X		9050	BLACK	140	HEALTHY	NEG	POSITIVE
CAPT. COOK	2/15/2008		X			1085	BLACK	15	HEALTHY	POSITIVE	NEG

HOLUALOA	2/21/2008			X		9055	BLACK	150	HEALTHY	POSITIVE	NEG
CAPT. COOK	2/27/2008				X	1087	BLACK	130	HEALTHY	HEMO	POSITIVE
CAPT. COOK	2/27/2008				X	1090	BLACK	60	HEALTHY	POSITIVE	NEG
KEALAKEKUA	3/11/2008		X			1093	BLACK	30	HEALTHY	POSITIVE	NEG
HAKALAU	3/18/2008			X		9061	BLACK	50	HEALTHY	NEG	POSITIVE
HAKALAU	3/19/2008			X		9062	BLACK	60	HEALTHY	NEG	POSITIVE
HAKALAU	3/20/2008				X	9065	BLACK	70	HEALTHY	NEG	POSITIVE
HAKALAU	3/26/2008				X	9066	BLACK	120	HEALTHY	NEG	POSITIVE
HAKALAU	3/26/2008				X	9067	BLACK	90	HEALTHY	NEG	POSITIVE
HAKALAU	4/15/2008				X	1121	BLACK	60	HEALTHY	NEG	POSITIVE
HAKALAU	4/18/2008			X		9072	BLACK	60	HEALTHY	NEG	POSITIVE
KAUMANA	4/22/2008				X	9074	BLACK	70	HEALTHY	NEG	POSITIVE

COUNTY OF HAWAII FERAL PIG CONTROL PILOT PROJECT
UPDATE REPORT
APRIL 1 TO APRIL 30, 2008

PROJECT DESCRIPTION

This project was implemented by the United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services (APHIS-WS) under cooperative service agreement number 07-73-15-6072-RA with the County of Hawaii, Department of Research and Development. APHIS-WS entered into the aforementioned agreement to provide wildlife damage management activities to control feral pigs on behalf of the County of Hawaii as a service to residents, non-commercial farms and public institutions that are posed with human health and safety threats, nuisance and agricultural damage. This report covers APHIS-WS activities from April 1 to April 30, 2008.

PERSONNEL HOURS

APHIS-WS personnel spent 704 hours doing site visits and conducting trapping activities within the districts of South Hilo, North Hilo and Puna (Table 1) over this reporting period to control nuisance pigs which are causing problems within communities and small agricultural farms.

COMMUNITY PARTICIPATION

From July 1, 2007 to April 30, 2008, APHIS-WS received a total of 573 calls regarding feral pig damage. Of these calls, 406 of them were in need of trapping assistance and 167 calls were for general information on feral pigs.

METHODS AND RESULTS

Cage Traps

APHIS-WS personnel uses cage traps baited with papayas, fermented corn, macadamia nuts and bananas to control feral pigs. From April 1 to April 30 a total of 24 pigs were captured with the use of cage traps.

Corral Trap

APHIS-WS personnel uses corral traps to catch multiple pigs. These traps are baited with papayas, fermented corn, macadamia nuts and bananas to control feral pigs. Over this reporting period a total of four pigs were captured using corral traps.

Leg Snares

APHIS-WS personnel also uses non lethal leg snares on trails leading into properties and agriculture fields that have been encountering feral pig damages. Over this report period a total of 11 pigs were captured using leg snares.

Shooting

Occasionally pigs will be seen outside of a cage or alongside of a pig caught in a snare. When a safe shot is presented, a silenced .22 can be used to euthanize these animals.
Over this report period a total of seven feral pigs were shot.

Carcass Consumption
All trapped pigs may be consumed by the landowner or may be given to a second party by the landowner. APHIS-WS documented that 24 of the 46 pigs captured over this report period were consumed.

Blood Sampling
Blood samples were taken from pigs caught in cage traps, corral traps, leg snares and those that were shot. Blood is extracted from the neck area after proper euthanasia techniques were administered. A good sample consists of 30 ml. of blood (three 10 ml. test tubes) from each pig. All samples are sent to the Hawaii State Department of Agriculture in Oahu to test for Brucellosis and Psudorabies. (Table 2)
Between April 1 and April 30, 2008 a total of 46 pigs were captured. Of the 46 pigs captured, blood samples were taken from 24 pigs, 20 pigs did not have enough blood to fill the required vials (small juvenile pigs) and two pigs were killed and removed by landowners or neighbors before APHIS-WS could take samples. (APHIS-WS Specialists reminded landowners that trapped pigs are dangerous and should only be handled by trained APHIS-WS personnel).

Blood Results
APHIS-WS are still awaiting blood results from the State Department of Agriculture from pigs captured over this reporting period.

(Table 1) Trapping results per district over the month of April

DISTRICT	NORTH HILO	SOUTH HILO	PUNA
SITES TRAPPED	3	20	15
PIGS CAUGHT	7	24	15

PROPERTY LOCATION	DATE CAUGHT	JUVENILE <50 LBS		ADULT >50 LBS		BLOOD SAMPLE ID #	EST. WEIGHT (lbs)	BLOOD RESULTS (positive/negative)	
		M	F	M	F			BRUC	PSUDO
KALOPA	8/20/2007				X	1	80	NEG	POSITIVE
KALOPA	8/21/2007	X				2	25	NEG	POSITIVE
KOHALA	8/29/2007			X		11	110	NEG	POSITIVE
KOHALA	8/31/2007			X		12	180	NEG	POSITIVE
KAUMANA	8/31/2007			X		1010	180	NEG	POSITIVE
KOHALA	9/5/2007				X	13	80	NEG	POSITIVE
KOHALA	9/6/2007				X	14	60	POSITIVE	NEG
KAUMANA	9/6/2007				X	1011	150	NEG	POSITIVE
KOHALA	9/13/2007	X				19	40	POSITIVE	NEG
KOHALA	9/18/2007			X		24	110	NEG	POSITIVE
KOHALA	9/18/2007			X		25	110	POSITIVE	NEG
KOHALA	9/18/2007				X	26	115	NEG	POSITIVE
KOHALA	9/20/2007				X	29	80	NEG	POSITIVE
KOHALA	9/20/2007			X		30	150	POSITIVE	POSITIVE
HAWII	9/25/2007				X	32	100	POSITIVE	NEG
KALOKO MAUKA	9/25/2007				X	1036	130	NEG	POSITIVE
KOHALA	9/28/2007			X		2001	120	POSITIVE	NEG
KOHALA	10/2/2007				X	36	60	NEG	POSITIVE

HOLUALOA	10/5/2007			X		1044	140	POSITIVE	POSITIVE
HOLUALOA	10/5/2007				X	1045	80	POSITIVE	NEG
PEPEEKEO	10/10/2007		X			2010	30	POSITIVE	NEG
KALOPA	10/16/2007	X				9003	40	NEG	POSITIVE
KALOPA	10/16/2007				X	9004	80	POSITIVE	NEG
HOLUALOA	10/18/2007				X	2003	80	POSITIVE	NEG
KALOPA	10/18/2007			X		9006	120	POSITIVE	POSITIVE
KALOPA	10/22/2007				X	9008	120	POSITIVE	NEG
KALOPA	10/22/2007				X	9009	100	POSITIVE	POSITIVE
KAUMANA	10/23/2007			X		9011	120	NEG	POSITIVE
KAUMANA	10/23/2007				X	9012	150	NEG	POSITIVE
KALOPA	10/24/2007				X	9013	130	NEG	POSITIVE
KALOKO MAUKA	10/25/2007				X	2005	130	NEG	POSITIVE
CAPT. COOK	10/26/2007				X	2006	130	NEG	POSITIVE
CAPT. COOK	10/26/2007				X	2007	240	NEG	POSITIVE
HOOKENA	10/30/2007			X		1047	180	NEG	POSITIVE
KALOPA	10/30/2007	X				9015	30	POSITIVE	NEG
KALOPA	10/30/2007	X				9016	20	POSITIVE	NEG
HAKALAU	10/31/2007				X	9017	40	NEG	POSITIVE

HAKALAU	10/31/2007			X		9018	100	NEG	POSITIVE
KALOKO MAUKA	11/1/2007			X		1048	200	NEG	POSITIVE
KALOPA	11/2/2007		X			9020	20	NEG	POSITIVE
PAUKAA	11/16/2007			X		9021	80	POSITIVE	NEG
MT. VIEW	11/21/2007				X	1062	120	NEG	POSITIVE
PARADISE PARK	12/5/2007				X	1069	120	POSITIVE	NEG
HAKALAU	12/19/2007	X				9044	45	HEMO	POSITIVE
MT. VIEW	12/20/2007			X		1081	100	HEMO	POSITIVE
CAPT. COOK	2/6/2008				X	1083	150	NEG	POSITIVE
HOLUALOA	2/13/2008			X		9050	140	NEG	POSITIVE
CAPT. COOK	2/15/2008		X			1085	15	POSITIVE	NEG
HOLUALOA	2/21/2008			X		9055	150	POSITIVE	NEG
CAPT. COOK	2/27/2008				X	1087	130	HEMO	POSITIVE
CAPT. COOK	2/27/2008				X	1090	60	POSITIVE	NEG
KEALAKEKUA	3/11/2008		X			1093	30	POSITIVE	NEG
HAKALAU	3/18/2008			X		9061	50	NEG	POSITIVE
HAKALAU	3/19/2008			X		9062	60	NEG	POSITIVE
HAKALAU	3/20/2008				X	9065	70	NEG	POSITIVE
HAKALAU	3/26/2008				X	9066	120	NEG	POSITIVE

HAKALAU	3/26/2008				X	9067	90	NEG	POSITIVE

(Table 2)

Report prepared by: Shayne Veriato, Supervisory Wildlife Specialist – Island of Hawaii

COUNTY OF HAWAII FERAL PIG CONTROL PILOT PROJECT
UPDATE REPORT
MARCH 1 TO MARCH 31, 2008

PROJECT DESCRIPTION

This project was implemented by the United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services (APHIS-WS) under cooperative service agreement number 07-73-15-6072-RA with the County of Hawaii, Department of Research and Development. APHIS-WS entered into the aforementioned agreement to provide wildlife damage management activities to control feral pigs on behalf of the County of Hawaii as a service to residents, non-commercial farms and public institutions that are posed with human health and safety threats, nuisance and agricultural damage. This report covers APHIS-WS activities from March 1 to March 31, 2008.

PERSONNEL HOURS

APHIS-WS personnel spent 672 hours doing site visits and conducting trapping activities within the districts of South Hilo, North Hilo and Puna over this reporting period to control nuisance pigs which are causing problems within communities and small agricultural farms.

COMMUNITY PARTICIPATION

From July 1 to March 31, 2008, APHIS-WS received a total of 531 calls regarding feral pig damage. Of these calls, 375 of them were in need of trapping assistance and 156 calls were for general information on feral pigs.

METHODS AND RESULTS

Cage Traps

APHIS-WS personnel uses cage traps baited with papayas, fermented corn, macadamia nuts and bananas to control feral pigs. From March 1 to March 31 a total of 28 pigs were captured with the use of cage traps.

Corral Trap

APHIS-WS personnel uses corral traps to catch multiple pigs. These traps are baited with papayas, fermented corn, macadamia nuts and bananas to control feral pigs. Over this reporting period a total of 21 pigs were captured using several corral traps.

Leg Snares

APHIS-WS personnel also uses non lethal leg snares on trails leading into properties and agriculture fields that have been encountering feral pig damages. Over this report period a total of 22 pigs were captured using leg snares.

Shooting

Occasionally pigs will be seen outside of a cage or alongside of a pig caught in a snare. When a safe shot is presented, a silenced .22 can be used to euthanize these animals.
Over this report period a total of six feral pigs were shot.

Carcass Consumption
All trapped pigs may be consumed by the landowner or may be given to a second party by the landowner. APHIS-WS documented that 26 of the 77 pigs captured over this report period were consumed.

Blood Sampling
Blood samples were taken from pigs caught in cage traps, corral traps, leg snares and those that were shot. Blood is extracted from the neck area after proper euthanasia techniques were administered. A good sample consists of 30 ml. of blood (three 10 ml. test tubes) from each pig. All samples are sent to the Hawaii State Department of Agriculture in Oahu to test for Brucellosis and Psudorabies. (Table 2)
Between March 1 and March 31, 2008 a total of 77 pigs were captured. Of the 77 pigs captured, blood samples were taken from 26 pigs, 46 pigs did not have enough blood to fill the required vials (small juvenile pigs) and five pigs were killed and removed by landowners or neighbors before APHIS-WS could take samples. (APHIS-WS Specialists reminded landowners that trapped pigs are dangerous and should only be handled by trained APHIS-WS personnel).

Blood Results
APHIS-WS are still awaiting blood results from the State Department of Agriculture from pigs captured over this reporting period.

(Table 1) Trapping results per district over the month of March

DISTRICT	NORTH HILO	SOUTH HILO	PUNA
SITES TRAPPED	1	11	13
PIGS CAUGHT	13	30	34

(Table 2)

PROPERTY LOCATION	DATE CAUGHT	JUVENILE <50 LBS		ADULT >50 LBS		BLOOD SAMPLE ID #	BLOOD RESULTS (positive/negative)	
		M	F	M	F		BRUC	PSUDO
KALOPA	8/20/2007				X	1	NEG	POSITIVE
KALOPA	8/21/2007	X				2	NEG	POSITIVE
KOHALA	8/29/2007			X		11	NEG	POSITIVE
KOHALA	8/31/2007			X		12	NEG	POSITIVE
KAUMANA	8/31/2007			X		1010	NEG	POSITIVE
KOHALA	9/5/2007				X	13	NEG	POSITIVE
KOHALA	9/6/2007				X	14	POSITIVE	NEG
KAUMANA	9/6/2007				X	1011	NEG	POSITIVE
KOHALA	9/13/2007	X				19	POSITIVE	NEG

KOHALA	9/18/2007			X		24	NEG	POSITIVE
KOHALA	9/18/2007			X		25	POSITIVE	NEG
KOHALA	9/18/2007				X	26	NEG	POSITIVE
KOHALA	9/20/2007				X	29	NEG	POSITIVE
KOHALA	9/20/2007			X		30	POSITIVE	POSITIVE
KOHALA	9/24/2007			X		1034 Tube 1	NEG	POSITIVE
HAWII	9/25/2007				X	32	POSITIVE	NEG
KALOKO MAUKA	9/25/2007				X	1036	NEG	POSITIVE
KOHALA	9/28/2007			X		2001	POSITIVE	NEG
KOHALA	10/2/2007				X	36	NEG	POSITIVE
HOLUALOA	10/5/2007			X		1044	POSITIVE	POSITIVE
HOLUALOA	10/5/2007				X	1045	POSITIVE	NEG
PEPEEKEO	10/10/2007		X			2010	POSITIVE	NEG
KALOPA	10/16/2007	X				9003	NEG	POSITIVE
KALOPA	10/16/2007				X	9004	POSITIVE	NEG
HOLUALOA	10/18/2007				X	2003	POSITIVE	NEG
KALOPA	10/18/2007			X		9006	POSITIVE	POSITIVE
KALOPA	10/22/2007				X	9008	POSITIVE	NEG
KALOPA	10/22/2007				X	9009	POSITIVE	POSITIVE
KAUMANA	10/23/2007			X		9011	NEG	POSITIVE
KAUMANA	10/23/2007				X	9012	NEG	POSITIVE
KALOPA	10/24/2007				X	9013	NEG	POSITIVE
KALOKO MAUKA	10/25/2007				X	2005	NEG	POSITIVE
CAPT. COOK	10/26/2007				X	2006	NEG	POSITIVE
CAPT. COOK	10/26/2007				X	2007	NEG	POSITIVE
HOOKENA	10/30/2007			X		1047	NEG	POSITIVE
KALOPA	10/30/2007	X				9015	POSITIVE	NEG
KALOPA	10/30/2007	X				9016	POSITIVE	NEG
HAKALAU	10/31/2007				X	9017	NEG	POSITIVE
HAKALAU	10/31/2007			X		9018	NEG	POSITIVE

KALOKO MAUKA	11/1/2007			X		1048	NEG	POSITIVE
KALOPA	11/2/2007		X			9020	NEG	POSITIVE
PAUKAA	11/16/2007			X		9021	POSITIVE	NEG
MT. VIEW	11/21/2007				X	1062	NEG	POSITIVE
PARADISE PARK	12/5/2007				X	1069	POSITIVE	NEG
HAKALAU	12/19/2007	X				9044	HEMO	POSITIVE
MT. VIEW	12/20/2007			X		1081	HEMO	POSITIVE
CAPT. COOK	2/6/2008				X	1083	NEG	POSITIVE
HOLUALOA	2/13/2008			X		9050	NEG	POSITIVE
CAPT. COOK	2/15/2008		X			1085	POSITIVE	NEG
HOLUALOA	2/21/2008			X		9055	POSITIVE	NEG

Report prepared by: Shayne Veriato, Supervisory Wildlife Specialist – Island of Hawaii

COUNTY OF HAWAII FERAL PIG CONTROL PILOT PROJECT
UPDATE REPORT
JANUARY 1 TO FEBRUARY 29, 2008

PROJECT DESCRIPTION

This project was implemented by the United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services (APHIS-WS) under cooperative service agreement number 07-73-15-6072-RA with the County of Hawaii, Department of Research and Development. APHIS-WS entered into the aforementioned agreement to provide wildlife damage management activities to control feral pigs on behalf of the County of Hawaii as a service to residents, non-commercial farms and public institutions that are posed with human health and safety threats, nuisance and agricultural damage. This report covers APHIS-WS activities from January 1 to February 29, 2008.

PERSONNEL HOURS

APHIS-WS personnel spent 1,336 hours doing site visits and conducting trapping activities within the Hilo, Puna, Hamakua, Kohala and Kona areas to control nuisance pigs which are causing problems within communities and small agricultural farms.

COMMUNITY PARTICIPATION

From July 1, 2007 to February 29, 2008, APHIS-WS received a total of 500 calls regarding feral pig damage. Of these calls, 365 of them were in need of trapping assistance and 135 calls were for general information on feral pigs.

METHODS AND RESULTS

Cage Traps

APHIS-WS personnel uses cage traps baited with papayas, fermented corn, macadamia nuts and bananas to control feral pigs. From January 1 to February 29 a total of 19 pigs were captured with the use of cage traps.

Leg Snares

APHIS-WS personnel also uses non lethal leg snares on trails leading into properties and agriculture fields that have been encountering feral pig damages. Over this report period a total of 21 pigs were captured using leg snares.

Shooting

Occasionally pigs will be seen outside of a cage or alongside of a pig caught in a snare. When a safe shot is presented, a silenced .22 can be used to euthanize these animals.
Over this report period a total of two feral pigs were shot outside of a cage trap.

Carcass Consumption

All trapped pigs may be consumed by the landowner or may be given to a second party by the landowner. APHIS-WS documented that 19 of the 42 pigs captured over this report period were consumed.

Blood Sampling

Blood samples were taken from pigs caught in cage traps, leg snares and those that were shot. Blood is extracted from the neck area after proper euthanasia techniques were administered. A good sample consists of 30 ml. of blood (three 10 ml. test tubes) from each pig.

Between January 1 and February 29, 2008 a total of 42 pigs were captured. Of the 42 pigs captured, blood samples were taken from 27 pigs, eight pigs did not have enough blood to fill the required vials and seven pigs were killed and removed by landowners or neighbors before APHIS-WS could take samples. (APHIS-WS Specialists reminded landowners that trapped pigs are dangerous and should only be handled by trained APHIS-WS personnel).

Blood Results

APHIS-WS are still awaiting blood results from the State Department of Agriculture from pigs captured over this reporting period.

Report prepared by: Shayne Veriato, Supervisory Wildlife Specialist – Island of Hawaii

STATUS REPORT
COUNTY OF HAWAII
FERAL PIG CONTROL PILOT PROJECT
JULY 1 TO DECEMBER 31, 2007

1.0 PROJECT DESCRIPTION

This project was implemented by the United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services (APHIS-WS) under cooperative service agreement number 07-73-15-6072-RA with the County of Hawaii, Department of Research and Development (R&D). APHIS-WS entered into this agreement to assist the R&D in providing wildlife damage management (WDM) services to residents, agricultural farms and public institutions within the County of Hawaii that are posed with human health and safety threats, nuisance, property damage and agricultural damage associated with feral pigs. This 12-month pilot project was implemented per Council Resolution 134-07 to assess the feasibility and effectiveness of a government sanctioned, island wide feral pig control program. This report covers APHIS-WS activities from July 1 to December 31, 2007.

2.0 PERSONNEL HOURS

APHIS-WS personnel spent 2,983 hours constructing cage traps, doing site visits and conducting control activities to remove nuisance pigs which posed problems within communities and small, noncommercial agricultural farms. This project provided funding for four Wildlife Specialist positions based out of APHIS-WS facility in Hilo.

The initial intent of APHIS-WS was to employ two personnel to service the eastern side of the island, and two for the west, to better assist communities in need and reduce the travel time needed for servicing properties. However, due to staffing complications and budget shortfalls with another County of Hawaii project (*Coqui* frog spray teams and loan sprayer program) that ended on September 30, 2007, APHIS-WS decided to retain the existing staff to service the feral pig project. All of the existing staff was stationed at the Hilo APHIS-WS facility.

3.0 FINANCIAL EXPENDITURES

The total authorized budget for this pilot project was $250,000. A projected $157,354 was budgeted for salaries/benefits, $4,984 for official travel, $20,800 for vehicle maintenance/repair, $14,227 for consumable supplies, $36,900 for equipment, and $15,735 for APHIS-WS administrative overhead. As of December 31, 2007, a total of $139,906, or 56% of the total budget, have been spent on the various budgetary line items. Table 1 outlines expenditures by category for the first and second County fiscal quarters, as well as projected expenditures for the third and forth quarters.

4.0 COMMUNITY PARTICIPATION

From July 1 to December 31, 2007, APHIS-WS received a total of 401 calls regarding feral pig damage. Of these calls, 290 of them were in need of trapping assistance and 111 calls were for general information on feral pigs. In most cases, information that was disseminated to the general public included suggested fencing specifications to promote

long-term solutions, wildlife disease risks as it relates to the butchering of possibly contaminated meat, the state-level regulations as it pertains to the control of feral pigs on private property, and specifications for trap building for individuals interested and competent in trapping problematic pigs themselves.

4.1 Carcass Disposition

As owners or lessees of the properties that were serviced, residents and noncommercial agricultural farmers were given the opportunity to assume responsibility of the pig carcasses for human consumption or give it to an interested second party. Every effort was made by APHIS-WS personnel to influence the people being serviced to utilize the meat for human consumption, although the final decision was left to the land owner or lessee. APHIS-WS documented that 104, or 47%, of the 221 pigs captured were consumed. The remaining carcasses were disposed of at the Hilo Landfill.

5.0 METHODS AND RESULTS

Three primary control methods (cage traps, leg snares and shooting with suppressed rimfire rifles) were used to remove 221 injurious feral pigs from 64 trapping locations, most of which were residential properties (Table 3). Despite the assumption that cage traps would be the primary control method when the project was initiated, leg snares were deemed more useful in areas where feral pigs could not be baited into a cage trap, or where there were no suitable areas to place a cage trap. A description of each method and associated results are provided below.

5.1 Cage Traps

Cage traps were deployed and baited with papayas, fermented corn, macadamia nuts and/or bananas to control feral pigs. Over this report period, a total of 88 pigs were captured using cage traps representing 40% of the total catch.

5.2 Leg Snares

Non-lethal leg snares were deployed on trails leading into properties and agriculture fields that have been encountering feral pig damages. Over this report period, a total of 128 pigs were captured using leg snares representing 58% of the total catch.

5.3 Shooting

Pigs were occasionally observed outside of a cage trap or alongside of a pig caught in a leg snare. In these instances, selective opportunistic shooting provided a means to remove problematic individuals that could have potentially been leery, or "trap-shy", of trapping devices. This method was very seldom used, and only when safe shots were observed. Suppressed rimfire rifles were used to humanely shoot free-ranging pigs at close range. Over this report period, a total of five feral pigs were shot outside of a cage trap representing 2% of the total catch.

6.0 ZOONOTIC DISEASE SURVEILLANCE

Blood samples were taken from pigs caught in cage traps, leg snares and those that were shot to assist in updating the State of Hawaii, Department of Agriculture, Division of Animal Industry's (HDOA-AI) established wildlife disease surveillance program. Blood was extracted from the neck area after proper euthanasia techniques were administered. A viable sample consisted of 30 ml. of whole blood (three 10 ml. test tubes) extracted from a pig with minimal coagulation. The whole blood was then spun down in a centrifuge, and blood serum samples were shipped to the Veterinary Laboratory Branch of the HDOA-AI located in Halawa Valley on Oahu with the assistance of an APHIS-WS Wildlife Disease Biologist. Test results were normally provided by the Laboratory within 2 weeks of submission.

Of the 221 pigs captured, 11 pigs were captured before the blood sampling equipment was purchased and received, 29 pigs did not have enough blood to fill the required vials, and 27 pigs were killed and removed by landowners or neighbors before APHIS-WS could take samples (this is despite the instructions given to landowners by APHIS-WS personnel that trapped pigs are dangerous and should only be handled by trained APHIS-WS personnel). Over this report period, a total of 154 blood serum samples were submitted for disease surveillance.

6.1 Blood Serum Results for Swine Brucellosis and Pseudorabies

Current results show that 18 pigs tested positive for swine brucellosis and 29 pigs tested positive for pseudorabies. Areas where brucellosis infected pigs were captured include Holualoa, Hawi, Pepe'ekeo, Kalopa, Paradise Park, Pauka'a and Kaumana in Hilo. Areas where pigs infected with pseudorabies were removed include Kaloko Mauka, Kalopa Mauka, Kohala, Kaumana, Ho'okena, Captain Cook, Mountain View, Hakalau and Holualoa. Refer to Table 2 and 3 for a detailed summary of disease surveillance results.

7.0 NATIONAL ENVIRONMENTAL POLICY ACT COMPLIANCE

All federal actions (funding, operational, etc.) are subject the National Environmental Policy Act (NEPA). NEPA is a public planning and review process put in place by congress that allows the general public to comment on proposed and existing federal actions. APHIS-WS has recently completed an Environmental Assessment (EA) on the feral pig control pilot project with input from cooperative agencies. It will be available for public review and comment soon on the APHIS website, with public notifications published in the local newspapers. Hard copies of the EA will be sent to special interest groups and interested parties that contact APHIS-WS directly.

Prepared by:
Shayne Veriato, Supervisory Wildlife Specialist – Island of Hawaii

Reviewed and submitted by:
Mark Ono, District Supervisor - Hawaii

Table 1: Actual and projected expenditures by County fiscal quarters.

CATEGORY	AUTHORIZED ANNUAL BUDGET	FIRST QUARTER (actual) JUL to SEP 2007	SECOND QUARTER (actual) OCT to DEC 2007	THIRD QUARTER (projected) JAN to MAR 2008	FORTH QUARTER (projected) APR to JUN 2008
Salaries/Benefits	$157,354	$22,321	$42,254	$42,255	$42,253
Travel	$4,984	$7,439	$0	$0	$0
Vehicle Maint.	$20,800	$5,600	$5,066	$5,067	$5,067
Supplies	$14,227	$14,737	$2,170	$1,586	$1,550
Equipment	$36,900	$0	$32,295	$4,605	$0
WS Admin. OH	$15,735	$4,168	$3,856	$3,856	$3,855
TOTAL	**$250,000**	**$54,265**	**$85,641**	**$57,369**	**$52,725**

Table 2: Zoonotic disease surveillance test results.

PROPERTY LOCATION	DATE CAUGHT	JUVENILE <50 LBS		ADULT >50 LBS		BLOOD SAMPLE ID #	PIG COLOR	EST. WEIGHT (lbs)	REMARKS: HEALTHY/ SKINNNY	BLOOD RESULTS (positive/negative)	
		M	F	M	F					BRUC	PSEUDO
KALOPA	8/20/2007				X	1	BLACK	80	HEALTHY	NEG	POSITIVE
KALOPA	8/21/2007	X				2	BLACK	25	HEALTHY	NEG	POSITIVE
KOHALA	8/29/2007			X		11	BLACK	110	HEALTHY	NEG	POSITIVE
KAUMANA	8/31/2007			X		1010	BLACK	180	HEALTHY	NEG	POSITIVE
KOHALA	8/31/2007			X		12	BLACK	180	HEALTHY	NEG	POSITIVE
KOHALA	9/5/2007				X	13	BLACK	80	SKINNY	NEG	POSITIVE
KAUMANA	9/6/2007				X	1011	BLACK	150	HEALTHY	NEG	POSITIVE
KOHALA	9/6/2007				X	14	BLACK	60	HEALTHY	POSITIVE	NEG
KOHALA	9/13/2007	X				19	BLACK	40	SKINNY	POSITIVE	NEG
KOHALA	9/18/2007			X		24	BLACK	110	HEALTHY	NEG	POSITIVE
KOHALA	9/18/2007			X		25	BLACK	110	HEALTHY	POSITIVE	NEG
KOHALA	9/18/2007				X	26	BLACK	115	HEALTHY	NEG	POSITIVE
KOHALA	9/20/2007				X	29	BLACK	80	HEALTHY	NEG	POSITIVE
KOHALA	9/20/2007			X		30	BLACK	150	HEALTHY	POSITIVE	POSITIVE
HAWII	9/25/2007				X	32	BLACK	100	HEALTHY	POSITIVE	NEG
KALOKO MAUKA	9/25/2007				X	1036	BLACK	130	HEALTHY	NEG	POSITIVE
KOHALA	9/28/2007			X		2001	BLACK	120	HEALTHY	POSITIVE	NEG
KOHALA	10/2/2007				X	36	BLACK	60	HEALTHY	NEG	POSITIVE
HOLUALOA	10/5/2007				X	1045	BLACK	80	HEALTHY	POSITIVE	NEG
HOLUALOA	10/5/2007			X		1044	BLACK	140	HEALTHY	POSITIVE	POSITIVE
PEPEEKEO	10/10/2007		X			2010	BLACK	30	HEALTHY	POSITIVE	NEG
KALOPA	10/16/2007				X	9004	BLACK	80	HEALTHY	POSITIVE	NEG
KALOPA	10/16/2007	X				9003	BLACK	40	HEALTHY	NEG	POSITIVE
KALOPA	10/18/2007			X		9006	BLACK	120	HEALTHY	POSITIVE	POSITIVE
HOLUALOA	10/18/2007				X	2003	BLACK	80	HEALTHY	POSITIVE	NEG
KALOPA	10/22/2007				X	9008	BLACK	120	HEALTHY	POSITIVE	NEG
KALOPA	10/22/2007				X	9009	BLACK	100	HEALTHY	POSITIVE	POSITIVE
KAUMANA	10/23/2007			X		9011	BLACK	120	HEALTHY	NEG	POSITIVE
KAUMANA	10/23/2007				X	9012	BLACK	150	HEALTHY	NEG	POSITIVE
KALOPA	10/24/2007				X	9013	BLACK	130	HEALTHY	NEG	POSITIVE
KALOKO MAUKA	10/25/2007				X	2005	BLACK	130	HEALTHY	NEG	POSITIVE
CAPT. COOK	10/26/2007				X	2006	BLACK	130	HEALTHY	NEG	POSITIVE
CAPT. COOK	10/26/2007				X	2007	BLACK	240	HEALTHY	NEG	POSITIVE
KALOPA	10/30/2007	X				9015	BLACK	30	HEALTHY	POSITIVE	NEG
KALOPA	10/30/2007	X				9016	BLACK	20	HEALTHY	POSITIVE	NEG
HOOKENA	10/30/2007			X		1047	BLACK	180	HEALTHY	NEG	POSITIVE
HAKALAU	10/31/2007				X	9017	BLACK	40	HEALTHY	NEG	POSITIVE
HAKALAU	10/31/2007			X		9018	BLACK	100	HEALTHY	NEG	POSITIVE
KALOKO MAUKA	11/1/2007			X		1048	BLACK	200	HEALTHY	NEG	POSITIVE
KALOPA	11/2/2007		X			9020	BLACK	20	HEALTHY	NEG	POSITIVE
PAUKAA	11/16/2007			X		9021	BLACK/ WHITE	80	HEALTHY	POSITIVE	NEG
MT. VIEW	11/21/2007				X	1062	BLACK	120	HEALTHY	NEG	POSITIVE
PARADISE PARK	12/5/2007				X	1069	BLACK	120	HEALTHY	POSITIVE	NEG

Table 3: Results presented by judicial district.

	NORTH HILO	SOUTH HILO	HAMAKUA	NORTH KOHALA	SOUTH KOHALA	NORTH KONA	SOUTH KONA	PUNA	KAU	TOTALS
CALLS IN NEED OF ASSISTANCE	10	71	20	22	11	57	21	77	1	**290**
NUMBER OF SITES TRAPPED	1	22	6	8	0	7	5	15	0	**64**
NUMBER OF PIGS REMOVED	7	98	21	26	0	19	11	39	0	**221**
BRUCELLOSIS +	0	3	6	5	0	3	0	1	0	**18**
PSEUDORABIES +	0	6	7	8	0	4	3	1	0	**29**

COUNTY OF HAWAII FERAL PIG CONTROL PILOT PROJECT
UPDATE REPORT
JULY 1 TO NOVEMBER 30, 2007

PROJECT DESCRIPTION

This project was implemented by the United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services (APHIS-WS) under cooperative service agreement number 07-73-15-6072-RA with the County of Hawaii, Department of Research and Development. APHIS-WS entered into the aforementioned agreement to provide wildlife damage management activities to control feral pigs on behalf of the County of Hawaii as a service to residents, non-commercial farms and public institutions that are posed with human health and safety threats, nuisance and agricultural damage. This report covers APHIS-WS activities from July 1 to November 30, 2007.

PERSONNEL HOURS

APHIS-WS personnel spent 2,407 hours constructing cage traps, doing site visits and conducting trapping activities within the Hilo, Puna, Hamakua, Kohala and Kona areas to control nuisance pigs which are causing problems within communities and small agricultural farms.

COMMUNITY PARTICIPATION

From July 1 to November 30, 2007, APHIS-WS received a total of 355 calls regarding feral pig damage. Of these calls, 285 of them were in need of trapping assistance and 70 calls were for general information on feral pigs.

METHODS AND RESULTS

Cage Traps

APHIS-WS personnel uses cage traps baited with papayas, fermented corn, macadamia nuts and bananas to control feral pigs. From July 1 to November 30, 2007 a total of 59 pigs were captured with the use of cage traps.

Leg Snares

APHIS-WS personnel also uses non lethal leg snares on trails leading into properties and agriculture fields that have been encountering feral pig damages. Over this report period a total of 122 pigs were captured using leg snares.

Shooting

Occasionally pigs will be seen outside of a cage or alongside of a pig caught in a snare. When a safe shot is presented, a silenced .22 can be used to euthanize these animals.
Over this report period a total of five feral pigs were shot outside of a cage trap.

Carcass Consumption

All trapped pigs may be consumed by the landowner or may be given to a second party by the landowner. APHIS-WS documented that 74 of the 186 pigs captured were consumed.

Blood Sampling

Blood samples were taken from pigs caught in cage traps, leg snares and those that were shot. Blood is extracted from the neck area after proper euthanasia techniques were administered. A good sample consists of 30 ml. of blood (three 10 ml. test tubes) from each pig.
Between July 1 and November 30, 2007 a total of 186 pigs were captured. Of the 186 pigs captured, 10 pigs were captured before the blood sampling equipment was in, 28 pigs did not have enough blood to fill the required vials and nine pigs were killed and removed by landowners before APHIS-WS could take samples. (APHIS-WS Specialists reminded landowners that trapped pigs are dangerous and should only be handled by APHIS-WS personnel).

Blood Results

(Table 1) Current results show that 16 pigs tested positive for swine brucellosis and 28 pigs tested positive for psudorabies. Current areas with brucellosis infected pigs are Kohala, Holualoa, Hawi, Pepeekeo, Kalopa Mauka and Kaumana in Hilo. Areas infected with Psudorabies are Kaloko Mauka, Kalopa mauka, Kohala, Kaumana, Hookena, Capt. Cook and Holualoa.

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Table 1: Blood test results.

PROPERTY LOCATION	DATE CAUGHT	JUVENILE <50 LBS		ADULT >50 LBS		BLOOD SAMPLE ID #	PIG COLOR	EST. WEIGHT (lbs)	REMARKS: HEALTHY/ SKINNNY	BLOOD RESULTS (positive/negative)	
		M	F	M	F					BRUC	PSUDO
KALOPA	8/20/2007				X	1	BLACK	80	HEALTHY	NEG	POSITIVE
KALOPA	8/21/2007	X				2	BLACK	25	HEALTHY	NEG	POSITIVE
KOHALA	8/29/2007			X		11	BLACK	110	HEALTHY	NEG	POSITIVE
KAUMANA	8/31/2007			X		1010	BLACK	180	HEALTHY	NEG	POSITIVE
KOHALA	8/31/2007			X		12	BLACK	180	HEALTHY	NEG	POSITIVE
KOHALA	9/5/2007				X	13	BLACK	80	SKINNY	NEG	POSITIVE
KAUMANA	9/6/2007				X	1011	BLACK	150	HEALTHY	NEG	POSITIVE
KOHALA	9/6/2007				X	14	BLACK	60	HEALTHY	POSITIVE	NEG
KOHALA	9/13/2007	X				19	BLACK	40	SKINNY	POSITIVE	NEG
KOHALA	9/18/2007			X		24	BLACK	110	HEALTHY	NEG	POSITIVE

KOHALA	9/18/2007			X		25	BLACK	110	HEALTHY	POSITIVE	NEG
KOHALA	9/18/2007				X	26	BLACK	115	HEALTHY	NEG	POSITIVE
KOHALA	9/20/2007				X	29	BLACK	80	HEALTHY	NEG	POSITIVE
KOHALA	9/20/2007			X		30	BLACK	150	HEALTHY	POSITIVE	POSITIVE
HAWII	9/25/2007				X	32	BLACK	100	HEALTHY	POSITIVE	NEG
KALOKO MAUKA	9/25/2007				X	1036	BLACK	130	HEALTHY	NEG	POSITIVE
KOHALA	9/28/2007			X		2001	BLACK	120	HEALTHY	POSITIVE	NEG
KOHALA	10/2/2007				X	36	BLACK	60	HEALTHY	NEG	POSITIVE
HOLUALOA	10/5/2007				X	1045	BLACK	80	HEALTHY	POSITIVE	NEG
HOLUALOA	10/5/2007			X		1044	BLACK	140	HEALTHY	POSITIVE	POSITIVE
PEPEEKEO	10/10/2007		X			2010	BLACK	30	HEALTHY	POSITIVE	NEG
KALOPA	10/16/2007				X	9004	BLACK	80	HEALTHY	POSITIVE	NEG
KALOPA	10/16/2007	X				9003	BLACK	40	HEALTHY	NEG	POSITIVE
KALOPA	10/18/2007			X		9006	BLACK	120	HEALTHY	POSITIVE	POSITIVE
HOLUALOA	10/18/2007				X	2003	BLACK	80	HEALTHY	POSITIVE	NEG
KALOPA	10/22/2007				X	9008	BLACK	120	HEALTHY	POSITIVE	NEG

KALOPA	10/22/2007				X	9009	BLACK	100	HEALTHY	POSITIVE	POSITIVE
KAUMANA	10/23/2007			X		9011	BLACK	120	HEALTHY	NEG	POSITIVE
KAUMANA	10/23/2007				X	9012	BLACK	150	HEALTHY	NEG	POSITIVE
KALOPA	10/24/2007				X	9013	BLACK	130	HEALTHY	NEG	POSITIVE
KALOKO MAUKA	10/25/2007				X	2005	BLACK	130	HEALTHY	NEG	POSITIVE
CAPT. COOK	10/26/2007				X	2006	BLACK	130	HEALTHY	NEG	POSITIVE
CAPT. COOK	10/26/2007				X	2007	BLACK	240	HEALTHY	NEG	POSITIVE
KALOPA	10/30/2007	X				9015	BLACK	30	HEALTHY	POSITIVE	NEG
KALOPA	10/30/2007	X				9016	BLACK	20	HEALTHY	POSITIVE	NEG
HOOKENA	10/30/2007			X		1047	BLACK	180	HEALTHY	NEG	POSITIVE
HAKALAU	10/31/2007				X	9017	BLACK	40	HEALTHY	NEG	POSITIVE
HAKALAU	10/31/2007			X		9018	BLACK	100	HEALTHY	NEG	POSITIVE
KALOKO MAUKA	11/1/2007			X		1048	BLACK	200	HEALTHY	NEG	POSITIVE
KALOPA	11/2/2007		X			9020	BLACK	20	HEALTHY	NEG	POSITIVE