

Summary of Federal CAPS Funds, 1999 to 2005
PPC Survey Program

Year	Federal Fund	Provided by USDA	Amount used	Purpose
1999	Cooperative Agricultural Pest Survey (CAPS)	\$5,400.00	\$5,017.87	With the large influx of passengers and cargo into Hawaii via air and surface transportation, there is increased potential for many harmful insects, weeds, and plant diseases to enter the islands. With Hawaii's year-round favorable climate and wide selection of plant hosts, new invertebrate organisms quickly become established. Funds were used to purchase equipment and supplies to aid in the detection, identification, and investigation of plant pests. Hawaii's emphasis in the USDA-APHIS Cooperative Agricultural Pests Survey (CAPS) Program is on three areas: (1) the detection and investigation of new insect pests to the State, (2) the entering of new pest data into the National Agricultural Pest Information System (NAPIS) database, and (3) communication of new pest information through new pest advisory notices placed on the Internet.
2000	CAPS	\$5,400.00	\$5,382.20	"
2001	CAPS	\$7,500.00	\$6,485.49	"
2002	CAPS - Red Imported Fire Ant (RIFA)	\$17,500.00	\$17,181.50	Red Imported Fire Ant is an extremely aggressive stinging ant that has invaded states across the mainland U.S. Early detection of this ant will allow for eradication strategies to be quickly implemented. . . . Funds were used to provide equipment and supplies used in the detection of RIFA through (1) detection surveys at high risk areas using special baiting techniques and inspections for ant mounds, (2) follow-up investigations of referrals from the U.H., or other agencies, (3) referrals from private industry, (4) referrals from physicians offices, (5) through residential pest calls, or (6) in the course of other routine HDOA pest surveys. . . . Specimens were identified by the Taxonomy Unit. No RIFA has been detected so far. . . . If RIFA specimens are detected, the Survey Unit will intensify surveys to delineate the infested areas. The results will then discussed with HDOA administrators, other Federal and state agencies, and the private sector. A RIFA eradication plan will then be generated and implemented to eliminate the ant from the State.

2002	CAPS - Homeland Security	\$120,000.00	\$119,030.45	Funds were used to develop the infrastructure needed to expand the pest surveillance and reporting program to include neighbor island and other support staff. It consisted of obtaining the necessary vehicles, equipment and other resources to insure that Oahu and neighbor island staff are able to conduct surveys on all islands, be able to record and transmit pest photos, insure data transfer among computers, train staff in the use and interpretation of global positioning data, and institute preliminary surveys on agricultural pests identified for FY 2003 (e.g. soybean rust, banana bunchy top disease, red imported fire ant, papaya mealybug).
2003	CAPS - Homeland Security	\$83,000.00	\$75,008.46	This is a continuation of the Homeland Security project initiated in 2002. Funds were used for equipment, supplies, and travel expenses to coordinate and conduct plant pest detection activities on all islands. Continued staff training of personnel in surveillance, detection, and handling pest data through geographic information system (GIS).
2003	CAPS - Pest Detection (Core)	\$29,739.00	\$28,577.91	Funds were used for general pest detection, surveys for papaya mealybug (not known to occur in Hawaii), bunchytop disease, and soybean rust.
2003	CAPS - RIFA	\$10,000.00	\$9,625.81	See RIFA info, above
2004	CAPS - Pest Detection (Core)	\$96,816.00	\$90,005.66	Funds were used for the prompt detection, identification, and investigation of plant pests are vital to the implementation of control strategies to minimize economic losses. Agricultural pests originating from the Pacific or Asian areas are that much closer to the mainland U.S. With increased air and sea transportation, there is an ever increasing risk that these pests will enter the mainland as well as threaten the well being of Hawaii's export market to foreign countries. The purpose of this project is to participate in the basic CAPS program and it to provide funds for entering new pest data to the National Agricultural Pest Information System (NAPIS) database.
2004	CAPS-RIFA	\$7,597.00	\$6,280.08	See RIFA info, above
2004	CAPS - Papaya Mealybug	\$12,816.00	\$9,192.19	The purpose of this project is for the early detection of the mealybug which would allow for quick importation of existing biological control agents already in culture by the USDA APHIS beneficial insect rearing laboratories in Puerto Rico Papaya Mealybug was only recently detected in the State on Maui. Funds were used for the surveys, investigations, supplies and equipment, and generation of mealybug distribution maps. Funds were used for staff training to recognize the papaya mealybug which was necessary to reduce the amount of suspect sample material generated by detection surveys. Data from this Cooperative Agreement was also entered into the NAPIS database.

2004	CAPS - Giant Salvinia	\$48,030.00	<< need info from Derek >>	The purpose of this project is to survey for and map the distribution and escape of <i>Salvinia molesta</i> and other <i>Salvinia</i> species, and of fireweed in the islands. Funds are being used for supplies, equipment, and travel for (1) identifying populations of <i>salvinia</i> species and fireweed on each of the islands; (2) using GIS to document infestations in lakes, tributaries, streams, reservoirs, backyards, and farms to ascertain the locations of <i>salvinia</i> in specific habitats and to determine the threat to the habitat; (3) work with other agencies to provide plant vouchers to the Bishop Museum of Hawaii, the official Hawaii plant curator of introduced plants.
2004	CAPS- Glassywinged sharpshooter	\$30,000.00	\$20,000.00	Glassy-winged sharpshooter (GWSS) was first found in Hawaii in 2004. It is a serious threat to mainland agriculture because of its ability to vector and spread the bacterial pathogen, <i>Xylella fastidiosa</i> , that causes Pierce's disease (PD) of grapes, almond leaf scorch, oleander leaf scorch, alfalfa dwarf, citrus variegated chlorosis, GWSS is extremely polyphagous and threatens a wide variety of cultivated crops, ornamentals, and novel plants native to geographical areas where they may be inadvertently introduced. Funds are being used (1) to conduct detection surveys of glassy-winged sharpshooter (GWSS) on Oahu and neighbor islands; (2) to train Hawaii Department of Agriculture (HDOA) staff with GPS monitoring system and technology for GWSS surveys; (3) to prepare maps of GWSS survey areas using GIS data; (4) to generate a listing of agricultural crops, ornamentals, and native host plants of GWSS.
2005	CAPS - Pest Detection (Core)	\$90,000.00	on-going	Purpose: see 2004 CAPS Pest Detection (Core)
2005	CAPS - RIFA	\$7,000.00	on-going	Purpose: see 2004 CAPS RIFA
2005	CAPS - Fireweed	\$6,618.00	on-going	Purpose of this agreement is to construct plant storage units and insect cages to facilitate the rearing and release of the fireweed defoliator for biocontrol of fireweed in Hawaii.
2005	CAPS - Glassywinged sharpshooter	\$83,318.00	on-going	Purpose: see 2004 CAPS Glassywinged sharpshooter
2005	CAPS - Papaya Mealybug	\$71,106.00	on-going	Purpose: see 2004 CAPS Papaya Mealybug

Total from 1999 to end of 2005	\$731,840.00
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