2011 APPROPRIATIONS AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG ADMINISTRATION AND RELATED AGENCIES

Project Name and Location	Purpose	Amount	Recipient	Taxpayer Interests
Agricultural Development and Resource Conservation - Statewide	The intent of this request is to continue a program to stimulate agricultural development in Hawaii by providing training, management and funding assistance to effectively utilize the resources released by the closure of sugarcane and plantation agriculture. Sustainable development and utilization of natural resources are unique and specific to individual rural communities. The RC&D Councils provide community based leadership to address community specific issues rather than relying on state or federally driven initiatives.	\$1,400,000	Natural Resource Conservation Service/Resource Conservation and Development Councils	Conservation of natural resources is in the national interest. Conservation and sustainable natural resource utilization is unique to locale and the RC&Ds offer a proven approach to ensuring that resource use decisions reflect relevant community needs and values. There is no other agency with expertise in native plant propagation and establishment.
Agricultural Development in the American Pacific	The initiative is to support food and agricultural science at a consortium of land-grant institutions in the American-Pacific region.	\$750,000	College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa	This project addresses agricultural and rural problems and challenges of the Pacific Island region and Alaska. This region serves the nation as the primary western gateway between Asia, Russia, and the contiguous 48 United States. The work undertaken in this strategic location impact the movement of infectious diseases and pests; chronic health care issues for Pacific Islanders, Native Hawaiian, and Alaska Natives; and food and energy security and economic sustainability for U.S. interests outside the continental United States.
Agriculture Diversification - Tropical Fruits- Island of Oahu and the Big Island	The purpose of this initiative is to maintain high quality, Hawaii-branched fruit be available in the market place to maintain Hawaii's market share.	\$200,000	College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa	The competitiveness of the U.S. tropical fruit industry depends on sound science-based information. Since most of this information does not exist on the continental United States, federal support for tropical fruit research in Hawaii is necessary.

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Agriculture Postharvest, Value-added Products, and Processing Program - Statewide	This initiative will provide farmers and other members of the community with new post harvest methods and technology training to increase produce value, demonstrate value-added possibilities for by-product usage, reduce post harvest or market losses, improve produce marketability, and decrease processing, handling, storage, shipping, or market costs.	\$1,057,000	Pacific Basin Agricultural Research Center	A unique characteristic of tropical agricultural systems is year-round production that is offset by year-round hosts for pests. As a consequence pest and disease management is prominent problem that has only limited similarities to such management for temperate zone agriculture. This project goes a long way to ensuring a coordinated effort among the PBARC scientists and those at the two colleges or agriculture on developing pest management strategies as well as ways to new value-added products from diversified agriculture. These efforts are not duplicated any where in the United States.
Alaska Native/Native Hawaiian Serving Institutions - Statewide	The emphasis for this project is focused on building capacity and ownership among Hawaii's rural agriculture communities including a large number of Native Hawaiian and other traditionally underserved minority populations.	\$3,200,000	The Hawaii recipient of these funds are the nine University of Hawaii campuses located throughout the State with 2 on the Big Island, 1 on Maui, 1 on Kauai, and 5 on Oahu	Alaska Native and Native Hawaiian Serving Institutions students and communities tend to be underserved when compared to other segments of Americans. This program provides the resources needed for institutions in the region to reach out to these individuals and communities.
APHIS Interline - Islands of Kauai, Maui, Lanai, Hawaii, and Molokai	This initiative provides for preclearance passenger baggage inspection for those interisland passengers departing Lihue, Kauai; Kahului, Maui; Kapalua-West Maui; Lanai City, Lanai; Hilo, Hawaii; Kailua-Kona, Hawaii; and Molokai with subsequent connections.	\$3,000,000	Animal and Plant Health Inspection Service, U.S Department of Agriculture	Benefits of this inspection program accrue to states other than Hawaii. Inspections are to prevent spread of agricultural pests and diseases from infesting the agriculture in the continental United States and, as such, is a federal responsibility.

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APHIS Wildlife Services Hawaii	The Wildlife Services (WS) program in Hawaii, Guam, and the Pacific Islands focuses on the protection of agriculture, public and private properties, natural resources and human health and safety posed by wildlife i.e., hazards to aviation, invasive species and feral animals. This agency fills a void in the Pacific Island area where there is limited expertise available to deal with vertebrate pest problems over large geographical areas. A key part of the operations program of this federal agency is to prevent movement of Brown Tree Snakes (BTS) from Guam to Hawaii.	\$2,230,000	Animal and Plant Health Inspection, Hawaii, Guam, and Pacific Islands Wildlife Wildlife, U.S. Department of Agriculture	The establishment of invasive pests such as the Brown Tree Snake would qualify as a major ecological disaster in Hawaii du to its unique biodiversity. Protecting this biodiversity for future generations is in the national interest.
Development of Herbicide Ballistic Technology	Invasive weeds are a major detriment to Hawaii's fragile ecosystem. A critical component of invasive weed management is to efficiently and effectively mitigate the spread of incipient satellite populations from becoming major infestations. Technologies have been adopted for developing a new tool in invasive weed management called Herbicide Ballistic Technology.	\$300,000	University of Hawaii at Manoa	HBT offers the potential to significantly assist field crews with safer pesticide handling, improved application technique and an enhanced management strategy.

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Geographically Disadvantaged Farmers and Ranchers - Statewide	Authorized under the Food, Conservation, and Energy Act of 2008 (Public Law 110-234) this initiative improves the ability of geographically disadvantaged farmers and ranchers to compete in interstate and foreign commerce by providing direct assistance to U.S. farmers and ranchers in Alaska, Hawaii, and the Caribbean and Pacific Basins.	\$15,000,000	Rural Development	U.S. farmers and ranchers outside of the 48 contiguous states are at a competitive disadvantage due to limited transportation options and resulting higher costs. This initiative is one way that the federal government can enhance the competitive position of such farmers and ranchers. In so doing, the food security of those States and other U.S. political entities is also enhanced.
Hawaii Agriculture Research Center - Island of Oahu	The Hawaii Agriculture Research Center uses its research capacity to support of Hawaii's agriculture industry and to meet the U.S. national goals of creating a knowledge base for greater crop productivity and efficiency, improve protection against pests and diseases, enhance tolerance to environmental stress, develop crops and cropping systems for bioenergy production, and develop sustainable practices that will enhance our environment.	\$913,000	Hawaii Agricultural Research Center	The State of Hawaii has geographical and climatological characters unique in the United States which make it an ideal location for conducting agricultural research critical to U.S. agriculture. The Hawaii Agriculture Research Center is firmly positioned to maximally utilize Hawaii's unique characters by having the land, laboratory and professional staff resources necessary to successfully conduct the planned research
Hawaii Floriculture Development - Statewide	The purpose of this initiative is to provide research and development to support new and unique cultivars and efficient practices to control growers costs, which is critical to the continued success of Hawaii's floral and nursery industries.	\$400,000	College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa	Through the development of new varieties, this project enables the United States to compete in the global floriculture markets.
Minor Crop Pest Control - Statewide	The main goal of this project is to develop economical and environmentally friendly pest and disease management strategies for Hawaii's economically important and potentially important crops, all classified as minor crops.	\$265,000	College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa	The knowledge base on pest and disease management for minor or specialty crops in tropical ecosystems is limited. The substantial database on temperate zone crops typically not transferable to tropical crops. The work of this project has application to other warm weather states in the southern United States.

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Multi-species Sterile Fruit Fly Production Facility - Statewide	The goal of this project is to design a multi-species fruit fly methods development facility and a sterile Medfly back-up production facility. Funds are to remodel and operate this facility.	\$2,850,000	Animal and Plant Health Inspection Service, Plant Protection and Quarantine, U.S.Department of Agriculture	The primary beneficiaries of this facility are agricultural industries on the continental United States. The rearing of sterile Mediterranean and other fruit fly species are critical to the management of fruit fly pests in warm weather States. Because the four pestiferous fruit fly species are established in Hawaii, the State of Hawaii offers the only practical venue for rearing sterile fruit flies.
Non-toxic Fruit Fly Control - Statewide	The objective of this project continues to be development and evaluation of non-toxic, environmentally suitable, and, publicly acceptable technologies and processes for fruit fly control to reduce pest impacts in Hawaii to allow the interstate and international movement of Hawaii agricultural products.	\$200,000	College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa	Hawaii is the only State where fruit fly research can be conducted without risk of introduction of the four major species of pestiferous fruit flies. In addition, the environmentally compatible measures being developed are transferable to other warm weather states should there be inadvertent introductions.
Pacific Basin Agricultural Research Center (PBARC) Construction - Island of Hawaii	The transformation from large-scale plantation agriculture to a smaller-scale diversified agriculture in Hawaii and the American Pacific requires a strong agricultural research base of support. Completion of the construction of the Pacific Basin Agricultural Research Center effectively provides this base of research support. This Center effectively complements the research programs provided by the state and territorial entities.	\$10,864,237	Pacific Basin Agriculture Research Center	This Agricultural Research Service Center is the only federal facility conducting research on the tropical agricultural in Hawaii and the American affiliates in the Pacific Basin. While the region is sparsely populated, it is huge comparable in size to the contiguous 48 States. In addition, the agricultural systems are uniquely tropical and as such cannot benefit from the vast temperate agricultural knowledge base of the continental United States.

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Papaya Ringspot Virus - Statewide	This project develops effective, environmental-friendly management strategies against these papaya diseases by: 1) improving plants' resistance to pathogen infection; 2) developing clonal propagation methods that would enable laboratories, nursery businesses, and/or private growers to propagate selected, PRSV resistant hermaphrodite papayas for use as alternatives to seed; 3) broadening the level of PRSV transgenic resistance in papaya to decrease the threat of foreign or alien strains of PRSV, using segmented and synthetic gene approaches; and, 4) integrating other transgenic traits in papaya to improve fruit shelf life, delay fruit softening, and enhance resistance to postharvest diseases.	\$233,000	College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa	Hawaii is the largest producer of papaya in the USA and supplies fruit to the continental USA, Canada and Japan. The plant diseases, including <i>Papaya Ringspot Virus</i> and <i>Phytophthora</i> fungus pose a serious threat to the survival of papaya production in Hawaii. In addition, the two aphids being addressed in this project are quarantine pests posing serious constraints on export of papaya due to phytosanitary concerns. This project focuses on reducing the risks of aphid contamination in papaya exported to Hawaii to the U.S. Mainland, Canada and Japan.
Prevention and Control of Invasive Termite Species in Hawaii - Statewide	This initiative supports continuation of the development and deployment of sustainable areawide control of termites through community engagement and development of control methods for Pacific-Asian invasive termites.	\$200,000	Agricultural Research Service Mid-South Region; University of Hawaii at Manoa	Termite damages in Hawaii are estimated to be in excess of \$150 million annually on State, Federal, and private property. This is the only research program dedicated to controlling this destructive pest in the State. Control methods are often transferred to other parts of the United States having termite issues.
Restoration of Pacific Basin Agricultural Research Center (PBARC) Staffing - Island of Hawaii	In the 2010 Agricultural Appropriations Act, two new positions were provided for the Pacific Basin Agricultural Research Center (PBARC). However, funding for these two positions were not included in the Administration's 2011 budget request. PBARC is in the process of hiring two new researchers.	\$700,000	Pacific Basin Agriculture Research Center	These positions are critical components of the Center's staffing plan and represent significant areas of research for Hawii and the American Pacific.

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Rural Hawaii Community Facilities- Islands of Oahu and Hawaii	This initiative encourages the Department to give consideration to applications relating to essential community facilities for the Waianae Intergenerational Community Service Center, the Hawaii Slaughter-Processing Network, and the Ka Mahi'ailhi O Wailea (The Sacred Farm of Wailea).		Partners in Development Foundation; 4AgHawaii; and The Ali'l Pauahi Hawaiian Civic Club	Food Security is a national priority and Hawaii's relative isolation where 85 percent of all food consumed is the most vulnerable of any state. These initiatives provide one way in which the federal government can share in the public and private investment needed to enhance food security in the 50th State and ensure national security benefits to the nation. The initiatives suggested here constitute community facilities for services essential for food security in the State.
Tropical and Subtropical Agriculture Research (TSTAR) - Pacific and Caribbean Basins	This project provides research that maintains and enhances production of tropical and subtropical agricultural products, while encouraging agricultural practices that are environmentally acceptable.	\$9,000,000	College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa	Transferability of temperate zone agricultural research is seldom practical and requires creation of science-based knowledge by researchers in the Caribbean and Pacific Basins. The tropical/subtropical regional collaboration offers the best option to sustain agriculture and food security in the region.
Tropical Crop Pest Resistance	The microlepidoptera, <i>Opogona sacchari</i> , an emerging pest of pineapple, is also a pest of numerous other plants. This pest could be considered a threat to other agricultural industries in Hawaii and the mainland U.S. The knowledge gained from developing resistance to diseases impacting pineapple has direct application to developing pest resistance to other tropical crops.	\$282,000	Pacific Basin Agricultural Research Center	The microlepidoptera, <i>Opogona sacchari</i> , an emerging pest of pineapple, is also a pest of numerous other plants. This pest could be considered a threat to other agricultural industries in Hawaii and the mainland U.S.

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Tropical Feeds Development - Island of Oahu	This program falls under the Pacific Agricultural Research Center as a component of its aquaculture research mission. The emphasis has been on determining the nutritional requirements of promising tropical species and feed processing methods, and, importantly, with PBARC, finding alternative local ingredients to replace dminishing supplies of fishmeal, most commonly used in feeds for aquatic species.	\$1,438,000	Pacific Basin Agricultural Research Center and the Oceanic Institute	Growth of the aquaculture industry in the United States and in isolated tropical regions, in particular, will depend upon lowering costs of feeds through improved nutrition of target animals and finding alternative, lower cost ingredients. Feed is the single largest cost in any aquaculture operation. Besides the aquaculture benefits, this project provides the basis for the use of crop byproducts for integrated farming systems organized around fertilizer, feed, and biofuels.
Varroa Mite Suppression - Islands of Oahu and Hawaii	This initiative is to continue comprehensive activities to suppress and limit the varroa mite population on the Island of Oahu and to eradicate population on the Island of Hawaii.	\$500,000	Animal and Plant Health Inspection Service, Plant Protection and Quarantine, U.S. Department of Agriculture	Hawaii was the only domestic supplier of varroa-free queen bees for honey producers and pollinators. While this status is in jeopardy, effective eradication efforts on the Island of Hawaii could restore this valuable national resource.
Watershed and Flood Prevention Operations - Islands of Hawaii, Maui, and Oahu.	This initiative seeks completion of approved projects designed to increase water storage capacity, efficiency of delivery systems, and water conservation in Hawaii: Lower Hamakua Ditch Watershed, Upcountry Maui Watershed, Lahaina Watershed, the Wailuku-Alenaio Watershed, and the Kagman Watershed.		Natural Resource Conservation Service Pacific Island Area	Watersheds are national natural resources that must be maintained to serve current and future generations.
Watershed Planning Staff- Statewide	Staffing funds are needed for a resource conservationist, a hydrologist, an economist, and specialized consultants to address the increased demand for watershed improvement and conservation projects in Hawaii.	\$500,000	Natural Resource Conservation Service Pacific Island Area	Watersheds are the main source for sustaining national water supplies for future generations of Americans.

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Women in Technology - Islands of Maui, Molokai, Lanai, and Hawaii	This initiative recruits and facilitates more girls/women and underrepresented groups into science, technology engineering and math (STEM) education and careers by addressing rural and cultural barriers that have historically precluded such groups from entering technology based fields. Pertinent STEM applications in agriculture include, but are not limited to, the biology, chemistry, and engineering associated with biofuel contributions to renewable energy and environmental protection;	\$500,000	Maui Economic Development Board	In much of rural America, encouraging young girls and women and other underrepresented groups into STEM careers is practically non-existent. Lessons learned from the conduct of this project in Hawaii and Wisconsin are transferable to other parts of rural

molecular biology and computer science in genome

Positioning System/Geographic Information System mapping for precision agriculture; and computer simulation models using differntial equations and numerical methods to predict agronomic and economic consequences of alternative crops for a wide range of climates and microenvironments.

identification for crops and animals, Global