

East & West Kauai

Soil & Water Conservation Districts



2015 Annual Report

Blackburn's Sphinx Moth



Kamehameha Butterfly



Akeke'e



Kaua'i Amakihi



Hawaiian Blue Butterfly



Iiwi

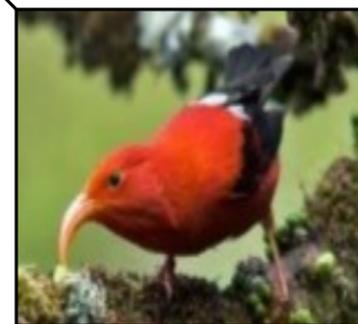


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COVER PHOTO CREDITS

Blackburn's Sphinx Moth: Ellen VanGelder

Kamehameha Butterfly: flickr.com

`Akeke`e: Jim Denny

`I`iwi: Lucas Behnke

Hawaiian Blue Butterfly: farm3.staticflickr.com

Kaua`i `Amakihi: Lucas Behnke

Honeybees/Honeycomb: hawaiibeekeepers.org



Message from the Mayor

Aloha! It is an honor to recognize the members of the East and West Kaua'i Soil and Water Conservation Districts for your dedication and commitment to preserve and protect the natural resources of the Garden Isle throughout the years! We have all benefitted from your unflagging efforts.

Each year, we look forward to a new stewardship theme provided by your organization in partnership with the National Association of Conservation Districts. This year's theme, "Local Heroes: Your Hard Working Pollinators", offers us a great opportunity to reflect upon the essential role that small creatures - bees, birds, bats, bugs and butterflies— play in our everyday lives. How changes made to the environment can cause a ripple effect on available resources for these pollinators, and in turn, humans.

So what can we do as good stewards of our aina? We must all take personal responsibility to ensure that each facet of our ecosystem is protected, especially our little pollinators.

On behalf of the people of Kaua'i and Niihau, I extend my deep appreciation for the legacy you have built over the years, ensuring the next generation will be prepared to make wise decisions on managing the island's natural resources.



Aloha Pumehana,

Bernard P. Carvalho, Jr.
Mayor, County of Kaua'i

A Message of Aloha

It is our pleasure to extend our warmest aloha to our conservation partners, supporters, and friends and to report our activities and accomplishments for fiscal year 2015.

East and West Kauai Soil and Water Conservation Districts (Districts) were founded in 1953. Over time, the role of the Districts has expanded beyond soil and water conservation to include the following activities:

- * review and approve resource conservation plans for soil erosion control and water conservation on agricultural lands
- * advise land users about the agricultural exemption process of the Kauai County Sediment and Erosion Control Ordinance
- * participate in EPA and State Department of Health nonpoint source programs
- * support initiatives that seek to protect and maintain irrigation systems
- * initiate and support natural resource protection and conservation outreach programs

The mission of the Districts is to promote stewardship and conservation of natural resources by advocating the use of conservation practices by land users and the general public.

Kauai's two Districts, like the rest of the other fourteen districts in the state and three thousand districts in the nation, are locally led grassroots organizations guided by unpaid volunteers who unselfishly contribute their time and effort, with support from conservation partners, to preserve natural resources and enhance the quality of life in their communities.

With warmest aloha,

Ed Kawamura, Jr., Chairperson
East Kauai Soil and Water Conservation District

Peter Tausend, Chairperson
West Kauai Soil and Water Conservation District

East Kauai Soil & Water Conservation District



*Front Row, L-R: Paul Togioka, Jenni Scotti, Darren Tamekazu, Jill Suga
Back Row, L-R: Michael Fernandes, Ed Kawamura, Jr., Jenna Dunn, Marj Stanphill, Leonard Vierra
Absent: Arryl Kaneshiro, Gerald Takemura, Thomas Oi, Matt Stevenson, Jerry Ornellas, Stephen
Pianowski, Kelly Gooding*

West Kauai Soil & Water Conservation District



*Front Row, L-R: Mark Chaffee, Marj Stanphill, Jenni Scotti, Peter Tausend
Back Row, L-R: Keith Horton, Blaise Boyle, Morri-Ann Nagata, Greg Williams, Adam Killermann
Howard Greene, Robin Young, Gerardo Rojas Garcia
Absent: Roy Oyama, Gary Ueunten, David Smith, Keith Smith*



KAUA`I SOIL AND WATER CONSERVATION DISTRICTS

Who We Are and What We Do

The East and West Kaua`i Soil and Water Conservation Districts (Kaua`i SWCDs) are two of sixteen conservation districts in Hawaii and 3,000 districts in the nation.

The function of Conservation Districts is to seek available technical, financial and educational resources to help local land users conserve soil, water, and related resources. In addition to the traditional mission of soil and water conservation, Kaua`i SWCDs are involved in a wide variety of related areas, including erosion control plan reviews of agricultural lands, reviewing and approving conservation plans in partnership with the USDA Natural Resources Conservation Service (NRCS), supporting farmers and ranchers in their effort to obtain government funding for installing conservation practices, involvement in the County's Sediment & Erosion Control Ordinance, control of non-point source pollution, watershed planning, wildlife habitat preservation, and conservation education.

Hawaii's Conservation Districts are self-governing sub-units of the State government, authorized by and operating under Chapter 180 of the Hawaii Revised Statutes. For administrative purposes, the Conservation Districts are placed under the Department of Land and Natural Resources (DLNR). Each Conservation District is governed by an unpaid board of five directors: three elected by agricultural land owners and two appointed by the Board of Land and Natural Resources. Directors are assisted by Associate Directors. With funding from the State of Hawaii and the County of Kauai, Kauai's SWCDs have paid staff consisting of two Conservation Specialists and a part-time District Assistant. Hawaii's sixteen Conservation Districts have formed the Hawaii Association of Conservation Districts (HACD) to support and promote natural resource conservation statewide.

The NRCS is the Conservation Districts' prime conservation partner and technical resource agency. In addition to the NRCS, Conservation Districts work closely with and receive support from the DLNR, County of Kaua`i, Department of Water, State Legislature, County Council, US Environmental Protection Agency, HACD, UH College of Tropical Agriculture and Human Resources, State Agriculture Department, Coastal Zone Management Program, and Resource Conservation and Development (RC&D).

Websites:

http://www.nrcs.usda.gov/wps/PA_NRCSConsumption/download?cid=stelprdb1255306&ext=pdf

<http://dlnr.hawaii.gov/swcd/>

Community Outreach Activities



*Eddie & Kathleen Sindt
WK SWCD
Outstanding
Water Conservationist*

*Joe Munechika
WK SWCD
Outstanding
Cooperator of the Year*



*Steve Sico
EK SWCD
Outstanding
Water Conservationist*



*Corky Bryan, Ha'upu Ranch
EK SWCD
Outstanding
Cooperator of the Year*

- **EWKSWCDs' ANNUAL REPORT:** Through the annual report, our conservation partners and the public are informed of our accomplishments and activities during the year.
- **OUTSTANDING COOPERATORS OF THE YEAR:** Annually, we honor Kauai ranchers, farmers and organizations who make outstanding efforts to conserve and protect our natural resources.
- **OUTSTANDING WATER CONSERVATIONISTS OF THE YEAR:** Each year, we recognize and honor Kauai farmers or ranchers who make outstanding efforts to conserve and protect water in operating their farms or ranches.
- **CONSERVATION AWARENESS CONTEST:** We sponsor this annual land judging contest among Kauai high school students. With assistance from the UH Cooperative Extension Service, and USDA Natural Resources Conservation Service and cooperation of the State Department of Education, the students learn the importance of natural resource conservation and protection in agricultural production. The winning team competes in the State contest and the State's top team represents Hawaii at the national competition.
- **KAUAI COUNTY FARM BUREAU GARDEN FAIR AND FARM FAIR:** We participate in these two events, in April and August, to publicize our activities and role in natural resource conservation.
- **LOCAL WORK GROUP MEETINGS:** Our participation in community meetings on natural resource conservation gives us the opportunity to provide our concerns and input on natural resource conservation and protection on Kauai and gives input for the NRCS State level decisions for ranking Kauai Farm Bill Program applications.
- **COUNTY DEPARTMENT OF WATER ANNUAL "MAKE A SPLASH WATER FESTIVAL":** We participate in this event to help the County Department of Water promote awareness, appreciation, knowledge and stewardship of water resources to Kauai's fifth graders.
- **POSTER CONTEST:** The National Association of Conservation Districts' Poster Contest for Kauai's K – 6th Grade students is a national contest to encourage teachers and students to be good stewards of the land by conserving and protecting our natural resources. Posters are drawn by the grade school students to express their thoughts on natural resource conservation and protection and first place posters are sent to the National Competition.



Written by Jenni Scotti

Pollinators have evolved to be an essential part of the ecosystem and are very important for our day to day lives. It is estimated that pollinators are responsible for the pollination of 90% of all plant species. They are also responsible for pollinating 75% of crops, which we rely on for producing medicine, food and clothes. Overall, pollinators are directly or indirectly responsible for much of what we eat, making them our “hardworking heroes”.

Because many plants need pollinators, keeping the balance of the pollination symbiosis is integral to farms and gardens. In recent history, human impacts have reduced the habitat for pollinators, especially those native to specific areas. There are things that we can do or be aware of in our homes and work places to provide good food and habitats for pollinators.



Picture by Forest and Kim Starr

What can we do?

If you are an agricultural land owner, including a cover crop such as sunn hemp or buckwheat in your crop rotation will help to keep pollinators around your farm even if you don't have crop in the ground. Planting a hedgerow with many different species that pollinators like will attract them throughout the year. If a windbreak is needed, include a tree species that bees can forage for pollen and nectar. If you have some land around your farm or pastures that isn't suitable for what you produce, think about planting a mixed forest or doing a restoration project that includes species that both native and non-native pollinators would be attracted to.



`Ilima (Sida fallax) Picture by Forest and Kim Starr

If you are a home owner, including any pollinating trees and flowers in and around your garden will be helpful. Include useful herbs such as basil and oregano, which have great flowers for attracting bees. Because most of Hawaii's native pollinators are in decline, include native plants such as `Ilima (*Sida Fallax*) and Māmaki (*Pipturus albidus*) to create habitat for them.

Native Pollinators

Most pollinators are invertebrates such as butterflies, bees and beetles, but there are vertebrates such as bats, birds and rodents that are pollinators. In Hawaii, both native and non-native pollinators include butterflies, bees, moths, small insects and birds. Though most pollinators are good to have, native pollinators are important to the native ecosystem and in helping many native plants from going extinct.

In lower elevations, the butterflies, moths and the yellow faced bees are native pollinators that most of us can try to attract. To create native habitat, plant some of the plants that your favorite pollinator would like.



Kamehameha Butterfly Picture by Jim Denny

Kamehameha and Koa Butterflies

There are 17 species of butterflies in Hawaii, but only two butterflies are native: the Pulelehua (Kamehameha Butterfly) *Vanessa tameamea* and the Koa Butterfly *Udara blackburni*. The Kamehameha butterfly is in the largest family of butterflies called Nymphalidae. Another more commonly known butterfly belonging to this family, although not native, is the monarch butterfly.



Koa Butterfly
Picture by Jim Denny

The Kamehameha butterfly relies upon native plants in the nettle family, most commonly the Māmaki, for the caterpillar stage of their life cycle. The decline of native plant species decreases the preferred habitat and the native butterfly has seen a decline in Hawaii.

The Koa butterfly (*Udara blackburni*), also known as Blackburn's Blue, is found primarily on Koa (*Acacia koa*) and A`ali`i (*Dodonaea viscosa*). The Koa butterfly belongs to the second largest family of butterflies, which is Lycaenidae.

Yellow Faced Bee

There are over 60 species of yellow faced bees (*Hylaeus spp.*) in Hawaii, 15 of which are historically found on Kauai. Most are no longer commonly found, or are extinct throughout the islands. These are solitary bees that do best with native plants and are not often found on non-native species. Some of their favorite plants include `Ilima, Naupaka (*Scaevola spp.*), Ohia (*Metrosideros polymorpha*), Naio (*Myoporum sandwicense*), and A`ali`i.



Yellow Faced Bee (*Hylaeus connectens*) Picture by Forest and Kim Starr



Non-Native white-lined sphinx moth (*Macroptilium atropurpureum*) Picture by Forest and Kim Starr

Sphingidae Moths

There are about 13 species of hawk moths and sphinx moths in Hawaii, 6 of which are endemic. They are commonly mistaken as hummingbirds, though there are no hummingbirds found in Hawaii. Most species have had habitat decline and are endangered. Many are now only found on certain islands. The moths' larvae usually feed on plants in the nightshade family especially the native `Aiea (*Nothocestrum latifolium*). Pollinated flowers include Ohia, Maiapilo (*Capparis sandwichiana*), Koa and Naupaka.

Forest Birds

Forest birds are mostly found in the remnants of the native forests in the mountains. Though historically their range was wider, disease and lost habitat have pushed them into the higher regions of the island. Many are endangered, and all of the forest birds are important to our native Ohia and Koa forests.

For more information or to be involved with protecting, or identifying native pollinators please visit the Pulelehua project at www.kamehamehabutterfly.com, the xerces society at www.xerces.org and the Kauai Forest Bird Recovery Project at kauaiforestbirds.org. For more information on native plants, refer to nativeplants.hawaii.edu



`Apapane (*Himatione sanquinea*) Picture by Dan Clark

Kauai County Conservation Awareness Contest

2014

Written by Jenni Scotti

The Conservation Awareness Program (CAP) Contest (also known as the Land Judging Contest) focuses on how soil properties and environmental factors affect the land's potential for various agricultural uses (crop, orchard, pasture or woodland). The students evaluate site conditions like rainfall and stoniness; soil properties such as texture, permeability and topsoil erosion; and slope of the land to determine the major factors affecting the land. They must identify the land capability class of the sites and select appropriate conservation practices for the given land use (usually cropland or pasture). Additionally, the students follow a similar process to determine how suitable the site is for building a home by assessing how each soil and environmental factor would limit foundations, landscaping and shallow excavations.

East and West Kauai Soil and Water Conservation Districts (SWCDs), the University of Hawaii College of Tropical Agriculture and Human Resources (CTAHR) and Natural Resources Conservation Service (NRCS) held the Kauai County Contest on October 22nd. Four students earned the opportunity to represent Kauai at the annual Hawaii State Conservation Awareness Program Contest, which was sponsored by Hawaii Association of Conservation Districts and the West, South and Windward Oahu Soil and Water Conservation Districts on November 15th in Waialua.

Mahalo for supporting the County Contest: East and West Kauai SWCDs, David Smith (West Kauai SWCD), Eddie and Kathy Sindt (West Kauai SWCD Cooperator), Herbert Keamoai (Kauai High Advisor/teacher), Debbie Brun (Kukuiolono Golf Course), Amy Koch (NRCS), Matt Stevenson (CTAHR and SWCDs), Morri-Ann Nagata (NRCS), Robin Kelley (NRCS).



Left to Right: Jenni Scotti, Amy Koch, Meranda Jardin, Kalena Marugame-Kahalekomo, Herbert Keamoai, Billie Ann Bukoski, Cheyanne Tannery, Matt Stevenson

After the Kauai Contest was done, Ed Sindt took the students on a tour of his diversified farm which includes heart of palm, vegetables and aquaponics. They were able to see an active farm in action.



East Kauai SWCD Outstanding Cooperator of the Year

Michael “Corky” Bryan

Written by Jenni Scotti

With over fifty years of ranching experience, Corky Bryan of Ha`upu Ranch has a lot of knowledge in managing his pastures. In the past, he has been on both Kauai and the Big Island, and for the last 5 years he has been on Kauai taking care of the ranch at Kipu. He focuses on practices that manage the grass, and is in a constant battle against invasive brush and weeds taking over his pastures. He has implemented best management practices to accomplish this over the years.

A lot of what he does to control the invasive species is to shred weeds in the pastures and apply spot sprays on the stumps of shrubs. He then manages his pasture through intensive prescribed grazing. He learned this method in the late ‘70s from Alan Savory, who developed it in Africa and the Americas by creating a situation similar to what would happen in nature with large herd movements.

To accomplish this, Corky has added electric cross fencing to increase the number of pastures so that he can rotate his herds throughout the entire ranch. This helps the movement of cattle and gives the grass longer periods of rest, rather than allowing the animals to concentrate in areas which they end up overgrazing. When a pasture is overgrazed, the edible grass is weakened, allowing unpalatable species to take over.

Corky considers ranchers more as “Grass Growers” because if the grass and the soil are not properly managed, then both the grass and animals suffer. He emphasizes the fact that if you take care of the land and the grass then it will take care of us.

With this, the East Kauai Soil and Water Conservation District would like to congratulate Michael “Corky” Bryan on his excellent knowledge and management of pastures and is proud to name him as its Cooperator of the Year.



*Michael “Corky” Bryan with EK SWCD
Chairman, Ed Kawamura, Jr.*

Garden Island Resource Conservation and Development, Inc. (GIRC&D)

Submitted by Danielle Downey, Apiary Specialist, Kauai Beekeepers

Honey bees are very important for Hawaii's agriculture, providing honey valued at \$2.5 million, and pollination of produce valued at over \$212 million annually. Hawaii's queen bees are also a cornerstone of North American beekeeping, approximately 25% of all queens used on the USA mainland and 75% of queens used in Canada come from Hawaii. The Apiary Program at the Hawaii Department of Agriculture works to protect and develop the beekeeping industry in Hawaii. Managing the recent arrivals of the devastating Varroa mite bee parasite (only on Oahu and Big Island), and the destructive Small Hive Beetle (throughout Hawaii) are important focal projects. In the course of interacting with Kauai's beekeepers there has been growing concern about honey bee exposure to pesticides. The tests to determine honey bee exposure are expensive, so Jay Furfaro worked with HDOA Apiary Section Chief, Danielle Downey, to propose funding for beekeepers to have their hives analyzed for pesticide residues at no cost to them. Resolution #2014-32 passed and this project is now going forward with HDOA, GIRC&D, and Kauai Beekeepers Association. Samples will be collected throughout the island by Downey, each sample consisting of 3 grams of fresh bee-collected pollen from participating apiaries. Each sample will be analyzed for over 170 pesticide residues. Honey bees typically forage several miles from their home to find food, so each hive tested can contribute useful information about a broad surrounding area. Confidential results will be provided to the beekeeper, and a general report about the findings throughout the island of Kauai will be shared publicly. Participation in this project is voluntary, and any beekeepers who wish to participate can contact downtney@hawaii.edu.



Photo Credit: Mike Teruya, Ania



Beekeepers collecting a sample from the Kauai Community College Apiary



Photo Credit: Jim Dimora, Apap

Submitted by Kayla Bonnette, Intern, Kauai Forest Bird Recovery Project

website: kauaiforestbirds.org

To donate directly to Birds, not Rats! please visit our campaign page: <http://igg.me/at/birdsnotrats>

Hawaii is home to a unique group of birds found nowhere else in the world: the honeycreepers. The isolation of the Hawaiian Island chain has allowed for the amazing evolution and diversification of this group. Many species in this group are partially or fully nectarivorous – they eat the nectar from flowers – and play an important role in the pollination of native plants. Sticking their feathered heads into flowers to get the sweet nectar, these birds often end up with pollen on their faces and passively transport it from flower to flower as they go about foraging. Hawaii's honeycreepers are specially adapted for this sort of foraging, many having long curved bills that allow access to tubular flowers such as native Lobelias. Likewise, many plants have adapted to this sort of pollination involving enticing flowers and nectar to lure the birds in. In some instances, this mutualism has developed so dramatically that certain plant species have slowly disappeared as their bird pollinator counterparts have gone extinct.

Through their unique way of foraging, our birds help to propagate and sustain the native plants of our forests. The Kauai Forest Bird Recovery Project is working to protect our native bird species with a campaign entitled "Birds, not Rats!" The goal is to lessen the impact of non-native rodent species by purchasing and installing Goodnature rodent traps – self-resetting traps powered by a pressurized CO2 cartridge. These non-native pests prey on bird eggs, chicks and even incubating females. Additionally, they directly damage native plants by eating flowers and berries, and stripping bark from woody plants. Not only does this immediately ruin the forest, they also reduce the amount of fruit that is available as a food source for native birds like the Puaiohi who almost strictly eat native fruit and disperse seeds by doing so.

Reducing rat populations is a straightforward way we can help protect our native pollinators and forest plants. With fewer rats in the forest, we hope that more birds will be around to pollinate and disperse our native plants, keeping our forests healthy and thriving.

Website: www.gircd.org

West Kauai SWCD Outstanding Cooperator of the Year, Wines of Kauai

Written by Morri-Ann Nagata

This year the West Kauai Soil and Water Conservation District has selected Joe Munechika of Wines of Kauai as the Cooperator of the Year for his commitment to restoration of native Hawaiian flora around his farming operation. Joe has made a significant effort to establish native trees and shrubs in areas around his 12 acre farm. The site has been really challenging due to its 30 inch annual rainfall and poor soils.

Historically the area was used for sugarcane production. Heavy machinery used on site for this cultivation had developed hardpans. Also, opening the soil on the areas characteristic slope allowed much of the top soil to wash away. This made it a difficult task for him to establish plant materials on this site, but he has persevered.

The farm is surrounded by a woven wire fence that protects it from deer and pigs. Areas have been deep tilled to break through hardpans and allow the establishment of vegetation so plants would not become root bound. Focus was placed on establishing koa that was present on the farm. Joe collected the koa seeds from the existing trees and nurtured them until they were large enough to be out planted. He has removed invasive species such as black wattle, java plum, silver oak, lantana and many others, and established two acres of koa in various areas around the farm. Before the fence was installed, all the koa that was out planted was quickly eaten by deer. The plants were usually so severely damaged that they were not able to recover. He has also given existing natives such as the aalii, pukiawe and naupaka kuahiwi a chance to re-establish and thrive.

Joe also has plans to clear and establish another acre and a half area with native Hawaiian plants. These areas will be more diversified. This planting will include koa, koaia, ohia, mamane, wiliwili, koki'o, sandalwood and naio. This is his contribution of ensuring that these native plants will be present for future generations to enjoy.

Left to Right: Gary Ueunten, Jenni Scotti, Joe Munechika, Peter Tausend, Keith Horton, David Smith



In the area he is farming he has a mix of fruit orchard and vineyard. Berms have been installed in this area to reduce the soil erosion off slopes. The berms and area between the berms have been grassed to further reduce erosion. The area also has an established grassed waterway and access road with water bars. All of these practices together have assisted to reduce soil erosion, keeping the precious soil on the farm. It was a difficult feat to get vegetation established on the property, but he was able to get it done. Some of the grass plantings took three or more tries to get the coverage needed.

Joe has been dedicated to improving the natural resources and ensuring the perpetuation of native flora on his operation. The West Kauai SWCD is proud to present Joe Munechika of Wines of Kauai as its Outstanding Cooperator of the Year.

2014 East Kauai Soil and Water Conservation District
Outstanding Water Conservationist Award

Steve Sico

Written by Jenni Scotti

Being in agriculture always provides challenges to the daily operations of managing the land. A successful farmer needs to balance being a good steward of the land and being able to make a living at the same time. Accepting the challenge of minimizing the use of the precious and valuable resource of water and other natural resources, Steve Sico lives the dream of having a successful farm.

Steve has a diverse agricultural operation in Kapahi, which includes a variety of fruit trees such as lychee, longan and limes, as well as a variety of palms and flowers for sale right here on Kauai. Steve has been an active Cooperator with the East Kauai Soil and Water Conservation District and NRCS since 2008. He has successfully installed a number of conservation practices, including critical area planting, windbreak shelterbelt establishment, and pest management.

Steve's farm is a mecca of innovation, trial and error and many lessons of farming. Finding out what is best for the land and what is efficient for the farm has been the story of his path as an agricultural producer. He emphasizes the need to minimize waste of resources and energy and is on a path to improve both farming and conservation practices on his farm.

Most recently, Steve continues to diversify and enhance his farm with conservation practices such as micro-irrigation, irrigation water management, mulching, and seasonal high tunnel for crops. These practices will allow Steve to more efficiently use water and minimize waste while bringing his crops to harvest. For his ongoing accomplishments, the East Kauai Soil and Water Conservation District would like to recognize Steve as their 2014 Outstanding Water Conservationist of the Year.



2014 West Kauai Soil and Water Conservation District
Outstanding Water Conservationist Award
Eddie Sindt

Written by Jenni Scotti

As water demands continue to grow and water shortages become more apparent throughout the country, conserving water becomes increasingly important. Many of our agricultural producers here on Kauai are aware of the growing shortage of this precious natural resource and have been using more water efficient practices in their operations. The West Kauai Soil and Water Conservation District (WKSJCD) is pleased to highlight the efforts of Eddie Sindt as its 2014 Outstanding Water Conservationist of the Year.

Eddie Sindt has been an active cooperater of the WKSJCD since 2012. He grows a wide variety of crops, from leafy greens, carrots, eggplants, pumpkins, herbs and even edible flowers (you'll have to try one of his edible bouquets). Ed specializes in producing high quality vegetables and heart of palm, which he provides to local restaurants such as Merriman's. You can also find his produce at the Poipu Farmer's Market on Wednesday afternoons.

Eddie Sindt's farm has several conservation practices which directly and indirectly conserve water. These include drip irrigation, irrigation water management, mulching, and use of a seasonal high tunnel. Ed has switched his irrigation system from overhead irrigation to drip irrigation, which lessens evaporation loss and applies water to the root zone where it can be more effectively taken up by plants. He is also using irrigation water management techniques, which take plant water needs, irrigation system output, rainfall, soil water holding capacity and other important factors into consideration when deciding when and how long to water. Applying mulch around his vegetable and tree crops also reduces water loss from evaporation, as well as adding organic matter that helps to increase soil water holding capacity. The next step for Ed will be installing a seasonal high tunnel structure, which is an additional practice to help reduce water loss from evaporation.

The West Kauai SWCD would like to congratulate Ed's continued water conservation efforts and looks forward to the future work he will accomplish.

Award Picture on Page 12

Left to Right: Clyde Nakaya, Kirk Saiki, Eddie & Kathleen Sindt, Peter Tausend, WK SWCD Chairman, Steve Sico, Jenni Scotti, Robin Kelley

Inset: Eddie Sindt and Ed Kawamura, Jr., EK SWCD Chairman

NRCS Releases their Fiscal Year Summary

Written by Jolene Lau, Public Affairs Specialist



*Bruce Petersen, NRCS
Director for the
Pacific Islands Area*

Are you wondering how federal funds are being spent to help farmers and ranchers in the islands? The Natural Resources Conservation Service (NRCS) released their fiscal year 2014 summary which describes how they administered Farm Bill Programs and conservation technical assistance in the Pacific Islands Area.

Did you know that in fiscal year 2014, 15 contracts on 888 acres are protecting Hawaii farmers using \$257,868 through the Agricultural Management Assistance (AMA) Program? That means that agricultural producers in Hawaii are able to address water management, water quality, and erosion control in their conservation planning. AMA is not available in every state so Hawaii is fortunate to have this funding opportunity.

Also in fiscal year 2014, NRCS administered 35 contracts on 50 acres in American Samoa using almost \$592,000 through the Environmental Quality Incentives Program (EQIP). That means that farmers in American Samoa could implement structural and management conservation practices that optimized environmental benefits on working ag land. An example of an eligible practice is vegetative barriers, used to minimize erosion on farmland.

Did you know that NRCS has a Plant Materials Center on Molokai that helped to develop an alternative fuel source for Hawaii? Specialists are studying Napier grass x Pearl Millet Hybrid as biofuel from lignocelluloses biomass. In partnership with the University of Hawaii and several private research institutions, the 2014 summer biomass yields of three hybrid Napier grass averaged 22 tons per acre.

Perhaps you were not aware that soil health workshops were even conducted in the remote islands of Saipan, Tinian, and Rota. NRCS soil scientist and local staff partnered with three Soil and Water Conservation Districts in the Commonwealth of the Northern Mariana Islands to discuss properties and behavior of the soils on each island and raise awareness about managing soils.

“The mission of NRCS is helping people help the land,” said Bruce Petersen, NRCS Director for the Pacific Islands Area. “We are pleased to have administered over \$6 million through the Environmental Quality Incentives Program, helping farmers and ranchers throughout the islands.”

NRCS partners with Conservation Districts and others to provide technical and some cost-share assistance to private landowners. The main goal is to protect, enhance, and preserve our soil, water, air, plants, and animals using sound science and expertise. There are about 80 employees throughout the state of Hawaii, Territory of American Samoa, U.S. Minor Outlying Islands, Territory of Guam, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Republic of Palau, and the Republic of the Marshall Islands.

Bruce Petersen is the permanent Director for NRCS that oversees employees throughout the Pacific Islands Area (PIA).

For the PIA Summary on how NRCS operated in fiscal year 2014, a 13-page PDF is available for viewing at <http://www.nrcs.usda.gov/wps/portal/nrcs/main/pia/newsroom/factsheets/>.

USDA is an equal opportunity provider and employer.



Website: www.pia.nrcs.usda.gov

Kauai Conservation Poster Contest *Written by Jenni Scotti*

Mahalo to the teachers and students from Kauai Christian Academy, Ele`ele Elementary School and St. Catherine's School for participating in the 2014 Conservation Poster Contest sponsored by the East and West Kauai SWCDs and the National Association of Conservation Districts.

The local contest has three age groups: K-1st, 2nd-3rd and 4th-6th. The top two winners of each category receive a prize and the first place poster in each group is sent to the national contest in Indiana.

This year's theme was:



Soil impacts our lives every day, sometimes in ways we don't realize. Having healthy soil supports a healthy ecosystem, which we rely on to survive. Soil helps filter water to provide clean drinking water. Microbes in the soil help build the soil up so that it can help filter organic and inorganic material. Healthy soil supports plants, which support animals, which then produce important things such as food and fiber. Soil also supports basic infrastructure such as houses, buildings, etc., which we use in our daily lives.



*2nd Place: Braden Viohl
Kauai Christian Academy
Grade 5 / Mrs. Morales*



*1st Place: Jonah Grubbs
Kauai Christian Academy
Grade K / Mrs. Viohl*



*1st Place: Kai Koga
Kauai Christian Academy
Grade 6 / Mrs. Morales*



*2nd Place: Ali Koga
Kauai Christian Academy
Grade 1 / Mrs. Viohl*



*1st Place: Ma. Kyline Batangan
Ele`ele Elementary
Grade 2 / Mrs. Miyazaki*



*2nd Place: Asher Morales
Kauai Christian Academy
Grade 3 / Mrs. Morales*



Kauai Christian Academy



Ele`ele Elementary School



St. Catherine's School

NRCS DISTRICT CONSERVATIONIST

Written by Jenna Dunn



Hello, my name is Jenna and I am excited to serve you here on the Garden Isle. I am originally from California, where I graduated from Cal Poly Pomona with a degree in Agricultural Biology. My career with NRCS began in Oregon's then North Coast Basin, serving Tillamook, Clatsop, and Columbia Counties as a Soil Conservationist. During my time in Oregon I enjoyed working with forest landowners, small acreage mixed vegetable farmers, and dairies. Later I continued my career in Merced, California again as a Soil Conservationist. While in Merced I was fortunate enough to work on projects for orchards (primarily almond), rangeland, organic operations, and dairies. I am looking forward to my new duties as District Conservationist and learning as much as I can about Kauai agriculture and resource conservation. Hopefully I will get the opportunity to meet and work with many of you in the process.



Make a Splash with Project WET

Written by Kim Tamaoka, Department of Water, County of Kauai

The Kauai Department of Water (DOW) hosted its 11th annual Make a Splash with Project WET (Water Education for Teachers) festival on September 18, 2014. Once again this hands-on water education festival brought together parents, students, teachers, government resource agencies and enthusiasts of all kinds for one cause – to educate and raise awareness about water, our most precious natural resource.

Over 750 fifth grade students from all parts of the island gathered at the Pua Loke Arboretum to learn about the vital role water plays in our everyday lives. Students participated in dynamic hands-on activities and educational exhibits, while discovering how a healthy watershed can affect agriculture, recreation and wildlife habitats. Students also learned how they could contribute to wise water-use and protection.

The East and West Kauai Soil and Water Conservation Districts continue to regularly support this event by volunteering as activity leaders or helpers of the various water activities. Without participation from the East and West Kauai Soil and Water Conservation Districts, and other community businesses and organizations, the DOW would not be able to successfully host the Make a Splash with Project WET water festival year after year.

The Kauai DOW will be hosting its 12th Annual Make a Splash with Project WET water festival on September 24, 2015. For more information or to sign up as a volunteer, please call DOW's Public Relations Specialist, Kim Tamaoka at (808) 245-5455 or email ktamaoka@kauaiwater.org.



*Left to Right: Jenni Scotti, Blaise Boyle, Marj Stanphill, Peter Tausend,
Ed Kawamura, Jr., David Smith, Darren Tamekazu
Missing in Picture: Leonard Vierra*

Staff Update for 2015 Annual Report

Written by Peter Tausend

Jenni Scotti, our Conservation Specialist since May 2013 continues to learn and apply her skills to conservation planning and outreach. Marj Stanphill, our District Assistant for over 15 years, continues to help the District run smoothly. We welcomed Mark Chaffee as our new Conservation Specialist in early January 2015. Regrettably, he left us three months later in April to return to his career in horticulture and landscaping.

We continue to enjoy a close relationship with our partners at NRCS. District Conservationist Ben Vinhateiro left NRCS in June 2014 to pursue a teaching opportunity. After a brief stay by Rick Patterson as District Conservationist, Jenna Dunn started as Kauai's new District Conservationist in early April 2015. Soil Conservationist Daniel Cahill left NRCS in August 2014 for graduate school. His replacement is expected soon. Soil Conservationist Morri-Ann Nagata has done a great job lending stability to the NRCS Field Office despite all of this year's changes.



Staff Pictured Above, Left to Right: Marj Stanphill, Jenna Dunn, Jenni Scotti, Morri-Ann Nagata



Jenni Scotti, left photo and Mark Chaffee, right photo, volunteer at the Kawaiele Wetland, Kauai Invasive Species Clean-up on February 25, 2015

MAHALO

We wish to thank the staff and volunteer board members of East and West Kauai Soil and Water Conservation Districts for their commitment and dedication to preserve and protect our precious natural resources. Mahalo to our conservation partners, who include the USDA Natural Resources Conservation Service, Governor David Ige, State Departments of Health, Agriculture, and Land and Natural Resources, UH CTAHR Cooperative Extension Service, Mayor Bernard Carvalho Jr., Kauai County Water Department, Kauai County Council, the Hawaii State Legislature, and Hawaii Association of Conservation Districts. We also appreciate the support of the Department of Health and the National Tropical Botanical Garden in providing space for our monthly meetings.

Lastly, we express our deep appreciation to the board members and staff of East and West Kauai Soil and Water Conservation Districts, Kauai staff of USDA Natural Resources Conservation Service, Garden Island Resource Conservation and Development, Water Department, County of Kauai, and UH CTAHR Cooperative Extension Service for helping to make the annual report possible.

