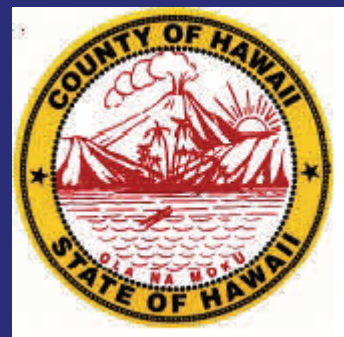
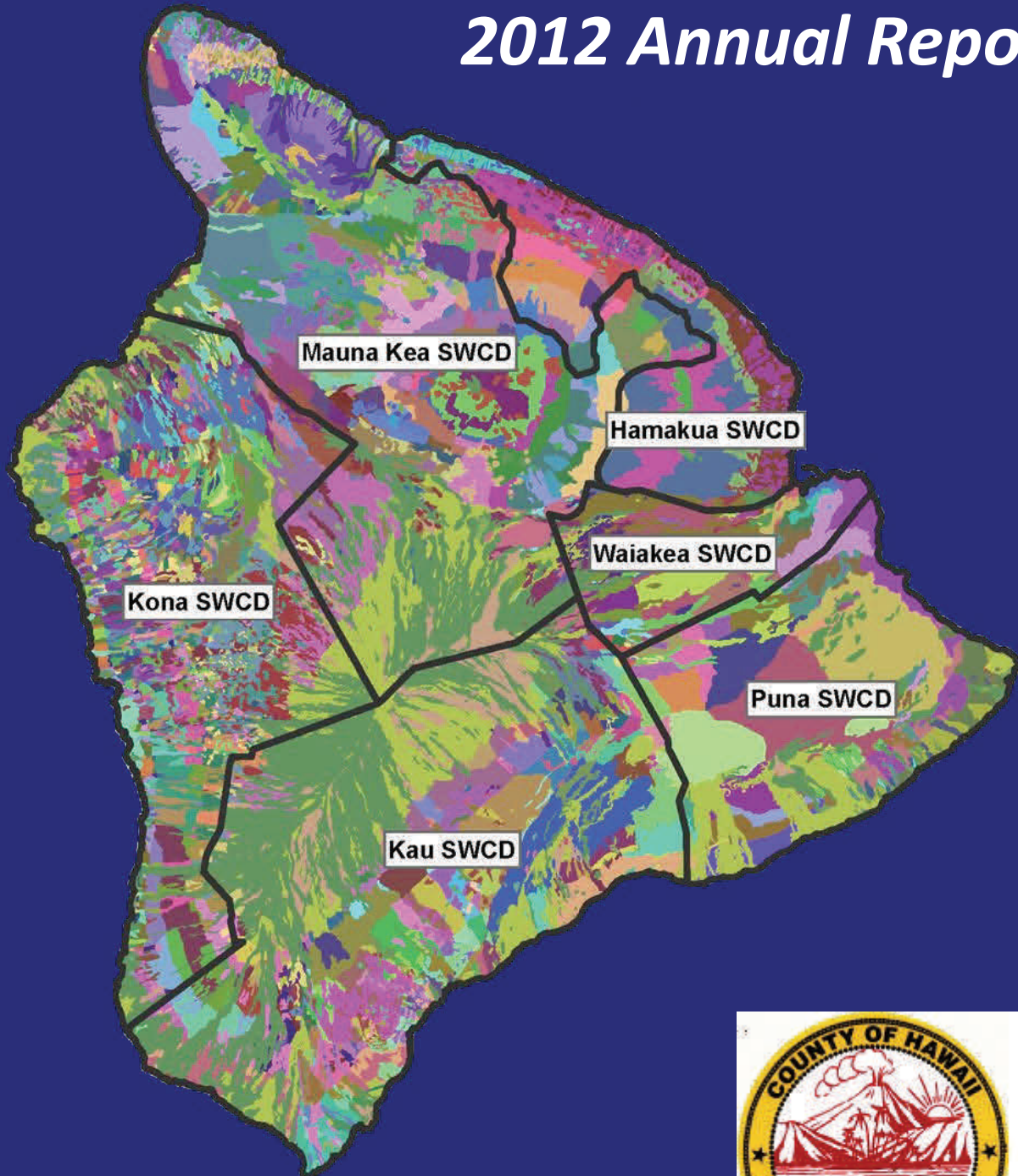


Hawaii Island Soil and Water Conservation District 2012 Annual Report



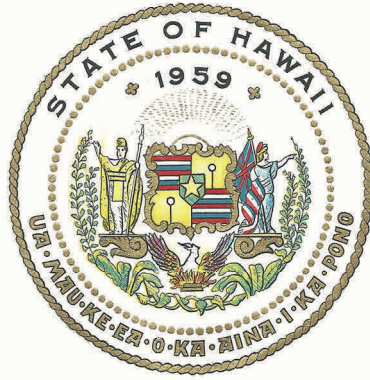
Cover Art

By Amy Koch, Soil Scientist

The cover of this year's Annual Report is a soils map of the Island of Hawaii. Those who are interested in learning more about the soil on their land can call their local NRCS office or use the Web Soil Survey found at :

<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>

Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service (NRCS) and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online for more than 95 percent of the nation's counties and anticipates having 100 percent in the near future. The site is updated and maintained online as the single authoritative source of soil survey information



In Memoriam

David "Kawika" Marquez

May 10, 2013

I was deeply saddened to hear of the passing of Kawika Marquez. On behalf of the people of Hawai'i, I offer deepest sympathies to his wife, Jeanie Bevanmarquez; sister Debra; brother Rick; daughters Diane, Judy and Tammy; and numerous grandchildren and great-grandchildren, for their loss.

Kawika was a compassionate and dedicated advocate for the underserved. Any request for help received his customary "can-do" response. His work as president of the Big Island Resource Conservation and Development Council created opportunity for collaboration that will carry his legacy forward, and the groundwork he so thoroughly laid will surely help his many innovative projects for Kona come to fruition.

Kawika's recent discovery of the details of his Hawaiian ancestry drove his dedication to Kana'iolowalu, our global effort to enroll native Hawaiians for the purpose of organizing a sovereign entity. His tireless presence at countless community events brought forward considerable support.

Kawika's work also lives on in the Grammy Award-winning CD "The Last of the Great Mississippi Delta Bluesmen." What tremendous pride he must have felt in serving as an advisor to this notable project.

I end my message with an 'olelo no'eau (word of wisdom) often said of one who is extremely generous and who gives freely without reservation:

***"A'ohē mea koe ma ku'ono."
"Nothing remains in the corners."***

Me Ke Aloha Pumehana,

NEIL ABERCROMBIE
Governor, State of Hawai'i



United States Department of Agriculture
Natural Resources Conservation Service

April 23, 2013

Dear SWCD Partners,

It's been quite a spectacular year with progress. I am pleased to update that NRCS had 276 contracts, totaling \$11,772,000 from Farm Bill to farmers and ranchers in the Pacific Islands Area in fiscal year 2012. That is \$3 million more than our work in fiscal year 2011 with \$8,322,000 to farmers and ranchers via Farm Bill!

In addition to that, \$6,087,669 was provided for Conservation Technical Assistance through the Pacific Islands Area in fiscal year 2012. Our 95 NRCS employees could not have done it without the support and partnership from the Soil and Water Conservation Districts.

In a time of transition in personnel and the budgetary cuts from our national office, we appreciate your understanding of the changes that affect all of us. It is important to note that there will likely be a trend of decreasing budgets in upcoming fiscal years. As such, we are committed to helping people help the land and we will continue to do our part, even though we are trying to do more work with reduced resources.

Happily, we'd also like to report that Earth Team volunteers are making a tremendous impact for conservation on the ground. So far this fiscal year, we have 49 volunteers, donating more than 866 hours of volunteer contributions this fiscal year throughout the Pacific Islands Area. That is worth almost \$18,870 of benefit to our customers.

As we gear up to supporting your annual conference in June, please know that we would like to send as many employees as possible but it will depend on our financial status. Please keep up the great work that you all are doing. We treasure the relationship that we have with all of you!

Sincerely,
ANGEL FIGUEROA
Director
Pacific Islands Area



UNIVERSITY OF HAWAII
AT MĀNOA

COLLEGE OF TROPICAL AGRICULTURE
AND HUMAN RESOURCES

University of Hawaii at Manoa
College of Tropical Agriculture and Human Resources

The University of Hawaii at Manoa, College of Tropical Agriculture and Human Resources (CTAHR) through the activities of the Cooperative Extension Service is responsible for providing community based educational programs in Agriculture, Natural Resource Conservation and Management, 4H Youth Development, Leadership Development, Family and Consumer Education, and Community and Economic Development activities. The Cooperative Extension Service provides services to the public and community through the work of County Extension Agents and Specialist.

County Extension Agents and Specialist are faculty members of the University of Hawaii at Manoa who are based in the counties at Cooperative Extension Service offices located throughout the Island. On Hawaii Island, there are three Cooperative Extension Service offices to meet the mission mandated by the Smith-Lever Act of 1914 that established the Cooperative Extension Service. Offices are located in Hilo, Kona and Kamuela. Many educational materials are available at Extension offices and are free. There are nominal charges for some material as well as for diagnostic services provide through ADSC.

CTAHR also maintains a network of eight Agricultural Experiment Stations on Hawaii Island on which to conduct research and demonstration projects and programs. These Experiment Station represent unique environmental niches on which agriculture takes place in Hawaii. The Stations are mainly utilized by the CTAHR faculty, but many partners and collaborators also utilize the facilities such as the University of Hawaii Hilo, USDA-PBARC, HDOA, other Universities, and corporations. Research on genetic improvement of plants and animals, new crop introduction and development, improved cultural management practices, disease and insect management, pest biocontrol, forestry, and native plant restoration are among the topics studied. A list of faculty based on Hawaii Island can be obtained from Cooperative Extension Service offices or online at www.ctahr.hawaii.edu.

Cooperative Extension Service Offices:

Komohana Research and Extension Center
875 Komohana Street
Hilo, HI 96720
(808) 981-5199

Kona Cooperative Extension Service Office
79-7381 Mamalahoa Hwy.
Kealahou, HI 96750
(808) 322-4892

Kamuela Cooperative Extension Service Office
67-189 Kamamalu Road
Kamuela, HI 96743
(808) 887-6183

Biological Control of Madagascar fireweed (*Senecio madagascariensis*); a New Tool in Integrated Control

Hawaii Department of Agriculture
Plant Pest Control Branch

submitted by: Pat Conant (Entomologist Hilo) Robert .T. Curtiss (Entomologist Kona) and Darcy Oishi (Acting Plant Pest Control Branch Manager)



A heavy fireweed infestation (> 30% cover) on rangeland in the Saddle Road area of the island of Hawai'i.
Photo Source: 2005 CTAHR PUB PRM—1, Fireweed Control: An Adaptive Management Approach



Fireweed flowers profusely, and each flower can produce up to 150 seeds, which are easily dispersed by wind.
Photo Source: 2005 CTAHR PUB PRM—1, Fireweed Control: An Adaptive Management Approach

Fireweed is a common name used for several unrelated plants found around the world. Since the early 1980's (Thorne et al 2005), *Senecio madagascariensis*, or Madagascar fireweed, has become well established in Hawaii. Fireweed is suspected to have come to Hawaii in contaminated "hydromulch" from Australia that was sprayed on bare soil road cuts. However, on the Big Island, where it first showed up near Hawi in Kohala, the route of introduction is unknown. Fireweed is widespread and invasive now on Hawaii and Maui rangeland, vacant property, and native plant communities. Populations previously under control on Molokai and Lanai have undergone resurgence with recent rains. The Hawaii Department of Agriculture (HDOA) has mostly eradicated it at one site in SW Kauai after many years of hand removal. It is being contained at Schofield Barracks training area and is targeted for eradication by DPW Environmental Division staff. Pocket infestations are known to exist on Kahoolawe and are dealt with through manual control. The estimate of infested rangeland statewide is ~800,000 acres. Herbicides have been used on a small scale, but on large rangeland areas, herbicide use is neither practical nor feasible in the long run. Lengthy droughts exacerbate the problem when forage dies back exposing bare soil to create a favorable habitat for fireweed when the rains come.

Fireweed not only competes with rangeland forage plants, but it is also toxic to livestock. There are several sub-lethal effects of consumption, but it will eventually kill horses and cattle by harming the liver. Although sheep are much more tolerant and can even be used to control it, it will harm them if they eat enough of it.

Chemical and cultural controls are not enough to protect rangeland from this scourge. The HDOA began a biological control program in the weeds native range of Southern Africa and Madagascar. The HDOA Exploratory Entomologist, Dr. Mohsen Ramadan, traveled to both areas beginning in 1999 and collected potential natural enemies for testing in the insect containment facility in Honolulu. He found leaf feeders, flower feeders, root feeders, and stem boring insects in addition to two rust diseases. One natural enemy, a moth (*Secusio extensa*), in particular showed promise and was easy to rear in quarantine.



Madagascan Fireweed Moth larva Photo:Hawaii Dept. of Agriculture

Host range tests of this moth on a large number of plant species were performed to ensure that the moth would be safe to release.

Following the completion of extensive testing which demonstrated *S. extensa* would only attack fireweed and its close relatives but would not attack economically or environmentally important plants, the HDOA submitted Federal and State permit requests. The stringent review process included multiple public hearings, publication of environmental assessments, consultations to determine potential endangered species impacts, and cultural consultations. Permits were issued after a “Finding of No Significant

Impact,” or FONSI, was declared by both the Board of Agriculture and the USDA. The moth was first released in Kohala in February 2013. Releases have been continuous since then on both Maui and Hawaii. One release has been performed on Lanai with a second being planned. Molokai is being evaluated for its suitability as a release site also.

A partnership between the HDOA, the University of Hawaii and the Hawaii Cattlemen’s Council has formed to mass-rear and release the moth. Both the HDOA and UH-CTAHR are rearing moths to stock simple open-bottom field cages that interested ranchers can use to assist in establishment of the moth on their ranches. In the cages, caterpillars will eat the fireweed, grow to full size, pupate, and become adults. In this protected environment, they can successfully mate and lay eggs to begin the cycle again while also reducing the chances of predation or parasitism.

Kona SWCD

Message from the Chairperson

The Kona SWCD lost a valuable member this year, Kawika Marquez. Kawika worked on many projects for the community because the community was one of Kawika's great loves. He was tireless in trying to bring opportunities to those who had difficulty finding them. He will be missed greatly.

The Kona SWCD was very busy during 2012. In our efforts to implement the grubbing and grading ordinance through conservation planning the district signed up 32 new cooperators, did more than 70 site visits providing conservation technical assistance and approved 8 conservation plans that were brought before us.

Possibly our greatest accomplishment for 2012 was assisting the Natural Resource Conservation Service (NRCS) and our cooperators by helping with various aspects of the planning process so that the NRCS Pacific Island Area's Kealahou Field Office was able to contract with 60 producers to bring nearly 2 million dollars to the local community. These contracts included funds to improve irrigation systems and increase water use efficiency, to install fencing to prevent uncontrollable soil erosion due to feral ungulate damage and to install many other conservation practices. The efforts made by farmers, ranchers and forest land owners provide a tremendous benefit to our community and not just economically. We have a greater number of native species planted, invasive species are being removed and soil is being kept in place.

We continued to do outreach within the community participating in many events, the Earth Day Festival, the Kona Coffee Expo, So You Want to Grow Food workshop presented by the Kona County Farm Bureau and One Island Sustainable's workshop on watersheds. We look forward to more opportunities to bring our message of conservation to West Hawaii.

It is the hope of our board that we can continue to work with and in our agricultural community providing whatever assistance we can, whether is educating on the benefits the individual practices, conservation planning, mapping, documenting existing conditions, directing producers to programs that can provide funding for some of this work, or in assisting in ways that are unique to particular produces situation.

We will move forward in the coming years carrying Kawika's spirit of community service in what we do and how it is provided. We ask all community members to join us in helping each other help the land.



Rick Robinson, Chairman



Keith Unger, Director



Denise Light, Secretary



Greg Hendrickson, Vice-Chairman

Kona SWCD Cooperator of the Year

To the right: Denver Leaman (left) and his wife Trisha Bobnar (center) of Ohia Forest Farm accept their **Certificate of Congratulations** from the County of Hawaii for having been named a 2012 Cooperator of the Year by the Kona SWCD. Rick Robinson Chair of the Kona SWCD presented the certificate to them.



To the left: Mary Lynn Garner of Blackfoot Farms shows of her **Certificate of Congratulations** awarded to her by Rick Robinson, Chair of the Kona SWCD, for the County of Hawaii for being named a 2012 Cooperator of the Year by the Kona SWCD.

Each Cooperator of the Year also received a certificate from the State of Hawaii and sign they can post at the entrance to their farm so that they can tell the world they have been recognized as good stewards of the land.

For many people struggling with drought, invasive plant species and invasive animal species like the Coffee Berry Borer or the Little Fire Ant, giving up might be considered the prudent thing to do, but not to our farmers. They persevere, they adapt and they overcome as is the case with this year's Cooperator of the Year award winners.

Our winners were Trisha Bobnar and her husband Denver Leaman of Ohia Forest Farm and Mary Lynn Garner of Blackfoot Farm. As the name may suggest Ohia Forest Farm (top photo) was actually a forestry project. Coffee is grown on this farm and was a site for CTAHRs study on growing shade coffee. It was their work in their forest that swayed the Board of Directors to honor this farm with Cooperator of the Year recognition. Christmas Berry trees became a thing of the past on this land and native species were planted in their place. Now here is a beautiful example of a native forest.



Above photo: Ohia Forest Farm, the slash pile on the left side of the photo used to be a Christmas Berry tree. Below: One of the many planting areas on Blackfoot Farm.

Mary Lynn of Blackfoot Farm (bottom photo) had actually worked for the farmers who owned her land before her. She took the farm to another level by carefully considering her climate and the types of crops that would be suitable. She chose to grow items that you might see growing in the Mediterranean. Rainfall amounts at the elevation of Blackfoot Farm are generally under 60 inches per year and they haven't received that much rain in some time. It is also much drier at the makai end of the parcel where Mary Lynn is restoring a dry land forest. Mary Lynn will tell you that without fencing to keep the feral ungulates out none of the rest of the work would have been successful.





Top photos: The Ohia Forest Farm with its ohia trees, and rock walls. Some of the native planting in this forest in addition to ohia trees include: lama, naio,

Right center photo: the reforestation area on Black-foot Farm. The native forest ecosystem for this land is a dryland forest. The above photo and photo to the right are just some of the planting areas on this farm.



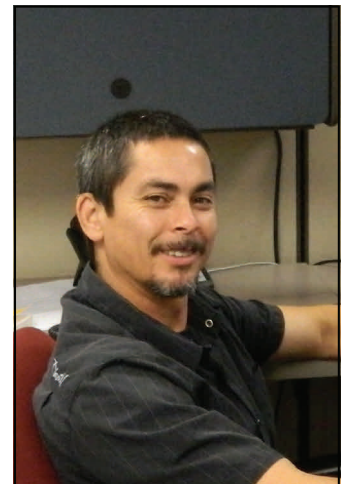
Kealahou NRCs Field Office staff and Kona SWCD staff, from left to right: Soil Conservationist Jim Sutter, Civil Engineering Technician Carl Rossetti, Kona SWCD Conservation Assistant Mary Robblee, Soil Conservationists Bernard Vermeulen and Nick Gallo



During a visit to the Kealahou Field Office, on the left is Assistant Director of Field Operations-East, Donna Hopwood. On the right is Angel Figueroa, Pacific Island Area Director.



Jessica Sternfels, Kealahou Field Office District Conservationist.



Mike Kolman, Soil Scientist

**Kona County Farm Bureau
Supports
Soil and Water
Conservation Districts**

The Kona County Farm Bureau recognizes the value of the work done by all SWCD staff and volunteer Board of Directors of all the island's Soil and Water Conservation Districts.

We wish you a successful future because your success translates to our farmers' success.

Onila Farm

Thanks

Mary Robblee

Nick Gallo

**Jessica Sternfels and all those
who made our new pig fence
possible.**

**We are happy and the pigs
are not!!**

Cheers

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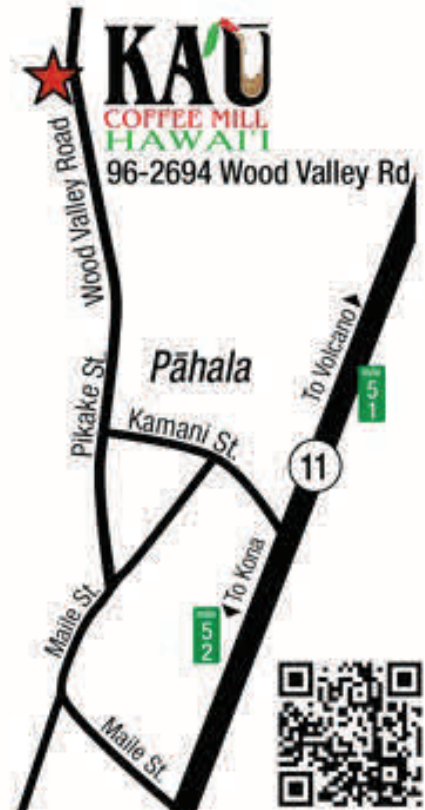
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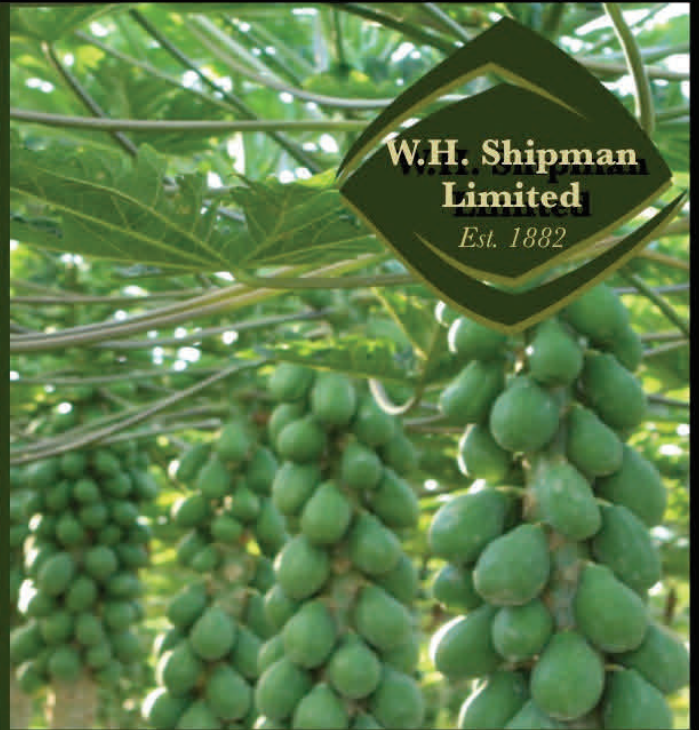
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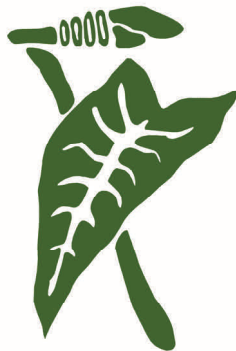
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IMUA KĀKOU

Senator Malama Solomon, Ph.D.

Senate District 4

Hilo, Hāmākua, Kohala, Waimea, Waikoloa, Kona

Mauna Kea Soil & Water Conservation District

2012 Cooperators of the Year



Risley Farms

Peter Risley is a French intensive method organic vegetable farmer in North Kohala. Peter Risley was selected by Mauna Kea SWCD as 2012 Farmer Cooperator of the Year for his outstanding conservation practices. Peter has successfully implemented cover crops into his crop rotation. Peter is constantly working to improve his soil health by improving the organic content in his soil. His crops are beautiful and vigorous. Peter is positively influencing the agriculture community around him by his outstanding use of cover crops. Cover crops improve soil health by increasing organic matter and can reduce the amount of fertilizers, pesticide and herbicide needed.

Triple J Ranch

Yvonne & Jacinth DeLuz are Department of Hawaiian Homes Ranchers in Honokaia. They have been ranching for many years. The DeLuz's have done an excellent job implementing their Conservation Plan and all of their conservation practices. Their commitment to taking care of and improving their lands is shown by their motivation and exceptional workmanship. All their practices have been implemented ahead of schedule and often exceed standards and specifications. This conservation ethic is a wonderful example and positive role model for the Hawaiian Homeland community. Jacinth DeLuz is a very practical, hardworking man who appreciates the value in doing a job right the first time. His attention to detail and commitment to quality are commendable.

Mauna Kea Soil and Water Conservation District



Chris Robb,
Chairman



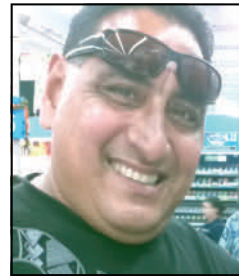
David Fuentes,
Director



Brad Lau,
Treasurer



Monty Richards,
Director



Morgan Toledo,
Director

The Mauna Kea Soil & Water Conservation District (MKSWCD) encompasses 730,930 acres, spanning from Mauna Loa & Mauna Kea to the northernmost tip of Hawaii Island. MKSWCD assists with the implementation of the County grading ordinance & the State's polluted runoff control program. It takes available technical, financial & educational resources & focuses them to meet the needs of local land users for the conservation of soil, water & other related environmental resources. A board of five directors, three elected by farmers & ranchers & two appointed by the Department of Land & Natural Resources, provides leadership for the District. These Directors volunteer their time & services. A meeting of the Board of Directors is held the second Wednesday, of each month in Waimea & is open to the public. For more information on MKSWCD activities check out the District's website at www.maunakeaswcd.org.

Mauna Kea SWCD welcomes new Hawaii Association of Conservation District Conservation Specialist Jill Ficke-Beaton to our staff. Jill is from Maui originally and now lives on the Hamakua Coast. She is a graduate of University of Hawaii at Hilo with a BS in Agriculture. Jill is currently working on her Master's Degree in Rangeland Ecosystem Science at Colorado State University. Jill & husband Doug along with their sons Alex & Keoni own Puuwai Ranch & Nursery raising cattle, sheep & orchids.

Mauna Kea SWCD and the USDA/Natural Resources Conservation Service also welcomed to our staff, Preston Irwin, State Range Specialist. Preston, a Texas transplant arrived in Hawaii in January 2013. Having ten years of conservation work with NRCS under his belt, Preston brings experience & enthusiasm to the position that focuses on providing technical assistance to the field offices. Preston grew up in South Texas, & attended Texas A&M University where he received a BS degree in Wildlife & Fisheries Science & Rangeland Ecology & Management. He then went on to obtain his Masters of Science degree in Rangeland Ecology & Management, also from Texas A&M. Preston is enjoying meeting the ranchers & visiting their ranches across the State.

The Mauna Kea Soil and Water Conservation District and Natural Resource Conservation Service Staff



Left to Right, Preston Irwin, State Range Specialist, Andrew Stout, Area Engineer, Reese Libby, GIS Specialist, Matthew Wung, District Conservationist, Jill Beaton, Conservation Specialist, Carolyn Wong, Soil Conservationist, Margaret Fowler, District Administrative Assistant

Hamakua Soil and Water Conservation District

Message from the Chairperson



(Front Row: L-R) Lori Beach-Director, Marissa Harman-Chairperson, Doug Beaton-Director;
(Back Row: L-R) Harrison Vidinha-District Planner, Dylan Shropshire-Director, Doug Connors-Director

The Hamakua Soil and Water Conservation District has gone thru many changes in the past year with district directors and employees. This past year Tom Young-Chairperson, Don Bryan-Director and Michael Surprenant-Director, bid the district farewell. We also want to congratulate Noel Ide-District Planner on his retirement.

The Hamakua District would like to send a special Aloha to the Aguiar Ohana. In December of 2012, we lost a friend, a life long community member, and Director; Virginio "Gene" Aguiar. His passing was a great loss to our conservation community and district.

There has been no shortage of work in the diverse Hamakua District. We had 8 conservation plans, 22 plan updates, and 7 plan revisions prepared in 2012. The Hamakua district has seen a considerable increase in sustainable farming principles and an increase in annually tilled crops. The majority of our educational outreach efforts paralleled these increases by focusing on soil health as well as soil and water conservation.

The Hamakua District would like to thank the USDA Natural Resources Conservation Service on their very important partnership. This commitment to work together has been the corner stone to our success. Our District's work would not have been possible without the continued support of the County of Hawaii Public Works Department, Department of Research & Development and the State of Hawaii Department of Land and Natural Resources. We also would like to thank the Hamakua cooperators for their earnest efforts towards helping the 'aina. Mahalo Nui!

Hamakua SWCD Cooperator Strives For Sustainability

Lon and Carol Hocker found a pot of gold at the end of the rainbow. They stumbled upon a rare, large tract of land (nearly 600 acres) just 5 miles mauka of downtown Hilo. They purchased this property and were very excited to start revitalizing this idle cane land. In May of 2003 Lon Hocker became a cooperator with the Hamakua Soil and Water Conservation District. For the past 10 years Lon and Carol have invested a lot of time, money, and hard work discovering the potential of this heavenly farm, which today is the name of this operation; **Mahilani**.



Mahilani Headquarters with Mauna Kea in the Background

The vision for Mahilani is to be a self-sustaining agricultural community by producing food and energy on site. Mahilani has expanded its efforts by adding a full time manager, Scott Greer, and expanding its ownership to six people, bringing in a larger range of talents and skills. Goals include working toward food and energy independence. To this end, Mahilani, now Mahilani Partners LLC, is testing commercial agricultural crops like cacao, coffee, bananas, breadfruit, sweet potato, pineapple, avocados, tropical fruits, and aquaponic vegetables, as well as raising cattle. To address their energy needs, they are raising oil palms for biodiesel, using solar, and plan to use hydroelectric power as well. Mahilani's elevation ranges between 1000' to 1400', and part of the effort is to find out what crops are best suited for this location. As they learn how to successfully farm at Mahilani, they plan to create educational programs integrated with agritourism that will allow them to share their research and knowledge.



Cacao and Palm Oil Orchard



Cacao Pods



Palm Oil Seeds



Sweet Potatoe Fields

Mahilani additionally has about 400 acres of forestland. This land is zoned conservation and is in the early phases of conservation planning. Most of this property is covered with waiawā (strawberry guava), which has been choking out the native growth for at least half a century. Once permitting is in place they plan to start removing noxious plants and replant with native forest species. This potentially large supply of wood provides an opportunity for making energy by biogas generation or direct burning of wood for power.

Previous agricultural use at Mahilani included over a century of sugar cane, and about a dozen years of annually tilled crops. There is little topsoil, an abundance of weeds and there are many root knot nematodes in the soil from past farming operations. The first use of the land after it was bought was to raise cattle. Through the much appreciated assistance of NRCS's EQIP program a 300,000 gallon reservoir, pipelines, troughs, cross-fencing, brush management and pasture planting was implemented. Mahilani is planning to add more cross-fencing to make smaller paddocks which will give a longer recovery period. Individual pieces of land can then be improved by mowing the paddocks to suppress the invasive grasses, and improve forage species. Cover crops are being incorporated into the sweet potato rotation improving soil health. The recovery process is slow and expensive, but all members of Mahilani Partners are enthusiastically supportive of making this extraordinary piece of property a beautiful and productive showplace.

Being part of the original conservation team for Lon and Carol Hocker, it has been inspiring to witness their commitment to restoring the land, and to see their vision for Mahilani become a reality. The Mahilani Community now serves as an example of sustainably diverse agriculture. Mahalo Nui for all your hard work!

Ka'u Soil and Water Conservation District

Chairperson's Message

Ka'u Soil and Water Conservation District (KSWCD) is fortunate to have a Board of well rounded and dedicated volunteers from the Ka'u Community. Current board members are Brenda Iokepa-Moses, Kau Coffee Mill; Amos Meyers, retired School Teacher; Lani Cran-Petrie with Kapapala Ranch; Chris Manfredi, Ka'u Farm and Ranch; and John Cross, Edmund C. Olson Trust. Board Members all bring something different to the table and this diversity helps them in their decision making and recommendations. "We all work together on our own time, traveling to and from meetings on our own dime with one common goal to do our part to help preserve the land and water resources by assisting in the planning and preparation of the lands as well as facilitating education for the farmers" said Brenda Iokepa-Moses, chairperson. We are supported by Jennifer Lopez Reavis heading the Field Office Administrative staff that not only handles our district but also the districts of Puna and Waiakea. Along with the expertise of Grant Kow and Amelia Drury both very talented full time planners with the district. Seasoned part time planner Kamran Fujimoto reaches out to farmers on weekends and after hours to make it more convenient for them.

With our district being comparable in size to the Island Of Oahu it is a challenge just getting to our client. With the drive being an hour or two away from the field office a lot of time is spent on the road getting to these rural area clients. With the help of our partner NRCS they make it work with careful planning.

A special mahalo to Mayor Billy Kenoi , DayDay Hopkins, Jane Horike and Randy Kurohara with the County of Hawaii R&D, Department of Land and Natural Resources, Natural Resources Conservation Service, and other affiliated agencies for their continued support of the agricultural community.



Brenda Iokepa-Moses
Chairwoman

John Cross
Vice-Chairman

Amos Meyers
Secretary/Treasurer

Lani Petrie
Director

Chris Manfredi
Director

Ka'u SCWD Outstanding Farmer Cooperator of the Year

James Hanka

The Ka'u Soil and Water Conservation District is pleased to announce the selection of James Hanka of Hanka Farms as the recipient of the "Ka'u SWCD Outstanding Farmer Cooperator of the Year" award for 2012 for his hard work and dedication to conservation, which is evident on his farm. Hanka is a family farm that consists of James and his wife, Priscilla. Their farm is located on Wood Valley Road above Pahala.

He has been a cooperator since 2011. He has worked with Soil Conservationist Amelia Drury, District Conservationist Jessica Newpher, Soil Conservationist Technician Lester Suehiro, and Civil Engineer Andrew Stout to address his resource concerns.

James has converted fallow overgrown with weeds former sugar cane land to a highly productive 5 acre vegetable farm. The conservation practices he has implemented are deep tillage and conservation crop rotation to address soil organic matter depletion and soil compaction. He intends in the near future to further improve his place by implementing cover crop to further address organic matter depletion, irrigation efficiency improvements to address inefficient water use on irrigation land, and dwarf apple banana windbreaks to address undesirable air movement.

Deep tillage entails plowing the soil at 8 inches depth several times to fracture the restrictive soil layer often found on former sugar cane land. His soil went from a dry crumbly hard pan soil to a loose, moist, and easy to dig into soil that now holds more moisture and plants roots can grow further down into the soil. Conservation crop rotation entails growing crops in a planned sequence on the same field. This practice helps improve soil quality by balancing plant nutrients needs and manage pest pressure. For example, James in one season grew broccoli, cabbage, tomatoes, corn, and lettuce, which have different needs and different pest pressures. Therefore, soil is not depleted instead begins to improve and no pests build up. He rotates what he grows based upon what his main costumers' requests, which are the Hawaii Food Bank for their low income senior citizen meals program and local Ka'u grocery stores.



Picture #1: What the cropland looked like initially



Picture #2: What the cropland looked like after implementing deep tillage



Picture #3: Planted tomatoes and corn in the background in lower field



Picture#4: Planted lettuce, cabbage, broccoli in lower field with drip irrigation

These practices preserve the environmental quality of his farm and in turn for all.
Congratulations James!

Ka'u SCWD Outstanding Cooperator of the Year

Phil and Merle Becker

Phil and Merle Becker have been cooperators of the Ka'u Soil and Water Conservation District since 1998. Their farm, Aikane Plantation is off of Cane Haul Road in Wailau. In 1894, Merle's great-grandfather, "Papa" J.C. Searle planed his first crop of coffee on his Ka'u plantation. His coffee became very popular and received many favorable comments from the local media. However, Papa was but one man and could not compete with the sugar plantations for workers. Papa's dream was lost but not forgotten. Over one hundred years later Phil and Merle are fulfilling his dream.

Phil and Merle currently have 7 acres in coffee production, and are expanding to keep up with the demand of their fresh, robust coffee. They hand pick only the choicest cherries, pulp, ferment, wash, dry and roast their coffee, then package them in a stunning purple foil bag. Their coffee is even featured at Chef Alan Wong's restaurant.

The Beckers also manage 109 acres for cattle production. Merle treats her animals as pets, and sometimes calls them by name. They have an extremely tame herd, and their cow/calf operation boasts a near perfect conception rate along with very healthy and beautiful animals. The cattle and horses rotate through 10 paddocks of productive stands of guinea grass. They have been working with their conservationist, Kori Hisashima to enhance their natural resources, and improve their cattle and coffee operations. Most recently they have installed over 4,000 feet of fence, and pumping plant with over 4,500 feet of pipeline to service 6 troughs. They also mulch all 7 acres of their coffee.

Phil and Merle could not maintain these over 100 acres alone. They credit their employees, Bill Lorenzo and Angie Kawewehi with being the backbone of the operation. Bill and Angie maintain the day to day operations on the farm, as well as build and install the new infrastructure. They are hard working valuable assets to Aikane Plantation.

Congratulations Phil, Merle, Bill and Angie on being selected as the Ka'u SWCD Cooperator of the Year.



Above: The Ka'u Outstanding Cooperator of the Year, Merle (left) and Phil (right) Becker

Waiakea Soil and Water Conservation District

Chairman's Message

The mission of the Waiakea Soil and Water Conservation District (SWCD) is to preserve our land and water resources by assisting in planning and education. The Waiakea Soil and Water Conservation District provides conservation plans for individual agricultural landowners to help control surface water and reduce sediment runoff. The Waiakea District, being in an urban setting, also assists on flood control projects along with the County Department of Public Works (DPW) and Natural Resource Conservation Service (NRCS) with planning and annual inspection of such projects. Plans are also provided for USDA NRCS Farm Bill cooperators, primarily for Environmental Quality Incentive Program (EQIP) with the District acting as a Technical Service Provider (TSP).

The District would like to thank its partners the County of Hawaii Department of Research & Development, County of Hawaii Department of Public Works, USDA Natural Resources Conservation Service, the University of Hawaii Cooperative Extension Service and the State Department of Land and Natural Resources for all their assistance in our goals. We also would like to thank the cooperators for their earnest efforts towards helping to create and implement the plans.

The Waiakea SWCD would also like to thank HACD, for all their efforts to secure funding from the State Legislature. Their work has not been an easy road. We at the Waiakea SWCD would like to join with all District Directors to come up with new ideas for better funding. One idea our District wants to promote is the potential use of lands controlled by the Department of Land and Natural Resources. If part of the income from State land leases can be directed to the Districts, we may have sufficient funding to carry out our mission. Or if given the land we could produce and sell plant material for windbreaks, ground covers, forage, or native species for natural area restoration. The State is land rich. Let's see if we can tap this wealth for the benefit of conservation.



Leslie Takayama
Chairman

Sheldon Takajo
Vice Chairman

Amy Bugado
Treasurer

George Mikami
Secretary

Stanley Haraguchi
Director

Waiakea SCWD Outstanding Cooperator of the Year

Novelty Greens, Troy and Allison Shigenaga

Novelty Greens is an export nursery that is owned and operated by Troy and Allison Shigenaga of Hilo. The nursery is located off Malaai Street in the Waiakea Uka area of the Waiakea Soil and Water Conservation District. Novelty Greens started off as a small nursery totaling approximately 3.7 acres in 1999 and has since grown to cover approximately 15.0 acres today. Troy and Allison have produced plants for interior décor, landscaping projects, and seasonal occasions such as Mother’s day and Christmas. These plants can be found in local garden shops and also in various landscaping projects throughout the state.

The team at Novelty Greens has been cooperators of the Waiakea Soil and Water Conservation District since 2005. They have taken a proactive approach to limit the spread of invasive species such as the Coqui frog and Little Fire Ant to the neighbor islands. Troy and his employees have worked with the Waiakea SWCD and NRCS to control the movement of these pests through pest management since 2007. Troy regularly applies Citric acid at approved rates to any plant(s) that leaves his nursery, to control the Coqui frog from spreading to other islands. He has also implemented a habitat modification practice to create a buffer around the entire nursery to limit the frog infestation from neighboring areas. To control the spread of the Little Fire Ant, he has implemented a system of applying approved ant baits such as “Amdro” and spraying each plant with an approved pesticide called “Tal –Star Select” which insures the plants remain Fire Ant free for up to 3 months after leaving the nursery.

They have worked hard to help protect the state from these invasive pests that continue to threaten our agricultural community through the production of high quality pest free products even in these tough economic times and the Waiakea SWCD congratulates Novelty Greens on a Job well done!



Far left are Troy and Allison Shigenaga owners of Novelty Greens and on the right their pest management control.



Far left shows Novelty Greens operation and on the right is an exotic ornamental, the Anthurium.

Puna Soil and Water Conservation District

Chairman's Message

The Puna Soil and Water Conservation District (SWCD) have been instrumental in conservation planning and accomplishments throughout the agriculture lands in the Puna District.

With the assistance of district employees, Amelia Drury, Grant Kow, Kamran Fujimoto, and Jennifer Reavis, the Puna District was able to assist 35 Cooperators in 2012. The District continues to be one of the fastest growing districts in the State of Hawaii.

Invasive species are increasing in this district as more nurseries and potted plant cooperators start to expand. The Coqui frogs are spreading to higher elevations. Other pests of interest include the nettle caterpillar and fire ant. Animal waste remains the district's highest priority.

We would like to thank the many governmental agencies that assist in the District programs. The State Legislature through DLNR, USDA Natural Resource and Conservation Service for supporting the SWCDs, the UHM Extension Service for their assistance, and the County of Hawaii for their funds to hire District Employees.



*Loren Mochida
(Chairman)*



David Schell (Secretary)



Ron Nickel (Director)



Oliver English (Vice-Chair)



Aileen Yeh (Treasurer)

Puna SCWD Outstanding Farmer Cooperator of the Year

Eva Lee

The Puna Soil and Water Conservation District is pleased to announce the selection of Eva Lee of Tea Hawaii Company as the recipient of the “Puna SWCD Outstanding Farmer Cooperator of the Year” award for 2012. Tea Hawaii Company is a family farm that consists of Eva and her husband, Chew.

Their farm is located in Upper Puna in the Volcano Village. She has been a cooperator since 2010. She has worked with Soil Conservationist Bobette Parson, Soil Conservationist Amelia Drury, Soil Conservationist Technician Lester Suehiro, and District Conservationist Jessica Newpher to address her resource concerns of plant health, plant productivity, plant vigor, noxious weeds, T&E species, and habitat fragmentation. Eva was selected by the Puna SWCD as “Outstanding Farmer Cooperator of the Year” for her hard work and dedication to conservation which is evident on her farm.

Eva has converted a native forest with kahili ginger and waiawi noxious weeds to a highly productive 4.7 acre tea plant farm and native forest. The conservation practices she has implemented are access control fence, forest slash treatment, tree/shrub establishment, and forest stand improvement. Access control fence consist of installing a woven wire fence to exclude feral pigs to protect the native forest. Forest slash treatment & forest Stand Improvement consists of mechanically removing kahili ginger and waiawi to improve the forest. Tree/shrub establishment consist of planting native trees & scrubs that are from the area to improve diversity of the forest.



The photos above show Eva Lee’s tea farm before conservation planning.



The above photos show Eva Lee’s tea farm after implementing her plan.

Puna SCWD Outstanding Rancher Cooperator of the Year

Roddy Nagata

Roddy has been a cooperator of the Puna Soil and Water Conservation District since 1997. He started his first 50 acres of cattle grazing the following year on a property he purchased on South Lauko Road in Mountain View. When developing this property that was former Puna Sugar Co. land Roddy was faced with the typical Puna weedy pasture situation with remnant Sugar Cane. He cleared about half of the area of noxious weeds, and planted Pangola grass by sprigs. After establishment, he moved on to the next section. Roddy then put in the hardware necessary to establish a 7 paddock rotational grazing system. This included Fence, Pipeline, and Troughs.

In 2004 Roddy, in partnership with his son Spencer, and our very own Loren Mochida along with others leased 624 acres of Umikoa Ranch in O'okala which they call Ka'ala Ranch. There, Roddy and his partners battled Waiawi, Guava, and Faya Tree. Equipped with chain saws, machetes, and back pack sprayers, the partnership spent most weekends in battle with these prolific weeds under the 'Ohia and Koa understory. After weed management, they sprigged Pangola and Kikuyu grass as well as installed necessary hardware to create 7 paddocks for a rotational grazing system.

In 2006 Roddy acquired another lease parcel close to his 50 acre ranch in Mt. View. This 27 acre parcel, referred to as Sato ranch was developed into a 3 paddock rotational grazing system with the same management approach as the first parcel.

Most recently, in 2011 Roddy acquired another lease parcel off of South Kopua Road. Here he manages 86 acres, split up into 8 paddocks. This ranch has been named Pukalani Ranch due to the large "puka" or lava tube in the middle of the property.



Above: Puna's Rancher Cooperator of the Year, Randy Nagata

In all, Roddy has completed 287 acres of Brush Management and 39 ac. of Herbaceous Weed Control to manage Noxious Weeds on his 4 ranches. He has installed 39,000 ft., which is over 7 miles of Fence. Hand planted sprigs on 385 acres of Pasture Planting, and installed Livestock Watering System for his cattle which includes 1,600 ft. of Pipeline, 2 Water Harvesting Catchment Sheds, 2 Tanks and 9 Troughs. His Cow/Calf operations are managed by forage grazing heights, modest stocking rates,

and weather evaluation for implementation of Prescribed Grazing on 785 acres.

The directors of all the SWCDs and their staff
Want to thank all of our famers, ranchers and forest land owners
For all their hard work.

Thanks to our farmers, ranchers and forest land owners on the Big Island. They have planted many native species replacing invasive species in many instances. They have protected many acres of soil from erosion by installing fencing to keep the pigs from destroying ground cover exposing soil to erosion.

They have lowered their water usage as a result of improved irrigation efficiency. They have planted many acres of cover crops and conservation cover reducing the erosion that takes place thereby protecting their community and improving their soil at the same time.

They have put into place rotational grazing systems which improves the quality of their forage stand and helps reduce soil erosion.

Coffee farmers put into place pest management practices that meet the standard set by the Natural Resource Conservation Service in fighting the Coffee Berry Borer.

On top of all the hard work to install these and other conservation practices our farmers and ranchers continually provide us with quality fruits, vegetables and a variety of cuts of meat from local grass fed beef. Many of our forest land owners continually plant more native species and continue to remove invasive ones so that there is always an abundance of native natural landscapes

Farmers, ranchers and forest land owners,

Thank you

Notes Page

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