

Resource Kona

RESOURCE KONA

Spring 2014

KONA SOIL AND WATER CONSERVATION DISTRICT

What Does the Passing of the Farm Bill mean for Conservation?

The new Farm Bill, also known as The Agricultural Act of 2014, does make some changes to the way federally funded conservation programs are administered. The following is a reprint of a press release issued by NRCS Honolulu on March 13, 2014 discussing those changes.

HONOLULU, March 13, 2014– The 2014 Farm Bill is streamlining key conservation programs while investing about \$18.7 billion in conservation programs offered by USDA's Natural Resources Conservation Service (NRCS) over the next five years. The bill provides about \$3.4 billion for fiscal 2014 for NRCS-administered programs.

The bill streamlines some conservation programs and consolidates and expands conservation authorizes of NRCS, one of our partners at the Hawaii Association of Conservation Districts.

"The new Farm Bill is great for our farmers, ranchers and forest landowners as it continues, consolidates and expands the conservation opportunities that are available," said Brenda Iokepa-Moses, HACD President.

"We look forward to continuing our partnership with HACD to provide technical and financial assistance to farmers and ranchers in the islands," said Christine Clarke, Acting Director for NRCS in the Pacific Islands Area.

Current contracts enrolled in Farm Bill programs are not affected. The following table provides contact information for each NRCS/SWCD office on the Big Island

<i>Waimea Field Office and home of the Mauna Kea SWCD</i> <i>District Conservationist:</i> Matt Wung, 885-6602 ext. 106 <i>SWCD Staff:</i> Hannah Conley, 885-6602 ext. 100	<i>Hilo Field Office and home of the Puna, Waiakea, Kau and Hamakua SWCDs</i> <i>District Conservationist:</i> Kori Hisashima, 933-8359 <i>SWCD Admin Assistant:</i> Jennifer Reavis, 933-8350	<i>Kealahou Field Office and home of the Kona SWCD</i> <i>District Conservationist:</i> Jessica Schmelz, 322-2484 ext. 109 <i>SWCD Staff:</i> Mary Robblee 322-2484 ext. 100
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Special points of interest:

- Kona SWCD meetings take place the second Tuesday of the month from 8am-10am and you are invited.
- Would you like a site visit to your farm for GPS and photo documentation purposes, call 322-2484 x100 to set up an appointment.

Research Update: Fireweed Toxins in Pollen & Honey

From and article in the Hawaii Apiary Program's newsletter the Hawai'i Bee, Spring 2014, Volume 3, Issue 2



Naturally occurring pyrrolizidine alkaloids (PAs) are toxic to mammals, including livestock and humans. Some are carcinogens, and many produce cirrhosis of the liver. In Hawaii the fireweed plant (*Senecio madagascariensis*), which contains PAs, is of concern because it is widespread and extremely invasive.

Hawaiian honey and pollen was analyzed for PAs. Experimental hives maintained on Mauna Kea near a fireweed stand were compared to hives located in a mac nut orchard at Panaewa, Hilo, with no fireweed nearby.

Our analysis showed the honey from Panaewa contained no detectable PAs. The hives sampled near fireweed contained 100-3000 parts per billion (ppb) of PAs and the pollen samples had up to 330K ppb. Six commercially available honey and pollen samples were also analyzed, and had levels from 0-90ppb.

There are no regulations in place for PA tolerance in food, but a report from the UK suggests that more than 0.007 micrograms PA/ kilogram body weight/day would be a concern. For 132lb person, this recommendation would be exceeded by consuming less than a gram per day of honey from the fireweed hives.

This information will be made available in more detail, but these conclusions can be drawn: Bees near fireweed do accumulate PAs in the honey and even more in pollen.

Contamination does exceed the levels of concern documented (but not yet regulated) in Europe, Australia and New Zealand.

Recommendations:

- * Site hives in areas where there are no extensive stands of fireweed. If scattered plants are around, make sure that there is a plentiful source of desirable nectar in the immediate area.
- * Do not consume pollen or advocate its use as a dietary supplement if you do not know its exact source.

Thanks to Russell Molyneux for collaboration on this project.

Stay updated, the Hawaii Bee can found at www.hawaiibee.com

Protecting the Fragile Soils of Kona

By Jeff Knowles, Retired NRCS District Conservationist, Kona SWCD Director

In the Kona district of Hawaii, our soils are formed from either ash deposits that occurred during volcanic eruptions or from the decay of plant material forming organic soils. Like any soil, if not protected from rain or wind, soils will erode and degrade their productive capability. In addition to the erosion that occurs during rain storms, the organic soils of Kona can volatilize once the forest or grass cover is destroyed and organic matter is no longer added to the soil surface.

Sadly, a high percentage of soils throughout the Kona coffee belt have been decimated by decades of poor land management practices. A common practice among many Kona coffee and macadamia nut farmers has involved killing all vegetation within the orchards with chemical herbicides. The result is little to no top soil and exposed rocks on the surface of what was once covered with high quality top soil. Because of this bare earth farming technique, soil quality has suffered dramatically along with insect populations, microbial activity, water holding capability and the ability of the soil to tie up fertilizers. The result is reduced yields and an increased potential for chemical and fertilizers to run off the land or leech into ground water.



Both of these coffee farms have typically rocky soil for farming, both producers are working to improve their soil, have stopped using herbicide and are going to a more organic management system. Both of these farms would have been covered in soil and leaf litter when the land was forested. With the removal of the forest, and therefore the removal of organic matter inputs, the soil has eventually simply disappeared into thin air. Many farmers are familiar with this process because of their own mulch inputs on their farms and their need to continuously add more mulch or organic matter.

The Kona Soil and Water Conservation District strongly encourages an end to the practice of bare soil on all farmland within the Kona district and throughout the Island of Hawaii. There are a number of low growing grasses that can reduce weed populations, add organic matter and heal the fragile soils. The continual addition of organic matter is critical to maintain our soils for future generations. Please contact the Kona SWCD or the NRCS office in Kealahou for technical assistance to address the resource concern of poor soil quality. Join the effort to protect our ainal

What Does the Passing of the Farm Bill mean for Conservation?

Key program changes include:

Financial assistance programs:

The Environmental Quality Incentives Program, or EQIP, will absorb the Wildlife Habitat Incentive Program and make similar practices available. The Conservation Stewardship Program and Agricultural Management Assistance will be continued.

Easement programs:

The agency's key easement programs will be merged into a new program called the Agricultural Conservation Easement Program, or ACEP. ACEP includes the former Wetlands Reserve Program, Grasslands Reserve Program and Farm and Ranchlands Protection Program. Funding for wetland and grassland protection expired Sept. 30, 2013, and the 2014 Farm Bill reinstates funding for these critical efforts under ACEP.

Partnership programs:

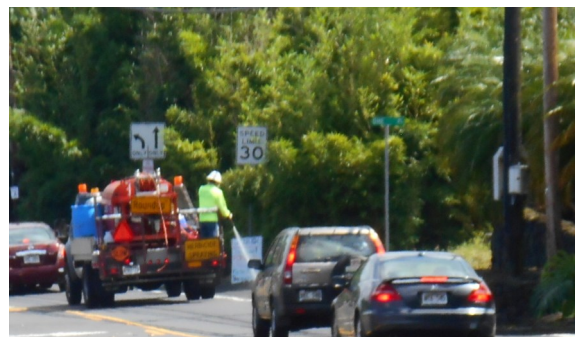
The agency's regional conservation efforts have a home in a new program – the Regional Conservation Partnership Program, or RCPP. Critical conservation areas for this new program will be designated by Agriculture Secretary Tom Vilsack. NRCS will also select project areas at the state and national level.

Roadside Maintenance, Taking Responsibility

Over the last couple months, the Kona SWCD met with supervisors of State and County road crews to discuss alternative methods to control undesirable weed growth on county and state roads. Currently, Roundup has been a primary tool by both the County of Hawaii and the State Department of Transportation to control weeds on public roads on the island of Hawaii. The Kona SWCD believes Roundup and chemical herbicides should be eliminated as the primary tool for controlling road side weeds and has encouraged the State and County to adopt other methods to keep our roads clear of unwanted vegetation. Some of the alternative methods the Kona SWCD presented include; mowing, hot water, vinegar solution, wick applicators to prevent drift, etc.

Residents of Kona, including farmers and ranchers are encouraged to assist the County and State in this endeavor and assume maintenance responsibility of road right of ways adjacent to their property. Planting grass or allowing natural regeneration of vegetative growth and mowing the plant growth along road ways is at the top of the list of alternative methods. Establishing desirable grasses and mowing is environmentally friendly and practiced thoroughly the US mainland and Pacific Island Territories. The Kona SWCD asks that you become involved in positive change and accept responsibility for maintaining your adjacent road side. Contact the County of Hawaii, highway maintenance division or the State of Hawaii's Department of Transportation to assume this responsibility. This may include completing a simple agreement form with the County or State and posting a no spraying sign.

Become involved in a community effort to protect our Aina! For further information contact Jeff Knowles, Kona SWCD, 322-2484.



Road crews spraying Roundup as part of regular maintenance

NRCS and the Kona SWCD Welcomes Laura Nelson and Jacqueline Vega-Perez



NRCS recently brought Laura Nelson on as a staff member. Laura comes to us with over 25 years of conservation experience.

She has held positions as a natural resources manager with The Nature Conservancy of Hawaii, a plant ecologist for the National Park Service, and a field coordinator for the Big Island Invasive Species Committee (as well as a former Chair of BIISC).

She holds a Master's degree in ecology and specializes in invasive species control, native forest restoration, mapping, and planning.

For the last 15 years she has lived in Kona (Keauhou mauka) where she operates a 6½-acre coffee, macadamia nut, and cacao farm. This local

farming experience allows Laura to understand all of the challenges our local producers face.

Deeply dedicated to the conservation of natural resources, she is thrilled to be working with the NRCS in Kealahou because it allows her to help members of her local community conserve and improve Kona's land and water. Laura can be reached at 322-2484 ext. 105

Jacqueline, a Soil Scientist, is a new staff member in the soil survey office here in Kealahou. She joined NRCS in 2011 as a Soil Scientist in Glenwood, Arkansas and also worked Wyoming participating in the initial soil mapping of over 120,000 acres.

Jacqueline was born and raised in Puerto Rico so is familiar with tropical environmental conditions. She is a graduate from the University of Puerto Rico, Mayaguez Campus (UPRM) majoring in Agronomy and Soils. She has also earned a Master's Degree in Soil Sciences from UPRM.

Her graduate studies work included numerous research projects related to soil and water quality. Jacqueline has also held positions providing support the chemical and physical analysis of water and soil and plant tissue testing. After completing her graduate studies Jacqueline was a Soil Sciences Laboratory Instructor for UPRM.



History's Corner



Jimmy Stewart, of *What a Wonderful Life* fame, as well as *Mr. Smith Goes to Washington* and Alfred Hitchcock's thriller *Rear Window*, was a rancher here on the Big Island.

The caption on the back of the photo reads: William Paris Jr. presenting James Stewart, owner of Hoomau Ranch, with a certificate for outstanding conservation—1964.

The ranch has pasture land, native forest and a macadamia nut orchard as well as some structures used for housing ranch hands, and Mr. Stewart himself when he was visiting.

Soil Facts

Mike Kolman, MLRA Soil Survey Leader, USDA, NRCS Kealahakua, Hawaii

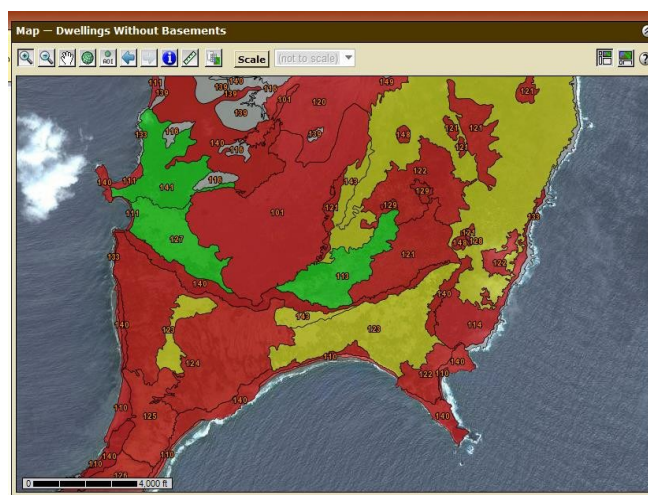
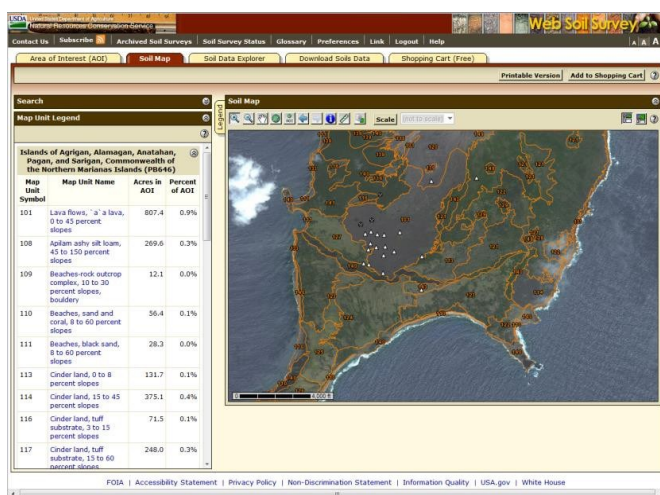


United States Department of Agriculture

Web Soil Survey now available for all of Hawaii, American Samoa, and Micronesia

The USDA-Natural Resources Conservation Service (NRCS) updated soil data for each of the soil survey areas mapped in the Pacific Islands Area (PIA). These surveys cover the State of Hawaii, the Territory of American Samoa, the Territory of Guam, the Commonwealth of the Northern Mariana Islands, the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau. This effort updated the spatial (soil mapping) and tabular (physical and chemical properties, and interpretations) data for all soil survey areas.

Web Soil Survey (WSS) is the most widely used web site for accessing soil information used to make important land use decisions. The updated data means that WSS will work for all PIA soil surveys. This is the first time WSS has worked for PIA soil surveys outside of Hawaii. In WSS soil maps are overlain on satellite imagery and users can make custom soil maps and interpretation reports. WSS can be accessed at <http://websoilsurvey.nrcs.usda.gov/app/>. Detailed instructions on how to use the features of WSS are provided at that site. And, it's all free.



For more information about Web Soil Survey please contact:

Dr. Cindy Stiles at cynthia.stiles@hi.usda.gov for assistance with soil surveys in Hawaii and American Samoa.

Dr. Bob Gavenda at bob.gavenda@pb.usda.gov for assistance with soil surveys in the Commonwealth of the Northern Mariana Islands, the Territory of Guam, the Republic of Palau, the Federated States of Micronesia, and the Republic of the Marshall Islands.



300 Ala Moana Blvd., #4-118, Honolulu, HI 96850, www.pia.nrcs.usda.gov, twitter.com/nrcs_pia



For more information, or to apply for any USDA Farm Service Agency program, please call your local USDA Service Center. NOTE: Fees, eligibility requirements, income and payment limitations may apply with any of the programs listed below. Please check with the nearest FSA office for specific rules. The FSA office in Hilo can be reached at 933-8381 ext 1.

Farm Service Agency's 2013 Employee of the Year, Kristen Kiri

Kristen Kiri, Program Technician with the Hawaii County Farm Service Agency (FSA), was recently named the 2013 Employee of the Year for FSA Hawaii and Pacific Basin. In just a few short years with the Agency, Kristen has consistently demonstrated the qualities and skills of an exceptional employee.



Kristen C.Y. Kiri was recognized for her exceptional skills and service as the 2013 Employee of the Year for the Farm Service Agency Hawaii and Pacific Basin.

Much of Kristen's work centers on assisting producers with accessing a variety of program benefits with special emphasis on environmental and conservation services. On a typical day, she compiles the necessary information about individual farms and ranches and enters the data into a geographic information system (GIS) database and prepares the necessary reports and recommendations for further decision-making and action. Sounds easy, but it is not always so, especially when integrating the GIS functions into FSA's program systems for each unique individual producer.

Kristen has taken the initiative and diligently applied herself to reach a high degree of skill in the use of GIS as it applies to FSA's program functions. Moreover, she is always willing to share her

knowledge with other staff members across Hawaii and the Pacific Basin. She is often called on to answers GIS and conservation questions. Kristen is highly competent in researching the challenges before her and creating precise and understandable written instructions for others to follow. She is truly a reliable team member and one that is highly valued by her peers, managers and the county's farmers and ranchers. Congratulations Kristen!

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Fax: 322-3735

Board of Directors:
Chairman: Rick Robinson
Vice Chairman: Greg Hendrickson
Treasurer: Jeff Knowles
Secretary: Denise Light
Director: Keith Unger

Staff: Mary Robblee, Conservation Assistant
Monthly meetings are held on the 2nd Tuesday of the month from 8am-10am at the USDA Kealahakua Service Center below the post office. All are welcome and the facility is ADA accessible.

Organization: The Kona Soil and Water Conservation District (KSWCD) is a government subdivision of the State of Hawaii organized under Hawaii State Law, HRS Chapter 180

Function: To utilize available technical, financial and educational resources to focus or coordinate them so that they meet the needs of the local land users with regards to conservation of soil, water, and natural resources.

Service: The District serves the communities and land users within North and South Kona

Why: The District is committed to the promotion of wise land use and resource stewardship.

We are on the web at
www.kswcd.org

Local Work Group Meets to Discuss Natural Resource Concerns

Every spring the Kona SWCD hosts what is called the Local Work Group Meeting. Cooperators (farmers, ranchers and forest land owners) are invited to participate in this meeting along with NRCS staffers, Kona SWCD Directors and other leaders in agricultural and conservation. We meet to discuss the local resource concerns and prioritize them. We had a good group of people participate and those who did were provided approximately two pounds of buckwheat seeds to try as a cover crop.

The following is what the group decided are our local natural resource concerns and their importance.

	<i>Soil</i>	<i>Water</i>	<i>Animals</i>	<i>Plants</i>	<i>Air</i>
1	Lack of soil	Availability of water (for live-stock and crops)	Feral Ungulates	Reforestation	Vog
2	Erosion, sheet and rill	Flooding	Invasive pests: *Coffee Berry Borer *Macadamia Felted Coccid *The Little Fire Ant	Invasive species: *Koster's Curse *Lantana *Koa Wilt *German Ivy *Cat's Claw *Fire weed *Octopus Tree And <i>MANY</i> others.	Vog
3	Nutrient Load	Soil Water Retention	Having to destock	Appropriate vegetative cover	Vog
4	Feral Ungulates (causing erosion resource concerns)	Appropriate vegetative cover	Appropriate vegetative cover		
5	Mulch varieties				
6	Appropriate vegetative cover				

If you want to participate in next year's Local Work Group meeting
please contact the Kona SWCD at 322-2484 x100

Funding for this newsletter is provided by Hawaii County Department of Research and Development