Resource Kona

RESOURCE KONA **March 2010**

KONA SOIL AND WATER CONSERVATION DISTRICT

What's your Ecological Site?

The Natural Resource Conservation Service (NRCS) has been tasked with creating "ecological site descriptions" (sometimes called "ecosites") for all 50 states. The Big Island is where Hawaii's NRCS staff-has begun the task of developing our state's ecosite descriptions. There are 16 forest and four rangeland ecosite descriptions completed. The forest ecosites include: the Kona Weather Pattern Wet Forest and the Kona Weather Pattern Dry Forest among others. Currently only 10% of Hawaii's native dry forests remain, meaning the entire ecosite is endangered.

Above a native Kona Weather Pattern Dry Forest in its most pristine condition, "State 1" plant community. The dominant tree canopy can be lama, ohia, or a combination of both Ohia dominates the forest canopy on younger lava flows and lama dominates on slightly older flows . Many species that are rare today, such as sandalwood, ohe makai, wiliwili, and halapepe, were more common as recent as 100 years ago. Other species, such as loulu (*Pritchardia affinis*), have almost completely disappeared

By using an ecosite description the landowner can learn what the land may have looked like in its pristine natural condition and the steps required to return it to that condition should that be the goal. It is a long term process to bring apparent grassland back to its native forest state, but it can be done.

Some landowners may want to return a portion of their land back to its natural forest environment and there are some organizations that are working to reforest large acreages. One such organization is the Dry Forest Working Group (DFWG). It has had success with a six acre parcel in the upper Ka'upulehu region which was fenced as a forest reserve in the 1950s.

Since 1995, by using various strategies, the DFWG has been able to control fountain grass and other invasive species, plant 200 native trees, install irrigation, and put rodent control and fire prevention practices into place. These efforts have produced one of the highest quality native dry forests in Hawaii. The success of this parcel spurred DFWG to take on a 70 acre parcel in the lower Ka'upulehu region where they are currently working toward duplicating their (cont. on page 2)

Inside this issue:

Special points of interest:

- To find out about your soil contact the District Office at 322-2484 ext. 100 or the Soil Scientist at ext 106.
- To find out what the ecological site description is for your land give us a call at 322-2484 ext 100

What's Your Ecological Site? *(cont. from pg 1.)*

earlier successes and developing techniques that can be applied by government agencies and private landowners, both large and small.

The Kona SWCD hopes that all landowners will consider establishing some native species suited for their land's ecosite. It is unlikely residential areas will ever be forest land again; however, if each owner would plant two or three native plants suitable for their ecosite there would be native urban forests in each neighborhood. They may even discover the added benefit of attracting native bird species to the neighborhood.

To learn what your ecosite is, contact the Kona Soil and Water Conservation District. If you want to learn more about the DFWG and its volunteer opportunities check out the Hawaii Forest Industry Association's website, www.hawaiiforest.org

(Left) A picture of a Kona Weather Pattern Dry Forest ecosite in a "State 4" plant community. It is an open grassland dominated by alien species of limited value to livestock, and highly susceptible to fire. Key grass species, such as guineagrass, have been reduced to remnant amounts. Pitted beardgrass, with lesser amounts of feather fingergrass, Rhodesgrass, Natal redtop, broomsedge, beardgrass, and barwiregrass have increased in abundance and dominate the community

Kauai Students Head to the Nationals

The Kona Soil and Water Conservation District congratulates the Kauai students who won the state's Conservation Awareness Contest. This is a competition between teams of high school students and requires them to assess land characteristics such as slope, soil texture, depth and permeability, erosion and potential climate conditions to judge specific land areas for their use in agriculture production, rangeland, woodland, wildlife habitat, recreation or urban or home development. The contest gives the students a taste of what is required to follow careers in, land use planning, engineering, land development as well as agriculture. Each year there are county-level contests for interested high schools. The winners of the county contests move on to the state level after which the state winner goes on to compete at the national contest. The winning students of the Hawaiii County Conservation Awareness Contest were from Pahoa High School, however, due to a scheduling conflict, they were not able to attend the state contest. The state contest was between The Dirt Devils, a 4-H Club on Maui and the Kauai High School FFA Team and was won by the Kauai High School FFA Team. This year's national contest is being held in Oklahoma City, Oklahoma for a 3 day competition.

The one thing that may prevent the students from participating at the national level is the cost of travel. They have applied for grants to cover expenses but they have no guarantee of funding. If you are interested in helping these deserving young people represent Hawaii at the national event, donations will be gratefully accepted. Contributions can be mailed to the East/West Kauai SWCD attn: Marjorie Stanphill, 4334 Rice St., Lihue, HI 96766. To make a donation via (cont. on next page)

Kauai Students Head to the Nationals *(cont from previous page*

check, please make the check payable to the East Kauai SWCD and note on the memo line, National Conservation Awareness Contest.

(Left): Students judging soil characteristics . They will then make recommendations regarding the land uses this landscape is suitable for.

(Below left) Winners of the State Conservation Awareness Contest. From left to right:: Dayna Wheatley (2nd place winner) , Christina Banach (1st place winner) and Carrie DeSilva 3rd place winner). These three young women were also the team winners.If they are able to raise funds they will be going to Oklahoma City, OK to represent Hawaii's high school students in the national contest.

(Below) Students are measuring the slope of the land . This information is important for decision makers to make land use determinations. It also provides professionals a direction toward the steps required to overcome weaknesses in a landscape for a proposed land use.

Kona Coffee Farmers Association Annual Expo

The Kona Coffee Farmers Association hosted its 3rd Annual Trade Expo in January. The Kona SWCD attended alongside the USDA's Farm Service Agency (FSA) and Oahu's Resource Conservation and Development (RC&D) as well as many other businesses that provide services to our local agricultural community.

The FSA was promoting its Supplemental Revenue Assistance Payments Program (SURE), Non-Insured Crop Disaster Assistance Program (NAP) and Livestock Forage Disaster Program (LFP) programs. SURE provides benefits to producers who have had losses due to the drought. LFP provides assistance to ranchers who have suffered livestock grazing losses. NAP provides crop insurance for crops that cannot be insured through commercial insurance programs.

The RC&D and the Kona SWCD have been promoting conservation cover as a conservation practice to protect soil from erosion and as a way to retain soil moisture. It has been proven that soil with a grass cover stays moist longer than soil with no cover. The Kona SWCD also had on hand (cont. on page 8)

Little Fire Ant In West Hawaii

The Little Fire Ant (LFA) has been positively identified on two properties in Kona. The concern with LFA is the damage it can bring to an agricultural community and to property values. The LFA is a small orange-red to brown and about 1/16th of an inch long, about the thickness of a penny. They are slow moving and are easily dislodged from plant leaves by walking past them or picking the fruit. When disturbed the LFA can deliver a very painful sting that can result in a welt that lasts for weeks.

It is much easier to prevent the LFA from coming onto your property than to get rid of it. The first step is to ensure you do not currently have an LFA problem. If you have used plants or planting material that has come from East Hawaii you are at greater risk for LFA. Testing for LFA is easy, simply smear a thin coat of peanut butter (LFAs are not picky about the brand but they do prefer creamy to crunchy) on chop sticks or popsicle sticks and place them in shady, moist, areas of your property. These are your lures so try to keep them out of the sunny areas.

If you have a banana patch place a few lures there especially where older leaves join onto the stem and around the base of the tree amongst the leaf litter. If you do not have banana trees you can place the lures at the base of a coconut or palm tree. Wait about an hour, then check your lures to see if the ants have found them. Remember, LFA are VERY small and move relatively slow. If you think you have caught LFA, open a zip-lock baggie, gently pick up the lure, place it in the baggie and zip shut. Place the zipped baggie in the freezer over night then mail it to C. Vanderwoude, Hawaii Department of Agriculture, 16 E. Lanikaula St., Hilo, 96720. Be sure to include your contact information.

You might think it is a pain in the neck to do this testing but trying to eradicate LFA is much more difficult. LFA is also a disclosure requirement issue if you decide to sell your property so it is important to take steps to prevent them.

In the above picture there are actually hundreds of Little Fire Ants. They are tiny, about 1/16th of an inch, the thickness of a penny.

You can make this a community project because you really do not want your neighbor to get LFA . As slow as they are they can move across property lines under the right conditions.

Once you determine you do not have LFA, test all plant, mulch, and soil material prior to introducing it to your property. You can place soil or mulch onto a tarp and test for it, just follow the simple directions outlined above. Test all potted plants you bring onto your property, regardless of how reputable the distributor is, by placing a lure on the soil.. You are the last line of defense your property has against LFA and it is easier to prevent LFA, then it is to get rid of them.

For additional information on LFA, including how to make this a community project, check out www.littlefireant.com

Kona County Farm Bureau's "Wednesday Market"

The Kona County Farm Bureau celebrated the Keauhou Farmers Market's 4th birthday in December. It also celebrated the birth of its Wednesday Market. Wednesday Market takes place on the property of the Sheraton Keauhou Bay Resort and Spa and will feature locally grown vegetables, fruits, flowers, nuts and100% Kona Coffee. You will also find value-added products that primarily have ingredients or materials coming from Hawaii Island's land or waters. Stop by the Sheraton Keauhou Bay Resort and Spa from 8am—noon on Wednesday and see what it is all about.

Above is Liliko'i Farm, one of the local vendors at Wednesday Market offers many value added products.

(Above left) Aloha Aina Farms (aka mac-shack)-, a local producer selling a variety of mac nuts from un-salted to spicy. They also have other mac nut products, sell their own coffee and even sell T-shirts with their really cool logo.

Above right is information on the day's special event. Each week the special event is different so stop by and find out about this week's special event.

NRCS and KSWCD welcomes aboard new staff

As of March 1st, the Kealakekua Field Office staff has increased by one. Bernard Matatumua (pictured on the left) has filled one of the Soil Conservationist vacancies in our office. Bernard is from American Samoa where he worked for the Environmental Protection Agency (EPA) for the Piggery Compliance Program.

One of his responsibilities in American Samoa was to work with pig farmers ensuring that farm waste did not harm surface or near shore water with nutrient or sediment pollution. He was also a board member for the American Samoa's local Soil and Water Conservation District.

Best wishes to Bernard in his new position. His background and experiences will be a great asset to the professional team here in the Kealakekua Field Office. Bernard can be reached at 322-2484 ext 113

Soils of the Kona District By Michael Kolman, Soil Scientist, USDA-NRCS

Editor's Note: "The Soils of the Kona District" is a recurring column which will highlight the many different soil types within North and South Kona. In this, his second column, our resident Soil Scientist discusses the Kainaliu Soil Series it use and management.

The Kainaliu soil series consists of moderately deep, well drained soils that formed in basic volcanic ash in `a`a lava (see photo 1).

These soils are on ` a`a lava flows from Mauna Loa and Hualalai volcanoes that are about 5,000 to 10,000 years old. The land is undulating to steep and range in elevation from sea level to 305 meters (0 to 1000 feet). The mean annual rainfall ranges from 640 to 1270 millimeters (25 to 50 inches), with most of the rainfall occurring from April through October. The mean annual pan evaporation ranges from 1020 to 1780 millimeters (40 to 70 inches). The mean annual air temperature ranges from 21 to 24 degrees C. (70 to 75 degrees F.)

The Kainaliu soils are used mostly for homesites and pasture (see photo 2). This soil has a very rocky clayey surface and a very rocky loamy subsurface. Seasonal dryness and high rock fragment content result in droughty conditions during some time of most years. Natural potassium supplying capacity is low. Phosphorus retention is moderate to high and available levels are likely to be low. It is recommended that a soil test be performed to evaluate nutrient levels of the soil in orchards. For more information on soils tests, visit the University of Hawaii, Cooperative Extension Service in Kainaliu.

Removing vegetative cover and allowing this soil to air dry may cause the soil to transform into semi-permanent, pea sized aggregates, which have inferior agronomic properties. This soil is highly erodible if cleared and the slopes exceed 8 percent. In orchards, it is recommended to apply conservation mulching practices that will increase the organic matter content and improve the water holding capacity of the soils. For more information on conservation mulching practices, visit the USDA-NRCS Service Center in Kealakekua.

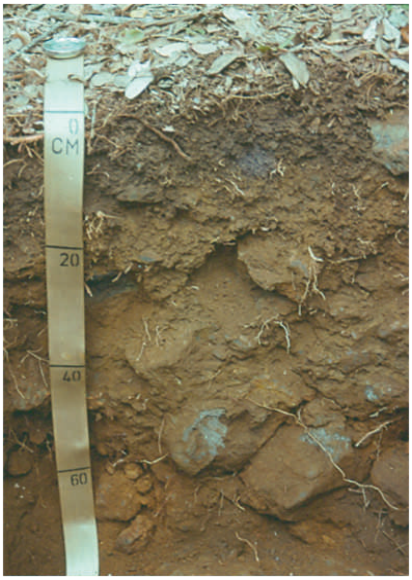

Photo 1. The Kainaliu soil series: the surface layer is very dark brown, cobbly silty clay loam, about 10 inches thick. The subsoil can be very rocky due to 'a'a lava..

Photo 2. Kainaliu soil series used for pasture.

FARM SERVICE AGENCY

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 Kealakekua can be reached at 322-2484 ext 111.

SURE: FSA is currently accepting applications for the Supplemental Revenue Assistance Payments (SURE) Program. SURE provides benefits for 2008 through 2011 crop year farm revenue losses due to natural disasters. For SURE, a farm is eligible when a portion of the farm is located in a county covered by a qualifying natural disaster declaration (USDA Secretarial Declarations only) or the actual production is less than 50% of the normal production.

For producers to be eligible for SURE, they must have obtained a policy or plan of insurance for all crops through either the Federal Crop Insurance Act or FSA's Noninsured Crop Disaster Assistance Program (NAP). NOTE: Eligible farmers and ranchers who meet the definition of "Socially Disadvantaged", "Limited Resource", or "Beginning Farmer or Rancher" do not have to meet this requirement.

NAP: The Noninsured Crop Disaster Assistance Program (NAP) is a federally funded program that provides financial assistance to producers of noninsurable crops when low yields, loss of inventory, or prevented planting occurs as the result of natural disasters. NAP also provides coverage for crops for which the catastrophic level of insurance is not available. Sign-ups for coverage in 2011 will begin soon. Value loss crops or controlled environment crops (which include ornamental nursery, aquaculture, floriculture and others) will need to submit an application by May 1, 2010.

LFP: LFP provides payments to eligible livestock producers that have suffered livestock grazing losses due to qualifying drought or fire. For losses due to drought, qualifying drought ratings are determined using the U.S. Drought Monitor located at http://www.drought.unl.edu/dm/monitor.html. A payment for calendar year 2010 has been authorized and FSA will begin accepting applications soon.

CREP: FSA continues to accept applications for the Hawaii Conservation Reserve Enhancement Program (CREP). Through CREP, program participants receive financial incentives from USDA and the State to voluntarily remove land from agricultural production and convert the land to native grasses, trees and other vegetation.

Farm Loans: The FSA offers loans for eligible farmers and ranchers to purchase farmland and finance agricultural operations. FSA loan programs are designed to help producers who are temporarily unable to obtain private or commercial credit. In many cases, applicants are beginning farmers who have insufficient net worth to qualify for financing through a commercial lender. In other instances, borrowers might have suffered setbacks from natural disasters or might be persons with limited resources.

Farm ownership loans or farm operating loans may be obtained as direct loans for a maximum of up to $300,000. Guaranteed loans can reach a maximum indebtedness of $1,112,000. Emergency loans are always direct loans for farmers who may have suffered physical or production losses in disaster areas designated by a Presidential or Secretarial disaster declaration. Rural Youth Loans, Loans to Beginning Farmers and loans for socially disadvantaged applicants are also available.

For details please contact the county office staff for an appointment with a farm loan officer.

81-948 Waena'Oihana Loop
Kealakekua, HI 96750
322-2484 ext. 100
Fax: 322-3735

Board of Directors:
Chairman: Rick Robinson
Vice Chairman: Greg Hendrickson
Secretary: Virginia Isbell
Director: William "Skip" Cowell
Director: David "Kawika" Marquez

Staff: Mary Robblee,
Conservation Assistant
Monthly meetings are held on the 2nd Tuesday of the month 7am-9am at the USDA Kealakekua 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 and/or coordinate them so that they meet the needs of the local land users with regard 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.

Were on the web at

www.kswcd.org

Kona Coffee Farmers Association Annual Expo *(cont. from page 3)*

pamphlets explaining the problems a community faces if there are little fire ant (LFA) infestations as well as information related to a USDA Rural Development (RD) program called Rural Energy for American Program (REAP)

One of the District's cooperators received assistance through REAP and now has solar panels powering his manufacturing facility in N. Kona. He received assistance from a company out of Oahu called Island Energy Pacific, a business that participated in the Expo. They actually sent some its employees through a grant writing program to assist small rural businesses with the application process. For our local cooperator, the program and its relationship with Island Energy Pacific was a great success.

There were also a number of workshops for attendees to sit in on. Subject matter ranged from cost-effective methods of shipping, to the quality of soil, and how to best market your product. The District felt the Expo was a great success and, if you are an agricultural producer it should not be missed.




The above pictures were taken at the Kona Coffee Farmers Association Expo. There was a lot of information available to all agricultural producers not just coffee farmers. (Left to right) A picture of many of the different vendors. The Kona SWCD's table, it had information on conservation cover, aquifers and ground water, the little fire ant, the USDA's Rural Development program for alternative energy assistance, and copies of our newsletter. Another picture of the many vendors and the picture on the right is the Farm Service Agency team, Jen Withrow from the Kealakekua Field Office and Miki Miyasato from the Hilo Field Office.