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# Hoolehua PMC News

Helping People Help The Land

## Big Jobs Made Easy by Keni Reyes

The summer of 2011 was a very successful one for the USDA NRCS Plant Materials Center on Molokai because of three Earth-Team/Americorps members who volunteered from June 6 to July 31. They were Jon Brito, Puna Kawamae, and Misty Mollena. Without the help from these volunteers, many tasks would still be unfinished. Of the larger jobs, the removal of Leucaena trees (haole koa) in windbreak-lines and the installation of roughly 1000 ft. of fencing on the north perimeter of the facility proved to require the most effort. Daily maintenance of fields, irrigation repair, harvesting of plant materials for outside customers, and seed cleaning were other duties fulfilled by the volunteers. At the end of the summer when asked, "What was your most memorable experience at the Hoolehua PMC for the summer of 2011?" all three volunteers answered "learning how to install a fence and how to drive a tractor". The PMC staff would like to send out a big Mahalo to Jon, Puna, and Misty. Thank you and good luck in your future endeavors.

## PMC Going Bananas

It is only natural for the PMC to contribute to the Feds Feed Families Program. But, the PMC is first and foremost a plant testing facility. The Field Offices inform us on what the plant related-resource concerns are and PMC determines what kind of plant or plant-technology can address those concerns.

So what resource concern do bananas address, you ask? One particular type of banana, the Brazilian Dwarf, can serve as part of a windbreak system due to high wind tolerance, though it can serve as much more. Many farmers are reluctant to invest in a windbreak that will not provide a return. They want a windbreak that, in addition to crop protection, produces a useable product. The Brazilian Dwarf will provide adequate wind protection and also start producing bananas within the first year. They are very easy to propagate and may serve as a firebreak if maintained properly. The banana stump is also used in an 'imu', or underground oven. Below Glenn Sakamoto, PMC Manager, loads into a volunteer's truck PMC Brazilian Dwarf bananas that will be donated to the local food bank.

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# Plant of Interest

*Achyranthes splendens* is a small shrub 2 to 6 feet in height. The leaves are arranged opposite and are obovate to broadly elliptic or suborbicular in shape, ranging in size from ¾ to 4 ½ inches long and ½ to 2 ½ inches wide. The leaves are also covered with white hairs, especially on the lower surface giving them a silvery appearance. Its flower is a densely-congested spike with a silvery appearance as well and can measure from 1 to 9 ½ inches long.

*Achyranthes splendens* is known to attract a variety of pollinators. It is an endemic shrub. It occurs naturally at low elevations, generally from sea level to 100 feet, in open, dry areas. It is known to survive plantings up to 1000 feet. There are 2 varieties recognized in The Manual of the Flowering Plants of Hawaii (Wagner 1990); *A. splendens* var. *rotundata*, and *A. splendens* var. *splendens*.

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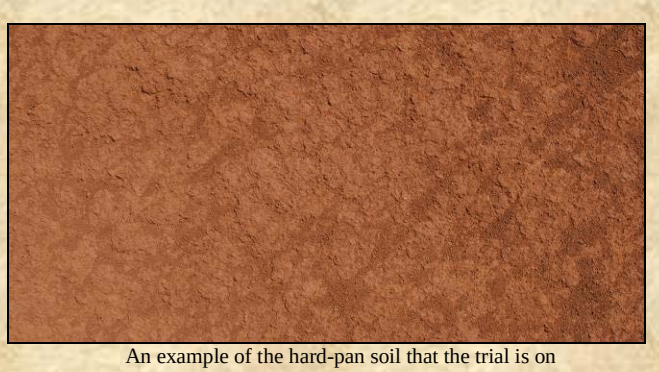
## MLT Trial Evaluation

Just for review, our Molokai Land Trust (MLT) trial is on the north-west corner of Molokai. The environment is very extreme and closely resembles the type on environment found on the the island of Kahoolawe. The only difference is that we have easier access to the trial here on Molokai. This particular trial was designed to look at various techniques to establish native plants in critical habitats under natural rainfall. The idea was to demonstrate cost effective techniques for large scale projects. This includes utilizing a seed-mixture instead of seedlings, natural rainfall instead of irrigation, and time and labor effective techniques to establish the project.

On July 20, 2011, we eavaluated the trail and gathered some interesting and promising results. So far the trial is indicating that the addition of fertilizer and mulch will improve seedling survivability significantly. The data shows that there is little difference between fert/mulch/rip and fert/mulch/no rip. We plan to evaluate the trial again in December. The true test of the treatment is to see if the seedlings are able to survive the entire summer and make it to the approaching winter rains. We will keep everyone posted . If you have any questions, please feel free to contact us.



An example of the hard-pan soil that the trial is on

An example of the one of the treatments
light rip, fertilizer, mulch, no irrigation