

Hoolehua PMC News

Helping People Help The Land

Vetiver Production Study



Chrysopogon zizanioides, better known as vetiver grass, is very useful as a vegetative barrier. There have been many inquiries about how many slips a single clump of vetiver grass can produce. The answer to that question depends a lot on a number of different factors. This includes irrigation, soil condition, fertilizer application and most importantly, the age of the plant.

Therefore, we designed a trial to determine how many slips the average vetiver grass clump would produce at a given age. We planted 60 slips in a single row with 2 feet spacing between slips. We fertilized (16-16-16) the soil at a rate of 100lb of nitrogen per acre. A drip irrigation line was set up to irrigate once a week for 8 hours per watering. Every 90 days for 540 days, 10 clumps are randomly chosen, dug up and the number of viable slips counted. Thus far, we have taken counts at 90, 180, 270, and 360 days after planting (DAP) with two more counts to do. At 90DAP the average was 7 slips, at 180DAP the average was 67 slips, at 270DAP the average was 98 slips, and at 360DAP the average was 165 slips per clump. As the clumps get bigger, although they produce more slips, it becomes increasing difficult to dig up, separate, and prep for planting. Want to find out more information about this trial; drop us a line.

Piligrass Seed Dormancy Study



Infrequent downpours are one of the main reasons for soil erosion in dry areas with little vegetation. With no vegetation to stabilize the soil, erosion is inevitable. Piligrass can be very useful to the soil conservation effort because it has a number of different traits that make it capable of surviving in very dry climates. It is speculated that piligrass will produce more viable seed when the climatic conditions are ideal (the rainy season). We feel it may be due to the amount of available sunlight. For survival this can be very useful, but for seed production, it can be a hindrance.

In collaboration with the University of Hawaii at Manoa, the Hoolehua PMC has designed a study to determine if the seed harvest date has any correlation to seed viability. We will also be looking at storage parameters that will prolong the viability of the seed.

We currently have four plots at the PMC that we will harvest at four different times of the year to coincide with the solstices. After the seed is harvested, it will be sent to U.H. to undergo a variety of germination tests. We will also be testing various moisture contents of the seed to determine what would be ideal percentage for long term storage. We have already harvested one plot and the seed is currently undergoing initial testing. Feel free to contact us for more info on this trial.

Plant of Interest



Agrostis avenacea

This native Hawaiian grass, also known as heupueo or Pacific bent grass, is a clump forming perennial that grows up to 2 feet tall. It is also native to Australia and the Pacific Basin. It occurs from 850 to 8250 feet in elevation in disturbed to open areas and rocky outcroppings. It can be found in a variety of habitats from dry and well-drained localities to the margins of bogs. Though it does not produce a lot of forage it is highly relished by grazing animals in some of the dry, rocky, upland pastures. It is a good addition to the vegetation. Currently we are working to gather more information on seed production and propagation techniques of this forage grass. Please contact the PMC if you have any information you would like to share about this grass.

Pollinator Workshop



On June 18, 2013, in partnership with the County of Maui Kuha'o Business Center and the University of Hawaii Extension Service, the Hoolehua PMC was able to put together a Pollinator Workshop. The workshop was open to all who were interested, but was focused on local bee keepers. Participants were able to observe an actual working hive right here at the PMC.

The main topic of discussion was honeybee pests. Scott Ikaido, a graduate student of the University of Hawaii, presented ways to identify the different pests and the various methods to manage them. Known honey bee pests in Hawaii include the varroa mite and the small hive beetle. The best thing a bee keeper can do for his hive is to monitor its health regularly. Hive conditions can change quickly and the earlier you can catch something that is wrong, the better chances you have at addressing the problem.

Varroa mites are currently only found on the island of Oahu and the Big Island. The small hive beetle is found on Oahu, Big Island, Maui and Molokai. Be sure to inspect your equipment if shipping it between islands to reduce the spread of these pests. If left unchecked, these pests could become a serious problem for Hawaii's pollinating honey bees. Please contact your nearest U.H. Extension office if you have any questions about these pests and how to control them.



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