

PMMC News

'Tropic Sun'



USDA - Natural Resource Conservation Service - Ho'olehua Plant Materials Center

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AmeriCorps Volunteers visit Kahoolawe

On July 16-19, 2007, our AmeriCorps volunteers were fortunate enough to visit the island of Kahoolawe to see conservation work being implemented using plant materials that they helped produce here at the Hoolehua PMC. Christy Molena and Misty Nakayama are both Molokai girls that are volunteering for the summer. Kristen Coelho is also a Molokai girl, but she has volunteered to work for an entire year. Her term will end in November.

There are many different practices being implemented to control erosion on the island. We were able to see the pilgrass bales at work and also kawelu, aalii, and aweoweo seedlings growing where soil had accumulated. While on island, we helped to install a new idea. Paul Higashino calls them "pu'e". A pile of kiawe mulch about ½ a 5 gallon bucket is laid on the bare, hard ground. A small indentation, about the size of a fist, is made in the center of the pile. Aalii seed is then planted in the indentation. Many of these pu'e that had been previously planted were already showing signs of life. Aalii seedling have germinated and beginning to take hold. Can this be the answer? We hope to go back in the future to see life where there was none before.



The Mission of the NRCS Plant Materials Program:

We develop and transfer plant materials and plant technology for the conservation of natural resources. In working with a broad range of plant species, including grasses, forbs, trees, and shrubs, the program seeks to address priority needs of field offices and land managers in both public and private sectors. Emphasis is focused on using native plants as a sustainable way to solve conservation problems and protect ecosystems.

Sporobolus virginicus Update

5/30/07 SECOND EVALUATIONS 133DAP

The plots continue to grow very well. The fourth replication is also progressing, but continues to lag behind in growth. We are speculating that it could not only be due to the shade factor, but also lack of irrigation. During windy periods, it was observed that the irrigation coverage for the fourth replication was reduced compared to the others.

The physical differences are becoming more evident with the data collected somewhat supporting the visual observations. The low growing Moomomi accession has stood out as the fastest to cover ground and having the highest point frequency reading. The accession from Kahoolawe is proving to be a likely candidate as a high forage producer because of its tall growth. The Wailuku accession is very vigorous. Although it is not spreading as fast as the Moomomi accession, it does seem to produce more rhizomes than the Papohaku accession. It is these rhizomes that stabilize the soil. Just by visual observation, the Kahoolawe and Wailuku accessions appear to have produced more vegetation material than the Moomomi accession. We will confirm this at a later date by taking forage yield samples.



PANAX Update



The data collected continues to support the fact that there are no significant differences between the different fertilizer treatments of this particular trial. A series other factors that may be affecting the growth rate of the trees is the only plausible explanation. It has been observed that plants at both ends of the row are shorter and gradually become taller toward the center. This could be due to some residual amounts of nitrogen left by the 'Tropic Coral' windbreak that was planted in the same spot before the trial. Another explanation is that a base fertilizer application was applied to the entire trial; therefore, we are not seeing the low end of the growth-rate spectrum. Although we are not seeing any significant difference between the fertilizer treatments, the fact remains that the addition of nitrogen has increased the growth-rate of panax significantly.

It has been 15 months since the panax cuttings were planted and they have reached an average height of about 8ft with some trees reaching above 9ft. This is very close 'Tropic Coral's' 1 year growth of 10ft. We will continue to monitor this trial to determine the age at which panax is able to reach its maximum height of 20-25ft. The next evaluation will be 1 year from now. We plan conduct another trial to confirm our findings here.



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