

PMc News

'Tropic Sun'



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

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A New Way to Harvest Aalii Seed

Dodonaea viscosa's fibrous spreading root system, rapid growth, and spreading canopy make it an effective soil stabilizer which is particularly useful in controlling gully and coastal dune erosion. It is drought-tolerant and has the ability to withstand wildfires. Aalii shrubs are somewhat shade tolerant and suitable for riparian and restoration projects. On top of this, it is a native Hawaiian shrub. Although this is an excellent choice as a conservation plant, the only way known to harvest the seed is by hand. We have tried several ways to harvest the seed including using a vacuum, using a leaf blower, using scoop nets, laying tarps on the ground to catch falling seed. Picking the seed by hand seems to always work out better. Last year the harvesting was done by hand with the help of three Americorps volunteers. Although it took about 4 weeks, working 2-3 hours in the mornings, the yield was the largest with 22.4 pounds of seed.

This year we have a new idea! We built a BIG NET! This net is mounted to the farm tractor and positioned on the downwind side of the aalii row. The branches are shook by hand and the dry seed easily fall off the tree into the net. We harvested 25 pounds of seed in 2 days, 4 hours a day! A significant different in harvesting time!



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

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All of the plots are growing reasonably well with the exception of the entire fourth replication. Because of its position closest to an ironwood windbreak, the fourth replication is receiving less sunlight and, overall, appears to be less vigorous than the other replications. It is obvious that *Sporobolus virginicus* has a low shade tolerance. Presently there are no signs of disease or insect damage.

By just visual observation of the accessions, three different forms can be distinguished. The Moomomi accession has a growth form that stays relatively low to the ground. The Kaena and the Kahoolawe accessions are very similar to each other with a seashore paspalum “look” to them with the Kaena accession being the more vigorous of the two. The Papohaku and Maui accessions are also very similar to each other. These two have bluish-green colored leaves that are noticeably wider than the other accessions. These are only early observations and will be supported or contradicted with the following observations.



PANAX Update



According to the data collected, there still appears to be no significant differences between the different fertilizer treatments. Apparently, a secondary factor is affecting the growth rate of the trial. Plants at both ends of the rows are shorter and gradually become taller toward the center. We are speculating that this could be due to the fact that a ‘Tropic Coral’ windbreak was planted in the same spot before the trial may have left some residual amounts of nitrogen. It has been 1 year since the panax cuttings were planted in the ground and they have already reached an average height of about 7ft with some trees reaching above 8ft. This is quite close ‘Tropic Coral’s’ 1 year growth of 10ft. Although we are not seeing any significant difference between the fertilizer treatments, the facts remain that the addition of nitrogen has increased the growth-rate of panax.

Despite the growth-rate increase that we are pleased to see, there are some negative results. Recently, the trial had been exposed to exceptionally high winds and individual plants had broken off at the lower portions of the trees. These trees appear to have fallen at random and not related to the treatments, but the majority of them are the taller trees toward the center of the row. This could be related to the increased growth-rate, but we cannot be certain.



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www.plant-materials.nrcs.usda.gov



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