Native Seed Production in Hawaii

by

Scott Lukas
Native seed production in Hawaii, or lack of.
  • Why we need native seed
  • Local native seed suppliers
  • Other States native seed production

Benefits of native plants in Hawaii
  • Issues with invasive species

Brief research steps to develop native seed production protocols

Conclusions
Demand for native seed

- Wildfire re-vegetation
- Erosion control
- Watershed protection
- Windbreaks
- Conservation
- Urban reclamation
Native seed supply / sources

- USDA NRCS Plant Materials Center, Pacific region.
  - Vast research and knowledge base on production
  - Collaborate with UH and HDOA
  - Limited supply for distribution

- Dr. Defrank native roadway production
  - limited supply
  - limited species

- Other “hobbyist” sources
  - nurseries
  - Hawaii Forest Institute
  - insufficient supply
Other State native seed sources

California Department of Forestry and Fire Protection

State Nursery Program

Native seedlings and seeds to revegetate 60,000 acres

Comstock Seed
917 Highway 88, Gardnerville, NV 89460

Native Seed Acquisition
Reclamation & Drought Tolerant Agriculture
Grass, Shrubs, & Wildflowers

Seed collection
Hawaii Seed Difficulties

- Hawaii seed production hurdles
  - Limited land
  - Expensive land
  - High labor rates
  - Limited water
  - High weed pressure
  - Regulations on seed harvesting
Native Seed Production

• Benefits of native plant species in Hawaii
  • Satisfy federal and state level native species mandates
  • Mitigate invasive seed spread
  • Occupy niches dominated by invasive species
  • Restore native ecosystem

native lobeliads and honeycreeper
Importance of Native species

Miconia (*Miconia calvescens*)
- Native to Central and South America
- Introduced to Hawaii island in 1961
- By plant enthusiasts
- Forms thick canopy
- Shallow roots lead to erosion
- Over 1 million annually to control
Seed Production Steps

1. Collection of source seeds/planting materials for re-vegetation

2. Development of seed production techniques for each grass species.

3. Evaluation of planting rates and methods

4. Post planting and establishment practices
Demonstration Site

- Small scale
- Has reinforced demand needs
- High profile topic, attracts attention
Conclusions

Overcoming limited resources demands innovative ideas.

Hawaii seed production can create a native seed industry

- Create jobs
- Stimulate Economy
- Benefit the environment
- Demonstrate that Hawaii’s level of action
Questions

For more information contact
Scott Lukas
slukas@hawaii.edu