Lettuce Seed Saving

Russell T. Nagata

College of Tropical Agri. and Human Resources
Komohana Research and Education Center
Hilo, Hawaii
russelln@hawaii.edu

Hawai'i Public Seed Initiative
Seed Saving and Production Basics



Reasons for Self Seed Production

- > Heirloom Varieties
- > Cheaper?
- Sustainability/Independence
- Change Variety Makeup
- > Opportunity



Deciding on Plants to Keep

- > Reason for Selection
- Eliminate Undesirables
 - > diseased plants
 - > off-types
- > Move in a New Direction
- > New Possibilities

Hawai'i Public Seed Initiative Seed Saving and Production Basics



Parent Selection





Plant Selection





How Many Plants to Keep?

- > Seed Keeping Objectives and Goals
- > Seed Needs
- > Lettuce Type
- > Environmental Growing Conditions
- Population Make-up



Objectives and Goals

- Sustainability
- > Heirloom
- > Want
- > New
- > Unique and personal

Hawai'i Public Seed Initiative
Seed Saving and Production Basics



Seed Needs

- > Home garden
- > Small Farm
- > Baby lettuce production
- > Distribution





How Many Flowers?





How Many Seeds?



Lettuce Types

- > Head
- > Leaf
- > Bibb
- **Boston**
- > Romaine or Cos

Hawai'i Public Seed Initiative
Seed Saving and Production Basics



Growing Environment

Dry and sunny – good

> Wet and cloudy - not

good





Hawai'i Public Seed Initiative
Seed Saving and Production Basics

Control Environment

- > Season
- > Greenhouse
- > Potted plants
- > Other protective structures





Population Make-up

- > Uniform
- > Variable
- Don't Matter

Hawai'i Public Seed Initiative Seed Saving and Production Basics



Managing Selected Lettuce Plants

- > Leave in place
 - > 2 to 4 extra months
- > Transplant
 - > dig and pot selected plants
 - > keep soil on the dryer side to prevent rot
 - > remove excessive leaves



Isolation Distances

- Lettuce highly self-pollinated
- > Few natural pollinators for lettuce
- > Potted Plants
- > Greenhouse



Seed Purity

- Dependent on Starting Material
- > Selection and Rouging Procedures
- > Cleanliness
- > Proper Labeling Seed to Seed
- > Seed Saving Goals and Objectives





When Do I Harvest



Lettuce Seed Cleaning

- > Initial Separation
- > First Screening
- Blowing and Winnowing





Packaging and Labeling

- > Clean Dry Containers
 - > Envelopes
 - > Jars
- > Label
 - > Specie, cultivar, date, location
- > Use Pencil Markings
 - > water proof
 - > fade resistant







Seed Storage

- > Rule of 100
- > Cool dry location
- > Refrigerator
- > Freezer



