Growing Seed Crops

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Hawai'i Public Seed Initiative
Seed Saving and Production Basics

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Reasons for Self Seed Production

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

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What to Save From?

- Heirlooms
- Self Pollinated Crops
- Annuals
- Open Pollinated Varieties
- No Hybrids Unless…

Maintaining Genetic Diversity

- How Many Plants to Keep
  - Mating Biology
  - Genetic Drift
  - Available Space
    - More Plants or More Seeds
  - Seed Yield Ratio
  - Seed Quantity Needed

Maintaining Genetic Diversity

- How Many Plants to Keep
- Plant Selection
  - Reason For Selection
  - Eliminated Undesirables
  - Move in New Direction
  - New Possibility

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Maintaining Genetic Diversity

- How Many Plants to Keep
- Plant Selection
- Population Makeup
  - Population Uniformity
  - Narrow Genetic Base
  - Open Pollinated

Maintaining Genetic Diversity

- How Many Plants to Keep
- Plant Selection
- Population Makeup
- Pollination Biology
  - mating behavior
  - pollen transfer

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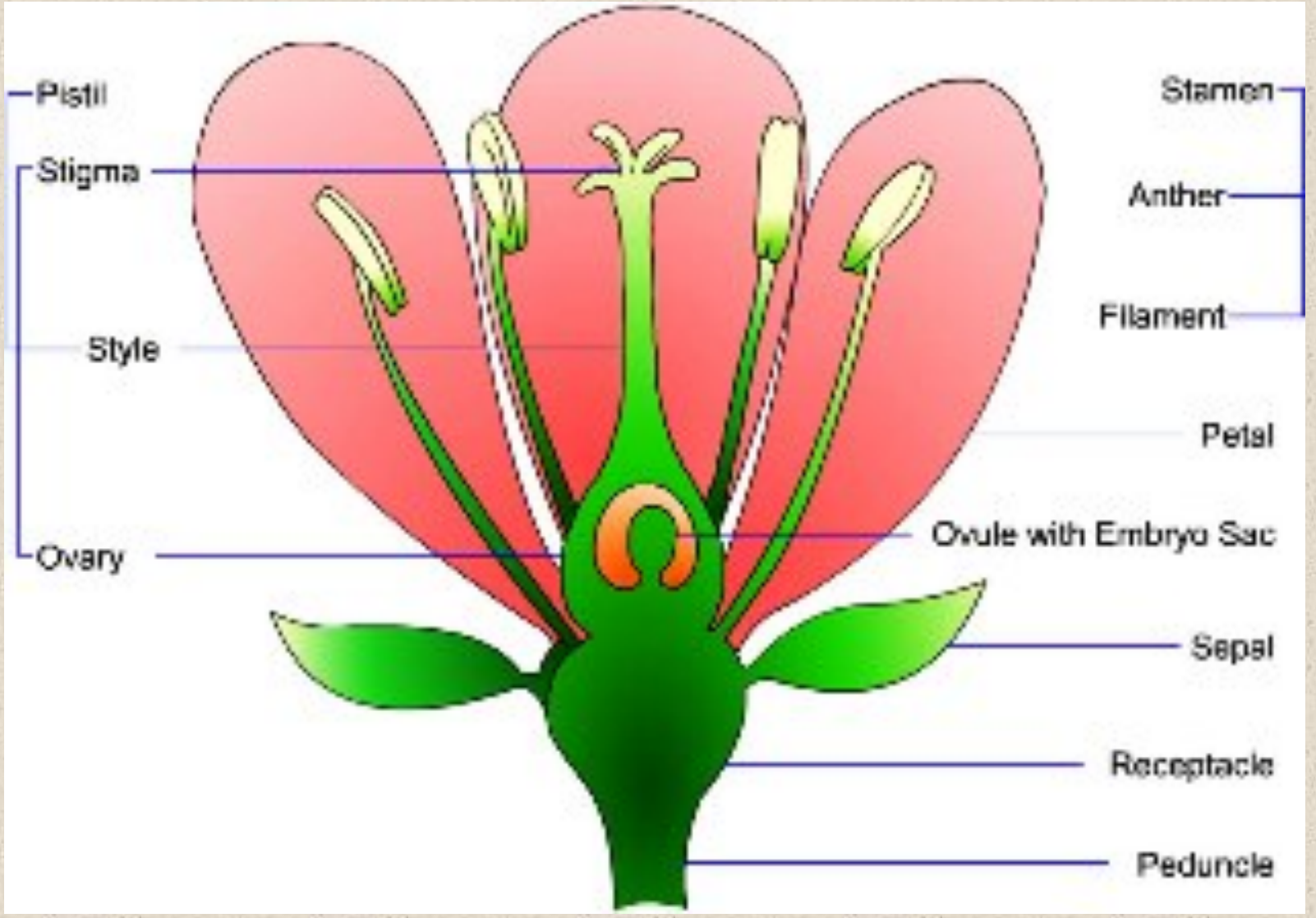

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Seed Purity

- Dependent on Starting Material

Seed Purity

- Dependent on Starting Material
- Selection and Rouging Procedures

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Seed Purity

- Dependent on Starting Material
- Selection and Rouging Procedures
- Cleanliness

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Seed Purity

- Dependent on Starting Material
- Selection and Rouging Procedures
- Cleanliness
- Proper Labeling – Seed to Seed
  - Variety Name
  - Common or Scientific Name
  - Date

Seed Purity

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

Seed Purity

- Dependent on Starting Material
- Selection and Rouging Procedures
- Cleanliness
- Proper Labeling – Seed to Seed
- Seed Saving Goals and Objectives
- Pollen Flow Control
  - Start to Finish

Isolation Distances

- Crop Specific
  - Pollination Biology
  - Self Pollination
    - Cleistogamy
  - Wind Pollinated
  - Insect Pollinated
  - Animal Pollinated

Isolation Distances

- Crop Specific
- Location Specific
  - In Geographic Space
  - In Time
  - Exclusion of Pollinators