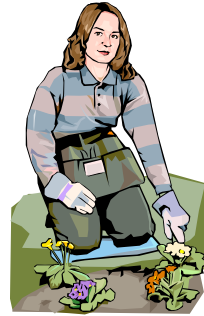


Saving Seeds



Seed Saving



- Hybrid vs. heirloom seeds



- Isolating plants
- Methods for cleaning and storing



Hybridization

- Practiced by humans for thousands of years
- Hybrid = cross between two different plants



Hybridization contd.

- Parent plants chosen, each with desired trait
- Stamens on flower of “mother” or seed plant are removed to prevent self-pollination
- Flowers are pollinated with pollen from the “father” or pollen plant



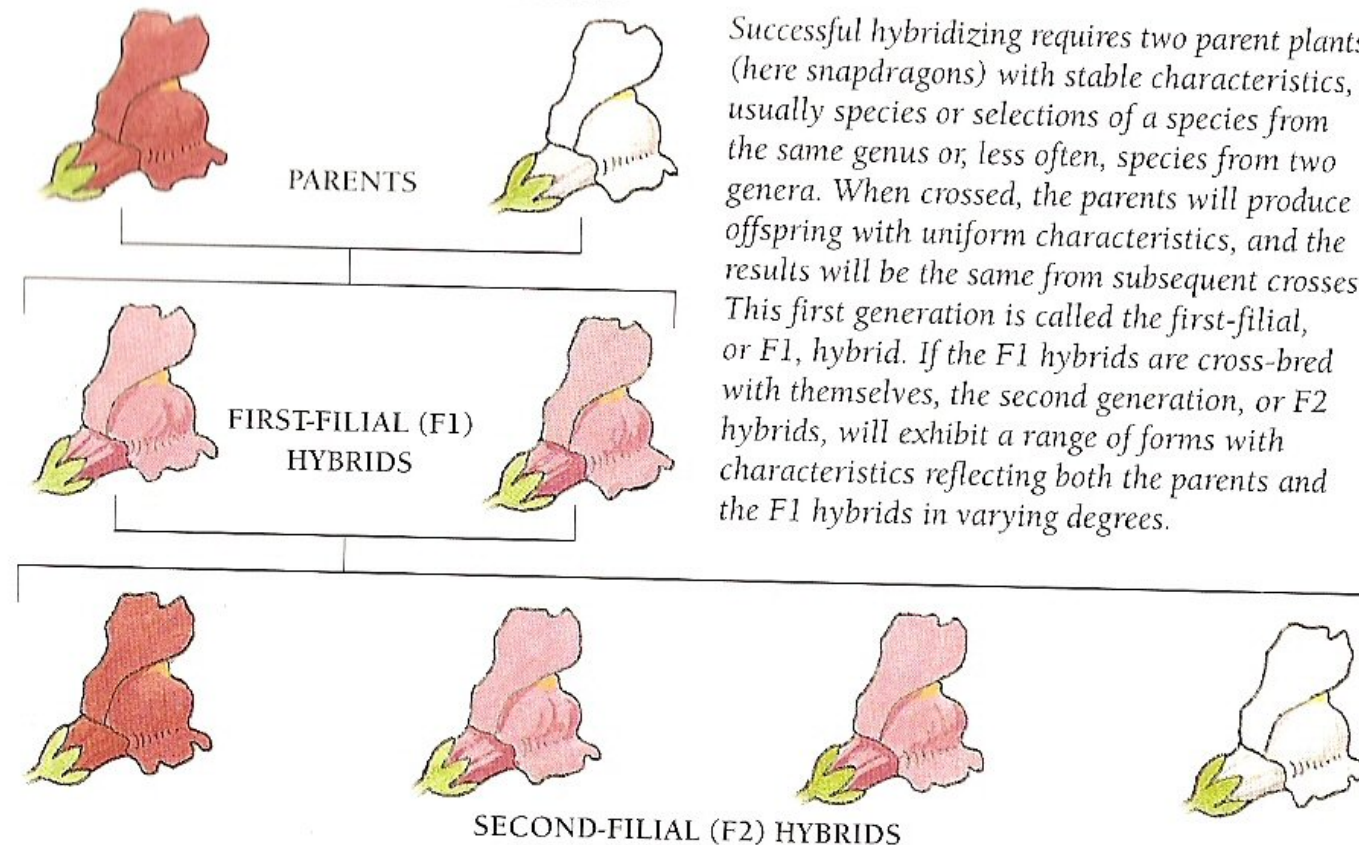
Hybridization contd.

- Plants produced by this cross are the F1 generation or first filial generation & will reflect the selected traits
- Seeds from hybrid crosses will not produce these selected seed traits



How Hybrids Are Created

HOW HYBRIDS ARE CREATED



Successful hybridizing requires two parent plants (here snapdragons) with stable characteristics, usually species or selections of a species from the same genus or, less often, species from two genera. When crossed, the parents will produce offspring with uniform characteristics, and the results will be the same from subsequent crosses. This first generation is called the first-filial, or F1, hybrid. If the F1 hybrids are cross-bred with themselves, the second generation, or F2 hybrids, will exhibit a range of forms with characteristics reflecting both the parents and the F1 hybrids in varying degrees.



So What??

If you plant seed taken from a plant that was grown from hybrid seeds, the next generation may not have the same traits.

Consider using heirloom seeds, i.e. open pollinated and not the result of hybridization.



What Are the Advantages?

- Vast selection of plant varieties
- Allows for more self-reliance and less dependence on seed companies
- Perpetuate plants that have been grown for centuries



Saving Seed

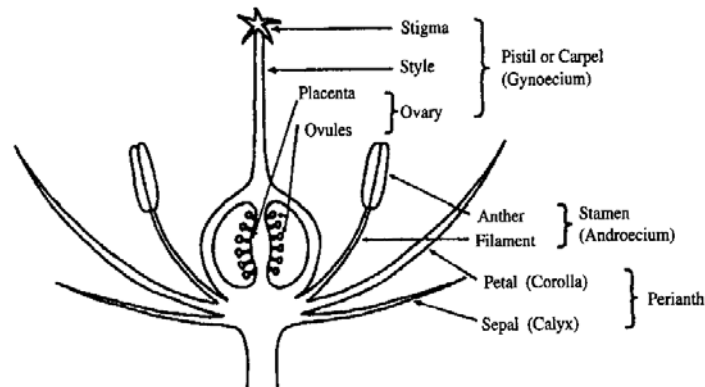
- Need to know:
 - How different plants are pollinated
 - Your bees and insect pollinators
 - When to isolate plants
 - Needed equipment
 - How to clean
 - How to store



How Perfect Flowers Are Pollinated

Perfect flowers (male & female parts)

- Self-pollinate
- Easy to collect and save their seeds
- Examples: tomatoes, beans, lettuce, peas



How Imperfect Flowers are Pollinated



Imperfect flowers

(separate male and female flowers on each plant)

- Depend on wind, honeybees, or other insects for pollination
- Must be protected from cross-pollination
- Examples: squash, pumpkins, cucumber, corn, spinach



Perfect flowers that don't self-fertilize

- Also known as self-incompatible
- Examples: onions, cabbage, broccoli, carrots, dill



Methods of Isolation

- Distance
- Planting only one variety
- Patterns of planting
- Timing
- Mechanical
- Hand Pollination



Mechanical Isolation

Use:

- Floating row covers
- Fine mesh screening
- Pollinating bags



Seed Cleaning



Wet processing, fermentation, and drying



Dry processing and winnowing



Seed Storage



- Store in cool, dry place
- Never over 95 degrees
- Use airtight containers for best results
- Desiccants (e.g. silica gel) can aid in moisture control
- Many annual and vegetable seeds can be kept safely for 2 to 3 years

Website

Yavapai County Cooperative Extension Publications

<http://extension.arizona.edu/yavapai>

