

Saving Seeds

Susan McGhie

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Open Pollinated vs.

❖ Open Pollinated

- ❖ Holds true to parent plant
- ❖ Can save seeds
- ❖ Often heirloom (over 100 years old cultivar)

❖ Hybrids

- ❖ Cross between two different variety parents
- ❖ Can not save seeds and expect to germinate or hold true

Life Cycle of plants

- ❖ Annuals

- ❖ Bear seed same year planted

- ❖ Biennials

- ❖ Bear edible crop first season
- ❖ Bear seed second year planted
 - ❖ Flower in spring
 - ❖ Seed mid to late summer

- ❖ Perennials

- ❖ Roots survive winter
- ❖ Cloning



Annuals

- ❖ Annuals

- ❖ Bean
- ❖ Broccoli
- ❖ Pea
- ❖ Pepper
- ❖ Pumpkin
- ❖ Most radishes
- ❖ Spinach
- ❖ Squash



- ❖ Can produce seed in spring after mild winter (usually not in Utah)

- ❖ Lettuce
- ❖ Wheat

Broccoli



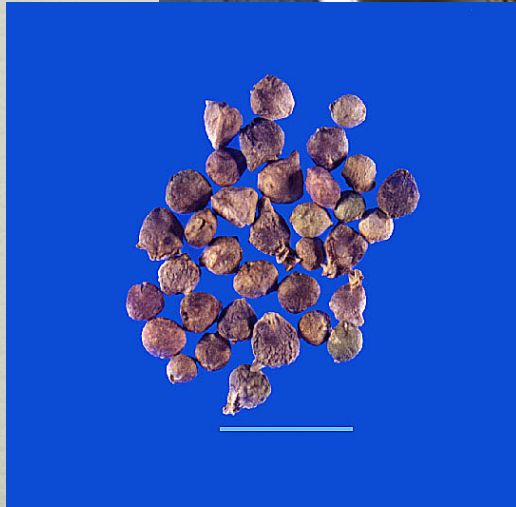
Pumpkin



Radish



Spinach



Squash



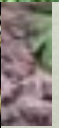
Biennials

- ❖ Brussel sprouts
- ❖ Cabbage
- ❖ Carrot
- ❖ Cauliflower
 - ❖ Needs to be dug up and kept in a greenhouse over winter and then replanted in Spring
- ❖ Celeriac
- ❖ Celery
- ❖ Onion

Brussel Sprouts



Carrot



Celery



Onion



Perennials

- ❖ Grown as annuals

 - ❖ Tomatoes

 - ❖ Peppers

 - ❖ Lima beans

- ❖ Asparagus

- ❖ Rhubarb

- ❖ Chive

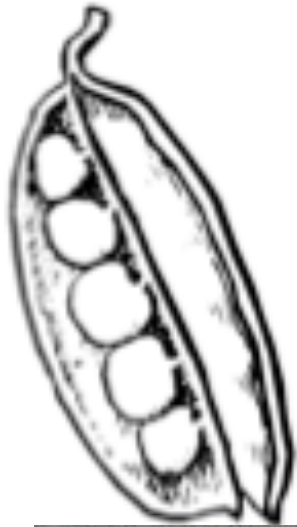
Pollination

- ❖ Self-pollination
 - ❖ Perfect flowers (both male and female parts)
- ❖ Cross-pollination (need a second plant)
 - ❖ Wind
 - ❖ Insects usually bees
- ❖ Imperfect Flowers
 - ❖ Staminate (male flowers) – functional stamens and nonfunctional pistils
 - ❖ Pistillate (female flowers) – functional pistils and non-functional stamens

Pea



Bean



Pepper (Chili's)



Cross-pollination

❖ Vegetables

- ❖ Bean
- ❖ Carrot
- ❖ Celery
- ❖ Eggplant
- ❖ Radish
- ❖ Sweet Potato
- ❖ Tomato

❖ Pepper

❖ Okra

❖ Orchard

- ❖ Apple
- ❖ Peach
- ❖ Pear
- ❖ Plum

❖ Flowers

- ❖ Sweet Alyssum
- ❖ Nicotiana
- ❖ Petunia
- ❖ Salvia
- ❖ Snapdragon

Imperfect Flowers

❖ Monoecious Plant

❖ Sweet corn

❖ Cucumber

❖ Cantaloupe

❖ Squash

❖ Pumpkin

❖ Watermelon

❖ Chestnuts

❖ Filberts

❖ Pecans

❖ Walnuts

❖ Dioceciuous Plants (flowers on different plants)

❖ Holly

❖ Asparagus

❖ Date

❖ Persimmon

❖ Spinach (male & female plants and plants with both male and female flowers)

Collecting Seeds

- ❖ Timing
 - ❖ Ripe
 - ❖ But before seeds scatter
- ❖ Fleshy plants
 - ❖ Tomatoes, eggplants, peppers
 - ❖ Little over ripe but not too ripe
 - ❖ Don't let dry over seed
- ❖ Seed Crops
 - ❖ Collect almost anytime, let dry out
- ❖ Seed heads that scatter
 - ❖ Collect daily as seeds mature or place breathable bag over head

Cleome



Drying Seeds

- ❖ Separate seed from pulp
 - ❖ Tomatoes
 - ❖ Peppers
 - ❖ Wash off seeds thoroughly
 - ❖ Squash
 - ❖ Melons
 - ❖ Cucumbers
- ❖ Let dry for 3 to 5 days

Drying Seeds

- ❖ Dry pods – don't be too rough
 - ❖ Peas
 - ❖ Beans
 - ❖ Soybeans
 - ❖ Lima beans
- ❖ Dry seeds on plant – shake through screen to sift out chaff
 - ❖ Sunflower
 - ❖ Dill
 - ❖ Lettuce

Tomato



Tomato Seed Coat



Tomato Soaking



Tomato seeds after



Tomato seeds over

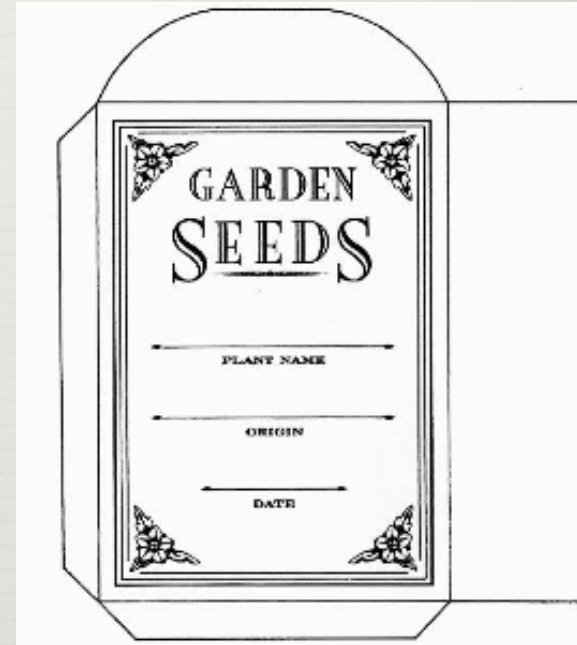


Tomato Seeds Ready



Storing Seeds

- ❖ Seeds are alive – need oxygen
- ❖ Protect from moisture and heat
- ❖ Moisture
 - ❖ Can or jar best
 - ❖ Use silica gel to keep moisture down
 - ❖ Keep seeds in well marked envelope
 - ❖ <http://contentinacottage.blogspot.com/2008/08/flowers-and-seed-packet-pattern.html>
- ❖ Temperature



Seed Life

Vegetable	Life Cycle	Viability-yrs.	Pollinated?	Isolation?
Asparagus	Perennial	3	Insect	Yes
Bean	Annual	3	Self	Limited
Beet	Biennial	4	Wind	Yes
Broccoli	Annual	3-5	Insect	Yes
Brussels Sprouts	Biennial	4-5	Insect	Yes
Cabbage	Biennial	4-5	Insect	Yes
Cardoon	Biennial	4-5	Insect	Yes
Carrot	Biennial	3	Insect	Yes
Cauliflower	Biennial	4-5	Insect	Yes
Celeriac	Biennial	3-5	Insect	Yes
Celery	Biennial	3-5	Insect	Yes
Chinese	Annual	3-5	Insect	Yes

Seed Life (cont.)

Vegetable	Life Cycle	Viability-yrs.	Pollinated?	Isolation?
Chive	Perennial	2	Insect	Yes
Corn, Sweet	Annual	1-2	Wind	Yes
Cowpea	Annual	3	Self	Limited
Cucumber	Annual	5	Insect	Yes
Dandelion	Perennial	2		
Eggplant	Annual	4-5	Self	Limited
Garlic	Annual	1	N/A	No
Horseradish	Perennial		N/A	No
Endive				
Fennel	Perennial	4	Insect	Yes
Jerusalem	Perennial		N/A	No

Seed Life (cont.)

Vegetable	Life Cycle	Viability-yrs.	Pollinated	Isolation?
Kale	Biennial	4-5	Insect	Yes
Kohlrabi	Biennial	3-5	Insect	Yes
Leek	Biennial	2-3	Insect	Yes
Lettuce	Annual	5-6	Self	Limited
Lima Bean	Annual	3	Self	Limited
Muskmelon	Annual	5	Insect	Yes
Mustard	?	4		
New Zealand	Annual	3-5	Insect	Yes
Okra	Annual	2	Self	Limited
Onion	Biennial	1-2	Insect	Yes
Parsley	Biennial	1-2	Insect	Yes

Seed Life (cont.)

Vegetable	Life Cycle	Viability-yrs.	Pollinated?	Isolation?
Parsnip	Biennial	1-2	Insect	Yes
Pea	Annual	3	Self	Limited
Peanut	Annual	1-2	Self	Limited
Pepper	Annual	2-4	Self	Limited
Popcorn	Annual	2	Wind	Yes
Pumpkin	Annual	4-5	Insect	Yes
Radish	Annual	5	Insect	Yes
Rhubarb	Perennial		*Division	No
Roselle		3		
Rutabaga	Biennial	4-5	Insect	Yes
Salsify	Biennial	1-2	Self	No
Sorrel		4		

Seed Life (cont.)

Vegetable	Life Cycle	Viability-yrs.	Pollinated?	Isolation?
Soybean	Annual	3	Self	Limited
Southern Pea		3		
Spinach	Annual	3	Self	Limited
Squash	Annual	4-5	Insect	Yes
Swiss Chard	Biennial	4	Wind	Yes
Tomato	Annual	4	Self	Limited
Turnip	Annual	4-5	Insect	Yes
Watermelon	Annual	4-5	Insect	Yes

Sources

Susan McGhie

Savings Seeds by Marc Rogers

Knott's Handbook for Vegetable Growers

Open Pollinated for Utah County

- ❖ Pumpkins (Big Max, Jack-O'-Lantern)
- ❖ Radish (Champion)
- ❖ Tomatoes
 - ❖ Early (Oregon Spring)
 - ❖ Paste (Roma VF, San Marzano)
 - ❖ Beefsteak (Beefsteak, Brandywine)
 - ❖ Cherry (Cherry-Red)
- ❖ Watermelons (Crimson Sweet)
- ❖ Squash (Crookneck-Early Yellow Summer, Waltham Butternut)
- ❖ Swiss Chard (Bloomsdale Long Standing)
- ❖ Zucchini (Black Beauty)

Compiled by Susan McGhie

Seed Savers Exchange

SEED SAVERS



EXCHANGE

founded 1975

<http://forums.seedsavers.org/>

Mountain Valley Seeds



Canned Seeds

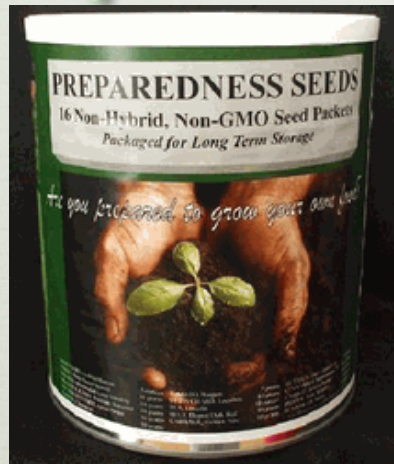
- ❖ <http://www.mvseeds.com/gardencan.html>

Seed saving instructions

- ❖ <http://www.mvseeds.com/CannedGardenSeeds%20Instructions.pdf>

Preparedness Seeds

Preparedness
Seeds



- ❖ <http://www.preparednessseeds.com/store/heirloom-seeds/heirloom-seeds/>

Seed Saving Site

- ❖ International Seed Saving Institute
- ❖ They have lots of information on seed saving
- ❖ Website
 - ❖ http://www.seedsave.org/issi/issi_904.html

