

Vegetable Families By Molly O'Shaughnessy

I. Why Learn About Vegetable Families?

1. They group related plants – “cheat sheet”

- a. related plants share cultivation needs
- b. nutrient needs – soil enhancements
- c. temperature – know when to plant (cool vs. warm weather)
- d. companion planting

2. Basis for crop rotation

- a. depletes soil of same nutrients year after year
- b. fix nitrogen vs. need nitrogen
- c. pest & disease control
 - susceptible to the same or similar diseases and pests
 - pest life cycle becomes entrenched in one area – “Breakfast in Bed”
 - over-wintering larvae don't find their favorite food
- d. alternate between shallow & deep roots → better soil structure

3. Definition

- a. botanically based on the genus or taxonomical family
 - with DNA analysis → some changes
 - other name changes Fabaceae → Papilionaceae
- b. huge diversity – which increases with use of “exotic” or Asian veggies
- c. multiple common names: tomato family vs. nightshades vs. Solanaceae



II. The Families

A. Legumes

1. all contain “fruit” inside of pods: peas, beans, peanuts, soy beans, clover
2. all can take nitrogen out of the air and put it into the soil
 - a. due to bacteria that make and live in nodules on the roots
 - b. inoculum
 - c. post-harvest clean-up – leave roots in the soil!
3. crop rotation: follow with heavy nitrogen feeders
4. easy to grow (sow directly into garden soil) and store well
5. together with a grain they make a complete protein

B. Brassicas

1. 4 groups:
 - a. cabbage, Brussel sprouts, Chinese cabbage, bok choy
 - b. edible flowers/stems: broccoli, cauliflower, kohlrabi
 - c. leafies: collards, kale, turnip greens, mustard greens, dandelions
 - d. roots: radish, turnip, rutabaga
2. all are heavy nitrogen feeders (“nitrogen pigs”)
(follow legumes in rotation)
3. all are high in vitamin C, fiber, and calcium



C. Nightshades / Solanaceae

1. Members: tomato, peppers (sweet & hot), eggplant, tomatillo, potato, tobacco
rich in vitamin C
2. All = tropical natives and grown as annuals
warm weather (except potatoes are cool season)
won't germinate unless ground is warm
grow slowly in cool weather, may be badly and permanently stunted by temp < 45 F
3. Start indoors or buy transplants. (Except potatoes)
all take a long time to grow
4. nutritional needs:
heavy feeders of nitrogen and potassium
tomatoes need calcium
5. tend to be disease prone – important to rotate
6. most have some toxic parts
never eat tomato leaves
green potatoes – hill up

D. Cucurbits

1. Members – 3 main groups:
 - a. squashes – summer squash, winter squash, pumpkins
 - b. melons – cantaloupe, honey dew, watermelon
 - c. cucumbers



2. All are warm weather crops
 - a. won't germinate in cold or wet soil
 - b. direct sow or put in transplants
4. All have long vines
 - a. take up a lot of space
 - b. plant in "hills" not rows
 - c. trellis if possible (esp. cucumbers)
 - d. plant where early crops have been harvested
6. Pollination
 - a. male and female flowers on same plant (usually)
 - b. all are pollinated by insects – Avoid Pesticides
 - c. may need to hand-pollinate
 - d. edible flowers – only eat males (or no fruit)
 - e. seed saving is tricky due to cross pollination

E. Alliums

1. Members: onions, garlic, chives, leeks
2. All are rich in sulfur → odor / taste
3. Reproduction:
 - a. cloves – garlic (plant in fall!)
 - b. some divide at base (like a daffodil)
 - c. top-sets - walking onions
 - d. seed – chives

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4. Buy “sets”
5. Cool weather crops
6. NOT a good companion for some vegetables
 - a. peas – won’t grow well
 - b. carrots – repel onion bug; onions repel carrot fly
7. Avoid rich feeding

F. Apiaceae / Umbelliferae

1. Members: carrots, celery, cilantro, dill, fennel, parsley, parsnips
2. All are cold weather crops
 - a. can store carrots in the ground
 - b. fall carrots are often sweeter
3. Slow to germinate / poor germination
4. Few diseases or pests
5. need loose, well-drained soil
6. direct sow – don’t transplant well

G. Other Families

1. Amaranth family – beets, spinach, Swiss chard (cool weather)
2. Asparagus family
3. Aster family – artichokes, endive, lettuce, sunflowers
4. Buckwheat family – rhubarb
5. Convolvulaceae / Morning Glory – sweet potatoes
6. Diosoraceae – true yams



7. Mallow family – okra
8. Mint family – basil, lavender, mint, rosemary, sage, sweet marjoram, thyme
9. Poaceae / Grass family – corn, barley, rice, wheat
 - a. wind pollinated – plant in a block, not a long row
 - b. heavy nitrogen feeders

