Garden Planning Worksheet

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MEMBERS OF COMMON VEGETABLE FAMILIES

Alliaceae
Chive
Garlic
Leek
Onion

Cucurbitaceae
Cucumber
Melon
Pumpkin
Squash

Cruciferae
Broccoli
Brussels sprouts
Cabbage
Cauliflower
Kale
Kohlrabi
Radish
Rutabaga
Turnip

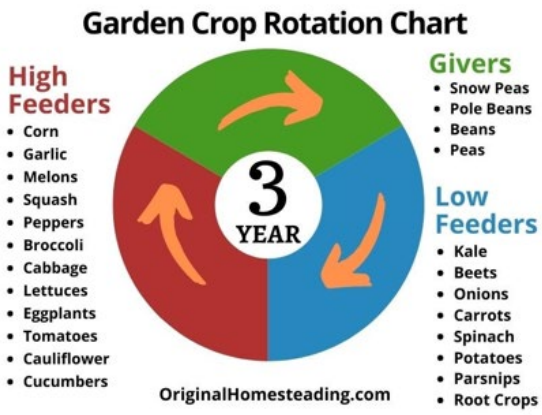
Fabaceae (Leguminosae)
Beans
Peas

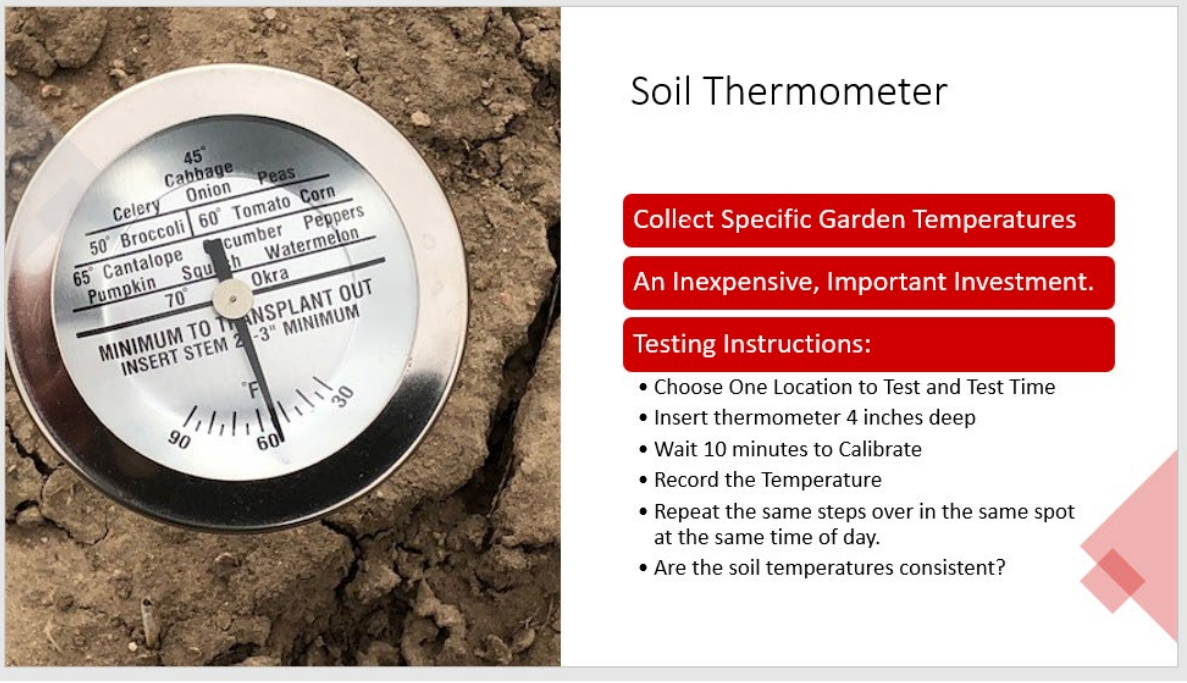
Poaceae (Gramineae)
Corn

Chenopodiaceae
Beet
Spinach
Swiss chard

Solanaceae
Eggplant
Pepper
Potato
Tomato

Apiaceae (Umbelliferae)
Carrot
Celery
Dill
Fennel
Parsley
Parsnip





Some of the best flower families for attracting beneficial insects:

Carrot Family (Apiaceae) - plants in the carrot family are especially attractive to small parasitic wasps and flies. Interplant them in your vegetable garden and flower beds.

Plants in this family include: caraway; coriander/cilantro (Coriandrum; dill; fennel; Bishop's flower; Queen Anne's Lace; and toothpick ammi.

Aster Family (Asteraceae) - attractive to larger predators such as lady beetles and soldier beetles. Incorporate into the vegetable garden and flower beds.

Plants in this family include: blanketflower; coneflower; coreopsis; cosmos; golden marguerite; goldenrod; signet marigold; sunflower; tansy; and yarrow.

Legumes (Fabaceae)- generally grown as cover crops and attractive to many beneficials.

Plants in this family include: alfalfa; fava bean; hairy vetch; and sweet clover.

Mustard Family (Brassicaceae) - attractive to beneficials that are parasites and predators of the insect pests of the mustard family (broccoli, Brussels sprouts, cabbage, cauliflower, kohlrabi, mustard greens). Be sure to plant these away from the garden rather than in the garden since these plants attract pests as well as beneficials. Some are common weeds, such as yellow rocket and wild mustard.

Plants in this family include: basket-of-gold alyssum; mustards; sweet alyssum; yellow rocket; and wild mustard.

Verbena Family (Verbenaceae) - attractive to a variety of beneficial insects. Many plants in this family are favorite garden flowers.

They include*:* lantana; Buenos Aires verbena; hybrid verbena; and lilac vervain.

****Beneficial insects also need a source of water. Shallow containers such as ceramic pot saucers with pebbles for the beneficials to rest on are best.*

Source: *https://extension.psu.edu/attracting-beneficial-insects*

Crop	Minimum	Optimum Range	Optimum	Maximum
Asparagus	50	60 - 85	75	95
Bean	60	60 - 85	80	95
Beet	40	50 - 85	85	95
Cabbage	40	45 - 95	85	100
Carrot	40	45 - 85	80	95
Cauliflower	40	45 - 85	80	100
Chard, Swiss	40	50 - 85	85	95
Corn	50	60 - 95	95	105
Cucumber	60	60 - 95	95	105
Eggplant	60	75 - 90	85	95
Lettuce	35	40 - 80	75	95
Muskmelon	60	75 - 95	90	100
Onion	35	50 - 95	75	95
Parsley	40	50 - 85	75	90
Parsnip	35	50 - 70	65	85
Pea	40	40 -75	75	85
Pepper	60	65 - 95	85	95
Pumpkin	60	70 - 90	95	100
Radish	40	45 - 90	85	95
Spinach	35	45 - 75	70	85
Squash	60	70 - 95	95	100
Tomato	50	60 - 85	85	95
Turnip	40	60 - 105	85	105
Watermelon	60	70 - 95	95	105

Source: *https://extension.oregonstate.edu/gardening/techniques/soil-temperature-conditions-vegetable-seed-germination*

Sample Garden Rotation – 4 Year Template

Incorporating Beneficial Insect Plants

Block Vegetable Crop Planting Information

Source: *https://cmg.extension.colostate.edu/Gardennotes/713.pdf*

Suggested spacing for kitchen garden vegetables: (Start with the wider spacings, reducing spacing with experience and as soil improves in fertility and tilth.)

- Beets: 4-6" by 4-6"
- Carrots: 2-3" by 2-3"
- Celery: 7-9" by 7-9"
- Garlic: 4-6" by 4-6"
- Kohlrabi: 7-9" by 7-9"
- Leeks: 4-6" by 4-6"
- Lettuce, head: 10-12" by 10-12"
- Lettuce, leaf: 7-9" by 7-9"
- Onions, bunching" 2-3" by 2-3"
- Onions, dry: 4-6" by 4-6"
- Parsnips: 5-6" by 5-6"
- Radishes: 2-3" by 2-3"
- Spinach: 4-6" by 4-6"
- Swiss chard: 7-9" by 7-9"
- Turnips: 4-6"by 4-6"

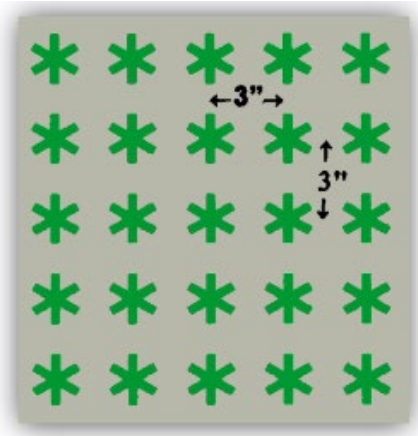


Figure 1. Carrots planted on 3-inch centers