NBCHG
Gardening for change
Seeds and seeding

NB Community Harvest Gardens

GROW FOOD • GROW MINDS • GROW COMMUNITY

All About Seeds and Seeding

- What are seeds and why are they important
- Growing Seeds

- Local food security is import, we can’t take food for granted , look at what happens in times of economic breakdown, environmental destruction and climate change.
We need food security.

Saving seeds from your garden is an ancient skill. Our forefathers saved seeds year after year to preserve the best specimens, the most productive, hardy and flavorful. Saved seeds adapt to local growing conditions and do better than purchased ones grown far away. Our current economic situation means that learning to grow our own food and saving seeds is becoming increasingly important.

What is a seed?

- Seeds are important to our survival
  - they grow into plants to feed us
  - these plants help the environment.
- “a seed is a plant in a box with its lunch”
- A seed is alive, it must be treated as such, it stores best if keep cool and dry

When selecting seeds for your garden

'All seeds are not created equal'

- *Open Pollinated*: varieties produce offspring that closely resemble the parent.
- *Hybrid* varieties result from the controlled crossing of genetically distinct parents. They produce offspring very different than their parent plants.

You cannot successfully save

seed from hybrid varieties.

Saving seeds for next year

- Grow plant for as normal to produce fruit or flower
- Make sure you know how the plant produces seed (flower stalk, over ripe fruit, 2 seasons) and if cross fertilization is a problem
- Make sure saved seed is dry before storing
- Label with variety, name, and year
- tomato: Tribes Tobique, 2025

Gardening in New Brunswick

- **Location**: consider where you plant to put the garden.
  - Your yard, a deck, a community garden

Think about ….

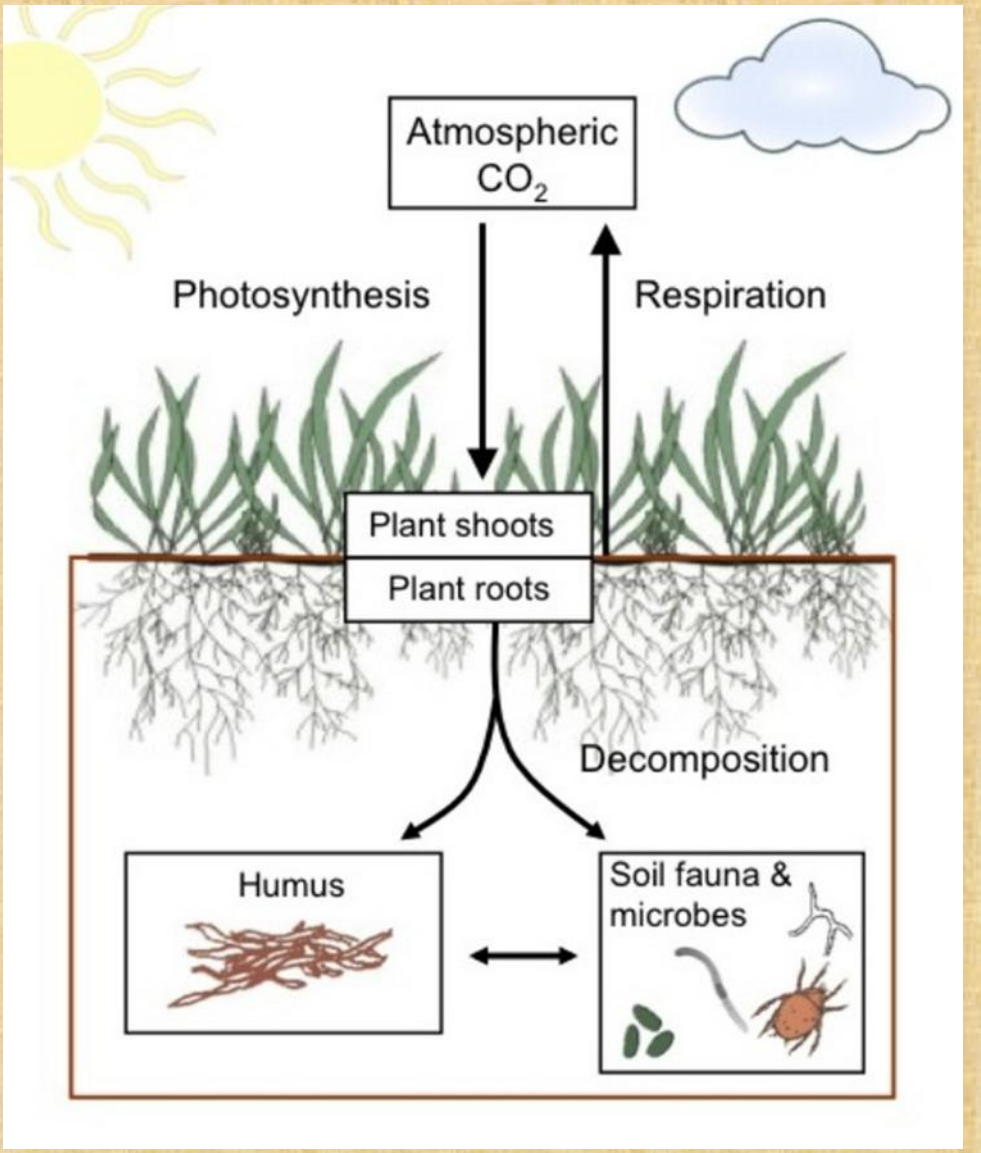
- The **Sun** (how much sun it gets, most plants need 6 hours of sun or more).
- The composition of the **soil** (nutrients, sandy, clay, rocks) and location (drainage, slope)
- **Water** (an easily accessible water source)

Regenerative gardening and climate change

- Regenerative gardening is a system that replicates what nature does so well. Working with nature rather than against nourishes the soil naturally without artificial input.
- The idea of growing in harmony with nature is not a new concept. Our First Nations have been practicing this method of farming long before modern farming practices took hold.
- The three sisters growing method is a prime example of regenerative growing credited our indigenous people

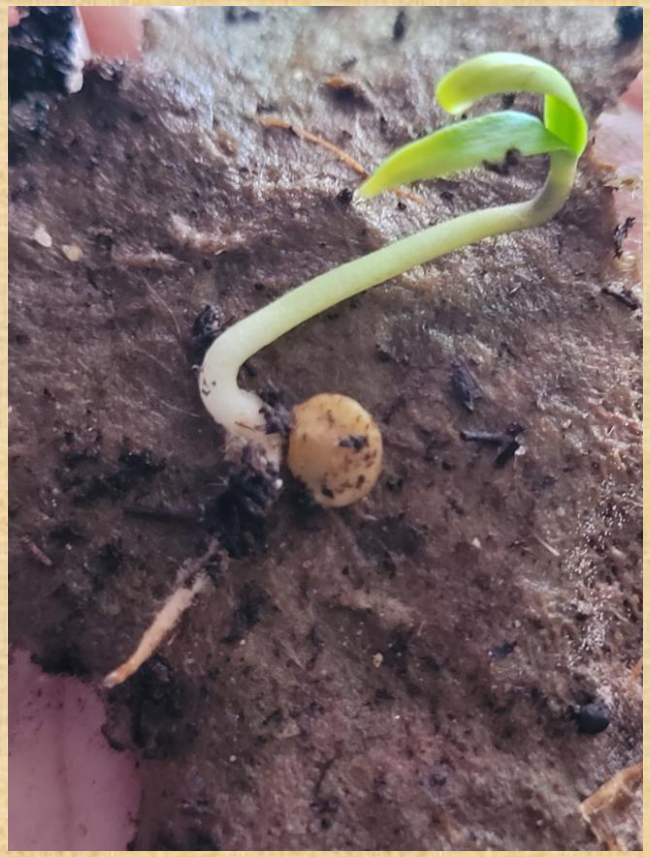
How nature feeds itself

- Plants use the energy in the sun to take the carbon dioxide from the air along with water from their roots to make oxygen and energy (or food). (Photosynthesis)
- The natural microbes and fungus in the soil use some of this energy or food to make protein and other molecules that the plant needs to be healthy.
- These tiny organisms also use dead plant material in their work to keep the soil healthy.
- Most of the food requirements for plants can be obtained through this natural method.
- This process takes carbon from the air (CO2) and leaves much of it in the soil. Some plants have the added ability to take nitrogen from the air and change it in the roots into a form that plants can use.



Regenerative Garden Care (working with nature)

- Gardens need deep, well-drained, rich soil for vegetable growing. Nature feeds and cares for soil.
- Don’t dig and turn soil, this disturbs the natural insects and fungus in the soil, just make the soil loose with a garden fork. Keep plants growing in the soil all year or cover bare soil.
- Grow a large variety of different crops and move the crops around every year (crop rotation). Don’t use artificial fertilizers or chemicals in the garden, this hurts how nature works in the garden.
- Plan to improve the soil by adding compost every year. Most New Brunswick gardens need lime added. Use composted animal manure, garden compost, and organic fertilizers.



Growing regeneratively

- **Minimize Tilling:** don't disturb the microorganisms in the soil
- **Don't Leave Bare Soil:** use cover cropping and mulching
- Use **compost** or natural amendments, include animal manure
- **Biodiversity** and companion planting are very important
- Include **Native Plants** and encourage pollinators
- Save Seeds
- No Synthetic Fertilizers or pesticides
- Follow a crop rotation plan

Healthy soil with healthy microorganisms within the soil, creates healthy nourishing food and helps the environment

Plan your garden

Fredericton, NB's growing season is from May 22 to Sep 25, approximately 125 days with no frost

- Read growing instructions that come with seeds.
- If frost happens, cover warm weather plants with cloth or sheets to keep safe.
- Put the tallest plants in the north or back of the garden so they don't block the sun from others

Plan your garden

- Some plants grow well in cold weather
  Root vegetables: radish, beets, carrots, turnip.
  Greens: lettuce, spinach, mustard.
  Cabbage family: broccoli, kale, cabbage,
  peas and the onion family
- Some plants need warm weather, no frost,
  do not plant until late May
  (tomato, pepper, basil, cucumber, squash,
  zucchini, corn, beans)

Plan your garden

- **Grow a mix of crops together:** carrots beside radish, basil with peppers, herbs everywhere. Plants grow better; bugs get confused.
  - Make sure the plants you choose like the same amount of sun, water, and soil.
- **Try Succession Planting:** This is when you plant your crops at different times, maybe every 2 weeks.

******never leave bare ground, always grow something or cover with leaves/ straw***

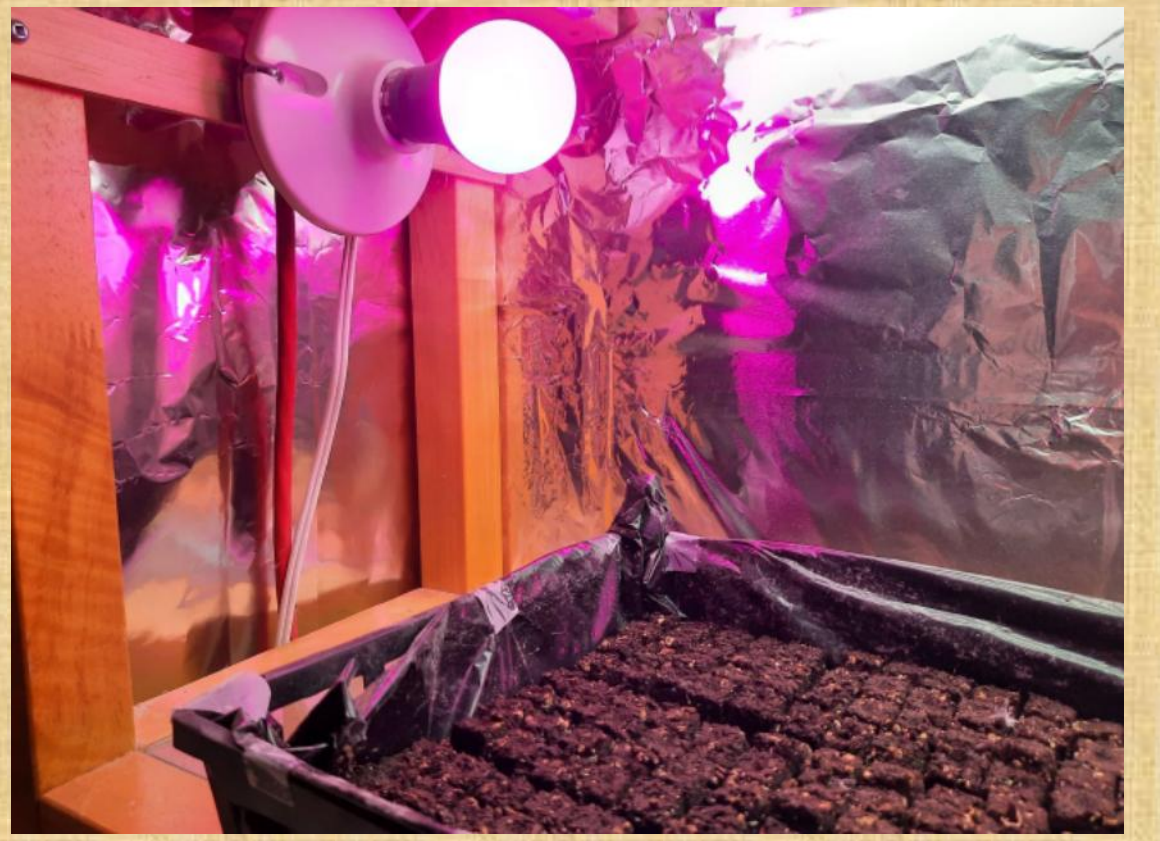
https://hopeseed.com/

COMPANION PLANTING

Plant Type	Compatible	Incompatible
Beans	Potato, Celery, Cucumbers, Corn, Strawberry, Summer Savory, Carrots	Onions, Fennel, Sage
Beets	Bush beans, Lettuce, Onions, Kohlrabi, Cabbage, Mint, Carrots	Pole Beans, Mustard
Broccoli	Marigold, Sage, Beets, Nasturtium, Lettuce	Tomatoes
Cabbage	Celery, Onions, Potatoes, Aromatic Herbs, Beets, Chamomile, Spinach, Chard	Strawberries, Dill, Tomatoes, Pole Beans
Carrots	Lettuce, Radish, Onions, Tomatoes, Peas, Rosemary, Sage, Leeks, Beans	Dill, Anise
Celery	Onions, Tomato, Cabbage, Bush Beans, Nasturtium, Leeks	
Corn	Pumpkins, Sunflower, Peas, Beans, Cucumbers, Potatoes, Squash	Tomatoes
Cucumbers	Corn, Peas, Radishes, Beans, Sunflowers, Cabbage	Aromatic Herbs, Potatoes, Sage
Lettuce	Onions, Strawberries, Beans, Carrots, Radishes, Peas, Cucumbers, Cabbage, Broccoli. Tomatoes	
Onions, Garlic, Leeks	Lettuce, Beets, Carrots, Strawberries, Tomatoes, Cabbage,	Peas, Beans, Sage
Peas	Carrots, Cucumbers, Corn, Turnips, Radishes, Beans, Tomatoes, Potatoes, Aromatic Herbs	Onions, Garlic, Leeks, Shallots, Gladiolus
Peppers	Tomato, Basil, Parsley, Petunias, Carrots, Onions, Okra, Marigolds, Cilantro, Catnip, Tansy, Nasturtium	Fennel, Kohlrabi, Beans
Potatoes	Beans, Corn, Cabbage Family, Marigolds, Horseradish, Lettuce, Radishes, Scallions	Pumpkin, Squash, Tomatoes, Cucumber, Sun-flower, Chard, Raspberries
Radishes	Beets, Carrots, Spinach, Parsnips, Cucumbers, Beans, Lettuce, Peas, Kohlrabi, Nasturtium, Peas	Cabbage, Cauliflower, Brus-sels Sprouts, Broccoli, Kohl-rabi, Turnips, Hyssop, Grapes
Rutabaga	Mint, Sage, Thyme, Marigolds, Nasturtium, Cabbage, Brussels Sprouts, Cabbage	Grapes, Strawberries, Tomatoes, Pole Beans, Dill
Spinach	Celery, Eggplants, Cabbage, Peas, Onions, Brussels Sprouts, Peppers	
Squash	Radishes, Cucumbers, Corn, Nasturtium, Mint, Aromatic Herbs	Potatoes, possibly Tomatoes
Tomatoes	Carrots, Onions, Nasturtium, Asparagus, Cucumber, Aromatic Herbs (Parsley, Dill, Lovage, etc.), Spinach, Basil	Cabbage, Cauliflower, Fennel, Potatoes, possibly Squash

Springtime Planting Inside

- Start seedlings indoors March/ April, they need air movement, lots of light… 16-18h/day (tomato/ peppers)
- ‘Harden Off’ plants before putting in the garden.
  - Take 1-2 weeks to gradually let your plants get used to outside
  - Start with shade and sheltered from wind , gradually move to direct sunlight and wind.
- Transplant to the garden on a cloudy day or evening
  - Dig a small hole, plants can be planted deeper than pot
  - firm soil around plant, water well



Springtime Garden Care

Prepare the Soil:

- Make sure the soil in your garden is dry and warm enough for planting.
- Never stand on your planting area
- Loosen area with a large garden fork or spade
- Never turn the soil over, this upsets the microorganisms in the soil
- Remove weeds including the roots
- Feed your soil with compost
- Rake flat, leave a few weeks to let weed seeds germinate, then quickly weed again.
- Cover soil with cardboard or dry leaves until time to plant.

Springtime Planting

Watering:

- Normally New Brunswick gets enough rain for gardens but not every year.
- New plants and seeds must be watered until growing well
- The best time to water is in the morning. Most plants need about an inch (2.5 cm) of water per week.

Mulching:

- Cover the soil with dry leaves, straw, paper, or cardboard) helps control weeds, keeps the soil wet, and cooler during summer heat.

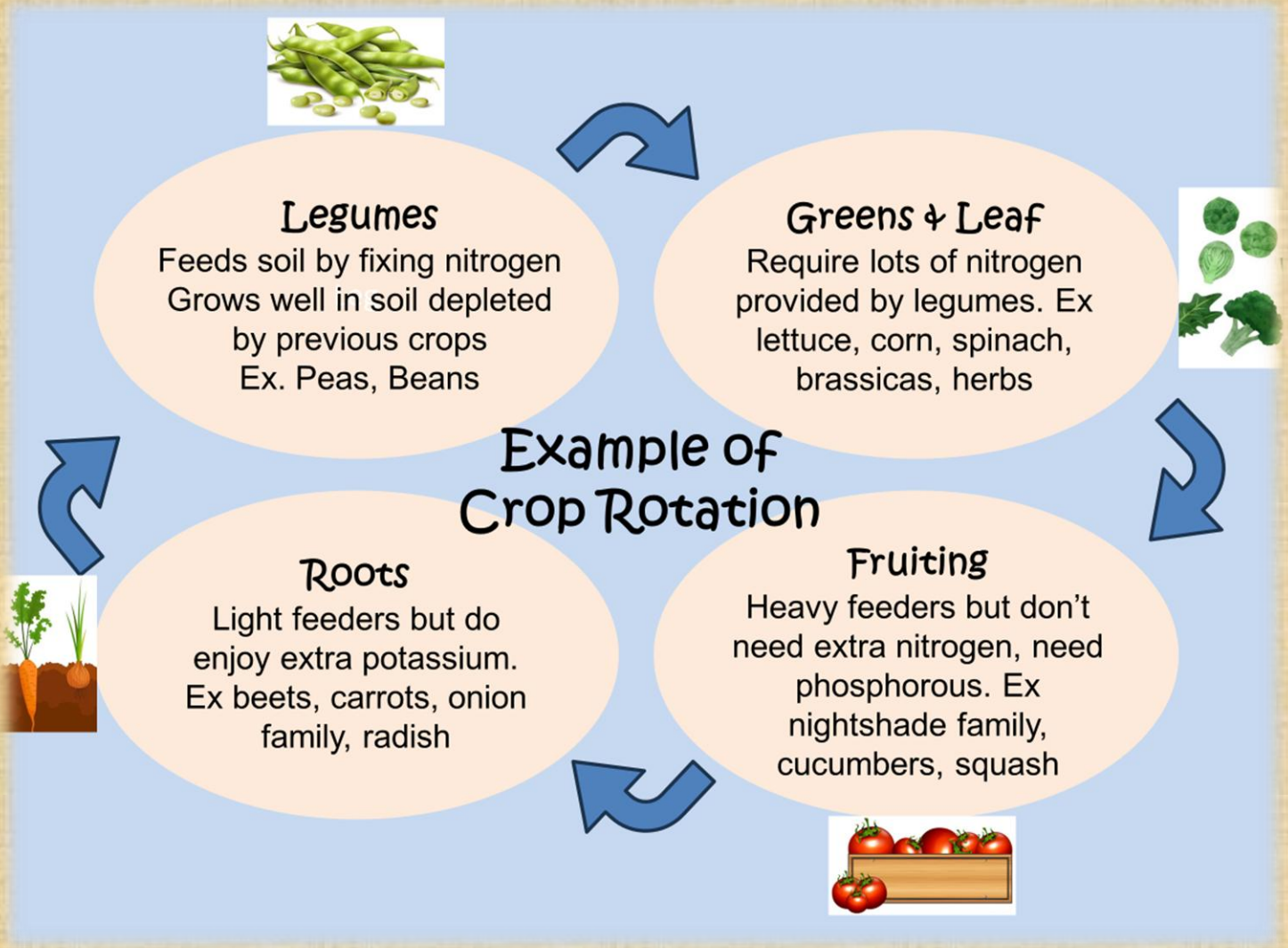
Summer Garden Care

Staking and Trellising:
Grow plants like peas and cucumbers on sticks, fences, or string, this keeps plants off the ground, and gives more planting space for crops.

Weeds:
Keep removing unwanted weeds

Thin Plants:
Plants like carrots need to be thinned (remove some of the plants). This gives the plants more room to grow.

Rotating Crops:
Crops should be grown in different parts of the garden each year. Different crops have different needs for food. Pest and disease problems are less with proper crop rotation.



Legumes feed greens followed by fruits then roots.

Garden Problems

Disease Prevention:

- Preventing disease is easier than treating disease. Cool damp weather encourages disease.
- Prune tomato suckers, don't plant too close together, trim very big plants, keep plants off the ground.

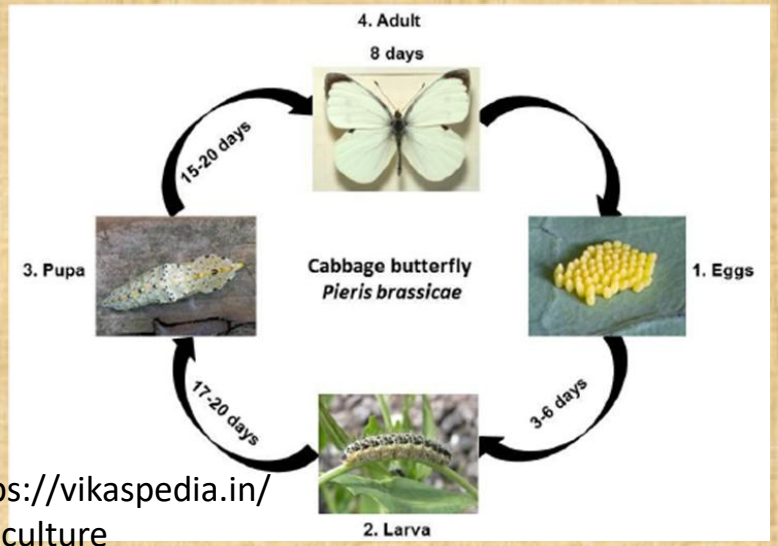
Protecting Your Plants from bad bugs:

- Use row covers or light netting to keep bad bugs away.
- Use organic sprays.
- Remove bugs by hand and putting them in soapy water.
- Use flowers and herbs to confuse bad bugs and invite good bugs to the garden

Very cold or very hot weather:

- Use light weight cloth covers to keep plants warm, or protect from sun

Cabbage Moths: Bad



https://vikaspedia.in/agriculture

Cabbage Moth
-covering is the easiest method especially for cabbage and broccoli
-remove eggs and larva

Lady Bugs: good

https://www.thespruce.com/recognize-lady-beetle-ladybug-nymphs-1402696

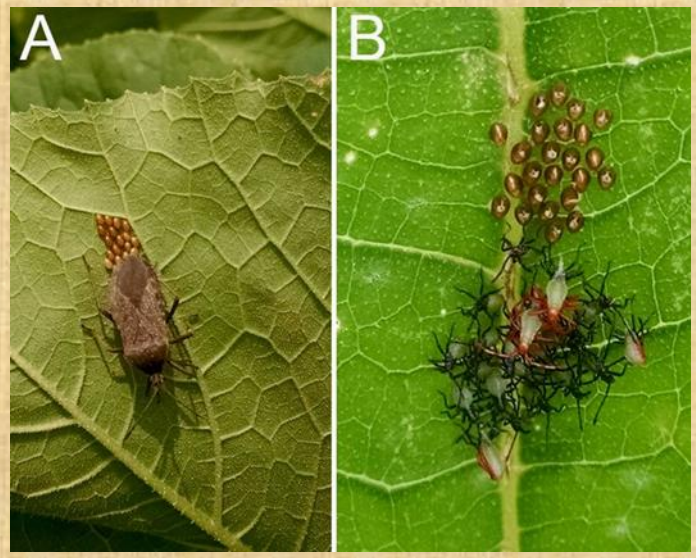
Potato beetles and eggs: Bad

Potato Beetles
-Hill the plants to cover leaves as long as possible, then hand pick beetles and place in soapy water, or try growing cilantro with the potatoes

Squash Bugs and Cucumber Beetles

Squash and cucumber beetles
-Covering plant at transplanting or when seeding is easiest method, cover until plant is flowering.
-remove leaves with eggs, or infested with insects, destroy/ drown, don't compost
-sprays may help but need to be reapplied after rain

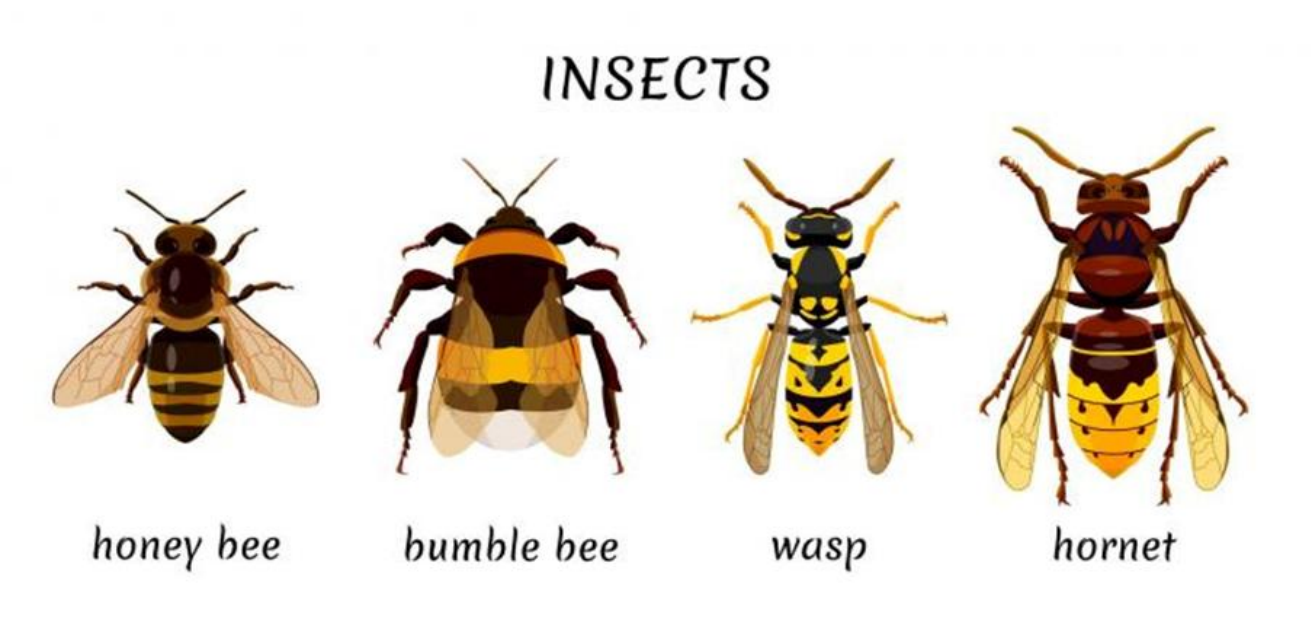
https://www.fruitionseeds.com/



https://www.canr.msu.edu/news/squash_bugs_as_pests_of_cucurbits_in_michigan

https://ag.umass.edu/vegetable/fact-sheets/cucumber-beetle-striped

Bees, Wasps and hornets
Good Bugs



https://www.almanac.com/wasps-bees-and-hornets-whats-difference

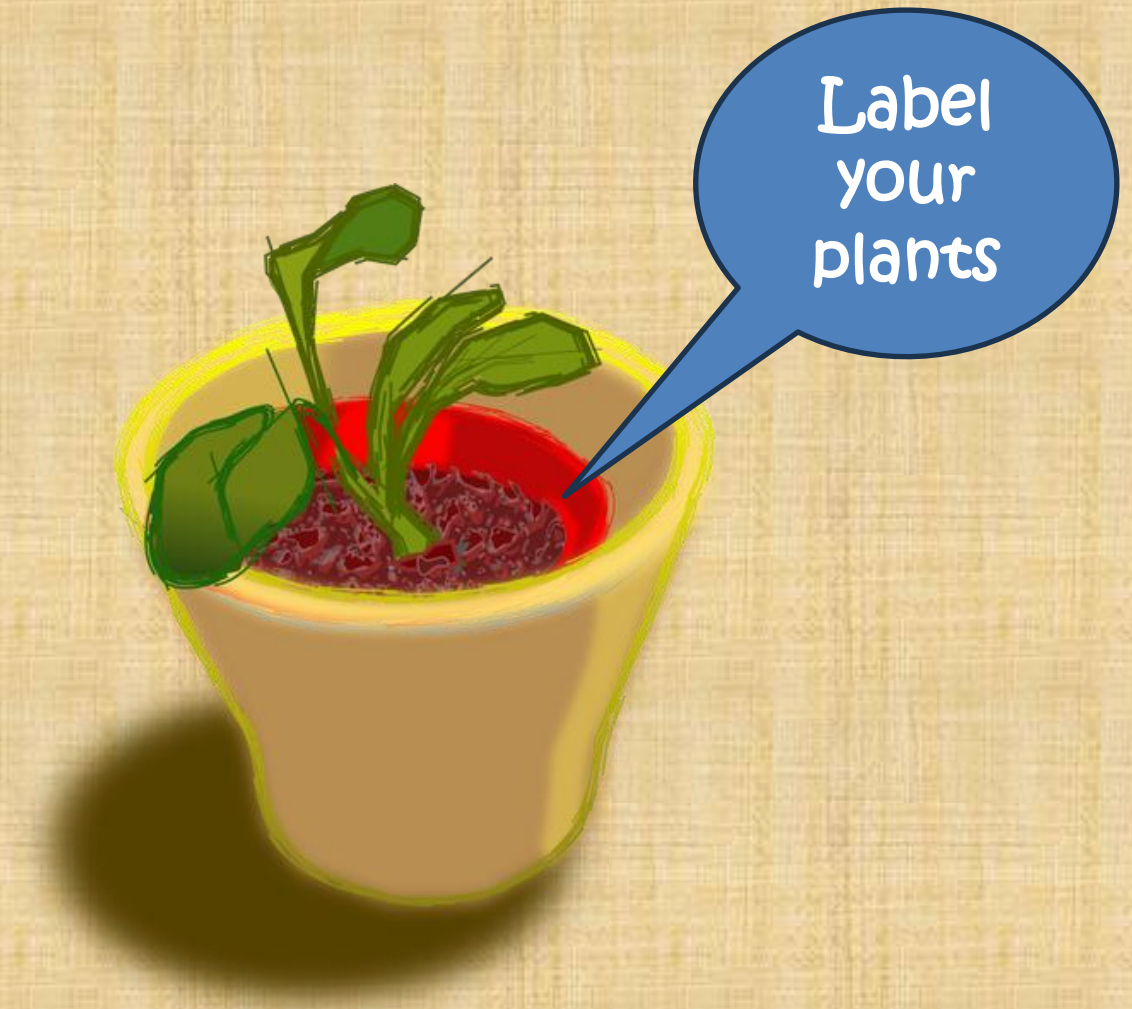
DIY Insecticidal and Fungal Disease Spray

Natural Insecticidal Soap spray
aphids, mites, white flies, thrips, and mealy bugs:
1 1/2 tablespoons of liquid soap (biodegradeable)
1 quart of water
Mix and spray on affected plants

Baking Soda Spray
1 tablespoon of baking soda
1/2 tablespoon of oil
2 quarts of warm water
for treating plants with fungal diseases on leaves, mix and use immediately

Japanese Beetles, borers, leafhoppers and slugs
Garlic also deters larger pests like deer and rabbit.
-Natural Insecticidal Soap Spray (from recipe above)
-1 tbsp chili powder (or fresh or dried hot peppers)
-5 cloves of garlic, crushed
Allow garlic and chili powder to steep overnight. Strain and pour into a spray bottle. Add Natural Insecticidal Soap Spray. Will keep for a couple weeks.

Thrips, aphids, grasshoppers, chewing and sucking insects
Garlic, Peppers & Onion Insecticide
2 hot peppers 1 whole bulb of garlic
1 large onion 1/4 cup water
Toss in the food processor and add water, blend until a mash is made. Cover mash with 1 gallon hot (not boiling) water and let stand 24 hours. Strain. Spray on roses, azaleas, vegetables to kill bug infestations. Bury mash in ground where bugs are heaviest.



Web: nbchg.org
carol@nbchg.org


bachelor button
morning glory
sunflower
aster
calendula
nasturtium
phlox
marigold
hollyhock


Peas
Squash
carrot
broccoli
swiss chard
watermelon
lettuce
tomato
xxxxx
beets
cucumber
peppers
radish
corn