



Vegetable Gardening in Raised Beds

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MUN Botanical Garden



It's there waiting...





Ta da!



Vegetable growing in NL, a long tradition



Why grow your own?



- Fresher
- Cost less
- Peak of flavor
- Fresh air and exercise
- Good family activity
- Feel good activity



Lazy Beds or Drills in NL

- “Lazy beds are well suited to locales lacking warmth, deep soil, and drainage. In Newfoundland and other north Atlantic gardens, the advantage of raised beds is that they are drier and therefore warmer than the moist flat ground around them. The beds warm up more quickly in the morning and retain heat longer (Denevan and Turner 1974:27). At night they protect crops from frost by draining the denser cold air into the ditches.” (Downhomer magazine)
- The ditches provide walking paths for maintenance eliminating compaction



Alternative methods





Ready to roll!















Why grow in raised beds?

- Increase soil depth in shallow areas
- Increase drainage during wet weather
- Warm soil quicker in spring
- Eliminate soil compaction
- Reduces back strain
- Encourages organized planting “Square Foot Gardening” *Mel Bartholomew*©1981
 - *Less weed competition*
- *No loss of planting area from sloped sides*
- *Reduced slug/snail damage*

Building Material Choices

- Wood
 - Untreated Lumberyard Wood



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 - Locally Milled Lumber
 - Usually cheaper. More open grained. Shorter lifespan





Building Material Choices

- Wood
 - Untreated Lumberyard Wood
 - Treated wood/Railway Ties add toxins to soil
 - Locally Sourced Lumber
 - Usually cheaper. More open grained. Shorter lifespan
 - Locally Sourced Logs



Building Material Choices

- Brick/Stone stacked
 - Difficult to protect from frost heave
 - Labor intensive construction
 - Permanent installation





Building Material Choices

- Poured Concrete
 - Labor intensive construction
 - Permanent installation without option for re-design later
 - More sturdy than dry brick/stone wall



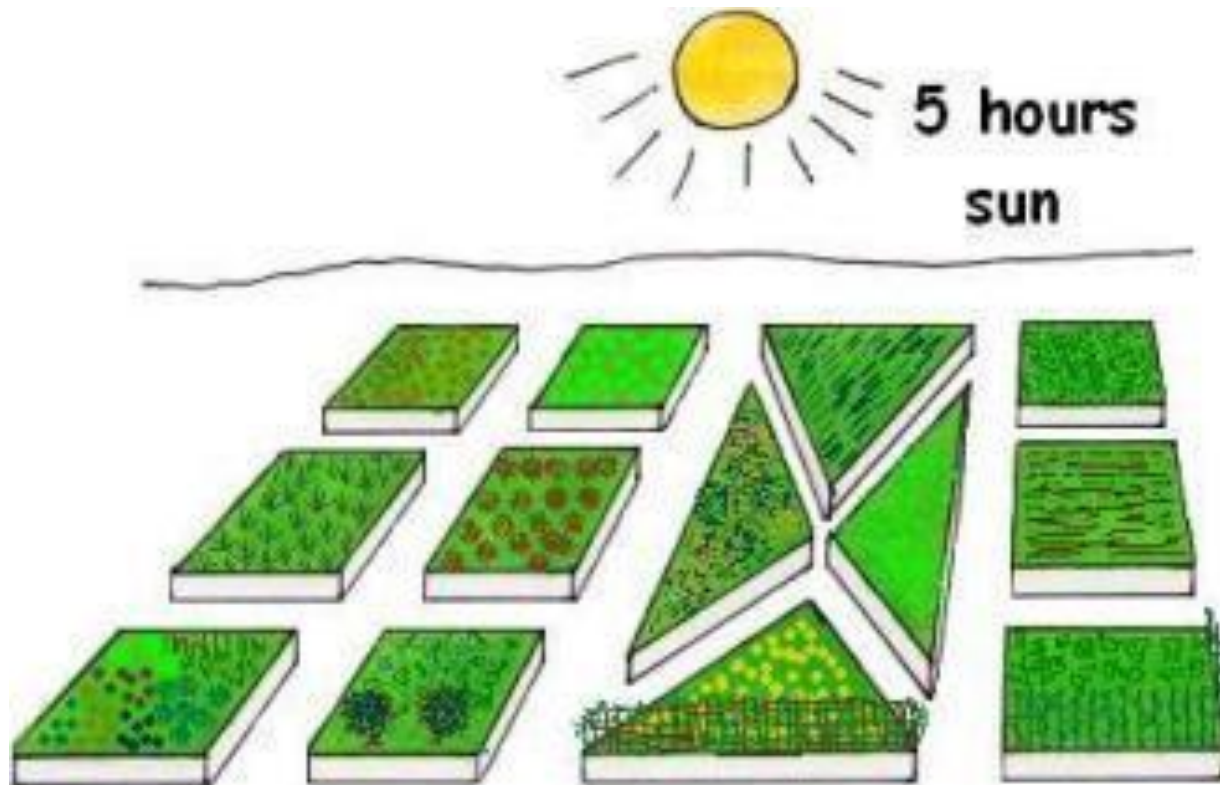
Raised Beds at MUN Botanical Garden



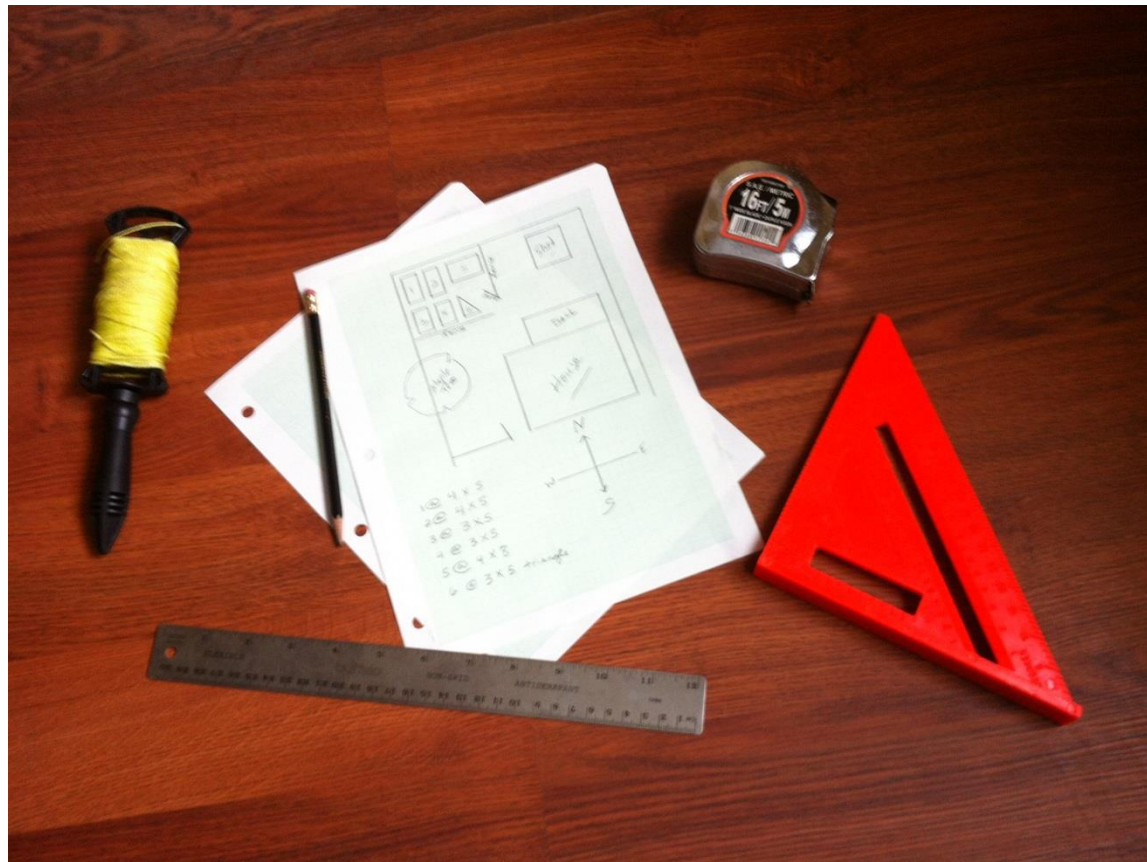
Wooden Walls

- 2"X10" lumberyard sourced wood (spruce)
 - (use 2"X12" if base soil is poor)
- Butt-joined and screwed at corners
 - Use rust protected screws/nails
 - 2"X4" centre brace on beds longer than 4'
 - Brace attached to bottom of frame
- **Chocolate-brown** water-based stain.
 - Dark colors attract heat , camouflage soil stains
 - Stain cut-ends before joining
 - Two coats for added protection

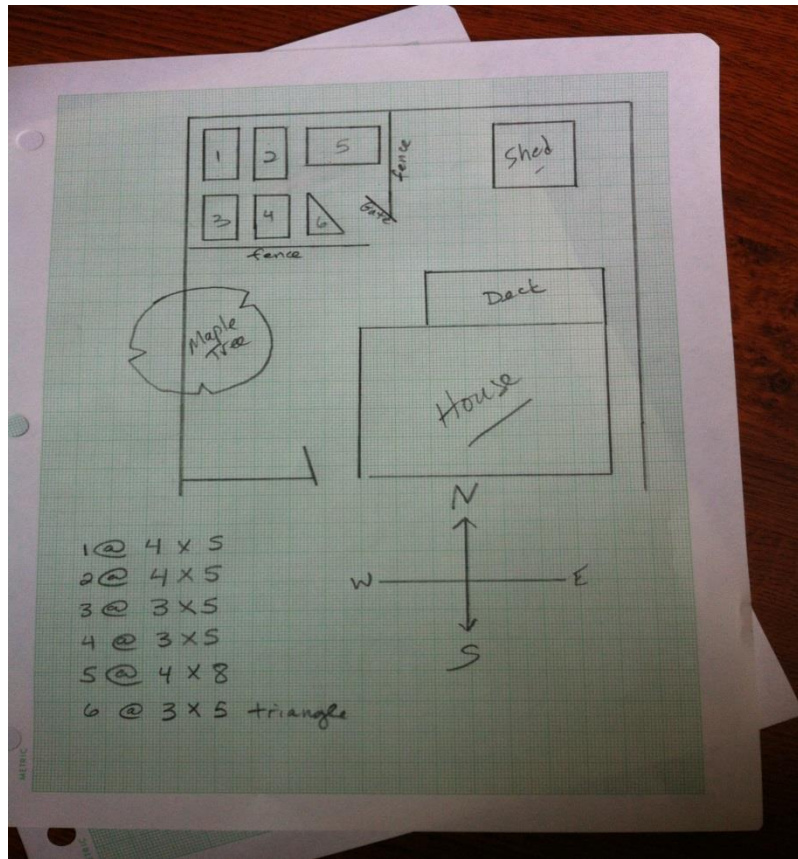
Design before you build



Simple Tools Needed Here



Get it On Paper



What's Your Limit?

Now's the time to decide

- How much time do I have to manage a vegetable garden
 - Spare time in evenings? weekends?
- Remember; more time is needed in spring and fall.
- Less “is” more!
 - Taking on too much can cause veggie burnout!
- You can always expand in future years

Identify Permanent Landscape Features

- Overhanging trees
 - Create shade
 - Roots invade rich soil
- Rock Outcrops
- What is the existing soil type
- Any Roof overhangs (Sheds/Houses)
- Fences create shade



- Sunny
- Southern exposure
- Away from large trees
- Away from buildings
- Can be seen from kitchen

- Wherever it will fit

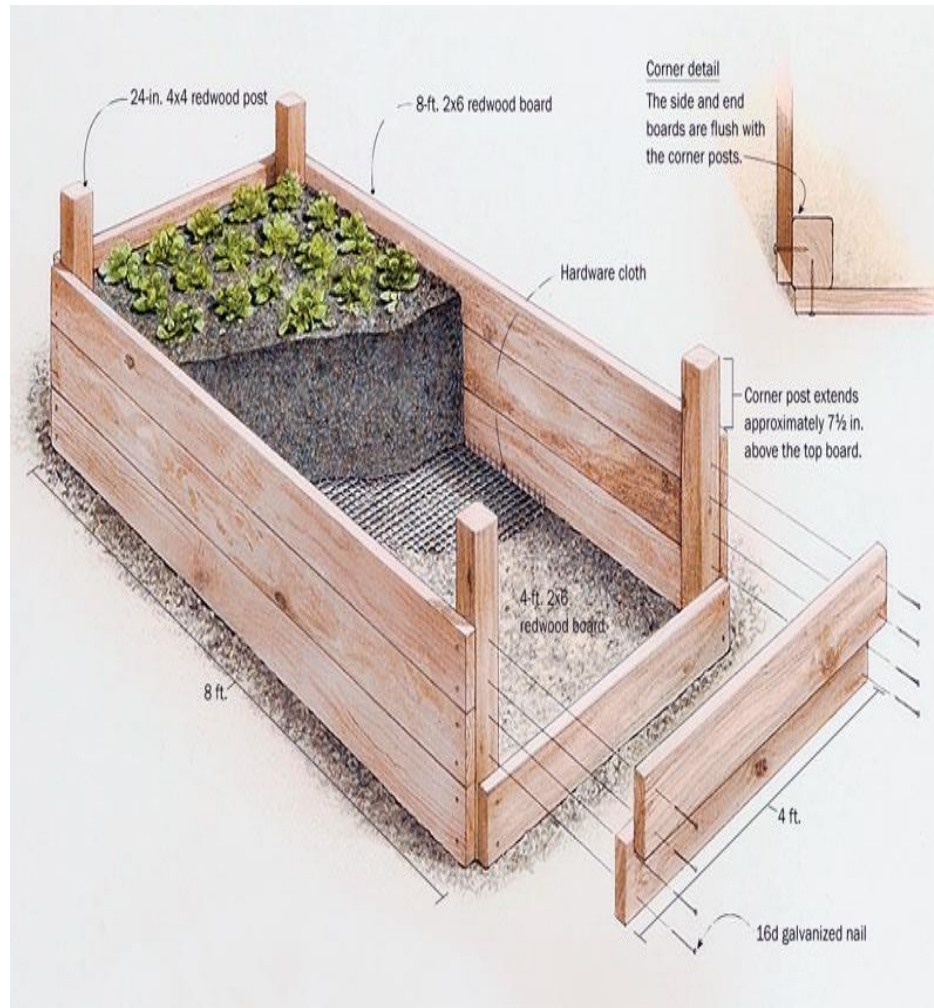
Time to Build

- Simple tools needed here also.
 - Handsaw/Circular Saw or Mitre Saw(Chop saw)
 - Rust-protected screws/nails
 - Paint brush/roller/paint

- Construct, paint and set aside to dry. Re-paint.



Building a Raised Bed Garden





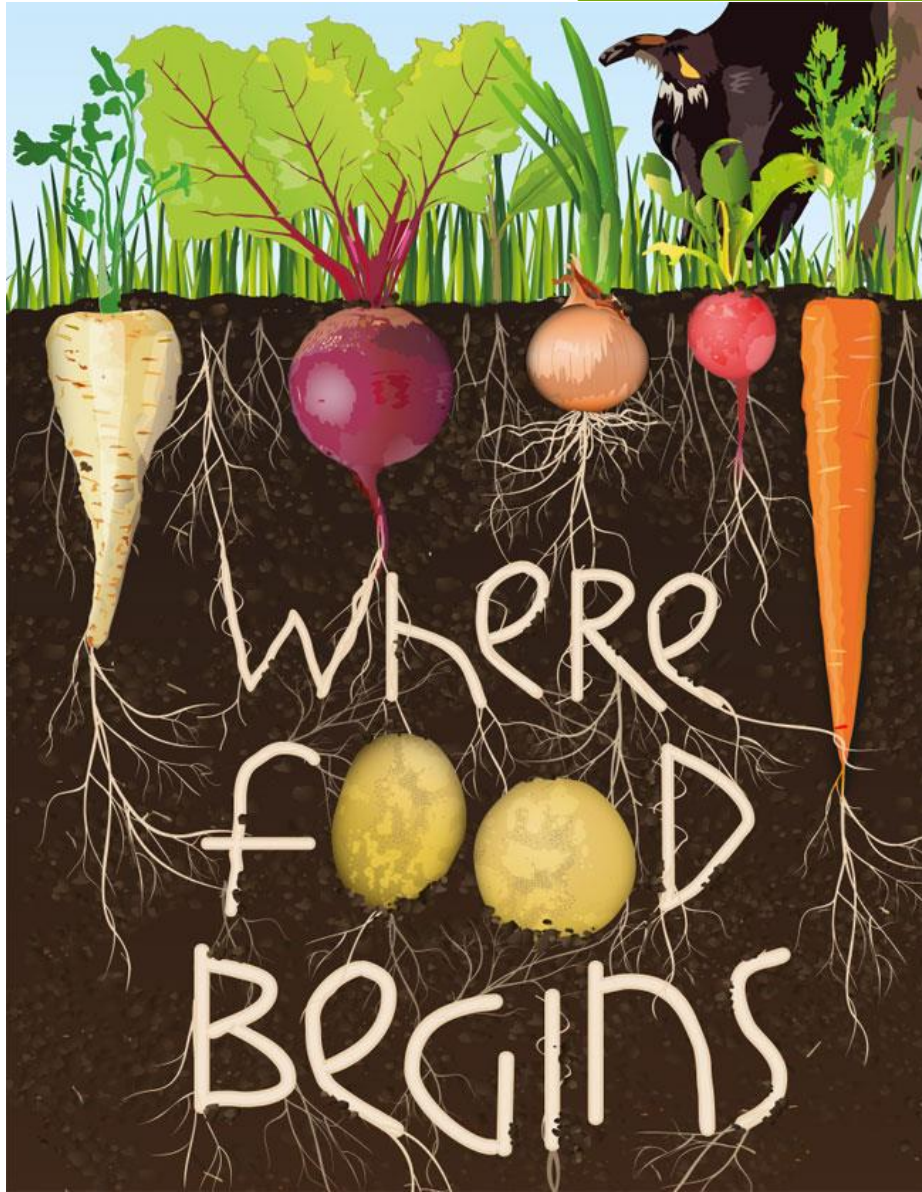






Finally Time to Grow!

- What is your soils structure?
 - How well does your soil particles cling together?
 - This will determine how well it retains moisture and nutrients
 - And how easily roots can penetrate and grow



Soil Mix



- Start with good quality topsoil or triple mix (50% topsoil-30% peat-20% compost)
- Must be well drained and organic
- Lots of organic matter, (composted manure, leafmold, home compost).
- Remove rocks.
- Apply fertilizer (6-12-12) in early May.
- Lime should be added to areas where you are going to grow crops that like a “sweeter” soil.
- Don't let poor soil stop you, **everyone had poor soil to start.**

Loam

- Good aeration and drainage
- Must hold onto moisture and nutrient

- Organic Matter

Organic Matter Types

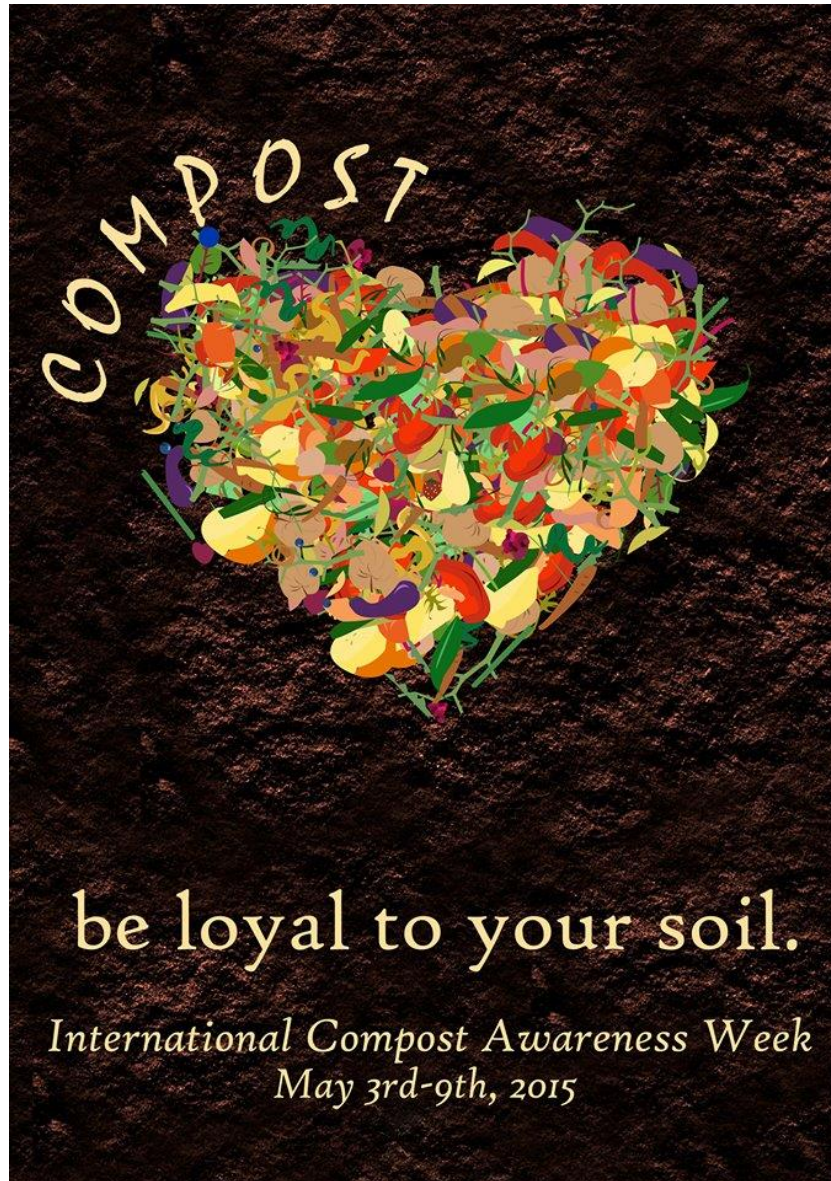
- Compost from Kitchen and garden waste
- Manures – must be well rotted
- Kelp
 - Composted first or applied in fall

Black Gold



Black Gold





be loyal to your soil.

*International Compost Awareness Week
May 3rd-9th, 2015*

Calculate soil volume

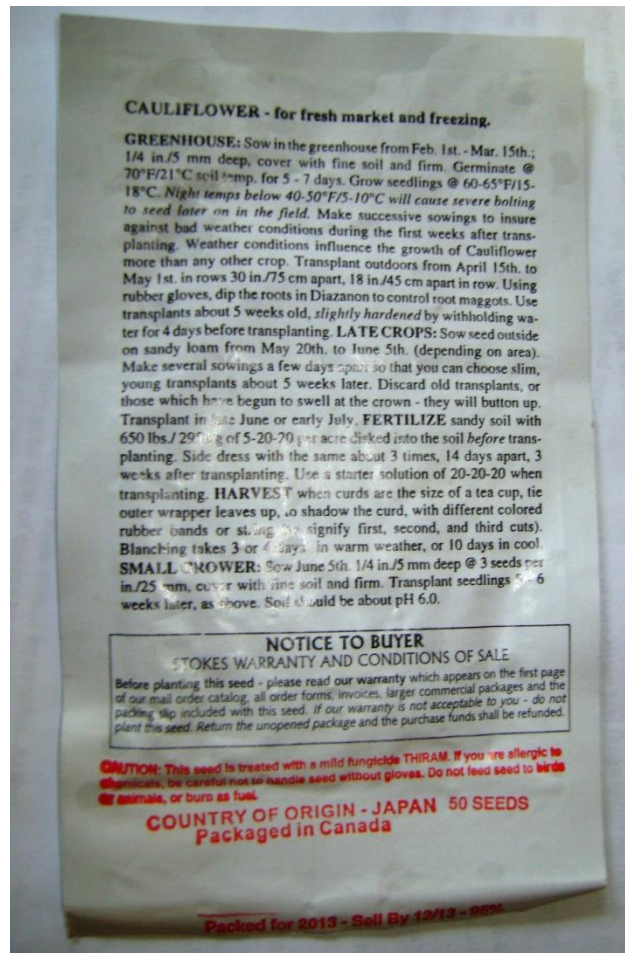
- <https://www.gardeners.com/how-to/soil-calculator/7558.html> -

Planting Plan



- North-south rows
- Taller plants to north end.
- Medium height plants in the middle
- Shorter plants at the south end
- Mix fast and slow growing crops (lettuce between rows of cabbage)

Read the Seed Packet



- Most of what you need to know is here.
- Sow dates
- Depth
- Transplant date
- Spacing
- Fertilizer
- Harvest info
- Date packed
- Germination %

Frost Hardy Seeds

- Does not mean they won't freeze, but are hardy enough to withstand a few degrees of frost.
- Can be sown ahead of frost tender types because they will germinate at lower temperatures.
- Broccoli, cabbage, leaf lettuce, onion, radish, peas, spinach, turnip, parsnip.

Semi-Frost Hardy Seeds

- Sown almost as early as the frost hardy types because they will not germinate in cold soil.
- Generally remain in the soil for a couple of weeks before emerging.
- Beet, carrot, cauliflower, head lettuce, potato

Frost Tender Seeds

- Should be sown after last frost.
- Beans, cucumber, peppers, squash, pumpkin.

Seeding and Transplant Dates

May 15 - June 1

- Peas – seeds
- Onion – sets
- Parsnip – seeds
- Radish – seeds
- Spinach – seeds
- Potatoes- seed potatoes
- Turnip – seeds
- Leaf lettuce - seeds

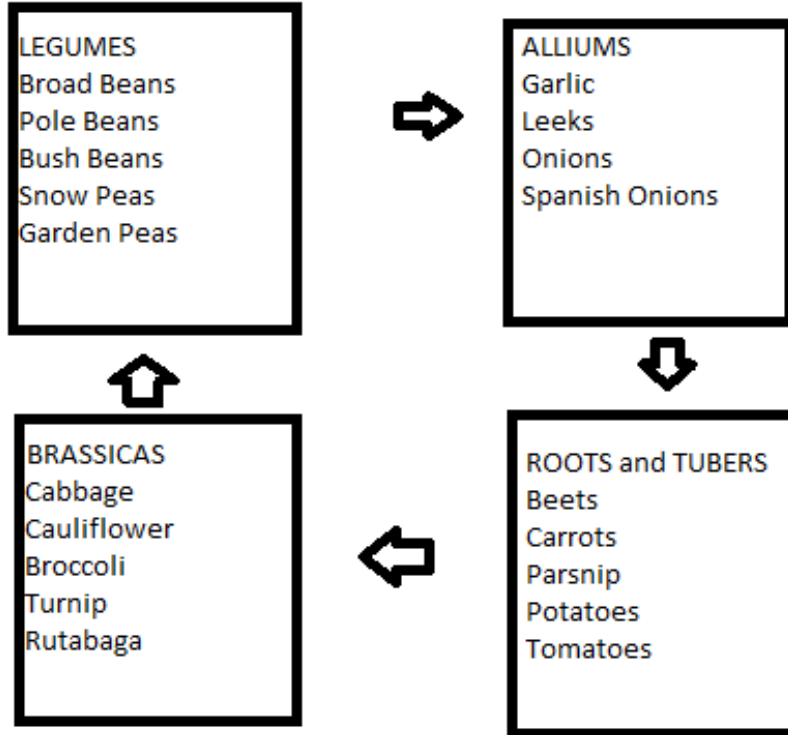
June 1 – June 15

- Beet – seeds
- Broccoli – transplants
- Cauliflower – transplants
- Cabbage – transplants
- Leaf lettuce – seeds
- Carrots – seeds
- Onion - transplants

After June 15th

- Beans – seeds
- Peppers – transplants
- Pumpkin- transplants
- Tomatoes – transplants
- Squash – transplants
- Wait until the cold and wet has passed.
Seed can rot before it germinates.

Basic Four Bed Crop Rotation



Don't Bug Me



- Row Covers protect plants from insects
- Physical barrier between plants and insects.
- Loose-spun fabric allows light through to plants
- Protect carrots against carrot rust fly
- Protect cabbage, cauliflower and broccoli against cabbage white butterfly.
- Bonus – it can trap a little daytime heat and help protect from a late frost.

Cabbage White Damage



Vegetable varieties grown at MUN Botanical Garden



Pole Beans



'Scarlet Runner' 70 days.

'Royal Burgundy' 50-60 days.

Cabbage
'Red Dynasty'
'Bourbon'









Touchon Deluxe

‘Bolero’



Purple Haze







Beets



'Red Ace' 53 days.

'Merlin' 53 days.



Lettuce

- “Romaine”
- ‘Simpson Elite’
- “Red Salad Bowl”



Zucchini 'Golden Glory' 'Senator'





Garden Peas
'Bolero'



Beans
'Royal Burgundy'





Garlic



Plant cloves around the
middle of October.

Remove flowers.

'Polish Jen' Oct. – Aug.

'Music' Oct. – Aug.



Leeks 'Tadorna'



Onion 'Kelsae Sweet Giant'









Time to put your garden to Bed



Thank you.