

# Greenhouse Gardening 101

We hope to make the greenhouses supportive and educational spaces for new gardeners. Here are some basic guidelines to help you get started on your gardening escapades!

# Organic Gardening

- We are committed to organic gardening. It is VERY IMPORTANT that you do not bring in any plants, soil or fertilizer of your own. We need to monitor all materials that come in to keep the fragile greenhouse environment in balance, reducing the risk of diseases and of attracting bears. Please make sure the tools you use are clean as well.

## Selecting Seeds, and Planning Your Box

- Below is a diagram of your plot that you can use to plan the planting of your box.
- Each square represents a square foot that can be used to plant one order of seeds. Each plant has a different number of seeds required to be planted in one square foot (see seed order “seeds/sq ft” column) i.e. if you order 1 calendula you will receive 9 seeds which need to be spread out evenly over a square foot for maximum growth. If you select 1 basil for example, you will need 4 seeds to be spread over 1 square foot. If you opt for 2 basil you will need 8 seeds which would be spread out over 2 square feet.

Center Aisle

## Wall Aisle

[illegible][illegible]

# GROW

- Some plants are short lived and can be planted in succession. You may want to select 2 or 3 sets of seeds of these types replanting them depending on germination days for continuous harvesting
- Tall plants (tomatoes) need to be planted nearest the isle, medium height plants (bush beans) in the middle and shortest plants (beets, carrots, lettuce) near the wall.
- Cool weather plants (peas, spinach, kale, lettuces, mesclun, beets, radish, and arugula) can be sowed as soon as your boxes are ready and water is turned on.
- Warm weather plants like cucumbers will be planted when the soil warms up - likely can be done late May or early June.

## Box Preparation

- Remove any old vegetation: (organic material); moss, debris etc. from your box and dispose of it outside of the greenhouse. Please do not keep old vegetation inside as it will rot and cause disease.
- Turn soil in the box: There are 2 galvanized pipes buried half way down in each box, be careful not to disturb but dig below them for maximum aeration.
- Top-up soil: to about 2" from the top edge. Soil will be provided.
- Soil Additives: there may be soil additives needed to be dug in when turning soil. They will be left in zip-lock bags on your box.
- Irrigation system: Drip hoses will be kept just above ground held in place with supplied wooden dividers..
- Start to build your support for tomatoes, beans and peas: Taller plants need support or they will fall over and break and die.

## Seed Planting

- Soak soil completely before planting seeds.
- Plant large seeds i.e.: beans  $\frac{1}{4}$ " deep. Small seeds i.e.: basil should be broadcast on surface and covered with soil  $\frac{1}{8}$ " deep.
- Succession Planting: To ensure a steady harvest, plant only a portion of square foot initially. Plant remainder in the following weeks taking in to consideration germination time (detailed on seed order form)
- Thin Plants: Crowded plants yield poorly and are subject to disease. Thin to eventual harvest size so that they will just be touching.



- Cut and Come Again Plants: Plants should be 4-5 inches tall before harvesting, using scissors. You can cut the entire plant about 1-2 inches above soil or just harvest outer leaves. HAND WATER WELL after cutting plant. Cut plant should be re-grown 2-3 times before having to replant. Harvest entire plant when seed stalk begins to form (bolting).
- Harvest plants frequently i.e.: beans, peas to promote flowering and greater production.

### Watering Systems

- All boxes are on an automatic watering system.
- Hand watering is necessary until germination. Water seeds gently to not to disturb them (hose nozzle has different settings). When watering by hose, turn water on by opening small black lever on 'Y' fitting. Make sure lever is off when finished.
- For hand watering by hose (note: there are 2 hoses in the left hand greenhouse at Spruce Grove, 1 for inside hose, 1 for outside hose).
  - To turn water On: Turn the small black valve on 'Y' hose fitting to the "on" position (valve parallel to hose).
  - To turn water Off: Turn the small black valve to a position perpendicular to hose. This is important because if the water is left on and the hose breaks, we have lost the automatic system to all boxes.
- Important: Any water valve or timer that is taped or wired - please do not touch.

### Planting Tomatoes

- Smokers wash hands before handling plants to prevent transmitting tobacco virus, deadly to tomato plants.
- Construct staking systems before planting so as not to damage plant roots.
- Wire tomato cages are not tall enough to support our indeterminate tomato. Stakes need to be about 6 feet tall as plants can reach top of greenhouse.
- All our tomato plants are indeterminate; they grow very tall and produce through season.
- Be careful not to damage soaker hose when planting.
- Plant tomato plant in middle of square foot. One plant per square foot, planted nearest centre aisle.

# GROW

- Plant Deep – bury a tomato plant stem and the stem will sprout a slew of new roots that help the plant grow sturdy and tall quickly. You can bury just about all of the stem – pinch off the branches 1” below the top flush of leaves.
- New plants need to be hand watered daily, for at least the first 2 weeks to establish roots. Remember neglect is your only enemy. Coordinate with your fellow gardeners if you are unable to attend to on a daily basis.
- Do not water whole plant on leaves, as this will promote rot. Always water soil around base of plant.

## Taking Care of Your Plants

- Once a plant becomes big enough, it needs to be tied to a staking system, use a soft material (nylon stockings, tomato or Velcro ties) do not use string and tie loosely.
- Prune leaf branches several inches up from soil to allow circulation. This will help prevent disease.
- Prune leaf branches that are very long, with not flowers on them, to ½ lengths. The plant will grow taller and not bushy. This will also prevent accidental breaking of branch.
- You can pinch out suckers (small branch growing between main branch and vine stem) when they have grown 2 leaves. This will help produce quality fruit.
- Remove any dead or yellow leaf branches. Dispose outside of greenhouse.
- Never prune above the top blossom cluster to avoid accidental pruning out the ‘leader’ (main growing stem).
- About 3 weeks before the end of season top plant, remove all flowers and tiny tomatoes to allow plant to devote energy to ripening tomatoes that are of good size.
- On hot summer days, if soil surface is dry, hand water. Remember a tomato is 95% water.

## Harvesting

- Harvest tomatoes when they are firm, just before they have reached their colour peak. Store tomatoes at room temperature, out of sunlight.



- Tomatoes left hanging on vine will not taste as good as those harvested earlier. Their flavour components start to decrease.
- Harvest by gently breaking the stem just above the fruit. Always try to keep this bit of stem attached. Fruit will keep longer after picking.
- If your plant has an entire branch full of ripe tomatoes (e.g. Roma cherry type) cut the whole thing off with scissors. The intact branch lasts longest of all.
- Pick often to encourage the production of more fruit
- Green tomatoes ripen better in the dark than in light. Place green tomatoes in a single layer between full sheets of newspaper in a box. Tomatoes should start to ripen in about a week.
- For faster ripening place your green tomatoes inside paper bags with an apple.

#### General Information

- Please report any problems with inside temperature or watering systems to AWARE (604-966-7806, email: [grow@awarewhistler.org](mailto:grow@awarewhistler.org)) immediately. There are thermometers hung in the middle of each greenhouse and should read between 25 – 30 degree Celsius.
- Check plants (and greenhouse) for pests i.e. aphids, slugs, spider mites etc. report immediately to AWARE. Information on some common pest control will be emailed at a later date.

#### Online Resources

Learn more about Greenhouse Gardening or Square Foot Gardening, visit:

- Square foot gardening
  - Greenhouse gardens
  - Intense gardening
  - French gardening
- 
- [humeseeds.com](http://humeseeds.com)
  - [territorial-seeds.com](http://territorial-seeds.com)
  - [earthfuture.com](http://earthfuture.com)
  - [gardening.about.com](http://gardening.about.com)