



## “Growing in a Greenhouse”

Saturday April 16<sup>th</sup>, 2016

Presenter: Kim Allen

### A PRACTICAL APPROACH TO HOME GREENHOUSE MANAGEMENT

**Benefits:** you control temperature, humidity, soil aeration, soil moisture and drainage, fertility levels, and light.

**Temperature:** can be regulated by fans, vents, heaters/heat sources. The best tool for regulating temperature is a THERMOMETER. There are many choices but essentially you must keep track of the temperature. A minimum/maximum thermometer is invaluable as it allows you to monitor overnight temperatures early and late in the season and temperature highs at all times.

- Passive solar:
  - Solid brick wall on the north makes a good solar collector. Brick absorbs 30 to 35% of the solar radiation.
  - Water storage using plastic milk jugs makes a great storage system. Water jugs absorb 90% of the solar radiation, holding three times more heat than brick or rock.
  - Water storage for use and heat – barrel, cistern, etc.
  - Hay/straw bales – good insulators, but not great heat storage
  - Chickens! Yes, chickens can heat up a greenhouse.
- Heat sources: heaters, wood stove, hot water/steam

**Air Circulation & Humidity:** also regulated by vents and fans

- Active or passive vent systems
- Screens
- Or just leave the door(s) open.....

**Light:**

- Sighting for sun/shade exposure
- Supplemental light – fluorescent
- Supplemental shade – shade cloth, lattice, etc.

**Basic Equipment:**

- Growing surface(s) – slatted bench, old tables, grow stands, pallets, etc.
- Water system – built-in or manual (hose and barrel, etc.)

- Watering can or wand with fine holes, misting head for seeding/seedlings
- Trays and covers, pots, larger containers – recycled or new
- Bins or containers for soil and other components
- Potting station & hand tools (mixing, filling trays, etc.)
- Thermometer
- Optional: moisture metre, pH metre or test kit
- Stakes, ties and/or cages; 5 gallon buckets – for larger plants in greenhouse

### **Soils & Fertility:**

- Pre-mixed: more expensive, but usually balanced for starting plants; look at formulations for extended growing
- You-mix: good quality starter mix or peat moss, compost, garden soil, lime
- Fertility – feed your plants! Good quality all purpose or specialty fertilizer mix (organic or not), compost tea. WATCH OUT - don't feed too much!

### **Pests & Disease:**

- Number 1 cause of disease is poor maintenance and cleanliness
  - Keep soil and debris cleaned up and in compost container or outside
  - Wash pots and containers between use
- Number 2 cause of disease is too much water/humidity
  - Ventilate and don't water too much
- Pests thrive in much the same conditions as disease – so keep it clean and dry. Be vigilant! If you spot pests address it immediately
  - Remove affected plant(s)
  - Insecticidal soap
  - Homemade remedies

### **Yearly maintenance:**

- should include washing of all pots and equipment, surfaces with a mild bleach solution (fall is best)
- let all surfaces, pots, equipment etc. dry completely before storage
- make structural repairs, tidy up floor or ground surface, remove any weeds inside or around structure
- if using water for passive solar heat, it's best to empty containers before hard freeze up – there's not much growing in midwinter in NB home greenhouses!