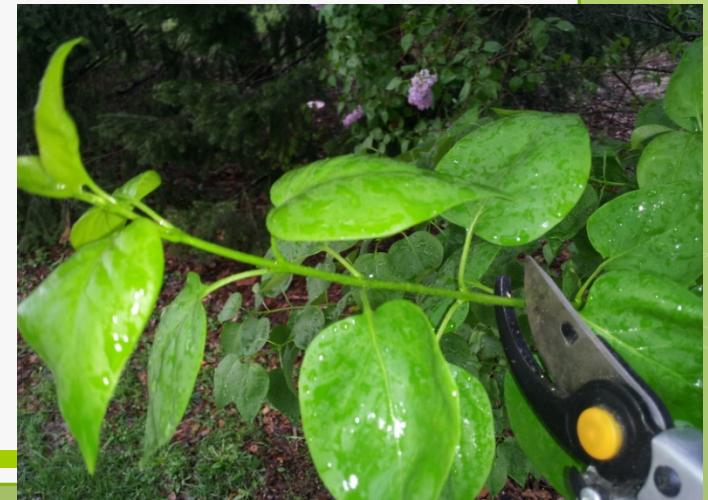


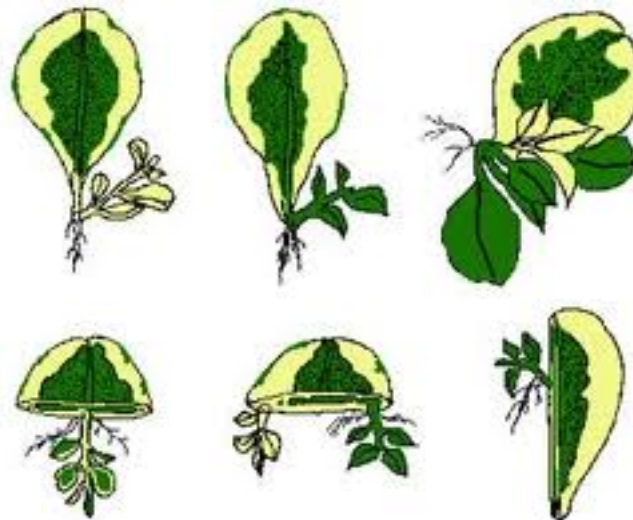
Go Forth and Propagate (Plants)

Kate Lee, DC Greens
www.dcgreens.org



Types of Propagation

- Sexual
 - seed
- Asexual
 - Cuttings
 - Division
 - Layering
 - Grafting



Seeding



- Advantages
 - Produce a large number of seedlings from one parent plant
 - Can store easily
- Disadvantages
 - May not provide uniform genetic material
 - Can't save seeds
 - Take longer to develop than using asexual reproduction

Asexual/Vegetative

- Advantages
 - Clones genetic material
 - Only way to reproduce some species
 - Larger, fuller plant quicker
- Disadvantages
 - Requires tools and possible structures
 - Time spent collecting materials

What Do You Need?

- “Mother’ plant (what you want to clone)
- Media with well draining capacity
- Proper Tools
- Rooting hormone (??)
- Warm Temperatures / Adequate Lighting
 - 70 to 80°F grow lights or indirect sunlight



secateurs



scissors



knife



grafting and budding knife

Common Types of Media Used

- Common Medias
 - Pro-Mix, peat moss, perlite, vermiculite, coco coir, and others
- Ideal Substrate: must have good air porosity and water retention
- Medias that hold too much water or dry out quickly are not suitable!



Adventitious Roots

- Preformed roots: develop naturally but lie dormant



- Wound-induced: cell division as a response of wounding

Rooting Hormone: What is it?

- Auxin: a plant hormone



- Chemical Names:
 - Natural Form: Indole-3-acetic acid (IAA)
 - Synthetic Forms:
 - Indole-3-butyric acid (IBA)
 - Naphthalene acetic acid (NAA)



How to Take Cuttings

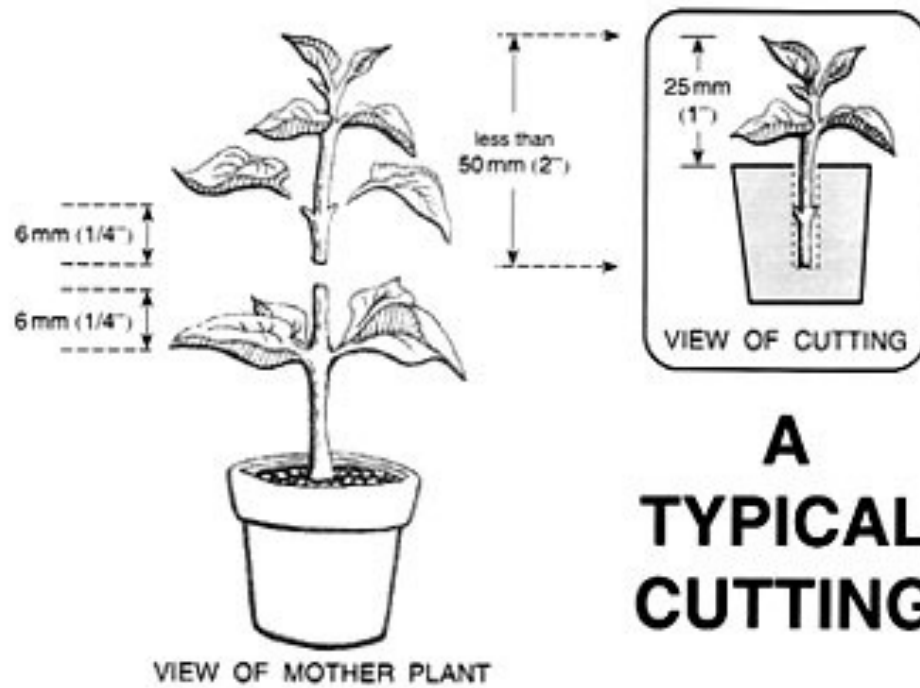


- Make Cut Above a Node
 - Will induce “bushing out” of mother plant
- Make Sure Cuttings have at least 2 (preferably 3) nodes, 3 to 6” long

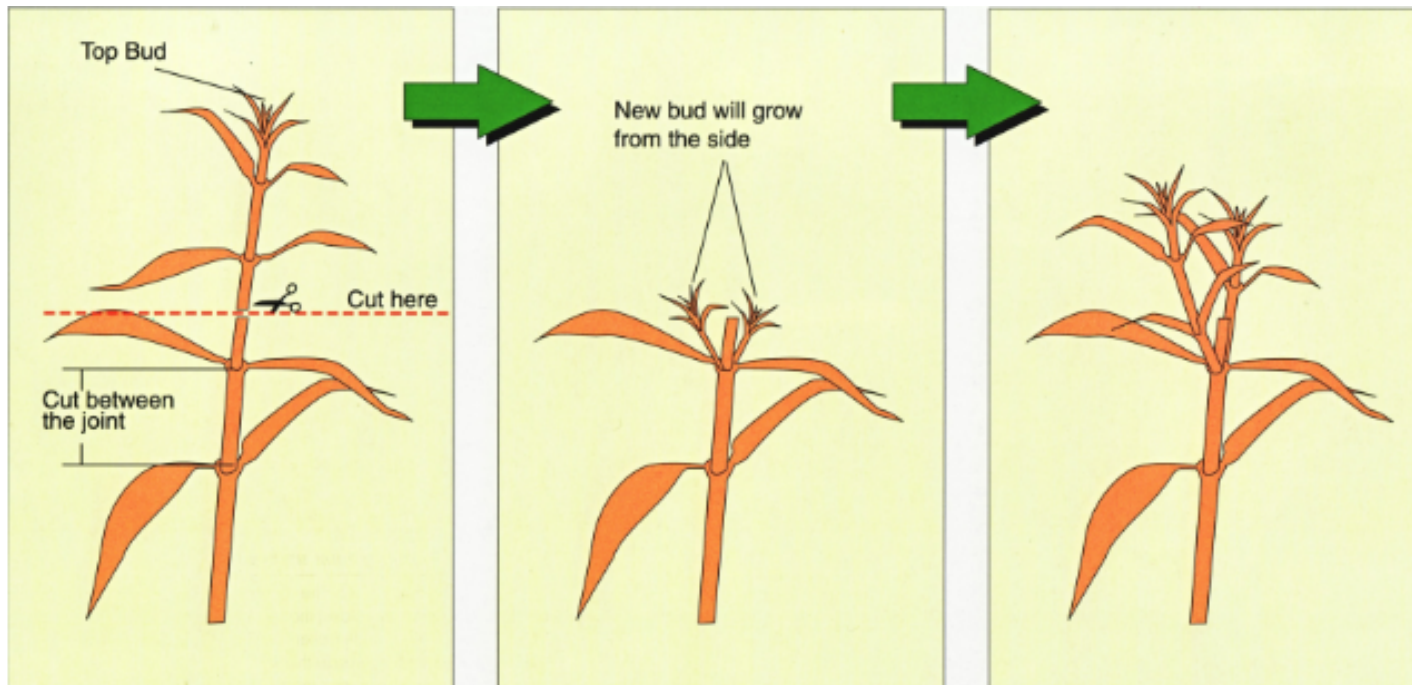




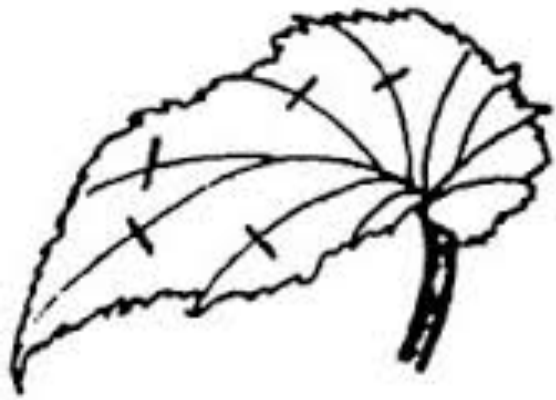




Apical Dominance



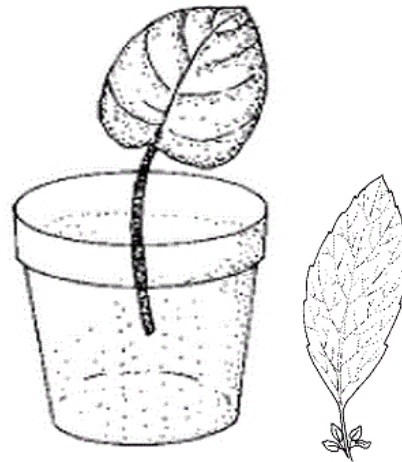
Leaf Cutting



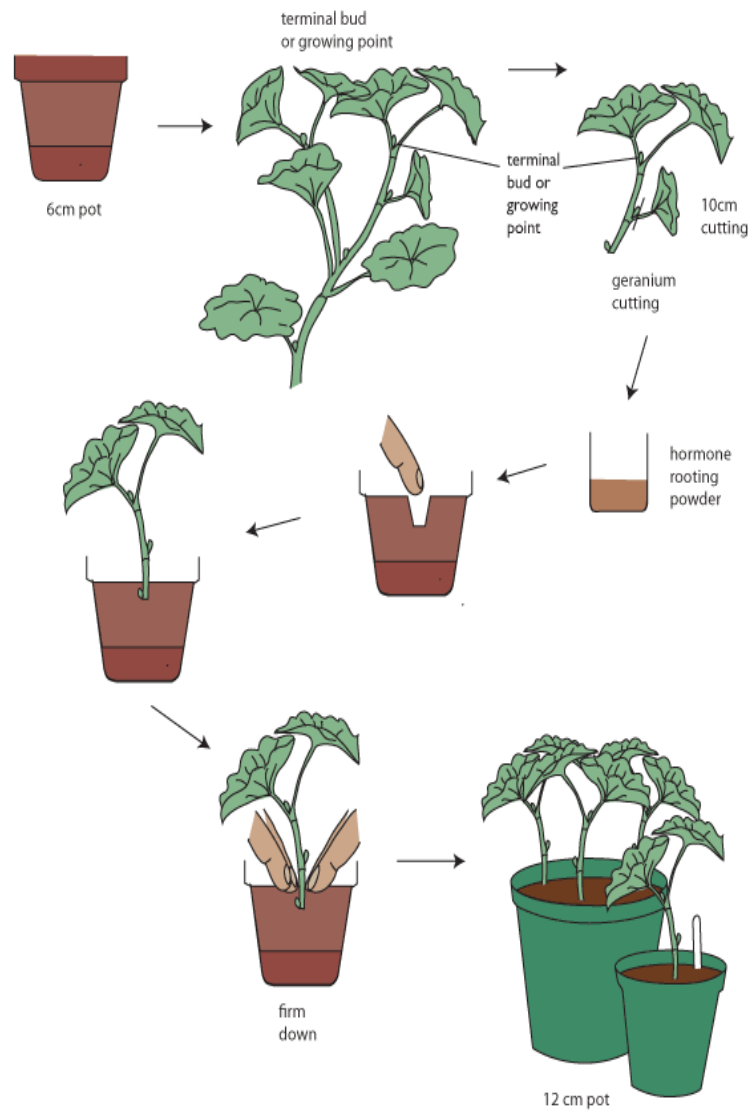
Leaf Vein Cuttings



Leaf w/out petiole



Leaf with petiole





Division

- Cutting or pulling apart of....
 - Bulbs
 - Corms
 - Rhizomes
 - Tubers
 - Runners
 - Stolens
 - Suckers

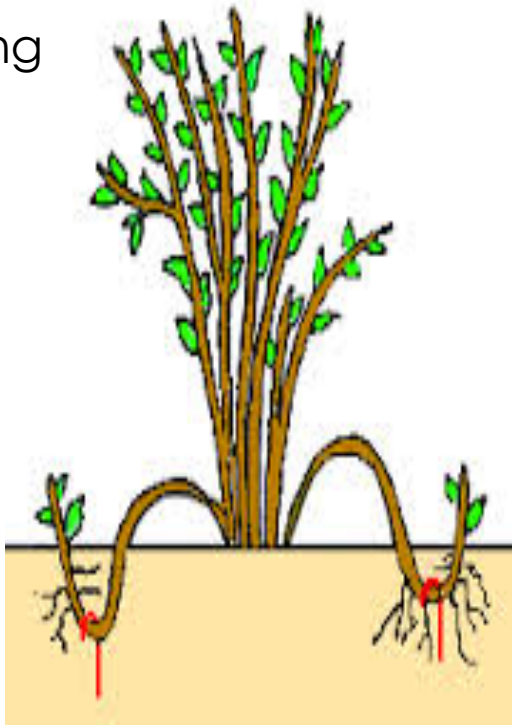


When to Propagate

- Depends largely on the plant
 - Softwood –spring
 - Taken from soft, new growth
 - Semi-Hardwood – summer
 - When new shoots are developing
 - Hardwood – fall/winter
 - Often with layering or grafting
 - Prepare them during the dormant season

Layering

Simple Layering

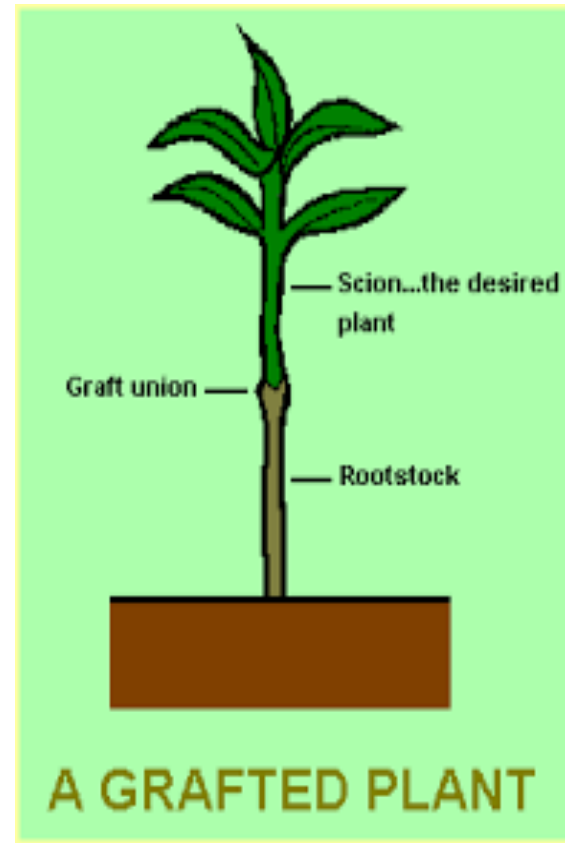


Air Layering



Grafting

- Scion
- Rootstock
- Graft union



Succulents





Plain 'ol water

