

# PLANT PROPAGATION

A close-up photograph of a person's hand holding a large quantity of small, light-brown, oval-shaped seeds. The hand is positioned on the right side of the frame, with the fingers slightly curled. Below the hand, a stream of these seeds is falling onto a dark, rich, and textured soil surface. The background is a blurred expanse of the same soil, creating a sense of depth. The overall lighting is soft and natural, highlighting the texture of the soil and the individual seeds.

Barb Kohlman

# What is it?

- **Plant propagation** is the process of creating new plants from a variety of sources: seeds, cuttings, bulbs and other plant parts.
- The deliberate, directed reproduction of plants using seeds or spores (sexual propagation), or using vegetative cells, tissues, or organs (asexual reproduction).

In gardening usage, propagation refers to the many ways of starting new plants. These methods range from planting seeds to the more complicated arts of budding and grafting. With the exception of seed sowing, all methods of starting new plants are known as vegetative propagation the new plants that result will be identical to the parent plant.

# Why propagate?

- Perpetuate a species
- Maintaining youthfulness of a plant
- Increasing your stock



# What is asexual propagation?

- Best way to maintain an individual plant
- Cloning!



# Involves?

- Regenerating a new plant from the vegetative part of a parent plant
- e.g. root/stem/leaf



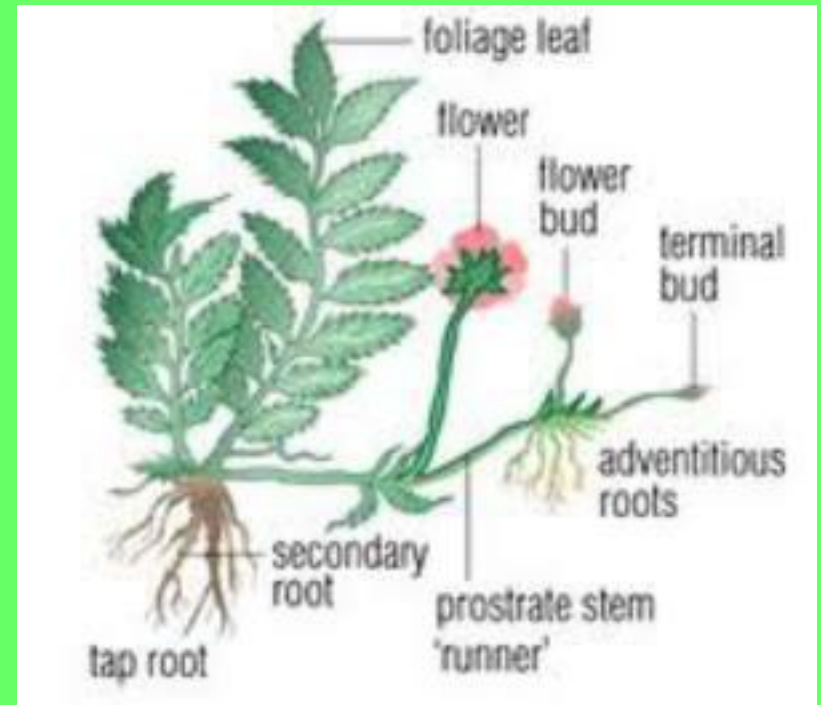
# Characteristics?

- Same as parent plant



# Advantages of asexual propagation

- Some species = easier/faster
- Only way to perpetuate some cultivars
- Bypasses juvenile characteristics of certain species





# CUTTINGS

- Rooting a severed piece of a parent



# Cuttings

- 4 types
- Softwood
- Semi-hardwood
- Hardwood
- Herbaceous



# Tips to tip cuttings

## What you will need

- Shears or pruners
- Single-edge razor or exacto knife
- Pencil or pen
- Powdered or liquid rooting hormone
- Potting medium
- Pots (clean)
- Latex gloves (optional)
- Pencil and label

# When?

- Late spring-early summer

To increase your stock



- Late summer  
To create plants to over-winter indoors or?



- Early spring
  - To grow new plants that will be ready for the garden when temperatures rise.



# Soil-less mixes

## Peat

Organic matter

Acidic

Different grades

Retains water

Hard to wet



Coir -  
Alternative  
Coconut husk  
renewable





# Perlite

Volcanic lava

Heated and  
expanded

White/light/fast  
draining

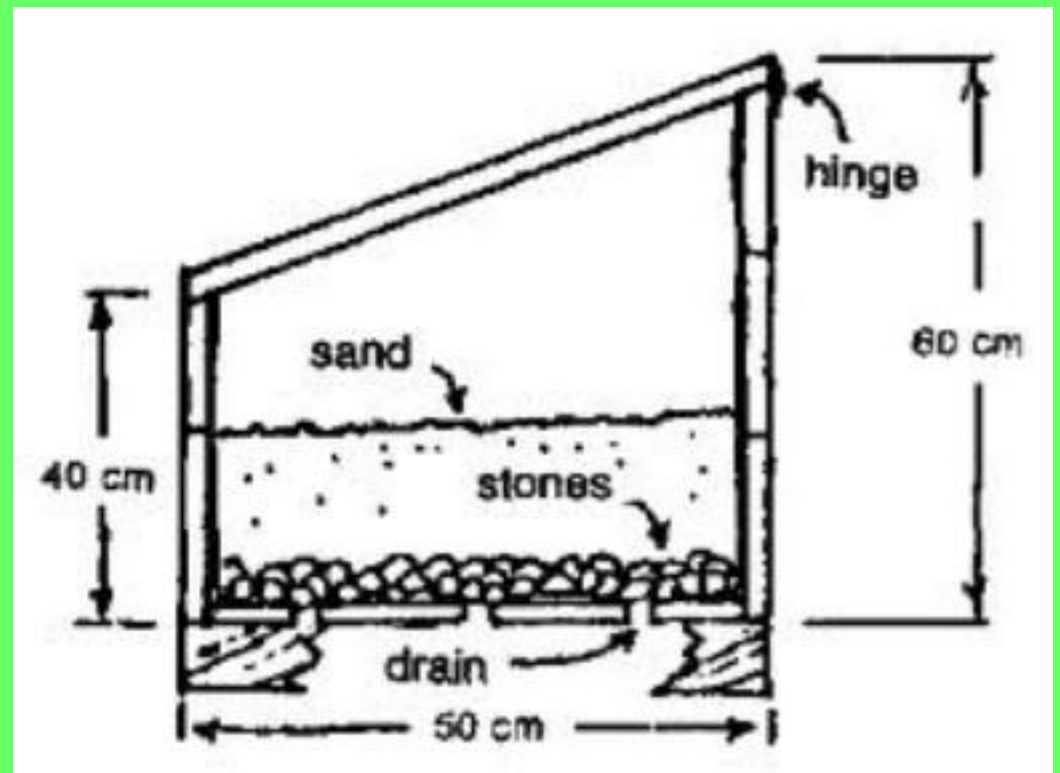


Sand

Cheap

Heavy

Fast-draining



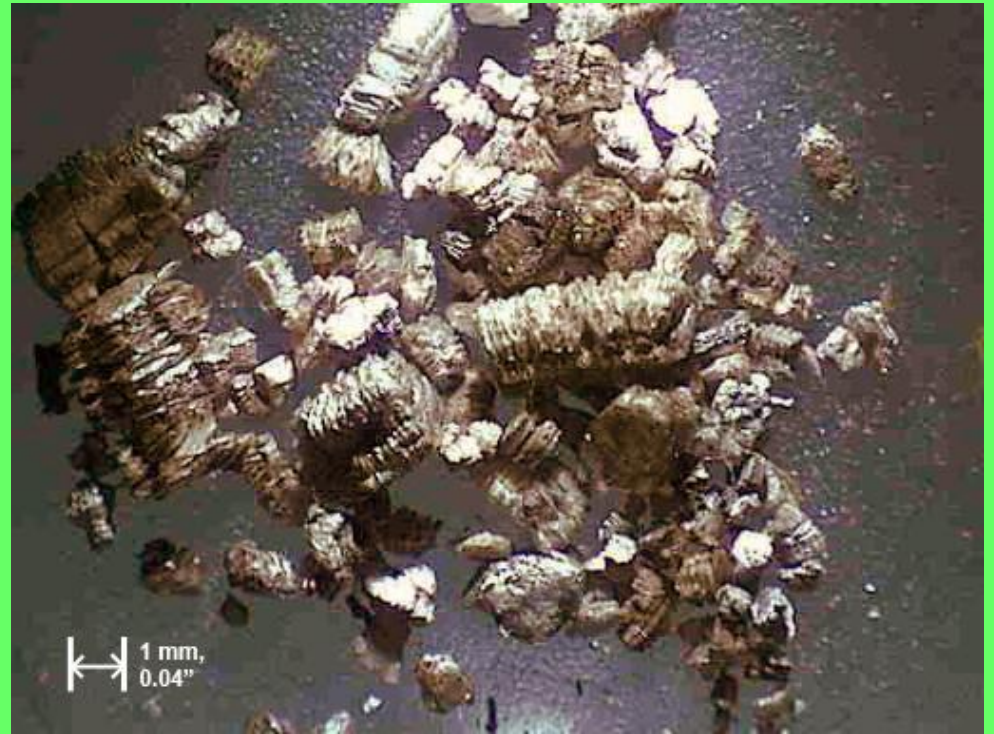
# Vermiculite

Expanded mica

Light

Retains water

Improves aeration





Lime

Counterbalances  
acidity (of peat)

# Sunshine mix



Sunshine Mix #4 is formulated with Canadian sphagnum peat moss, coarse grade perlite, gypsum, dolomitic lime, and a long-lasting wetting agent.

# Advantages

- Aeration
- Drainage
- Moisture retention
- Weight
- Pest & disease resistant
- Very easy to use



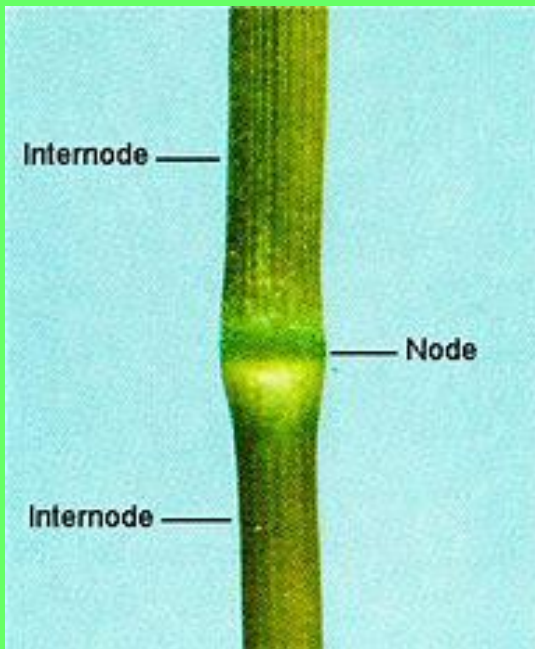
# Ready your pots

- Soil-less potting mix
  - Moist but not soaked
  - Fill your pots
  - Tamp down the mix  
lightly



# Make the cuts

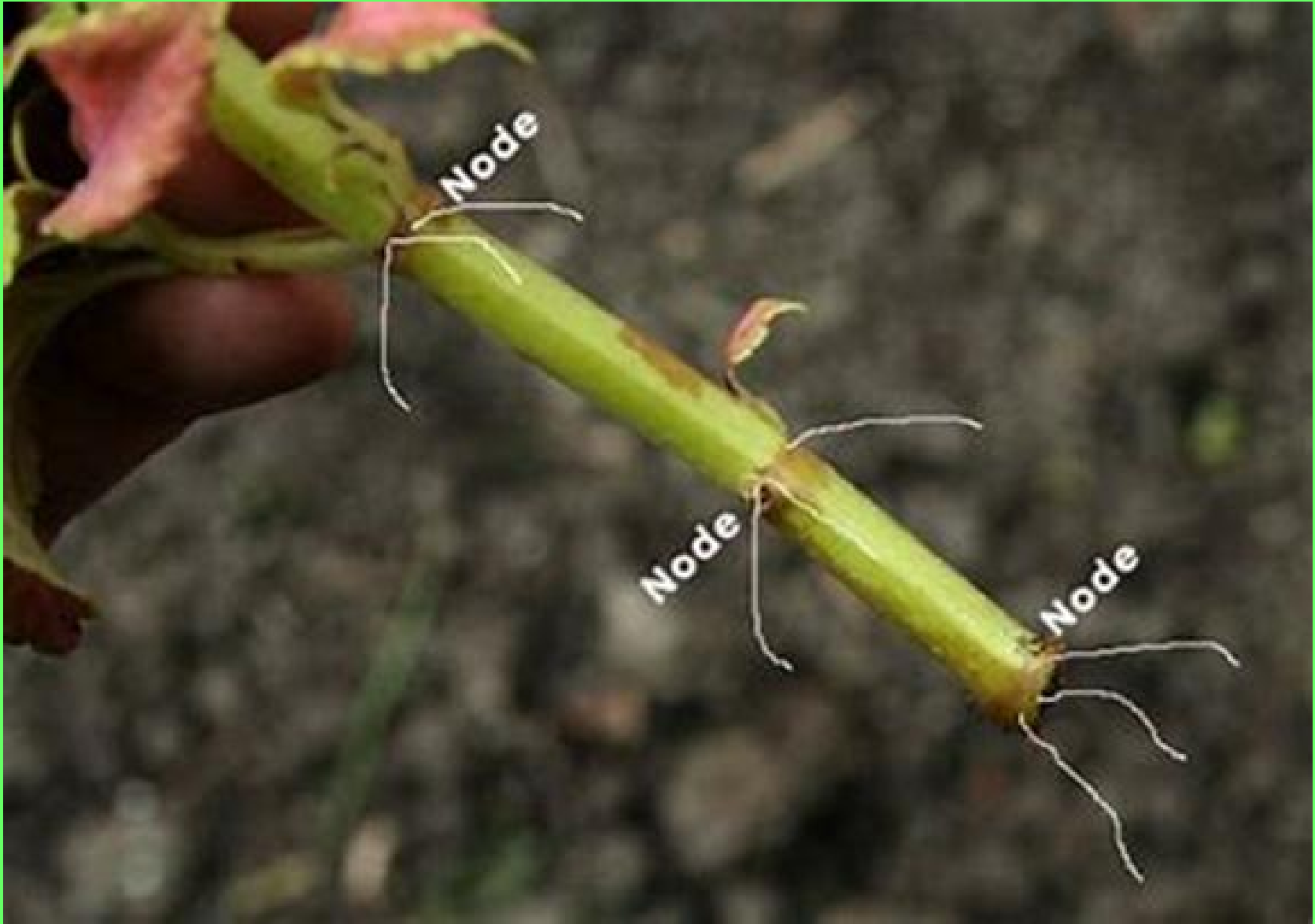
- Best to take tip cuttings in the morning
- Cut off a section of the plant chosen with pruners
- Make sure each piece has at least 3 nodes



1.







# Prepare the cuttings

- Prune of all but top leaves (can be cut in half if large)
- Cut off stem just below bottom node
- Dip bottom of stem into a rooting hormone
- Tap off excess hormone





- Rooting hormones



# Pot them up

- Using a pencil, make a hole, 1" deep, centre of pot
- Stick the cutting in the hole
- Firm the soil around the cutting
- Water from the bottom





[www.GrowingTheHomeGarden.com](http://www.GrowingTheHomeGarden.com)

# Provide optimum growing conditions

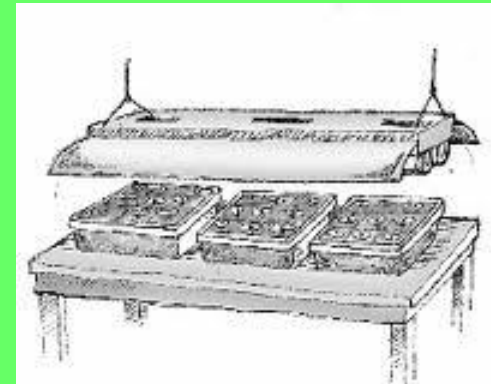
- Cuttings like a moist, enclosed environment safe from extremes of temperature, strong light, winds and pounding rain



- Feet-heating



- Be careful to avoid encouraging root rot



# Check for pests and diseases

- Check cuttings every few days
  - Moisture
  - Pests
  - Unhealthy foliage
  - Fungal problems





# Test for roots

- Rooting 7 days/ to few weeks?
- To test - tug up gently
- Sturdy resistance means it has roots



# Plant them on or out - when?



- Start with 4" pot  
-easier to control the amount of water provided.
- Move to a gallon pot when good roots have formed.
- Plant out into the garden when the root mass has increased and is developing well - and when weather is suitable.



thanks