

Sexual (non-vegetative) Seed is produced, germination occurs; produces progeny with genetic material from both parents – outcome will vary, each successive generation may be different

Asexual (vegetative) Plant material is exactly the same as parent from which it was taken – new plant will look/be the same – a clone

Cuttings

Separation

Division

-watch for “propagation prohibited” (PP) or “propagation patent applied for” (PPAF) and others

Seed – sowing seeds

Plugs – sow to individual “cells”

Mass or broadcast – spread seed onto soil; “prick out” or transplant when true leaves appear

Scarification – seed coat is scratched, cracked, soaked, removed, etc. to allow water in

Stratification – temperature requirement for seed to break dormancy; usually “winter”

Soil texture – must allow good, moist contact

Temperature – bottom heat is favorable for most seed; room temperature appropriate

Lighting – full sun or bright light for many; cover with vermiculite or fine soil if necessary

Watering – mist several times daily or cover/enclose in plastic

Cuttings – herbaceous or woody plant material

Rooting hormone – applies same hormones found in “nodes” responsible for rooting

-Liquid concentrate – variable solutions with one liquid

-Powder – each powder has specific concentration

Node – cells here are non-differentiated (no specific “job” yet); joint where leaves attach

Tip cutting – terminal growing point to include nodes

“T” or Heel cutting – includes the adjoining stem

Cut leaf blade – cut large leaves in half to reduce moisture evaporation

Timing of cuttings – rooting may be more successful during certain months; after flowering

Temperature – room temperature appropriate; 70-90°F; warm is good

Lighting – 40-60% shade

Moisture – routine mist to hydrate leaves during root development and/or cover as with seeds

Separation – natural separation of rooted pieces

Day lily – tuber

Iris – rhizome

Narcissus – bulb

Division – manually pull/break/tear/cut apart at root base

Hosta (most perennials), grasses, and many others

Leaf or **Stem** or **Root** cuttings – does not work with all plants!

How to take herbaceous cuttings:

- Start with a healthy, viable plant
- Ask permission from neighbor or private space!
- "Tip" cutting ~ 3-4" long to include several nodes
 - you will need 1 or 2 nodes in the soil
- Moist soil in small pots or 6pks
- Create hole for cutting piece (chopstick)
- Fresh cut just below the node
- Reduce number of leaves, only 3 or 4
- Cut large leaves in half
- Dip cut end into rooting hormone, shake/tap off excess
- Stick into hole in pot, firm soil around cutting piece
- Repeat with other cutting pieces



After cuttings are stuck:

- Cuttings will need high humidity and frequent misting
- Mist remaining leaves with water
- Place pots with cutting pieces into clear/opaque plastic bags and close, or place tray into large plastic bag
- Put pots into shady spot (no full-sun even if this is a full-sun plant)
- Check often for condensation in bag – before it looks dry in there, open up and mist again!
- After 3-4 weeks, gently tug on cutting piece
 - If it pulls free of the soil –it's not ready, put back in bag
 - If it holds in the soil – it's ready for the next step
- Place "ready" pots back in shady spot –without bag—and water regularly
- After another 2 weeks there should be enough root growth to transplant into small pot to grow out