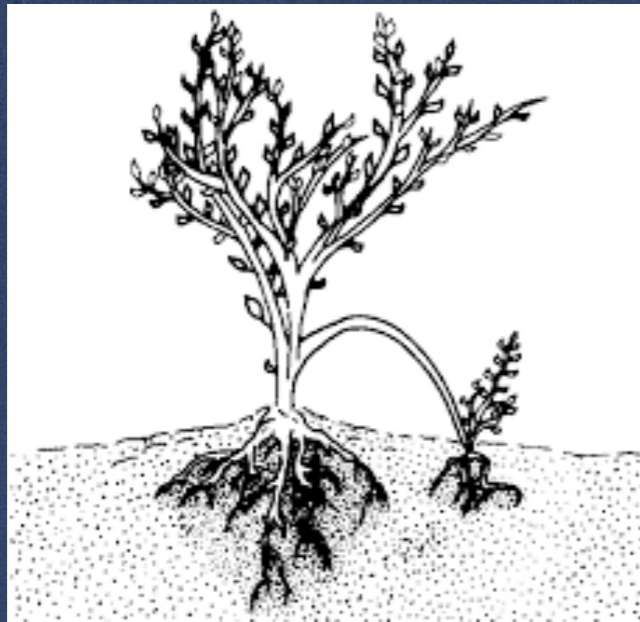


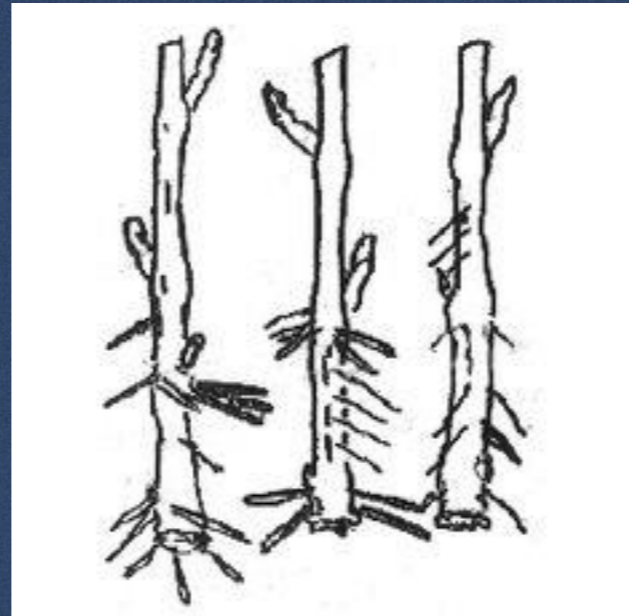
PLANT

PROPOGATION

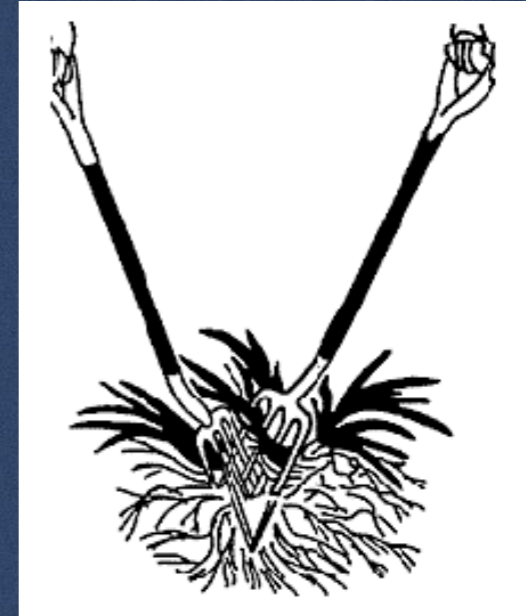
Making More Plants



Layering



Cuttings



Division

WASHINGTON STATE UNIVERSITY



LEWIS COUNTY EXTENSION

Master Gardener Program

*WSU Extension programs are available to all without discrimination.
Evidence of non-compliance may be reported through your local WSU Extension office.*

Plant Patents

***Definition:** A **plant patent** is a patent issued for newly invented strains of asexually reproducing plants. Patented plants cannot be propagated to sell.*

Tuber propagated plants or wild uncultivated plants may not be patented.

*Not all countries allow **plant patents**.*



(From White Flower Farm)

NEW! Echinacea Mama Mia

A lively combination of vibrant red-orange, coral, and pink petals surrounding a bronzy orange cone. The 3-4" fragrant flower heads last up to two weeks and make excellent cut flowers.

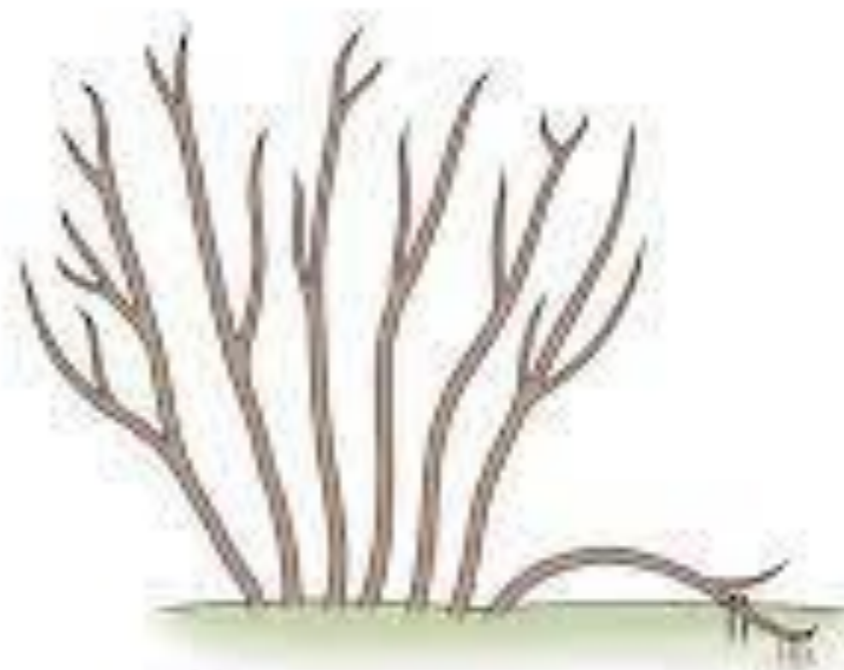
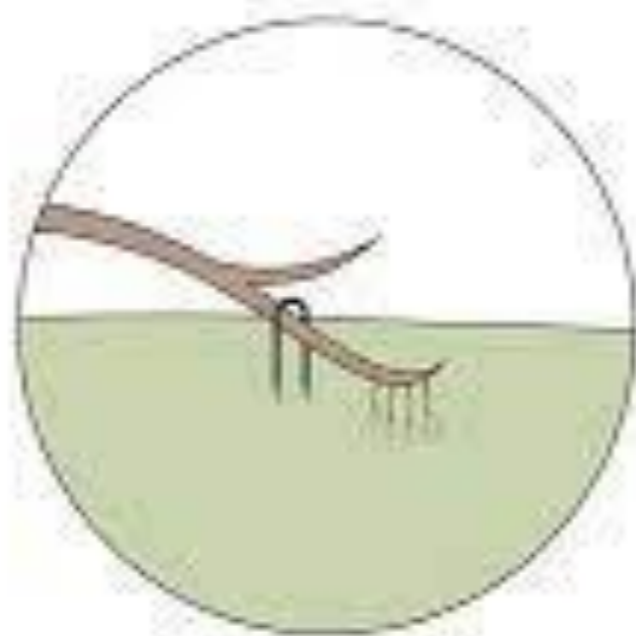
Rated among the top ten perennials in trials at the Massachusetts Horticultural Society. PP 23,172

*Also look for:
PPAF (Plant Patent Applied For)
Patent Pending*

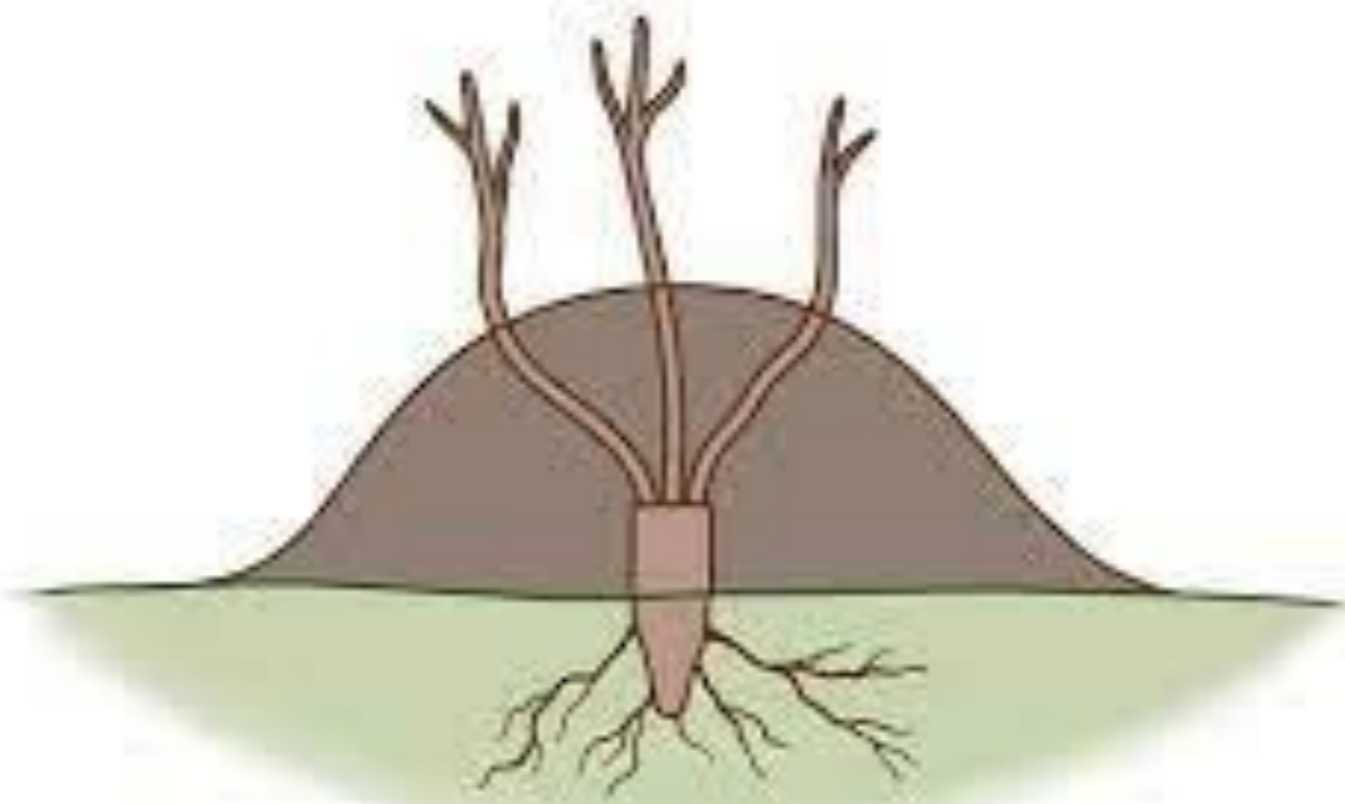
Layering

Stems are still attached to the plant and root where they touch a rooting medium

When roots form, cut from the parent plant.



Tip Layering



Mound Layering

Growing Plants from Cuttings

Many parts of a plant can be used



Indoor Gardening Guide

Root cuttings
Leaf cuttings
Stem cuttings

Root cuttings



A section of root is buried just below the soil surface and produces new shoots



Fine Gardening

Take root cuttings between November and February, when plant is dormant, and when it has the maximum amount of energy stored in its roots.



Fine Gardening

Take pencil-thick cuttings.

Cut into sections 3-6" long.

Make a straight cut on the end closest to the plant and a diagonal cut on the other end.



pinterest



The Gardener

For perennials:

Place horizontally 1/2" deep in a flat of moist potting soil.

Cover with clear plastic and place under lights.



For trees and shrubs:

Tie cuttings in bundles, straight-cut side up.

Bury several inches deep outside.

Leave at least 4 weeks but as long as all winter.





*Mock orange
(Philadelphus)*

Red-twig dogwood





Epimedium

Acanthus



Leaf cuttings



Pieces of leaf are placed on moist soil to develop new stems and new roots

Typically used for:
Tropical and subtropical plants (i.e., houseplants)
Succulents
Some broad-leaved evergreens





African violet



Sedums

Stem Cuttings

A piece of stem is partly buried in soil, including at least one leaf node.



Growing plants from stem cuttings

Softwood cuttings are made from fresh, new growth, usually taken in spring and early summer.

Semi-ripe cuttings have stopped growing longer are tougher and more mature; they are normally taken in late summer to mid-autumn.

Hardwood cuttings are taken from woody stems that have gone dormant in late fall or winter.



Mint



Penstemon



Salvia





*Transplant to individual pots;
water and fertilize as needed*





Rosemary





*Tomato plants
from cuttings*



Hardwood cuttings^s

Hardwood cuttings are taken from woody plants once the stems have fully ripened at the end of the growing season.

- *Evergreen shrubs*
- *Deciduous shrubs*
 - *Roses*
 - *Clematis*
- *Other climbers*
 - *Trees*
- *Fruit trees and bushes*
 - *Grapes*





mikesbackyardnursery.com



Propagating Plants by Division



The primary purpose of division is to rejuvenate the plant so it can again perform at its best.

What can be divided?

Plants that form large clumps with multiple growing points.

Each division needs a growth point and a few roots

--then it should be able to survive as an individual plant.



When to divide? Plants will give you clues



Fewer and smaller flowers
Growth in plant's center dies out
Plant loses vigor
Plant starts to flop or open up
Maybe it's just outgrown its bounds

Rosettes

*Plants that form rosettes of leaves are the easiest to divide.
They break up neatly and all have leaves and roots.
They can usually be divided at any time of year.*



anniesannuals.com

Saxifrages



whiteflowerfarm.com

Ajuga

Plants with Rhizomes or Stolons



Chocolate mint



Physalis
(Chinese lanterns)

Clump-forming Herbaceous Perennials



Wikipedia

Hosta



finegardening.com

Nepeta

Bulbs, corms, and tubers



General Tips

Divide before the plant starts looking bad

Start digging at the drip line

Divide in cool weather

Keep roots cool and moist

Add some compost to the soil

Divisions should be no more than 25% of the original clump

If plant is in bloom, give it extra water and shade

Keep only the healthiest pieces

Plants in Shade

Alchemilla

Astilbe

Bergenia

Brunnera

Epimedium

Ferns

Gunnera

Heuchera

Hosta

Ligularia

Pulmonaria

Polygonatum
(Solomon's Seal)

Rodgersia

Saxifrage



Bergenia

*Divide after bloom; or
take cuttings of rhizome
sections*





Pulmonaria

jury.co.nz

Divide in spring



Corydalis lutea

Don't divide it--just pot up the many volunteers



Hellebores



*Division is challenging and
best done in early fall,
if at all.*



*There are usually
plenty of seedlings*

macgardens.org



walterreeves.com

Hosta

In spring, the best time to divide is when eyes are popping up but not yet unfurling



*Hosta plants improve with age.
If you just want some starts to share, try removing some
outermost shoots*

Plants in Sun

Achillea
Aster
Astrantia
Baptisia
Bellis
Campanula
Cerastium
Crocasmia

Delphinium
Digitalis
Eupatorium
Gaillardia
Geranium
Geum
Helenium
Hemerocallis

Humulus (hops)
Lupine
Mint
Monarda
Mondo grass
Oregano
Peony

Phlox (hardy)
Phygelius
Salvia
Scabiosa
Sedum
Sempervivum
Stachys

Verbascum
Veronica
Yucca

Crocosmia



*1. Select plant to divide,
normally a congested clump in need of rejuvenating.*

2. Decide where best to divide.



*3. If in a pot use hands to break fair sized clumps.
If in ground use fork to dig up small sections.*

*4. Keep dividing clump until happy with
the clumps produced.*



5. Tidy, removing any damaged corms or pests.



*6. Repot the clumps in correct sized pots, or replant in ground using
compost.*



Asters



*Daylilies can be divided
almost anytime*



Bearded iris are best divided in late summer



gardenbite.com



adeneearthworks.tumblr.com

Fall is the best time to divide peonies



viette.com

*Wash the soil from the roots,;cut the stalks off within 1 inch of the tip buds.
Separate the clump into several divisions containing 3 to 5 buds each.The growth buds are the dark red "eyes" at the top of the roots*

Transplant, with buds no more than 1 to 2 inches below the soil surface.

Planting too deeply can result in plants with abnormal growth, reduced vigor and little or no flowering.

Tips for food crops

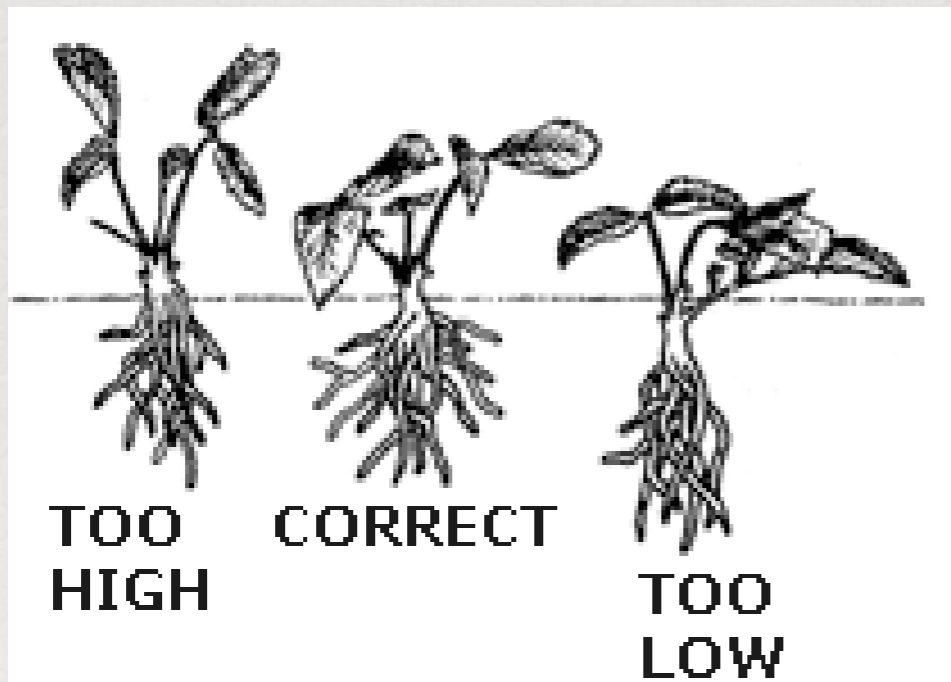
Rhubarb: Divide about every 5 years.

*Plant divisions with crown
about 1-1/2 inches below ground.*

Divide in fall or early spring.



Strawberries



Thank You!

For more information or Questions, Please contact us at:

WSU Master Gardeners
WSU Lewis county extension office
351 NW North Street
Chehalis WA 98532



Cooperating agencies: Washington State University, U.S. Department of Agriculture, and Lewis County. WSU Extension programs and employment are available to all without discrimination. Evidence of noncompliance may be reported to your local WSU Extension office.