



## SPRING & SUMMER GARDENING BASICS FOR LOS ANGELES COUNTY

### 1. INTRODUCTION

- Planting lists, by month, have been prepared. These are the ideal times and methods for planting in Los Angeles County for both edibles and ornamentals.
- March is the month that most gardeners finally get out into the garden when spring warmth tempts us outside, and the chance of frost is less and less. By April, most gardeners have been out for several weeks; but anytime in April is a great time to start incorporating soil amendments, sowing seeds, and putting in transplants.
- May is the ideal month to plant the heat-lovers--the vegetables and flowers that seem to thrive and bloom more lustily when the weather's hot and sunny. In May and June, plants are settled in and growing fast due to the hot air temperatures and warm soil.
- By July and August, summer's heat is upon us and we are busy watering and harvesting crops. While last sowings of summer-maturing crops can be done at this time; the end of July and August it is time to start the seeds of cool-season crops.
- This lecture is designed to give you basic gardening principles in order for you to have a healthy garden.

### 2. SOIL

#### A. Types of Soil

- You can determine the texture of your soil by the following test: fill a jar 1/3 with your soil, one tablespoon of Aluminum potassium sulfate (alum) available in most spice sections of supermarket or Calgon bath beads, and 2/3 full of water. Shake and let it stand until the soil separates into layers, about 1/2 hour. The sand will be the bottom layer, the silt the next layer, followed by the clay, with the organic matter floating on top of the water. Good loam contains about 45% sand, 35% silt, and 20% clay.
- Understanding your soil will help you know how to properly amend, fertilize, water and plant so that you will have healthy, disease and pest resistant plants.
- Soil is composed of 4 parts: the mineral part, derived from the erosion of rocks to form sand, silt and clay; air; water; and the organic-matter portion, derived from decaying plants and both living and dead microorganisms. The mineral part determines what is commonly known as soil type or texture.
- It is important to know that the balance of the 4 soil parts is very critical to plant growth. For example, overwatering will increase the water part, thereby decreasing the air thus causing roots to drown. Likewise, as the air increases, the soil dries and the plant wilts.
- The ideal soil is loam which is a mixture containing equals amounts of clay, silt, sand and organic matter.
- Clay soils have great mineral-holding capacity and poor drainage, while sandy soils have excellent drainage but poor mineral-holding capacity.
- Soil structure can be improved by the addition of organic matter or compost. It is very important to note that no matter what type of soil you may have—clay or sand or any other type—compost will improve it.
- Water will roll off of clay, so the addition of organic matter loosens up the soil and adds air pores so plants don't drown. Water drains through sandy soil so fast, so it needs the water-holding capacity of the compost. Also the compost fertilizes the sandy soil. Never add sand to clay soils; it will only make it heavy and cement-like.

#### B. Preparation of Soil

- First, choose your garden site, taking into consideration the available sun and the sun requirements of your plants. An average of six hours of direct sun daily is the minimum amount necessary for leaf and rooting crops, such as lettuce and carrots, and more is necessary for blossoming and fruiting crops like tomatoes and squash.

- Possibly, you had planted cover crops, which are also known as green manure crops, for the winter. Cover crops are great to plant when your garden is not producing food or flowers. Planting legumes is very beneficial in that they add nitrogen to your soil as they grow. Besides this, cover crops stop erosion, keep down weeds, and act as compost when you dig them into the soil in the spring before planting.
- After clipping and digging in green manure crops, wait about two weeks before transplanting vegetable and flower seeds or seedlings. This will allow the greenery to decay sufficiently to provide nutrients to the new plantings. The heat produced from the decomposing green manure will burn seeds trying to sprout or transplants trying to get settled in.
- To build up your soil: turn over to loosen soil (but don't overwork it), dig in any winter mulch, add compost to amend, water to settle, and then let sit a couple of weeks before planting. Letting the soil sit before planting allows the amendments to fully break down and enrich soil and also is less likely not to burn roots.
- To loosen clay soil and provide slow-released nutrition, add up to 50% organic matter-leafy material, straw, grass clippings, and non-greasy kitchen vegetable scraps. Sand will not do the job--remember that contractors mix sand and clay and water to make cement. Continue applying organic matter as mulch throughout the year. Turn it all under in the fall for a rich and friable soil in the spring.
- Raised beds with lots of organic matter dug in provide "growing-only, no-walking" areas that encourage extensive healthy root growth and allow more thorough drainage.

### C. Mulching

- Maintain a good mulch or organic matter covering garden soil throughout the summer. This prevents crusting and cracking of the soil surface, holds in moisture, encourages earthworms, moderates soil temperatures for optimum root growth, improves the soil as it decomposes, and prevents weeds from germinating.
- A two-to-four inch layer of mulch decreases evaporation from the soil by 70 percent or more, allowing you to water less often. Keep mulch several inches away from tree trunks and plant stems, however, for good air circulation. Remember to water well before applying the mulch, or you will insulate dry soil rather than moist soil. Let grass clippings dry out a bit before piling them (or just spread them thinly), or they will clump into a mat that stinks and is impervious to later watering.

### D. Fertilizers

- Define organic and inorganic fertilizers and soil amendments. A fertilizer improves plant growth directly by providing one or more necessary plant nutrients; A soil amendment is a material that improves the chemical and/or physical condition of the soil. Organic amendments and fertilizers are directly derived from plant and animal sources. Inorganic amendments and fertilizers are not directly derived from plant and animal sources; however, many materials come from naturally occurring deposits.
- As discussed earlier, when you worked compost into your soil, you were amending with an organic amendment and fertilizer.
- Soil needs to be fertilized from nutrients being used up by plants and washed away by rain and irrigation. Crops and annual flowers need fertilizer due to their short, fast growing season. It is best to use a standard complete and slow-release fertilizer. Plants need other nutrients along with the macro nutrients Nitrogen, Phosphorus and Potassium (N-P-K). You do not need to spend a lot on fertilizer. For example, do not buy fertilizers made especially for roses or citrus, rather look at the N-P-K. Compost is great and it is the cheapest; you can make it yourself, it is slow-release, and it contains micro nutrients and it is organic.
- In early spring, feed the whole garden with a balanced fertilizer. Most plants are beginning to grow actively, whether they are established or have just been transplanted; and they all need this ready supply of food. Well-nourished plants not only develop into stronger plants and produce flowers, fruits and vegetables longer; they are better-protected against insects and diseases and better withstand heat and water stress.
- Feed vegetables with manure tea or fish emulsion when they are transplanted and every six weeks throughout the season for gradual and gentle feeding. Make manure tea by placing a container in the sun and filling it with one part manure and two parts water. Stir the mixture once a week. Within a month, a rich fertilizer tea will be ready to feed plants. An excellent "garden tea" fertilizer solution for general garden use is a mixture of 1 tablespoon fish emulsion and ½ teaspoon of seaweed or kelp. Spray this onto leaves and irrigate root zones every two weeks throughout the season.
- Foliar applications always benefit plants with more absorption of micronutrients, but they must be repeated more frequently for continuing benefit. Also they help plants withstand heat stress. Make your own complete, slow-release, and fairly well-balanced granulated fertilizer from natural ingredients: 4 parts seed meal or fish meal, 1 part agricultural or dolomite lime; 1 part rock phosphate or ½ part bone meal, and ½ part kelp meal.
- During our extra-hot summer weather, be sure to water the plants well and don't fertilize or the fertilizer will "burn" the roots and foliage.

- When removing spent pea vines, cut them off at the soil level rather than pulling them out. The roots have nodules that contain excess nitrogen from their fixation process, and this nitrogen is released into the soil as the roots decompose, available for the next crop's roots.
- Southern California soils tend to be deficient in nitrogen, which promotes leafy growth
- While some manure is good for your garden, a lot is not necessarily better, especially if it is chicken manure and the weather is hot. Excessive levels of salt and ammonia may result in burning seedlings and reduce yields, if not killing the plants--and the salt remaining in the soil may limit your choices for future crops.

#### **E. Composting**

- Compost is a natural fertilizer. It is made up of dead plant and animal material that has been piled up and allowed to decay to the point where it can be easily worked into your garden soil.
- One of the many benefits of adding compost to your soil is that the nutrients in it are slowly released into the soil and then are available for use by the plants. Compost is a slow-release fertilizer. Also, compost can be added to your soil to improve its structure for better drainage in clay soils and better water retention in sandy soils. It is also a great way to recycle yard and other wastes.
- Materials to compost are of two types: green and brown. Green, hot, soft, wet, smelly materials, such as grass clippings, spent plants and flowers, green pruning, fresh kitchen scraps and animal manures, supply nitrogen to the pile. Brown, cold, tough, oily or waxy, dry materials, such as straw, wood shavings, dead fallen leaves and woody prunings, supply Carbon to the pile. The Nitrogen and Carbon must be in balance, along with proper air and moisture in the pile, to make "active" compost pile.
- For a hot pile that breaks down quickly, here are the guidelines. Minimum size of pile should be 3'X3'X3'. Alternate equal amounts of green and brown material and several shovels full of soil. Brown and large materials should be no more than 1½ inch in size. Turn the pile regularly. Keep the pile moist. Don't add anything to the pile once it is started. Compost is ready when it is dark brown in color and you can no longer recognize what you put into the pile.
- Materials to be avoided in the compost pile are poisonous plants, manure from carnivores (especially dogs and cats), meat scraps, diseased plants and tough weeds such as Bermuda grass.
- Keep the compost pile moist and turned. It works fast in hot weather. If it is in the direct sun, keep its moisture from evaporating too quickly by covering the pile lightly with a tarp.

#### **F. Irrigation**

- Use the shovel test to know when to water: soil should be moist to the base of the shovel when inserted into the soil.
- Deep watering is important. Water is not getting deep enough if you sprinkle your garden every day. It is best to water to the point of run-off, and water as frequently as needed to meet the shovel test. Also, with too much run-off, you are wasting water.
- Teach your plants to grow deeply for moisture. In spring, for average soils, water deeply only every 2-3 weeks. By the time that summer's heat arrives, plant feeder roots will be growing deeply for moisture, and the plants won't need watering more frequently than once a week during very hot spells.
- One inch of irrigated water will soak down to different depths, depending on how heavy your soil is: 12" deep in sandy soil, 9" deep in loamy soil, but only 3" deep in clay soil. Plant root zones generally reach from 2-12" down, but larger plants like tomatoes may reach 3' down. Clay soil, because it is so compact, can be watered a little each day for two to three days to allow absorption down that far, rather than a lot of runoff by watering once for a long time.
- The ideal time to water is in the morning before the sun is high. This avoids evaporation and also gives the plants time to dry off before sunset, which deters mildews.
- Refrain from overhead watering when the evenings remain warm, especially when leaves can't dry off by sunset. Fungal diseases thrive when temperatures remain between 70 and 80 degrees; and they need only 2-4 hours of moist, warm conditions to develop. Overwatering is the cause of most plants dying. As we discussed earlier, too much water will drown the roots.
- Avoid walking in your garden after watering so that you do not compact the soil. Use stepping stones and straw or mulch paths. Never step into raised beds. Occasionally you should overhead water in order to clean both sides of leaves.
- Mulch the soil to temper the drying and heating effects of the sun, and irrigation will be more effective with less frequency and quantity.
- Recycle plastic bottles into drip-irrigation containers. Cut off bottom, put small holes in cap and bottom, invert, bury and add water and fertilizer. Bury gallon-size and 5-gallon-size planting containers up to their rims for easy deep watering with a hose.

#### **G. Benefits of Good Soil**

- Good soil gives you healthy plants.
- Healthy plants are disease- and pest-resistant.

### 3. PLANTING

#### A. What to Plant Now

- Use the planting lists to determine the ideal times for planting in Los Angeles County.

#### B. Timing and Maturation

- It is best to wait until the end of April to sow or transplant vegetables and fruits that prefer very warm weather to mature--including beans, corn, cucumbers, eggplants, melons, peppers, pumpkins, and squash. They will do better when they have consistently warm soil and air temperatures. Planting them into the soil when air temperatures are still cool results in growth stress which is difficult for the plants to overcome. Tomatoes do okay, but the warm-season plants just "sulk."
- It is important to properly read the seed packet. Note: the date of the seeds, because you do not want to plant old seeds; disease resistance; germination and days to maturity; mature size of plant, for spacing; and cultural needs such as sun and water needs and time to plant.
- Take advantage of maturation time, and use succession planting so that all of one crop is not ready to harvest at once, unless you want to harvest everything at once for preserving. Plant every 2-3 weeks for continuous harvests.

#### C. Seeding and Transplanting

- The planting lists give the ideal sowing and transplanting information.
- For seeds, in general, it is best to start small seeds in smaller containers, and start large seeds in garden. It is easier to keep track of smaller seeds that way and also not wash them away.
- Water the beds or flats several times a day until the plants are up, and then at least once a day until the second set of true leaves develops.
- Poor germination of seeds may result from seeds that are too old, poorly stored, or planted too deeply; soil that is too cold, too hot, too wet or too dry; soil may have too much fresh manure which burns the seedlings; and soil that forms a crust either from heavy soils or muddy irrigation.
- Reduce damping-off of seedlings by providing good air circulation, cool temperatures, ample sunlight, and good drainage.
- Transplant seedlings after they have developed their second set of true leaves. Carefully thin seedlings in growing beds.
- Be gentle with all seedlings: handle the little plants by their root clumps or leaves rather than stems, and never squeeze them tightly. They will grow new leaves and roots, but can't develop new stems. Forks, spoons, pencils and ice cream
- When seedlings are transplanted, change to a less-frequent and deeper watering pattern to encourage roots to grow deeply into the soil for moisture.
- During summer, do your transplanting in the late afternoon or evening so plants have the whole night to begin to recover before they're hit with a full day of sun and heat. Transplant seedlings close enough so that the leaves of mature plants will shade the soil between the plants. Roots will stay cooler and the sun won't bake the soil.
- When buying transplants, choose plants that aren't root bound. Confined roots can't spread out fast enough to absorb enough moisture in summer's heat. Gently loosen the rootballs before planting so roots will quickly reach out into surrounding soil to establish them.

#### D. Placement and Rotation

- Plan your garden so that you make the most use of space, while keeping access to all of your plants for maintenance and harvest. Blocks work well. Corn should be planted in blocks of at least four rows in each direction for good pollination.
- Rotate families of crops to avoid disease. Some major crop families are: nightshade family (tomatoes, peppers, eggplants), mustard family (radishes, turnips, cabbage, broccoli and other cole crops), legume family (beans and peas), gourd family (squash), goosefoot family (purslane and Swiss chard), and parsley family (cilantro, fennel, anise parsnip, dill).
- When replanting areas where you have just grown vegetables, follow heavy-feeding leafy vegetables like spinach and cabbage with nitrogen-replenishing legumes such as peas, beans, and soybeans; or plant less-demanding root crops.
- Trellises provide support for greater fruit production per square foot of soil and for longer periods because more leaf area is exposed to sunlight for more photosynthesis and more air circulation that means less fruit rot and ground-insect attack.

### 4. WEED CONTROL

- Pull weeds before they form seedheads or scatter their seeds, and you will have fewer weed problems later.
- Weeding the day after watering will ease the chore and the whole root system will come out more readily.
- If you leave pulled weeds in garden pathways for dry mulch, be sure to leave them with their roots up so they don't reroot themselves. Don't leave weeds that have already developed their seedheads--some seeds may mature and germinate later.

## 5. PEST AND DISEASE CONTROL

- Pest and disease control goes back to everything we have discussed so far. Healthy plants fend off pests and diseases.
- Keep the garden cleaned up so as not to harbor disease and unwanted insects.
- As mentioned earlier, water timing is important; water early in the morning.
- Check seed packets and with the nursery where you buy plants regarding disease resistant plants.
- To discourage snails and slugs: pick and squish, put beer bait in saucer, collect under board, use copper collars, surround area with the spiky fruit pods of the sweet gum tree, use abrasive surfaces such as egg shells, lift vine vegetables up on cans, fence out with aluminum screening, use trellises to keep foliage off the ground.
- Attract beneficial insects and confuse pests by planting a variety of flowers, vegetables and herbs.
- Wasps and flies are beneficial and can be attracted by plants from two families: umbelliferae--such as anise, carrot, caraway, coriander, dill, fennel and parsley--have many tiny flowers arranged in tight umbels; and composite--such as black-eyed Susan's, goldenrod and strawflower--have central disc flowers surrounded by many ray petals.
- Mustard flowers attract lacewings (for aphids) and parasitic wasps (for cabbage caterpillars and codling moths).
- Encourage birds into your garden to eat the harmful insects by providing whole sunflower seedheads. Hang these on clothes hangers around your garden.
- Cover young cole crops with spun-bonded-type row covers to protect them from cabbage moths.
- Aphids, mealybugs, and scale can be dispensed with a strong blast from the hose (support branch with one hand), or rub them off with a gloved hand. Start doing this when plants are young.
- Red spider mites thrive in hot, dry weather. Hose them off of roses, evergreens, shrubs and ivy. Be sure to thoroughly rinse the undersides of leaves.
- Interplant cucumbers and beans to repel cucumber beetles and prevent the wilt diseases they carry. Also plant *Cucurbita lagenaria* gourds as trap plants for cucumber beetles.
- Plant potatoes to repel squash bugs.
- Hand-pick tomato hornworms, first sprinkling the plants lightly with water to make the hard-to-see ones wiggle. Adult hornworms are the larval form of large fast-flying, mottled gray or brown moths that will hover near tubular flowers at dusk later this summer. As you work your soil prior to planting, destroy the pupae--the hard, brown, two-inch spindle-shaped cases that are buried 3-4" underground.
- Collect and destroy all leaves affected by peach-leaf curl or other diseases. Do not compost these leaves or use them as mulch, as this will spread the diseases.
- If your peaches and apricots have brown spots and either rot or shrivel up, they may have brown rot fungus, especially if twigs also have developed cankers. Remove and destroy all infected fruit and twigs, and clean up fallen and rotting fruit as well as "mummies."
- Put netting on fruit trees two to three weeks before the fruit begins to ripen, to discourage birds.

## 6. LAWNS

- By March, lawns have begun to grow vigorously again, so they need their spring feeding and more mowing.
- Keep mower blades sharp for clean cutting of grass blades. Ragged edges die back and invite diseases.
- Mow lawns as often as necessary to keep height at 2". This height will keep the roots cooler so you won't have to water as much. Remove no more than 1/3 of the green part of the blades at one time. If you remove too much, the individual grass plants won't have enough left to grow on or they will get sunburned.
- Keep the lawn fertilized with a slow-release fertilizer just enough to grow well but not so much it stimulates lots of lush water-demanding growth that needs a lot of mowing.
- Lawns are the greatest users of outdoor irrigation. It is important to make sure the roots are growing deeply and that they are getting the moisture they need. Also, It is important to maximize the time between waterings and to water deeply.
- Let the grass tell you when it needs to be watered--it will wilt slightly and turn from bright green to dull green. You want the surface of the soil to dry between waterings. Diseases develop when grass blades and the soil surface are constantly wet, especially when the weather's warm. Water 1-2 times a week and early in the morning.

## 7. TREES

- Trees, as well as other plants, are important as nature's filtering system. They provide oxygen, collect dust and pollutants, provide a sound barrier, and filter out noise and mask unattractive sights.
- Also, trees cool homes in summer--one tree can have the same cooling effect as 10 room-size air conditioners. In winter, deciduous trees let the sun shine through bare branches to warm our homes. Tree roots lessen water runoff, and branches lessen wind. Trees provide firewood, lumber, paper and food.
- Newly-planted trees may need support for a year while they develop strong root systems and trunks. Remove the stake from the nursery. One foot on either side of the trunk, drive two sturdy 1-2" wide stakes into the ground about 16" deep. About 2/3 up the trunk, tie loops with a soft material (stockings, rags, garden hose pieces) to the stakes, keeping them loose enough so that the trunk can sway in the wind--this strengthens the trunk and stimulates root growth. Remove all this after one year--the tree should be strong enough by then.

- Paint tree trunks with light-colored indoor latex paint to prevent sunburn damage.
- May is a good time to plant citrus and other tender trees. Keep the soil well mulched to hold in moisture with fewer waterings. Too little watering results in stunted growth and reduced fruiting. Feed fruit trees now that they're actively growing. They'll provide a good leaf canopy with these additional nutrients.
- Cut off fruit tree "suckers" (grow from base) or "waterspouts" (grow straight up from branches) which compete for water and nutrients but bear no flowers or fruit.
- Peach brown rot may result from overwatering close to harvest, so irrigate trees deeply but less frequently.

#### 8. **HARVESTING**

- Keep vegetables picked often. Vegetables that aren't harvested soon enough will produce a chemical that inhibits further blossoming. Check plants at least every other day during the summer.
- If you have kept plants well-picked, but fruit set has stopped, suspect hot weather. Fruit set will begin again about 10-14 days after the temperature stays below 85-90 degrees.
- Harvest fruits and vegetables as early in the day as possible, especially if they are not to be eaten that day or will be refrigerated. As soon as the sun hits the fruits or vegetables, the pulp temperature begins to rise. Each 5 degrees lower temperature when the fruit is picked will extend shelf-life for another 3 days. Tomatoes, in particular, develop more chilling injury (mushy texture and loss of flavor) when they are cooled after being harvested when warm.
- Toward the end of the summer, pinch off the last blossoms of eggplants, peppers, melons, squashes and tomatoes. Plant energy will be directed towards fruit that has been set instead of setting more fruit that won't ripen before fall cold weather.

#### 9. **ADDITIONAL INFORMATION**

- For additional and unanswered questions, please call our Master Gardener Helpline at (323) 260-3238 or email at [mglosangeleshelpline@ucdavis.edu](mailto:mglosangeleshelpline@ucdavis.edu).



### MARCH

**Sow or transplant outside in March**

beets  
carrots  
celery  
chard  
herbs  
Jerusalem artichokes  
kale  
kohlrabi  
leeks  
lettuces (except iceberg)  
green onions  
bulb onion seed & sets  
parsley  
peas  
peanuts  
potatoes  
radishes  
shallots  
spinach  
strawberries  
turnips

**Transplant in March**

artichokes  
asparagus  
broccoli  
Brussels sprouts  
cabbage  
cauliflower  
kale  
kohlrabi  
rhubarb

**Herbs to start from seed in March**

anise  
basil  
chervil  
chives  
cilantro (coriander)  
dill  
fennel  
lavender  
marjoram  
oregano  
parsley  
savory

**Herbs to transplant in March**

mint  
rosemary  
sage  
tarragon  
thyme

**Sow indoors in March for transplanting in late April or early May**

eggplant  
peppers  
tomatoes

**Start indoors in March with special handling of roots**

cucumbers  
eggplants  
melons  
squash

**Start indoors in March for planting outside in May**

sweet potato sets

**March is last month to plant roots to bear fruit well this year**

strawberries  
blackberries  
raspberries

**Plant late March through May**

avocado trees  
citrus trees

**Sow or transplant in March**

achillea (yarrow)  
ageratum  
alyssums  
aquilegia  
asters  
baby-blue-eyes  
baby's breath  
bachelor buttons  
balsam  
fibrous begonias  
calendulas  
campanulas  
candytuft  
chrysanthemums  
cinerarias  
clarkias (godetia)  
cleomes  
cockscombs (celosia)  
coleus  
coralbell  
coreopsis  
cosmos  
Shasta daisies  
delphiniums  
dianthus  
four o'clocks  
forget-me-nots  
foxgloves  
gaillardias  
gazania (African daisy)  
hollyhocks  
impatiens  
linaria  
lobelias  
lupines  
marguerites  
marigolds  
mignonettes  
morning glories  
moss rose (portulaca)  
nasturtiums  
nemesias

nicotiana  
pansies  
petunias  
phloxes  
California, Iceland, Oriental  
and Shirley poppies  
primroses  
rudbeckia  
salvias  
acabiosas (pincushion flower)  
schizanthus (butterfly flower)  
snapdragons  
statice  
stocks  
sunflowers  
sweet peas  
sweet William  
tithonias  
torenia  
verbena  
vinca  
violas  
zinnias

**Plant late March or April**

bougainvillea

**Sow in March**

wildflowers

**Plant drought-resistant shrubs in March including:**

Australian fuchsias  
ceanothus  
coffee berries  
cotoneasters  
pineapple guavas  
manzanitas  
rockroses  
verbena

**Plant drought-resistant shrubs in March for fall and winter color, including:**

dwarf pomegranate  
pyracantha  
barberry

**Divide and replant perennials in March that are crowded or**

that had sparse bloom last season, including:  
agapanthus  
Japanese anemone  
asters  
coralbell  
Michaelmas and Shasta daisies  
daylily  
fountain grass  
iceplant  
ivy  
lantana

phloxes  
verbena  
yarrow

**Plant summer-blooming bulbs, corms and tubers in March, including:**

acidanthera  
agapanthus  
tuberous begonias  
caladiums  
calla lilies  
canna lilies  
dahlias  
gladiolus  
hemerocallis  
tuberous iris  
ixias  
tigridias  
tuberose  
watsonias

**Prune in March, after last flower has wilted**

azaleas  
camellias  
fuchsias  
rhododendrons

**Root cuttings in March**

dianthus  
dusty miller  
euryops  
felicia  
fuchsias  
geraniums  
iceplant  
lavender  
marguerites  
mums  
saxifrages  
sedum  
succulents

**Rub off new, unwanted foliage on rose in March**

**Transplant tree in March, including:**

Nootka cypress  
golden-rain tree  
hornbeam  
magnolia  
English, red and white oaks  
poplar  
tulip tree  
tupelo  
zelkova



**Sow or transplant in April**

asparagus  
beets  
carrots  
celery  
chard  
herbs  
kale  
kohlrabi  
leeks  
lettuces  
summer-maturing onions  
parsley  
peanuts  
the last peas (heat-tolerant such as Wando)  
white potatoes  
radishes  
rhubarb  
spinach

**Transplant early-maturing varieties in April**

beans  
cucumbers  
eggplants  
melons  
peppers  
squash  
tomatoes

**Herbs to sow or transplant include:**

anise  
basil  
borage  
burnet  
catnip  
chervil  
chives  
cilantro (coriander)  
comfrey  
dill  
fennel  
lavender  
marjoram  
mint  
oregano  
rosemary  
sage  
savory  
tarragon  
thyme

**Sow or transplant at end of April**

beans  
corn  
cucumbers  
eggplants  
melons  
peppers

pumpkins  
squash

**Plant tender trees in April through June**

avocados  
citrus  
cherimoya  
guava  
kiwi  
kumquats  
mango  
passion fruit  
pomegranates

**Sow or transplant in March**

agapanthus  
ageratum  
alyssum  
globe amaranth  
amaryllis  
asters  
baby's breath  
bachelor buttons  
balsam  
beebalm  
fibrous begonias  
bougainvillea  
calendula  
campanula (canterbury bells)  
candytuft  
carnations  
chrysanthemums  
cineraria  
cockscombs (celosia)  
coleus  
columbine  
coreopsis  
coralbell  
cosmos  
English, gloriosa, marguerite and Shasta daisies

daylily  
delphiniums  
dianthus (sweet William, pinks)  
dusty miller  
felicia  
forget-me-nots  
four o'clocks  
foxgloves  
fuchsias  
gaillardia  
gazania (African daisy)  
geum  
geraniums  
godetia  
heliotropes  
hibiscus  
hollycocks

**APRIL**

impatiens  
Johnny –jump-ups  
lantana  
larkspur  
lavender  
linaria  
lobelias  
lunaria (honesty, money silver dollar plant)  
marigolds  
mimulus  
morning glories  
nasturtiums  
nemesia  
nicotiana  
pansies  
penstemon  
periwinkle  
petunias  
phloxes  
California, Iceland, Oriental and Shirley poppies  
portulaca (moss or sun rose)  
potentilla  
primroses  
pyrethrums (painted daisies)  
salvias  
scabiosas (pincushion flower)  
schinanthus (butterfly flower)  
snapdragons  
statice  
stock  
strawflowers  
sunflowers  
sweet peas  
tithonia (Mexican sunflower)  
torenia  
verbena  
violas  
zinnias

**Plant summer-blooming bulbs corms and tubers in April, including:**

acidanthera  
agapanthus  
tuberous begonias  
caladiums  
calla lilies  
canna lilies  
dahlias  
daylilies  
gladiolus  
iris  
ixia  
lilies  
montbbretia  
tigridia  
tuberoses  
watsonia

**Divide and transplant in April clumps of ornamental grasses**

**Plant or prune ground covers in April, including:**

coyote bush  
creeping coprosma  
gazania  
iceplant  
ivy  
potentilla  
Mexican evening primrose  
rosemary  
wild strawberry  
verbena

**Plant water-conserving blooming shrubs in April, including:**

crape myrtle  
oleander  
rosemary  
wild or California lilac  
dichondra  
grass lawns

**Container gardens can begin in April, for mounds**

or cascades of color:  
begonias  
petunias  
ivy  
geraniums  
campanula  
succulents  
fuchsias  
azaleas  
patio or cherry tomatoes  
strawberries  
herbs



## MAY

### Sow seeds in May

lima and snap beans  
beets  
carrots  
celery  
chard  
chicory  
chives  
corn  
cucumbers  
leeks  
warm-season lettuces  
melons  
okras  
green onions  
peanuts  
peppers  
pumpkins  
soybeans  
warm-season spinach  
squash  
sweet potatoes  
tomatoes

### Plant in May

citrus trees  
other tender trees

### Sow or transplant in May

ageratum  
alyssum  
globe amaranth  
asters  
baby's breath  
bachelor buttons  
balsam  
fibrous begonias  
bougainvillea  
calendula  
campanula (bellflower,  
canterbury bells)  
candytuft  
carnations  
celosia (cockscombs)  
chrysanthemums  
clarkia (godetia)  
cleome  
coleus  
columbine  
coral bells  
coreopsis  
cosmos

English, gloriosa, marguerite and  
Shasta daisies  
dahlias  
delphiniums  
dianthus (sweet William, pinks)  
forget-me-nots  
four o'clocks  
foxgloves  
gaillardia  
gazania (African daisy)  
gerbera (transvaal daisy)  
geum  
geraniums  
hollyhocks  
hostas (plantain lily)  
impatiens  
lantana  
larkspur  
linaria  
lobelia  
lunaria (honesty, money, silver  
dollar plant)  
marigolds  
morning glories  
nasturtiums  
nicotiana  
pansies  
penstemon  
periwinkle (vinca)  
petunias  
phloxes  
California, Iceland, Oriental and  
Shirley poppies  
portulaca (moss or sun rose)  
potentilla (cinquefoil)  
primroses (primula)  
pyrethrums (painted daisy,  
painted lady)  
rosemary  
salpiglossis  
salvias  
scabiosa (pincushion flower)  
snapdragons  
statice (sea lavender and  
other colors)  
stock  
strawflowers  
sunflowers  
sweet peas  
sweet William

tithonia (Mexican sunflower)  
verbena  
violas  
zinnias

### Plant blooming shrubs in May, that need little water when they are mature, including:

abelia  
bottlebrush  
broom  
ceanothus  
cotoneaster  
crape myrtle  
grevillea  
oleander  
pittosporum  
pyracantha  
raphiolepis  
rockrose (cistus)  
strawberry bush

### Plant fragrant shrubs in May

citrus  
gardenia  
jasmine  
mock orange  
roses

### Start bulb-type plants in May

amaryllis  
tuberous begonias  
caladium  
calla lily  
canna lily  
dahlia  
gladiolus  
tigridia  
tuberose  
watsonia  
**Plant in May**  
cacti  
succulents  
palms



## JUNE

### **Sow or transplant in June**

lima and snap beans  
beets  
carrots  
celeriac  
celery  
chard  
corn  
cucumbers  
eggplants  
lettuces (oakleaf and other  
heat-tolerant, bolt resistant  
types)  
melons  
okra  
peppers  
sweet potatoes  
pumpkins  
radishes  
New Zealand spinach  
summer and winter squash  
tomatoes

### **Sow or transplant in June**

alyssum  
globe amaranth  
celosia (cockscombs)  
cleome  
coreopsis  
cosmos  
foxgloves  
gazania (African daisy)  
marigolds  
nasturtiums  
nicotiana  
portulaca (moss or sun rose)  
salvias  
sanvitalia  
statice (sea lavender  
and other colors)  
sunflowers  
tithonia (Mexican sunflower)  
zinnias

### **Transplant in June**

ageratum  
asters  
fibrous begonias  
caladiums  
calendula  
campanula  
clarkia (godetia)  
dahlias  
gloriosa, marguerite and  
Shasta daisies  
dianthus  
dusty miller  
forget-me-nots  
gaillardia  
geraniums  
hibiscus  
hollycocks  
hostas  
iceplant  
ivies  
impatiens  
lantana  
lavenders  
linaria  
lobelia  
Michaelmas daisy  
penstemon  
periwinkle  
petunias  
phlox  
potenilla (cinquefoil)  
rudbeckias  
stock  
verbena  
viola  
**Plant in June for fragrance**  
gardenias  
jasmine  
lilac

### **Plant in June for color in shady areas**

begonia  
coleus  
impatiens  
lobelia  
torenia

### **Plant in June for late- summer color from bulbs**

tuberous begonias  
cannas  
gladiolus  
montbetia  
tigridias

### **Plant in June**

palms  
cacti  
succulents

### **Root woody cuttings in June**

azaleas  
chrysanthemums  
carnations  
forsythia  
fuchsia  
hydrangea  
viburnum



## JULY

### Transplant in July

basil  
celery  
chard  
cucumbers  
dill  
kale  
leeks  
summer-maturing lettuce  
melons  
okra  
green onions  
white potatoes  
pumpkins  
summer savory  
New Zealand spinach  
summer and winter squash  
salvias

### Sow at end of July

broccoli  
Brussel sprouts  
cabbage (especially red  
and savoy)  
carrots  
cauliflower  
celery  
kohlrabi  
red sage

### Sow or transplant in July

alyssum  
celosia (cockscombs)  
cosmos  
forget-me-nots  
gazania (African daisy)  
marigolds  
nasturtiums  
portulaca (moss or  
sun rose)  
salvias  
statice (sea lavender and  
other colors)  
verbena  
zinnias

### Transplant in July

fibrous begonias  
calendula (pot and winter marigold)  
chrysanthemums  
crape myrtle  
dahlias  
daylilies  
delphiniums  
dianthus (pinks, sweet William)  
foxgloves  
hibiscus  
hydrangeas  
impatiens  
penstemon  
petunias  
rudbeckia (coneflowers,  
black-eyed-susan)

### Fill in garden gaps in July with summer-into-fall

#### bloomers

alyssum  
celosia  
cosmos  
petunia  
portulaca

vinca  
zinnias

### Dig and store spring-blooming bulbs and tubers, in July, when their foliage is completely dry

### Dig and divide in June

bearded iris clumps

### Root cuttings in July

azaleas  
fibrous begonias  
camellias  
carnations  
marguerite daisies  
fuchsias  
gardenias  
geraniums  
hollies  
hydrangeas  
lilacs  
marguerites  
mock oranges  
mums  
verbena



## AUGUST

### Sow over-wintering crops in August

beets  
broccoli  
Brussels sprouts  
cabbage (savory types)  
carrots  
cauliflower  
celery  
chard  
endive  
escarole  
garlic  
kale  
kohlrabi  
leeks  
thick-leafed and heading lettuces  
onions  
parsley  
peas  
white potatoes  
radishes  
shallots  
spinach (Savoy types)  
**Last sowings of summer-maturing in August**  
bush beans  
cucumbers  
oakleaf lettuce  
white seed potatoes  
New Zealand spinach  
squash

### Root cuttings of herbs in August

**Allow strawberries to root their runners after last crop in August for transplant in October and November**

### Sow or transplant in August

alyssum  
amaranthus  
balsam  
fibrous begonia  
calendula (winter or pot marigold)  
candytuft (iberis)  
celosia (cockscombs)  
columbine(aquilegia)  
coralbell (heuchera)

coreopsis (pot of gold)  
cosmos  
gloriosa daisy (rudbeckia, coneflower, black-eyed Susan)  
marguerite and Shasta daisies  
dahlias  
delphiniums  
dianthus (sweet William, pinks)  
forget-me-nots (myosotis)  
foxgloves  
gaillardia (blanket flower)  
gerbera (Transvaal daisy)  
geums  
gypsophila (baby's breath)  
hollyhocks  
impatiens  
larkspur  
linaria  
lobelia  
marigolds  
nasturtiums  
nemesia  
pansies  
petunias  
phlox  
Oriental and Iceland poppies  
portulaca (moss or sun rose)  
fairy primroses (primula)  
scabiosa (morning bride, pincushion flower)  
schizanthus  
snapdragons  
statice (limonium, sea lavender)  
stock  
sweet peas  
vinca (periwinkle)  
violas  
zinnias

### Transplant perennials in August,

including:  
daylilies  
Bearded iris  
lilies  
peonies  
oriental poppies

### In August plant red and pink funnel-shaped flowers to attract hummingbirds

abutilon (flowering maple)  
cannas  
cleome  
fuchsias  
honeysuckle

monarda  
penstemon  
red trumpet vines

### Root cuttings in August

azaleas  
ceanthus  
carnations  
fuchsias  
geraniums  
honeysuckle  
hydrangeas  
English ivy  
marguerites  
pachysandra  
roses  
succulents  
verbena  
wisteria  
evergreens (especially arborvitae, euonymus, holly, juniper and yew)

### Plant trees in August for brilliant color this fall, including:

ginkgo  
liquidamber  
Japanese maple  
pin oak  
red oak  
Chinese pistache  
Chinese tallow  
tulip tree (Liriodendron)  
zelkova

### Plants shrubs in August for brilliant color this fall, including:

arbuton  
cotoneaster  
crape myrtle  
escallonia  
euonymous  
hibiscus  
holly  
honeysuckle  
oleander  
pomegranate  
pyracantha