



HOW-TO BOOKLET #3145

ORGANIC FLOWER GARDENING



TOOL & MATERIAL CHECKLIST

- | | | |
|---|------------------------------------|--|
| <input type="checkbox"/> Organic Mulch | <input type="checkbox"/> Trowel | <input type="checkbox"/> Watering Can |
| <input type="checkbox"/> Organic Fertilizer | <input type="checkbox"/> Soil Test | <input type="checkbox"/> Soaker Hose |
| <input type="checkbox"/> Spade or Shovel | <input type="checkbox"/> Rake | <input type="checkbox"/> Compost or Chopped Leaves |

Read This Entire How-To Booklet For Specific Tools and Materials Not Noted in The Basics Listed Above

What could be more rewarding than a yard packed with bright, beautiful blooms for months at a time? Enjoy the pleasure of growing great-looking, healthy flowers without resorting to synthetic chemicals and fertilizers. The key aspects of organic flower gardening include:

- 🏠 Matching the plants to your site
- 🏠 Buying healthy plants
- 🏠 Preparing the soil for good growth
- 🏠 Keeping plants naturally problem-resistant with proper mulching, watering, and fertilizing
- 🏠 Using safe, effective pest and disease controls

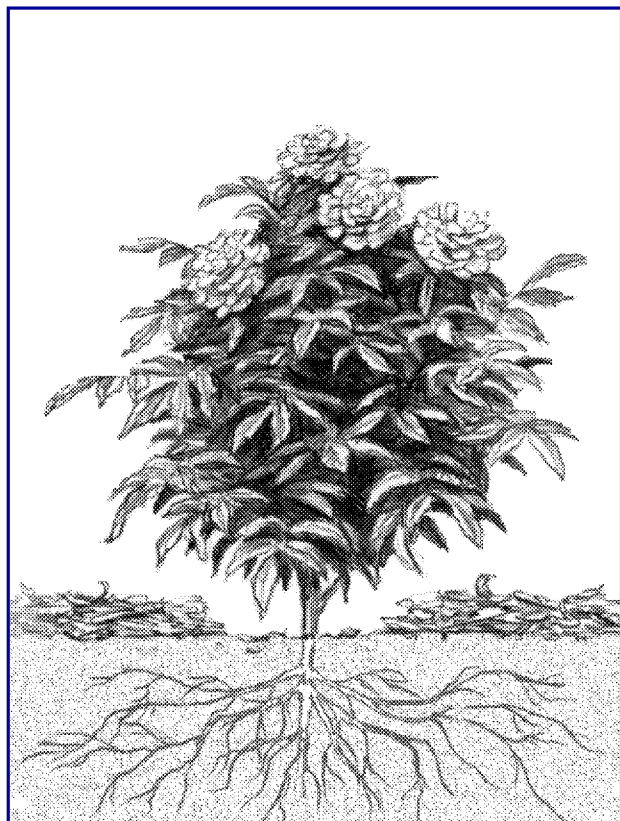
Follow these guidelines, and your garden will be the envy of all your neighbors!

PICKING A SITE

Successful flower gardening starts with picking the right plants for your site. For a naturally healthy, great-looking garden, don't try to grow plants in conditions they don't like. Sun-loving plants—like bearded iris—will hardly grow or flower in a shady spot; while a dry, sunny site can cause shade-lovers—like impatiens—to wither and die. Plants growing in the wrong place will be weak and much more susceptible to pests and diseases. Choosing the site first, then growing the plants that are best for those conditions can help you avoid many disappointments.

BUYING HEALTHY PLANTS

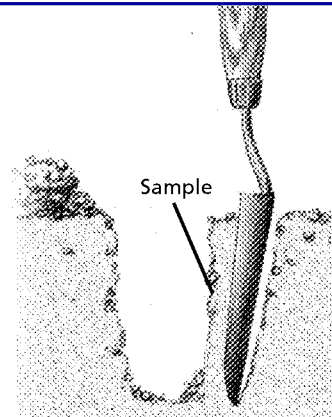
Plants and seeds are available from many sources: home centers, garden centers, roadside stands, and even supermarkets. No matter where you shop, look for plants that are compact and healthy.





When shopping for plants, look for strong, bushy stems and green, undamaged leaves. Avoid those with long, spindly stems or signs of insect or disease damage. You don't want to bring any problems home to your healthy garden!

To take a soil sample for testing, brush any debris off the soil surface and use a trowel to dig a hole 4 to 6 inches deep. Then take a ½-inch slice of soil from the side of the hole, and put that soil into a clean plastic container. Take several samples from the same planting area, and mix them up in the container.



Check for leaves that are medium-green to deep-green, a sign of good care. Inspect plants carefully for any signs of insects or diseases, like damaged or discolored leaves or stems. Weak, infested, or diseased plants are no bargain at any price!

As you select your plants, don't forget that they need to match the growing conditions you have available. The label or display sign should tell you how much sun and what type of soil and moisture the plant needs. If you're not sure what conditions it requires, don't buy a plant just because it's pretty—if it doesn't like your garden, it won't look pretty for long. Looking up plants in books or asking knowledgeable salespeople will help you buy the best adapted flowers for your site.

PREPARING THE SOIL

Developing healthy soil is a critical part of growing naturally healthy plants. Your soil will provide the vital water and nutrients that your flowers need to thrive and bloom. Take a few minutes to learn about your soil so you'll be able to correct any problems before planting time.

When you're starting a new garden, taking a soil test is one of the easiest ways to discover what your soil is like. It will usually tell you the soil's pH (how acid or alkaline it is) and if it is lacking any nutrients. This information will help you

decide if you need to add any fertilizers or amendments, and how much. You can purchase soil testing kits at your local Cooperative Extension Service, or at many home or garden centers.

If you're in a hurry to start your garden, or if you just don't want to "bother" with a soil test, you can get away without it. But be cautious about applying fertilizer, lime, or sulfur to untested soil, since you may be adding nutrients your flowers don't need. Keep in mind that too much fertilizer can be as bad as not enough!

When you're starting a new garden, you'll need to remove whatever is currently growing there—usually lawn grass or weeds. Skim off the sod with a spade. Dig out any weeds, making sure you get their roots as well. Removing weeds carefully at this stage will help minimize weed problems later on. Don't be tempted to dig or till the sod or weeds into the bed—you'll create real headaches! Many grasses and some weeds spread by creeping roots that can sprout new plants. If you chop up these roots, your flower bed will be full of new grass or weed shoots that will look awful and possibly crowd out your flowers.

BUYING ORGANIC FERTILIZERS

With so many commercial fertilizers on the market, it can be tricky to know what to buy. Start by looking on the label for a series of three numbers (like 5-5-5 or 4-1-1). These three numbers refer to the percentages of nitrogen, phosphorus, and potassium in the product. In most cases, you'll want a balanced or complete fertilizer—one that has roughly equal amounts of those three nutrients (such as 3-4-3 or 2-3-4). For the most flowers, avoid products with a high first number (like 8-4-4). This means that the product has lots of nitrogen, a nutrient that will promote lush, leafy growth but discourage flowering.

Once you've cleared the site, you're ready to dig or till. Either way, it's important to work the soil when it's at the right moisture level. Take a handful of soil and try to squeeze it into a ball. If the soil won't form a ball, it's too dry to dig; water the area thoroughly and try again in a few days. If water drips off your hand when you squeeze the soil, or if the soil forms a tight ball, it's too wet to dig; wait a few days to let the soil dry. If the soil forms a ball that breaks apart easily when you tap it with a finger, it's time to get started.

First, spread 1 to 2 inches of organic matter (like compost or chopped leaves) over the site. As it breaks down, the organic matter will release a steady supply of nutrients for your plants. This is also the time to apply any fertilizers or amendments that were recommended in your soil test. If you didn't take a soil test, apply a balanced organic fertilizer according to the package directions. Dig the organic matter and fertilizer into the top 6 to 8 inches of soil, rake the area to remove any rocks and break up soil clumps, and you're ready to plant.

PLANTING YOUR FLOWERS

If you're starting your flowers from seed, simply scatter the seed evenly over the planting area. If you're sowing small seed—like sweet alyssum or poppies—mix the seed with a few teaspoons of dry sand; the extra bulk will help you scatter the seed more evenly. Cover with soil to the depth recommended on the packet, or just press the seed into the soil if the package says to leave it uncovered. Keep the area moist until the seeds start to sprout, then gradually decrease watering over the next week or two. Once seedlings are a few inches high, thin them to the spacing recommended on the seed packet. Carefully pull or snip off unwanted seedlings, or dig them up and transplant them to bare patches.

Transplanting flowers growing in plastic market packs or pots is even easier. If your plants are in market packs, squeeze the bottom of each “plug”

and push the plant out. If the plant is in a pot, put one hand on the soil at the top of the pot with the plant stem between two fingers. Then turn the pot over, supporting the soil with one hand; use your other hand to pull off the pot. If it won't come off easily, try tapping the pot with a trowel to loosen it.

Use a trowel or shovel to dig a hole just as deep as the plant's root ball, and about twice as wide. Center the plant in the hole, and fill in around the roots with the soil you removed. Water each plant thoroughly to settle the soil around the roots and encourage new root growth. Keep the area evenly moist for at least 2 to 3 weeks to get plants off to a good start.

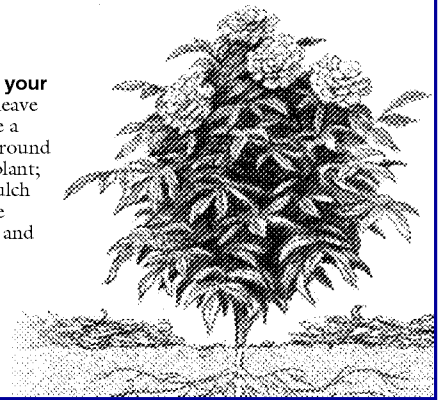
MULCHING, WATERING, AND FERTILIZING

Once you've planted your pot-grown flowers, or your seedlings are 4 to 6 inches high, it's time to mulch. Mulching is perhaps the most important thing you can do to keep your flowers healthy and vigorous during the growing season. A 1-inch to 2-inch layer of organic mulch—like compost, grass clippings, or shredded leaves—helps to keep the soil from drying out and adds a steady supply of plant nutrients as it breaks down. Plus, it will virtually eliminate weeding, since it prevents new weed seeds from sprouting.

A mulch will help to hold existing water in the soil, but it won't add any during dry spells. If you don't get any significant rain for a week or two, pull aside the mulch and feel the soil. If it is moist at the surface, wait a few days and check again. If you have to dig down 2 or 3 inches to feel moisture, it's time to water.

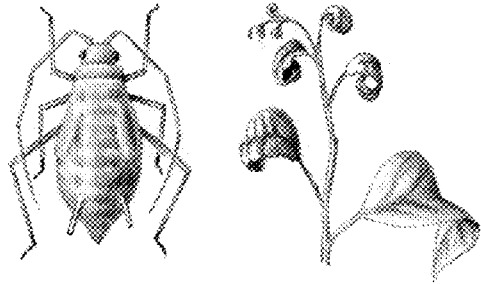
The best way to water your flowers is with a soaker hose or drip irrigation system; this will apply water right to the roots, where it's needed. Plastic and rubber soaker hoses are particularly easy to use: Just wind the hose between plants and leave it in place all season. When you're ready to water, just attach the end of the soaker hose to a outdoor faucet (or to a regular garden hose if the flower

When mulching your flower garden, leave a mulch-free zone a few inches wide around the base of each plant; otherwise, the mulch can hold moisture around the stems and encourage rot.

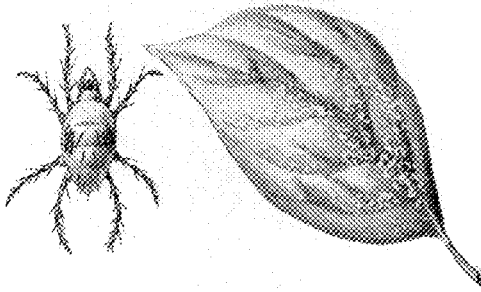


bed is far from the faucet), and let the water run until the top 4 to 6 inches of soil are moist. Watering with a regular hose-end sprayer is not a good practice. You probably will lose patience before you've applied enough water to penetrate the mulch and adequately moisten the soil. Plus, this kind of watering wets plant leaves, encouraging the spread of diseases.

Fertilizing your flowers started back at the soil preparation stage, when you added organic matter and perhaps a balanced organic fertilizer. Many flowers will thrive on this diet and won't need extra nutrients. If you do want to give your plants a mid-season boost, apply a handful of balanced fertilizer around the base of each plant and scratch it lightly into the soil. Or you can treat them to a dose of compost tea. To make compost tea, take a shovelful of compost and put it in a burlap or cloth bag to make a “tea bag”. Put the bag in a bucket or watering can full of water and let it sit for a week. Dilute the liquid to the color of weak tea and sprinkle it over your plants or water them with it once or twice during the summer.

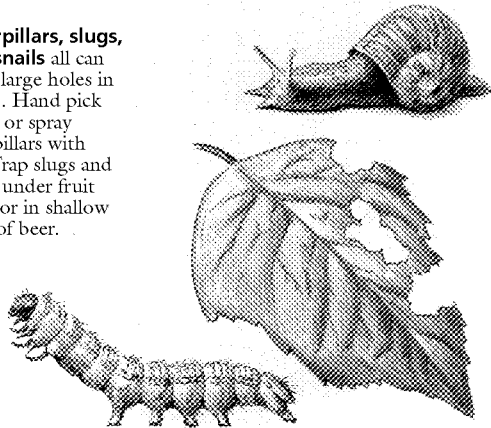


Aphids are small, pear-shaped insects that cluster on leaves and shoots, sucking plant sap and causing distorted, discolored leaves. Pick off infested shoots, or spray with insecticidal soap or neem.



Tiny spider mites cause leaves to look pale or stippled. Pinch off infested plant parts, or spray with insecticidal soap or neem.

Caterpillars, slugs, and snails all can chew large holes in leaves. Hand pick pests, or spray caterpillars with BT. Trap slugs and snails under fruit rinds or in shallow pans of beer.



CONTROLLING PEST AND DISEASE PROBLEMS

Sometimes, despite your best efforts, pests and diseases may attack your flowers. The key to controlling these problems is spotting them early. Take a few minutes as often as you can (daily is ideal; weekly is okay too) to really look at your plants. If you spot insects or damage, try to find out what caused it; correctly identifying the problem will help you choose the most effective control. Some of the most common problems, along with their causes and controls, are covered below. Before trying any control for pests, wait a few days to see if the beneficial insects living in your garden will take care of the problem for you. If pests are increasing after a few days, then try a control measure.

Leaves or shoots are distorted or discolored:

Aphids are small pear-shaped insects that come in many different colors. They often cluster on buds, shoots, and leaf undersides to feed on plant sap. Pinching off and destroying infested plant parts is often an effective control. If pests get out of hand, buy a commercial insecticidal soap spray and apply it according to the label directions. Or mix up your own spray by adding 2 teaspoons of liquid dish soap (not detergent) to 1 gallon of water. Spray plants every 2 to 3 days for 2 weeks. Commercial neem sprays are also quite effective. (Neem is an organic insecticide derived from the seeds of the neem tree.)

Leaves are yellow or pale, often with webbing on the undersides:

Spider mites are tiny (almost microscopic) pests that suck plant sap. Pinching off infested parts and using insecticidal soap or neem sprays (as discussed above) are effective against spider mites as well as aphids.

Leaves have holes: Caterpillars or slugs and snails could be at work here. Look for silvery or shiny slime trails, which are signs of slugs and snails. These pests like to hide in cool, damp places during the day, so you may be able to trap them under upside-down fruit rinds set among your plants. Check the traps each morning and remove and

destroy trapped pests. Some gardeners report good success with beer traps: Sink a shallow container so the rim is flush with the soil surface, and fill it with beer. Every few days, remove the drowned pests.

If a caterpillar is the culprit, you may find it clinging to the underside of the leaf, or to a nearby stem. Look carefully, since these pests often blend in well. If you find the caterpillar, pick it off (use gloves if you're squeamish!) and destroy it. If there are too many caterpillars to hand pick, or if you can't find the culprit, try spraying plants with BT (*Bacillus thuringiensis*). BT is a bacterium that is harmless to plants, pets, or people but toxic to caterpillars. Mix the BT concentrate according to package directions, and use a sprayer to thoroughly coat plants; make sure you get the leaf undersides too. Damage should stop within 2 to 3 days.

Leaves have white or gray spots: Powdery mildew is one of the most common diseases that attacks flowers. Roses, zinnias, and bee balm are common targets. To prevent problems, snip out some stems to allow for good air circulation through the clump. If only a few leaves are affected, try pinching them off and spraying the rest of the plants with compost tea (see "Mulching, Watering, and Weeding"). Besides giving plants a nutrient boost, compost tea can help control some fungal diseases. If that doesn't work, try a baking soda spray: Dissolve 1 teaspoon of baking soda and a few drops of liquid dish soap in 2 quarts of warm water, and spray all parts of the plant thoroughly.

If your plants don't match these symptoms, look in gardening books or ask your local home or garden center salespeople to help you identify the problem. Insecticidal soap or neem-based sprays will control a wide variety of different pest problems, and they may be all you need to deal with virtually all pest problems. Pinching off and destroying disease-infected leaves, then spraying plants with compost tea, will control many disease problems. If plants look seriously diseased or insect infested, remove and destroy them before the problem spreads to other plants.