



Congratulations...you have successfully transformed your lawn into a garden! But, now what? Sheet mulching your lawn is the first step in creating a drought-tolerant garden and low-maintenance landscape. We've pulled together some basic how-to tips for maintaining your new garden now and in the years to come. Throughout this guide you will find best practices with seasonal reminders of what needs to be done and when.

Now that your lawn is gone your role in the garden is likely going to change. Gone are the days of mowing, but your role is still necessary and important. In the weeks and months following the initial sheet mulching you will want to focus your attention on weeds, plant health and irrigation.

Your garden is a living ecosystem. Plants will grow, plants will die. Weeds will show up. Good and bad bugs will take up residence. Basically, things will be everchanging in the garden, but don't panic—this is okay!

Remember...

POST SHEET MULCHING CHECKLIST:

- Regularly check for water. Depending on the season and the size of your new plants, you should plan to check your soil every few days. If the soil is dry down to the roots, it is time to water. If the soil is still moist, hold off for a few more days and check again.
- ✓ Keep an eye on your plants. Check to be sure your plants are staying healthy. A bit of transplant shock is normal in the first couple of weeks, but after that plants should be green and perky. Drooping or yellow leaves may be a sign that something is wrong. If you suspect a problem, take a photo of the problem plant and visit your local nursery to ask for help diagnosing the problem. If a lot of plants are dying, it could be due to improper planting or watering—plants placed too high or too low, roots not broken up during planting, too much or too little water.
- ✔ Check your mulch and cardboard. Some of your mulch may be displaced due to pets or other garden visitors. Be sure to keep the cardboard covered with a layer of mulch to maintain an orderly appearance and prevent it from blowing away.
- ✓ Weeds? Pull any you see. If there is a large area of weeds, it could be where cardboard coverage isn't complete or the cardboard got ripped.
- ✓ Stay in touch with other gardeners. You will likely come across a mysterious bug or plant in your garden. Compare notes with neighbors, nursery staff or friends it is highly probable someone else will have wisdom to share from a similar experience. Or, join our Lawn to Garden Facebook group to share pictures and get advice from other gardeners (www.facebook.com/groups/FromLawntoGarden/).



POST SHEET MULCH: YEAR 1

Your new garden has likely changed quite a bit over its first year—some plants are becoming more established while others may not have made it through the dry season; your cardboard and mulch has started decomposing; an irrigation system has been put into place.

FIRST YEAR CHECKLIST:

- ✓ Reapply mulch & topdress with compost. Keep your soil healthy and plants thriving by adding fresh compost around existing perennials, shrubs and trees. Replenish mulch with a fresh layer of wood chips to help with weed control and water conservation. Add cardboard to any weedy patches.
- ✓ Fill in plants. Some plants may not have made it through their first year—don't despair, this isn't unusual. Add new plants in these empty places. You may be able to divide some of your successful plants or sow wildflower seeds in the winter. Remember to choose plants adapted to your microclimate and allow space for plants to grow by avoiding overplanting.
- Check irrigation. The first year of watering is important for establishing your new plants. After the first year you may be able to slowly cut back on water for some native and drought-tolerant plants. Keep an eye on them to be sure they remain vibrant and adjust your watering needs accordingly. If you have a drip or other irrigation system, check your lines for leaks, and where necessary adjust emitters based on current plant needs.

ONGOING MAINTENANCE & TIPS: YEAR 2 AND BEYOND



PLANT UPKEEP

Lawns require regular mowing, watering and feeding. Replacing a lawn with a diverse plant palette minimizes those weekly chores. However, your new plants will still need basic upkeep to maintain their health and appearance.

A diverse garden will include annuals, perennials, shrubs and trees—but likely the majority will be perennials. Carefully selecting the right perennials for your garden can make maintenance easier, often reduces irrigation needs, and creates less waste.

After choosing a plant palette well suited to our Mediterranean climate, and your local microclimate, maintaining healthy plants becomes a matter of paying attention to watering needs, keeping an eye out for pests, feeding your soil, and pruning throughout the year—best practices for each of these tasks are outlined further in this guide.

Remember...

During the first year your most important job for maintaining healthy plants is simply keeping them alive! Make sure your plants are properly watered and weeds are removed to avoid competition. Typically, no pruning is necessary during the first year of growth, although you may want to remove spent flowers at the end of their bloom cycle.

Best Practices for Plant Health:

- Leave plant labels near plants so that you can properly identify what is growing, and read up on plant needs and best cultural practices.
- Periodically deadhead, or remove spent flowers, for longer bloom cycles and continued plant growth.
- **Divide bulbs, tubers and certain perennials** to promote fuller plant growth and spread successful plants to other parts of the garden.
- Cut back perennials at the end of the growing season to encourage healthy spring growth.
- Expect some plant die-off. It is normal to have some die-off, be it seasonal or otherwise. Don't panic. Pull spent plants and move on! Remove and compost annual flowers and vegetables at the end of their life cycle. Periodically, longer-lived shrubs and perennials will also need to be removed.
- Winter pruning. Starting in their second full year of growth, many of your plants will benefit from winter pruning. Check the Bay-Friendly Gardening Guide on our website at www.lawntogarden.org for pruning tips.
- Fall planting. Fall is the best time for adding new perennials and shrubs to your garden. Root systems will start to get established with the winter rains.

Remember...

When planting, keep this motto in mind: the right plant in the right place. One of the most common mistakes gardeners make is to crowd plants into spots that are too small for them. The consequence of this is that plants have to be pruned severely or pulled out and replaced — both of which mean more work and more waste.



WATERING BASICS

Once your native and/or drought-adapted plants become established in your new garden, your watering needs will decrease. The amount of water that plants need changes over the course of the seasons. Day length, temperature, rainfall, and winds all influence how much you should water and how often.

Your plant's water needs will also be influenced by the water-holding capacity of your soil. To see how well your soil can hold moisture, use a spade to open up some ground before and after you have watered. Feel the soil for moistness. Look to see how far below the surface the moisture extends. The goal is to water the entire depth of the root system. (Note: some plants are deeper rooted than others and so this depth will vary according to plants).

Applying compost and mulch will increase your soil's organic content, improve its water-holding capacity, and help create drought-resistant soils.

When it comes to watering, you have two main choices: watering by hand or using an automatic system. For large gardens, a system will make life easier. For smaller yards, manual watering is more efficient, and allows time for closer observation of your plants.

Studies have shown that hand-watering on average uses 34% less water than automatic irrigation systems. Whichever way you irrigate, it is always important to pay careful attention and conserve water in our Mediterranean climate's dry season.



Best Practices for Watering:

- **Hand-water new plants** until they are established.
- Look for signs of under- or over-watering. Yellow and limp or wilting plants can indicate over-watering; brown and crispy underwatering.
- Map your drip system for future repairs.

 Irrigation lines can disappear in plants and mulch map your lines for easy maintenance.
- Turn off your irrigation during the rainy season.

You can learn more about irrigation suppliers and vendors in the Lawn to Garden Marketplace. Local water agencies also offer rebates for irrigation systems and installations. Visit www. lawntogarden.org for a list of current rebates available in Alameda County, a directory of Bay-Friendly Qualified Professionals trained to help with installation, and a vendor marketplace.



WEED CONTROL

Weeds are going to happen. Sheet mulching will help reduce weeds but like herbicides or weed cloth it won't prevent weeds from ever emerging in the garden. Depending on the time of year, weeds may pop up sooner or later. Stay on top of your weeds by pulling or reapplying sheet mulch. Weeds will most likely appear at edges or holes in the cardboard.

Cultural controls are particularly effective for managing weeds – these are the actions and decisions that you as the gardener take to actively maintain a healthy ecosystem in your garden. Building good soil that is loose and friable rather than hard and compact makes weeding easier. Efficient irrigation such as in-line emitters reduces weeds during the dry season by providing water directly to the plants you want to grow. Preventing weeds from going to seed means you'll have fewer weeds to deal with in the future.

Best Practices for Controlling Weeds:

- **Use sheet mulching** to create a weed barrier in susceptible zones.
- Maintain healthy plants with proper pruning, fertilizing and soil conditioning.
- Plant bulbs or wildflowers, such as CA poppies, in empty spaces.
- Manage weeds as needed. Expect that some hand pulling will be necessary throughout the year.



INSECT PEST CONTROL

Every gardener has to contend with unwelcome guests. Whether its persistent dandelions growing in pathways, or snails making midnight feeding raids on tender young plants, there are a whole host of interlopers that a gardener must contend with. To gain the upper hand with insect pests, you must be persistent and strategic. Rather than trying to eliminate pests completely, your goal should be to keep them to tolerable levels. Another effective strategy is to use more than one method of pest control.

Integrated Pest Management (IPM) is a holistic approach that looks at the whole picture and stresses solutions that cause the least environmental damage. IPM begins with gaining an understanding of the problem. Once you properly identify your pest, you can decide the best way to deal with it.

Prevention is the first step. This has to do with how you take care of the garden — improving soil conditions, choosing pest-resistant plants, pruning moderately, watering attentively, and helping keep your plants healthy so they can resist predation. If prevention doesn't work take the offensive. You can hand-pick, spray water, set traps or set up barriers.

You can also reduce pests by growing plants that attract beneficial insects that prey on pests. Your best bet here is to promote the biological control already going on in the garden by learning to recognize resident beneficials (organisms such as lady beetles and lacewings that benefit the gardener), growing plants that will support them, and keeping pesticide use to a minimum.

Least-toxic chemical controls should be used as a last effort. Look for low-toxicity products that break down quickly, and purchase in small quantities so that you can avoid generating hazardous waste. A few least-toxic chemical controls available include: insecticidal soaps, horticultural oils, minerals, and botanicals (plant-derived insecticides).



Know your bugs. The majority of bugs in the garden, like this spider, are beneficial.

Best Practices for Controlling Insect Pests:

- **Use an IPM approach** to managing insect pests.
- Maintain healthy plants with proper pruning, fertilizing and soil conditioning.
- **Use less toxic pesticides** for aphid, whitefly and spider mite infestation.



SOIL CONDITIONING

In a garden, you are growing two things: plants and the soil. Of the two, many gardeners focus on growing the soil, knowing that healthy plants will follow. Like humans, plants require certain nutritional elements for optimal growth and health. Some of these — carbon, hydrogen, and oxygen — they take from air or water. The rest come from the soil.

The purpose of building your soil is to provide plants with the nutrients that are essential to their health and growth. Using soil tests, plant appearance, intuition, and experience, gardeners can identify which nutrients are needed. Having determined what nutrients plants need, gardeners must also give thought to how those nutrients will be provided. It is always better to feed the soil with compost, mulch, cover crops, aged herbivore manure, or worm castings, than to feed the plant alone with quick release fertilizers that can destroy soil life.

In addition to nutrients, gardeners must also consider the soil's basic make-up and texture. Every gardener's ideal is a soil called loam. Dark and wonderfully crumbly, a good quality loam has high organic content, is teeming with life, contains all the nutrients that plants need, holds moisture well, and drains well. It's very hard to make loam, but you can vastly improve soil structure over time by mulching or top dressing with compost.



Remember...

Mulch won't last forever, you will have to periodically reapply a fresh layer! How often you replenish your mulch depends on how much was initially applied. Add a thicker layer, but no more than 4 inches deep, if you want your mulch to last longer. And, disappearing mulch is a good thing—it means you are slowly feeding your soil and plants.



Best practices for maintaining healthy soil:

- W Topdress with ½ inch compost in the spring and fall. You can cut back on compost applications as your garden matures, particularly with California native plants.
- Mulch annually with wood chips or other organic material.
- Let leaves lie avoid the use of leaf blowers and let leaves slowly decompose or collect them for mulching.
- **Use stone borders** along beds to keep mulch from spilling into paths.

Learn more about soil conditioning in our guide: Tools for Building Healthy Soil. Download a free copy online at **www.lawntogarden.org.**





SEASONAL CALENDAR

Like any activity that takes place over time, gardening is both an immediate and a cumulative experience. We garden day to day and through the seasons, experiencing the satisfaction of tucking a seedling into the ground one morning and of seeing it flower or produce food months later.

Some gardening tasks change with the seasons while others are ongoing throughout the year. You may decide to mulch in the summer for water conservation but also again in the winter for weed control. Certain plants will respond to summer pruning while others are best pruned during their dormant period in the winter.

You will establish your own seasonal routines as your experience grows with your garden over the years. In the meantime, the seasonal calendar below provides a general guideline for tending your garden, helping you know what to do in its appropriate time.

Remember...

Many of these tasks may need to be done throughout the year. Tasks for tending an annual edible can be different than those for a perennial bed. You may opt to cover crop your vegetable beds during the winter and turn them over in the spring whereas your perennial beds may benefit from a fresh layer of mulch in the winter.

WINTER

- Weed as needed to prevent weeds from spreading and going to seed.
- ► Keep an eye out for frost warnings. Be prepared to cover young plants.
- ▶ Direct sow wildflower seeds for spring color.
- ▶ Divide perennials such as daylily and yarrow. Re-plant them in bare spots around the garden.
- ▶ Prune fruit trees and other woody trees and shrubs while they are dormant.
- ► Cut native grasses back or rake out dead blades.
- ► Continue adding kitchen scraps to your backyard compost bin or green bin. Cover bin to keep out excess rainwater.



SPRING

- ▶ If maintaining a backyard compost bin, harvest compost. Leave uncomposted material to decompose for another cycle.
- Mulch beds with wood chips or leaves to conserve water, reduce weeds, and feed the soil.
- ► Fine tune irrigation systems by testing, adjusting, and repairing leaks. Check weather-based timers and be sure they operating properly in case of late spring rains.
- ► Check soil moisture at plant roots before watering.
- Prune spring-flowering shrubs after bloom has passed.

SUMMER

- ▶ Identify bugs before you squash or stomp they may be "good bugs" that eat pests.
- ▶ Watch soil moisture.
- ▶ Pull weeds and watch out for Bermuda grass. Sheet mulch any problem spots.
- ▶ Deadhead spent flowers.
- ► Turn on watering and irrigation systems during the hot summer months. (Note: some perennials and trees, such as oaks, shouldn't be irrigated. Read up on your plants watering requirements to determine where you should be irrigating.)
- ► Water at dawn or in the evening to reduce evaporation.



FALL

- ► Mulch garden beds with leaves or compost to reduce winter weeds and feed the soil.
- ► Harvest and dry seed for next season.
- ▶ Plant replacement plants, if necessary, to let them get established with the winter rains.
- ▶ Plant or divide spring blooming bulbs.
- ► Adjust watering for cooler weather.
- ► When rains come, shut off irrigation systems. Check weather-based timers to be sure they are operating properly and continue working in case of a dry winter.
- ► Clear out annuals and add to your compost hin
- ► Stock pile leaves for spring and summer "browns".

STOPWASTE'S ONLINE RESOURCES

StopWaste has more information available online to help with your sheet mulching and gardening projects. Visit **www.lawntogarden.org** to find:

- ▶ List of sheet mulch vendors and suppliers
- ▶ Water rebate source list
- ► How-to videos
- ▶ Plant lists
- Success stories
 - ...and more!

StopWaste also has specialized plants lists available online at **www.stopwaste.org/plantlists**. These lists include:

- ▶ Alternatives to Bay Area Invasive Plants.
- ► Lawn Alternatives & Groundcovers
- ▶ Plants for Bay Area Plant communities
- ▶ Plants that Attract Butterflies
- ► Plants for Natural Hedges that Don't Need Shearing
- ► Plants for Vegetated Swales



LAWNS BEFORE. GARDENS AFTER...



Visit www.lawntogarden.org for more information.



