

Garden Maintenance: Weeding, Mulching and Fertilizing

Once your seedlings have been transplanted and your direct-sown seeds have germinated, the plants will need some routine care to keep them thriving. Keeping weeds under control will help your plants by saving them from having to compete for water, light, and nutrients. Spreading mulch will reduce weed problems, help to conserve soil moisture, and prevent soil erosion. Applying fertilizer at recommended rates can help to produce robust plants and a bountiful harvest.

Weeding

A weed is a plant growing where we don't want it to grow. The fact is, what we often call weeds are just plants doing exactly what they've evolved to do: take advantage of available space to colonize. In the process, many prevent erosion and weathering of the soil. But they also compete with our garden plants for light, moisture, and nutrients, so we need to keep them in check. It is important for students to learn how to identify weeds and distinguish them from the seedlings they have planted so they can remove the correct plants.

The old adage "A stitch in time saves nine" definitely applies when it comes to weed control. Weeding doesn't have to be a time consuming chore if it is done regularly when weeds are still small. Weeds can be removed by hand or with tools. You can use a hoe to scrape the tops off masses of small weed seedlings or use a cultivating tool to turn them under the soil. It's important to get rid of weeds before they blossom and go to seed, or they'll end up sowing a lot more weeds for you to pull next year. Also, try to completely remove the roots of perennial weeds, as many reproduce readily from sections of roots or underground stems that have been left behind.

Low-maintenance weed control begins with mulch. Mulch shades the soil and prevents the germination of weed seeds. Remove as many weeds as you can before applying mulch to the soil for maximum weed control.

Mulching

Mulch is any material used to cover the soil to prevent weed growth, slow water loss, and prevent erosion. Mulching is an important practice in any sustainable garden. Organic mulches, including straw, newspaper, grass clippings, and leaves, can also improve soil structure as they decay. Organic mulches tend to keep the soil cool and are good for crops that prefer cool conditions, such as broccoli and peas. Bark and wood chip mulches take longer to break down than non-woody mulch materials, so they are often used in paths and around perennials (plants with a life cycle longer than one year), trees, and shrubs. Inorganic mulches, including plastic landscape fabric and stone, will not decay and can be useful in perennial beds and around shrubs. Dark plastic mulch is often used around heat-loving crops such as tomatoes and peppers, because it absorbs heat from the sun to warm the plants' roots.

Fertilizing

Although plants make their own food, just as people need vitamins plants need to take in additional nutrients for healthy growth. Plants absorb nutrients found in the soil through their roots. Many of these nutrients are commonly available in the soil, but there may be some that are not available in the amount needed by the plant. Gardeners make up for the difference by adding fertilizers. Fertilizers contain nutrients such as nitrogen, phosphorus, potassium, and calcium for growth, repair, and proper functioning of plants.

There are many different types of fertilizers. Supplementing soil with organic matter such as humus and compost is the best way to not only provide nutrients but also contribute to soil health. Other organic fertilizers include things like liquid seaweed, fish emulsion, and alfalfa meal. Inorganic fertilizers are also available and come in granular, water-soluble, and liquid forms.

Any product sold as a fertilizer has a nutrient analysis on the label. This number tells you what percentage of the three major nutrients – nitrogen, phosphorus, and potassium – the fertilizer contains. The product label should also tell you how much to use for different plants. Keep in mind that too much fertilizer can be just as detrimental to plant growth as not enough. Always follow label instructions and apply correctly.

Good soil preparation will provide fertile soil that will set the stage for a thriving garden. But some plants will benefit from an additional dose of nutrients over the course of the growing season. This is called side-dressing. Crops that will benefit from some additional fertilizer during the growing season, known to gardeners as “heavy feeders,” include cabbage, broccoli and their relatives; tomatoes, eggplant, and peppers; cucumbers, squash, and melons; and sweet corn. Granular fertilizer can be scratched into the soil near the base of the plants or you can use a water-soluble fertilizer like fish emulsion to sidedress plants.