

B.L.D.E Association's

**S.B. Arts and K.C.P. Science College,
Vijayapur (Karnataka)**

**DEPARTMENT OF
CHEMISTRY**

**BEST PRACTICE
2017-18**

MAINTAINING COLLEGE GARDEN

Maintaining college garden

we need to learn the procedure to eliminate plant diseases by understanding and managing the conditions that cause them.

Once plants are in the ground, we need to maintain the garden through regular activities such as watering, thinning, weeding, fertilizing, mulching, composting, and monitoring for pests. These activities promote healthy plants by providing for their needs.

1. Use fully composted yard waste

Not all materials in a compost pile decompose at the same rate. Some materials may have degraded sufficiently to be put in the garden, while others have not. Thorough composting generates high temperatures for extended lengths of time, which actually kill any pathogens in the material. Infected plant debris that has not undergone this process will reintroduce potential diseases into your garden.



Students cleaning the garden.

2. Keep an eye on your bugs

Insect damage to plants is much more than cosmetic. Viruses and bacteria often can only enter a plant through some sort of opening, and bug damage provides that. Some insects actually act as a transport for viruses, spreading them from one plant to the next.

3. Clean up in the fall

It is always best to clean out the garden in the fall, even if you live in a moderate climate. This is not only an effective deterrent to disease but also a good way to control diseases already in your garden.



Cutting the damaged leaves.

4. Apply the correct fertilizer

You need to take care when fertilizing plants since too much of any fertilizer can burn roots, reducing their ability to absorb water. This, in turn, makes the plants more susceptible to stress from drought, cold, and heat. Plants starved for nutrients are smaller and can be badly affected by leaf spots, while a stronger plant can fight off diseases. An overabundance of a particular nutrient is another way to put stress on a plant.

5. Plant disease-resistant varieties

Disease-resistant plants are those that might get sick with a particular problem but will fight off the disease instead of succumbing to it. For instance, some tomatoes are coded as "VFN resistant," which means the tomato variety is resistant to the fungi *Verticillium* and *Fusarium* and to nematodes.

6. Prune damaged limbs at the right time

Trimming trees and shrubs in late winter is better than waiting until spring. Wounded limbs can become infected over the winter, allowing disease to become established when the plant is dormant. Late-winter pruning prevents disease from spreading to new growth. Although late-winter storms can cause new damage, it is still better to trim back a broken limb than ignore it until spring is underway. Always use sharp tools to make clean cuts that heal rapidly, and make sure to cut back to healthy, living tissues.



Cleaning the garden

7. Water properly

Watering your garden is a good thing, but since many diseases need water just as much as plants do, how you go about it makes a big difference. Many pathogens in the soil and air need water to move, grow, and reproduce. To avoid giving these diseases an environment they love, choose watering methods that limit moisture on a plant's foliage. Soaker hoses and drip irrigation accomplish this. If you are watering by hand, hold the leaves out of the way as you water the roots.

The most common leaf problems are exacerbated when leaves are wet, so overhead sprinkling is the least desirable option. If you choose this method, however, water at a time when the leaves will dry quickly but the roots still have time to absorb the moisture before it evaporates.



Watering the plants.

8. Don't crowd plants

Plants that are placed too closely together tend to grow poorly due to competition for light, water, and nutrients. These weak plants are more susceptible to attack. Diseases also sometimes spread when an infected leaf comes into contact with a healthy one, which is more likely when plants are next to each other.

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