watering

Water is one of the most important elements of plant growth. Water is necessary not only because it becomes part of the plant, but also because it is needed to dissolve fertilizers and minerals and make nutrients available to plants.

In the cool spring and fall, when things are growing slowly, the soil stays moist longer, and one needs to water only after several days to a week. But as summer speeds up growth and causes plant moisture to evaporate, you might have to water as much as once a day.

Very tiny seedlings do not have much of a root system, and they will die fast if watering is neglected. The soil mix should stay moist, but not wet. You can use a spray bottle, if you have one, to mist them gently, or pour water in very carefully with a cup. A piece of plastic or a mini-greenhouse (see Vegetable Seeds project) over your seedlings will help keep moisture in until they are large enough to stand up when watered.

CONTAINER PLANTS

Plants in containers must be watered more often than those in the ground because they have less soil to get water from. One good way to tell if a container plant needs water is to stick your finger down into the soil about an inch. If it's dry, add water. Keep an eye on your plants - if any start to wilt they probably need water. (Note: There are some diseases that cause wilting. If watering doesn't bring a plant back to normal, you may have a disease problem.)

Always water thoroughly when you water. Some water should come out of the bottom of the container to show that even the roots in the lower part of the pot have been reached.
It is possible to get too much water, though! Plants need oxygen around their roots, and if water doesn't drain well the soil can become waterlogged and plant roots suffocate since water is filling all the air spaces. (Read "Things Plants Need" HELP sheet for more about this.)

Provide good drainage by using a porous soil mix made with coarse sand or perlite, and by putting coarse material such as gravel or pieces of old broken pots in the bottom of the container, over the hole. All pots and growing trays should have holes in the bottom when possible.

OUTDOOR GARDENS

Outdoors, drainage can also be a problem if you have heavy clay soils. Addition of organic matter is the best way to correct this condition. (See "Things Plants Need" HELP sheet and Garden Ecology project for more information.) Organic matter lightens the soil and opens up more large pore spaces for water to drain through. In sandy soils, the problem may be opposite. Water will drain too fast. It may seem strange, but adding organic matter can help in this case, too. It helps sandy soil to hold moisture.

Mulching will keep moisture from evaporating so rapidly from the ground. You can use black plastic (an inorganic mulch which can be expensive), newspaper, grass clippings, straw, leaves, and many other things. See MH 326, Mulches for the Home Garden for more suggestions. Your leader can get this for you.

About one inch of rain is needed per week for a garden with bare soil, and less if the garden is mulched. If you must water, the soil should be wet to four or five inches deep after watering. It may take several hours with a sprinkler or drip hose to water the garden. Water early in the day so plants will dry off. This will help to prevent disease problems.

New Words

drainage: the way water moves downward through the soil

mulching: a covering of some type placed on the soil around plants to help hold moisture