

News from the Watershed

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Help Your Backyard Plants Get the Nutrients They Need

All plants require certain nutrients for good growth. Carbon and oxygen are taken in through the leaves during photosynthesis, while the rest of the required nutrients normally are taken up through the roots.

Most nutrients and water are taken up through the very fine roots called root hairs. These are very small, but are extremely numerous and effective in nutrient uptake. The more soil the roots are able to penetrate, the more potential they have to contact needed nutrients and water. Therefore, providing a non-compacted, well-drained soil is important for optimum growth of most plant species.

These tips will help your plants develop healthy root systems for maximum nutrient uptake:

- Do not work in your garden when the soil is wet. Working the soil when it is too wet causes compaction which makes soil particles clump together, reducing the pore space between particles. This makes it more difficult for roots to penetrate the soil and leads to reduced water infiltration and increased runoff. While it may be tempting on those warm early spring days to dig up the garden, you should wait. The right time to work in your garden is when the soil crumbles slightly when you squeeze it in your hand.
- Add organic matter to your soil. Organic matter is extremely important in improving soil structure and increasing pore space. Organic matter improves the ability of the soil to hold moisture during dry spells. Worms thrive on soil organic matter and are excellent at improving the structure of the soil through their tunneling activities. Also, their castings or excrement is an excellent source of plant nutrients. Compost and peat moss are both excellent sources of organic matter.
- Mulch your soil. Organic mulches such as bark chips or grass clippings help protect your soil from the impact of raindrops. They prevent crusting of the

soil surface. Crusting of the soil can prevent seeds from sprouting and reduces infiltration of water into the soil. As mulch decomposes, it also adds more organic matter to the soil. Remember that some mulches will lower the pH (the acidity of the soil), making some nutrients less available.

- Use raised beds for a garden if your yard has heavy, poorly drained soils. Raised beds can be made using tillage equipment. You can make permanent beds with rot-resistant wood, filled with a mixture of soil and organic matter. But, you may decide that growing plants tolerant of wet conditions is a less troublesome, more rewarding experience!

If you treat your soil well, your plants should develop extensive healthy roots capable of taking up the required plant nutrients.

For more information on nutrient management, mulching, and other Backyard Conservation practices, contact Highlands Soil and Water Conservation District at 402-6545 or call 1-888-LANDCARE (toll free) for a free colorful Backyard Conservation booklet and tip sheets.