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AGRIVIEW

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Mulching can be one of the most beneficial gardening practices in Henderson County landscapes. Mulches conserve moisture, insulate the roots of plants from temperature extremes and help control weeds. They also provide a barrier to certain soil-borne diseases that feed on plant foliage.

As organic mulches decompose on the soil surface, they add valuable plant nutrients to the soil. They also protect sloping ground from soil erosion and prevent soil compaction from driving rains. Mulched areas require little routine maintenance and can save you time and energy in the landscape.

Fall leaves, grass clippings, pine straw and trimmings are excellent mulches for the landscape or vegetable garden. Large leaves and twigs should be shredded before they are used as a mulch. A simple way to accomplish this is by placing them in small rows, six to eight inches high and two feet wide on the lawn. Then, with the lawn mower set for highest cutting height, run over the row once or twice. A grass catcher attached to the mower is handy for this operation.

A mixture of several different organic materials provides the most attractive and uniform appearance on the soil surface. Some fine-textured mulches, like grass clippings, tend to mat down and decompose quickly when used alone.

Place three to five inches of mulch on the soil surface under trees and shrubs. On newly planted ornamental trees and shrubs, extend the mulched area at least six inches beyond the canopy spread. Then gradually expand the mulched area as the plant grows. The roots of established ornamental plants spread two to three times the canopy spread of the top, so mulch as large an area as possible.

Once in place, pull back the mulch two to three inches from the main trunk to avoid possible wood decay. Then moisten the surface to help settle the mulch and to prevent it from blowing away.

Mulch can also be used 9on flower beds, on the surface of container plants to help conserve moisture, under berry bushes and fruit trees and in the vegetable garden.

GAINING A GREEN THUMB:

Sixteen nutrients are considered essential to plant growth and development. Thirteen of these nutrients are furnished by the soil. Under natural conditions, plant nutrition is not a problem (note the forests, woods and native pasture). However, for a successful and productive vegetable garden, some type of fertilizer must be added.

But what's in a fertilizer that makes it so important? And what do those three numbers mean? The numbers stand for three major nutrients - nitrogen, phosphorus and potassium, in that order. The numbers tell how much of each nutrient is present as a percentage of the total weight of the fertilizer. Thus, a 50-pound sack of 10-20-10 contains 5 pounds of nitrogen, 10 pounds of phosphorus and 5 pounds of potassium, or their chemical equivalents. That's only 20 pounds total - the rest of the fertilizer is simply an inert carrier or filler, such as sand, perlite or rice hulls.

Nitrogen is necessary for all vegetative growth - roots, leaves, stems, flowers and fruits. Among other functions, it is partially responsible for the green color of chlorophyll and it is essential to protein formation. A nitrogen deficiency causes lower leaves to turn yellow.

Phosphorus is essential to cell division, root formation, flowering and fruiting. It's also involved in the storage and transfer of energy vital to all growth processes. Consequently, a phosphorus deficiency causes stunted growth and poor flowering and fruiting.

The role of potassium is not well defined, but experience shows that plants cannot grow properly without it. Potassium deficiency symptoms vary, but stunted growth and dark or purple discoloration are common symptoms in many plants.

Home gardeners are often pestered with diseases that deplete yields at harvest. Many gardeners have found that proper planning and following recommended control practices keep vegetable losses to a minimum.

Select a well-drained garden site to prevent damping-off and other problems associated with wet soil.

Organic matter (straw, leaves, crop residue) is essential to productive soil, but can also increase the occurrence of southern blight. To avoid a buildup of southern blight, bury organic matter below the expected root zone of next year's crop. This should be done in the fall if possible.

Watering plants in the evening causes leaves to remain wet for an extended period and increases the chance of leaf diseases. Plants watered in the morning dry quickly, resulting in fewer problems. Drip irrigation also reduces foliage diseases.

Grow vegetables in the same location only once every 3 to 5 years. If this cannot be done, at least plan your garden so that you don't grow vegetables of the same family group in the same area season after season. Family groups are: (1) watermelon, cucumber, squash, cantaloupe, honeydew melon, pumpkin; (2) cabbage cauliflower, brussels sprouts, rutabaga, kale, turnip, mustard, radish, collard; (3) swiss chard, beets, spinach; (4) pepper, tomato, potato, eggplant; (5) carrot, parsley, parsnips; (6) onions, garlic, leek; (7) sweet corn and (8) beans, peas and southern peas.

A number of diseases attack vegetable foliage and fruit. Diseases caused by fungi cannot be cured, so they must be prevented. When you see a fungus problem, irreversible damage has already been done. Cloudy, damp mornings encourage the growth of fungus spores. When such conditions exist, you may want to follow a preventive spray schedule or remove contaminated plants.

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