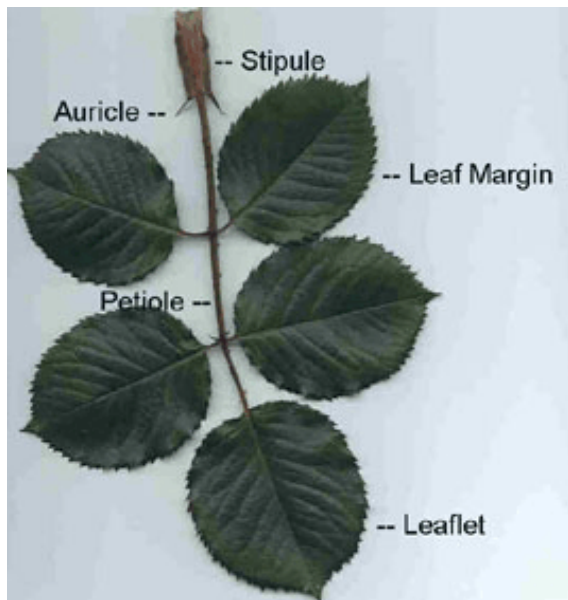


By Jolene Adams

ABOUT LEAVES!

Your roses are actively growing now and pushing out leaves – burgundy, dark green, light green, shiny ... clean new leaves. The leaves are more than just lovely foliage that covers the plant and keeps the sun from burning the tender bark of the stems.

Leaves provide the surface area needed for the rose to collect sunlight and conduct photosynthesis, which produces food for the plant. Rose leaves are described as “pinnate” – that means there is a central rib and then leaflets off to each side, with one terminal leaflet. Rose leaves can have 2, 3, 5, 7, 9, 11, 13 leaflets. Most modern roses have a 5-leaflet leaf with perhaps a few 3-leaflet leaves close to the bloom.



The leaves grow on alternate sides of the stem. There is a short, broad blade called the stipule at the base of the long “rib” which is the petiole. The stipule often has two long projections called auricles. Some

auricles are curly, some are straight. The leaflets themselves are attached to the petiole (the “rib”) by short petiolels.

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Have you noticed that roses have different shaped leaflets? Some are very oval, others are long and slender, and you can find leaflets on some roses that are just about round. The shape of the leaflets are a good identifier for some roses.

Then there are the edges of the leaflets. The edge is called the leaf margin. The margin can be smooth, slightly saw-toothed, or even very deeply saw-toothed. This is another identifier.

Leaflets have a thin, protective layer of cells on the upper and lower surface, called the epidermis. Some leaflets also have a glossy coating on top called a cuticle. This helps prevent fungus disease organisms from puncturing the skin of the leaf and getting inside. Just beneath the epidermis are thickly packed palisade cells which contain chlorophyll. On the bottom of the leaflet, the palisade cells have big gaps between them so water vapor, carbon dioxide and oxygen can move around. There are guard cells on the epidermis that can close the opening (the stomate) to these open area so nothing gets in or out.

The inside of the leaflet is a spongy mass of cells used for storage and transporting food. Running through the middle of this area are the “veins” which are bundles of the same xylem and phloem that we find in the stems. These transport water and food.