

FASCIATION

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Fasciation, or the "leafy" gall disease as it is sometimes called, is found on a number of different plants throughout the United States. The disease is caused by the bacterium Corynebacterium fascians. It may be severe on occasional plants, but it rarely affects entire crops.

Among the more commonly infected plants are carnation, chrysanthemum, geranium, gypsophila, petunia (figure 1), and sweet pea. The sweet pea appears to be the most susceptible of the above plants.



Figure 1. Fasciation on petunia.

Symptoms caused by the "leafy" gall bacterium are similar on all host plants.

Infected plants develop short, thickened, flat, fleshy stems at the base of the plant or just below the soil line. Leaves on the affected stems may be distorted and are often strap-like. A mass or cluster of these fasciated shoots form a witches' broom or a dense mass of growth. Witches' brooms on some older plants may be up to 4 inches in diameter. However, they are rarely more than 2 inches in height. The remainder of the plant may be slightly stunted, but is otherwise normal in appearance. Flower production is usually reduced on infected plants.

On carnations, fasciated growth may occasionally occur on the stems. When this happens, they are found on the lower nodes.

All infected plants should be destroyed as soon as symptoms of fasciation are evident. The disease can be prevented on some plants by planting clean seed in sterilized soil. Soaking the seeds in 70% alcohol (methanol, ethanol or isopropanol) for one minute should help reduce the numbers of bacteria on the seed coat. With plants propagated from cuttings, an attempt should be made to obtain cuttings from disease-free plants.