

## Foliar Fertilizer for Vegetables and Snowy Looking Weeds

May is the month when my telephone doesn't get much rest, so this week I just took two questions that I get every year about this time.

About mid-season every spring, foliar fertilization of various vegetable crops becomes a hot topic. Questions range from "How much do I put?" to "will it do any good?" Foliar absorption of fertilizer elements generally occurs through the stomatal openings of leaves. Nitrogen is usually absorbed within eight to 24 hours, potassium within one to four days, and phosphorus in seven to 15 days. Most minor elements, if properly formulated, are rapidly absorbed through the leaves.

Because of the waxy cuticles on the leaves of many vegetable plants, actual foliar uptake of nutrients can be very limited. In addition, if excessive amounts are applied, leaves may be damaged by fertilizer salts, further impeding absorption.

Through natural selection, most plant species have developed a very effective mechanism for absorbing nutrients – a good root system. Even though plants may absorb some nutrients through the leaves, they are more adapted to absorbing nutrients through healthy root systems.

Foliar application of macro nutrients such as nitrogen, phosphorus, and potassium usually has little or no effect on yield or quality of vegetables when soil applied fertilizer is timely and adequate. Since it is extremely difficult for the leaves of most vegetable plants to absorb large amounts of macro nutrients, it is unlikely that foliar application of macros will successfully correct major deficiencies.

Secondary nutrients such as calcium, magnesium and sulfur and micro nutrients such as boron, zinc, and manganese are a different story. Plants require relatively small amounts of these nutrients (especially the micro nutrients) and foliar applications of these nutrients often help alleviate deficiencies. However, they should be applied only if there is a legitimate need for them and only in amounts labeled for foliar application.

So, should a grower apply foliar fertilizer? According to Darbie Granberry, Extension Horticulturist-Vegetables, that depends on what nutrients are contained in the specific foliar fertilizer being considered and which nutrients (if any) are needed by the crop. There is research supporting the application of foliar fertilizer to other crops, but the only nutrients currently recommended for routinely scheduled foliar application to specific vegetable crops are calcium and boron. The amounts to be applied will depend on the formulation and crop needs.

## "Cottony" Weed In Lawns

Another common spring time questions is regarding "that weed that looks like snow." It seems that all of a sudden, numerous lawns are turning white. Well, it is not snow, nor is it left over cotton from last fall. The "cottony" or snowy appearance is due to the presence of a weed named *facelis* (*Facelis retusa*). *Facelis* is a winter annual member of the Aster family that reproduces by wind-blown seed.

This weed reaches heights of 4 to 6 inches and has alternate wedge-shaped leaves with a small tooth at the tip. The upper leaf surface is green, while the lower leaf surface is densely gray due to the presence of leaf hairs. Flowers are very inconspicuous; however, seed have soft, white bristle-like hair. With severe infestations the lawn becomes white when seed are being released from the plant. Typically facelis is found in lawns with a low density of turfgrasses, as well as on open, droughty, low-fertility sandy or clay soils.

Facelis actually germinates in the fall and late winter months, produces seed in late April to June and then dies. May is not the preferred time to control facelis, as the weed is essentially in the process of dying. Research has not been conducted on controlling facelis in turfgrasses. Additionally, this weed does not appear on herbicide labels.

However, 2,4-D+MCP+dicamba (ex. Ortho Weed-B-Gon) or atrazine (Purge and others) applied during the mid-winter through early spring months should control facelis. Also, since this weed is found on droughty, low-fertility sites, efforts should be made to improve the turfgrass density through liming, fertilization and irrigation. Renovation is the best long term solution.

A dense, healthy stand of grass is the best weed prevention strategy. When mowing, don't scalp the yard. Mowing too close can weaken grass, especially fescue. Scalping also opens the turf giving weeds such as facelis a chance to establish.