Cultural Tips for Late Spring Crops

Allen C. Botacchi
Cooperative Extension Educator
Commercial Horticulture

Spring and fall are challenging seasons to grow crops in the greenhouse. Extreme variations of sunlight, which directly affect greenhouse temperatures, influence the rate of growth and/or create conditions favorable for diseases.

High light conditions accelerate plant growth and, conversely, low light (cloudy or overcast weathers) reduces or slows the rate of growth.

During extended cloudy periods, this reduced light frequently results in "stretched" plants, especially when a crop is not given adequate spacing. Cloudy weather also aggravates already low-light conditions under hanging baskets, shelves or tiers. The author has seen geraniums, shaded by plants above, delayed in flowering. A word to the wise—do not shade or crowd plants excessively.

Another problem encountered in the spring is poor air circulation and/or air exchange within the greenhouse. This creates an environment with very high relative humidity to the point of free water on plant surfaces. This condition is favorable for the development of foliar disease organisms, particularly Botrytis. The use of the old "heat and ventilate" management technique (used to reduce the RH) will help reduce foliar diseases and save fungicide dollars (costs of material and labor of application).

During cooler spring months, growers sometimes switch too early to ammonium (NH_4) sources of nitrogen. This condition often results in ammonium toxicity which will stunt or retard normal growth. Read the fertilizer bag carefully and make sure that at least 50% (preferably more) of the nitrogen is in the nitrate form.

When watering or otherwise working with a crop, closely examine the growing points or terminals for aphid infestations. Likewise, turn over the leaves and check for the presence of whitefly, mite or thrips. Do not allow insects to get a head start on your crops. Scout or check the crops daily and apply the proper insecticide (see *1990-91 New England Greenhouse and Growth Regulator Recommendations*).