Fusarium wilt of cucumber

Fusarium wilt of cucumber occurs occasionally in Florida, usually where cucumbers are grown on the same land year after year. Symptoms are similar to that of Fusarium wilt of watermelon and cantaloupe. Controls include crop rotation, and liming of soil coupled with use of fertilizer with a minimum amount of ammonium salts.

Fusarium wilt of cotton

Fusarium wilt of cotton occurs infrequently in Florida. Prior to the use of varieties with resistance this disease was more prevalent in Florida. Infection of cotton by the Fusarium wilt pathogen is highly dependent upon damage from nematodes but does not necessarily occur when plants are infected with nematodes. Symptoms include stunting, lower leaf yellowing and browning, wilting (often seen first at flowering), gradual reduction of plant vigor, and possibly plant death. Vascular discoloration may be dark brown to black. Controls include crop rotation, suppression of nematodes and use of varieties resistant to prevalent races.

Fusarium wilt of tobacco

Fusarium wilt of tobacco is present occasionally in Florida. Symptoms include leaf yellowing and wilting (Fig. 9). Leaf yellowing and wilting may occur on one side of the plant but not the other, a symptom not uncommon with Fusarium wilts. Injury from cultivation or nematodes will predispose plants to infection. Calcium deficiency will accentuate Fusarium wilt of tobacco. Fusarium wilt of tobacco will occur across a wide range of soil pH's, but it is likely to be more severe at 7.0. This wilt fungus can grow from 45 to 95°F (7 to 35°C) but grows best between 77 to 86°F (25 to 30°C). This disease is best controlled by crop rotation, resistant varieties and reduction of nematode damage. Sweet potatoes should not be used as a rotational crop as they are also susceptible to this fungus.

Fusarium wilt of sweet potato

Fusarium wilt of sweet potato occurs occasionally in Florida if resistant varieties are not used. Leaf yellowing and browning of the oldest leaves during vine elongation is a common symptom. Stunting and eventually plant death may occur. Vascular discoloration may be similar to that of other wilts with two discolored bands being evident when the lower stem above or below the soil surface is cut lengthwise. However, if the wilt is one-sided, the vascular discoloration may be only on one side of the stem. Vascular discoloration will vary in color from brown to purple. Infection can occur anytime during the growth of the crop but infection is most likely during or shortly after transplanting. Damage to roots from pulling transplants or any other factor favors infection. This fungus grows at all temperatures that are favorable for crop production but may be inhibited to some degree at soil temperatures above 86 to 95°F (30-35°C). Control includes crop rotation, resistant varieties, selection of healthy transplants, minimizing stress and avoidance of planting when soil is cool.

Fusarium wilt of crucifers (cole crops)

Fusarium wilt of crucifers (cole crops) has occurred sporadically in Florida in cabbage, collards and radish but generally this disease has not impacted upon crop production significantly. Other crucifer species are also susceptible. Because little is known about the degree of susceptibility of different crucifer varieties, except for cabbage, the occurrence of this disease in other crucifer crops may occur in the future. Symptoms include seedling death (Fig. 10), stunting, stem curling, leaf drying on the edges, yellowing of lower leaves, dropping of leaves, bud formation on leafless stems, vascular discoloration, and often plant death. Black rot, a bacterial disease, can be confused with Fusarium wilt because it causes black veins in stems, roots and leaves. Fusarium wilt is most likely to be a problem in plantings that are initiated in the late summer to early fall or mid to late spring. The fungus grows best at 80 to 90°F (27 to 32°C) and is strongly inhibited below 61°F (16°C) and above 95°F (35°C).

Control of Fusarium wilt in crucifers includes use of crop rotation and disease-free transplants. For cabbage, many resistant varieties are available. When cabbage or other crucifers are grown without crop rotation, use of resistant varieties is essential.

Fusarium wilt of soybeans

Fusarium wilt of soybeans has been found on occasion in Florida but the extent of its incidence and importance is unknown. Symptoms include lower leaf yellowing, leaf drop, stunting, wilting in mid season, and possibly plant death. Infection is enhanced by cool temperature from 57°F (14°C) to 74°F (23°C). Thus, this disease might be a problem if soybeans are planted too early (prior to mid May)