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Vine crops disorder: Scab

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Scab, also called gummosis, is one of the most important diseases affecting vine crops. In cool moist environments, scab can be a yield-limiting disease. While the pathogen infects a broad range of vine crops including pumpkins, squash, and melons, it is rarely a problem on cucumbers because of the introduction and use of scab-resistant varieties.

Symptoms and effects

The fungus, *Cladosporium cucumerinum*, attacks all above-ground parts of the plant. However, infections on the fruit cause the most serious damage.

On fruit, the lesions are small sunken spots that resemble insect feeding damage. There is often a sticky exudate coming from the lesions. In response to infection, the fruit often produces corky tissue to wall off the invaded cells, producing a scab. Eventually the lesions turn a dark olive green color. They may also coalesce to produce an unusually large lesion. Each lesion provides an entry point for soft rot organisms that in turn break down the fruit.

On leaves, the first signs of infection appear as pale green or yellow water-soaked spots. These later turn gray and white and are surrounded by a chlorotic halo. Eventually, the infected leaf tissue falls out, giving the leaves a tattered appearance. Lesions on stems and petioles are often elongated.

Disease cycle

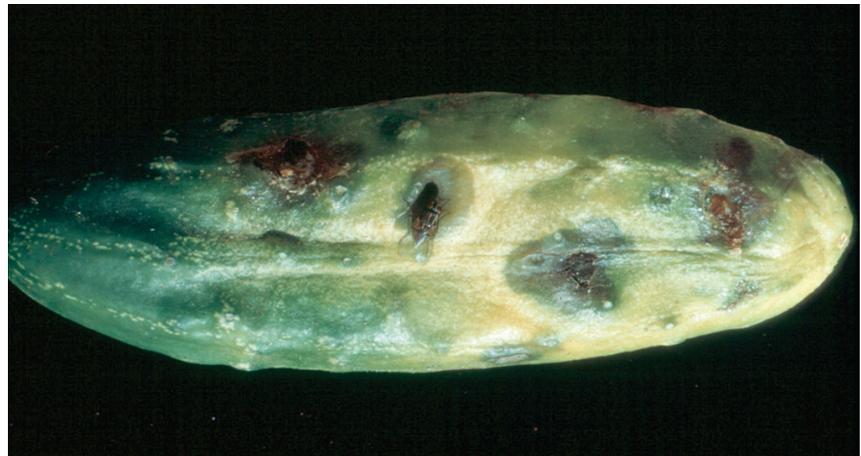
The fungus that causes scab overwinters on infected plant debris in the field. It may also be seed-borne. Cool, wet weather favors infection. Insects, splashing rain, tools, clothing, and wind spread the disease.

Control

Prevent the introduction of the fungus into clean fields by planting certified, disease-free seed.

Rotate fields out of vine crops for at least 2 years to slow the build-up of inoculum in the soil. Removal of plant refuse at the end of the growing season will also reduce the amount of inoculum the following year.

Avoid overhead irrigation when possible and if necessary, do so early in the day to allow the plants to dry before nightfall. Also avoid working in the crop when the vines are wet from dew, rain, or irrigation.



The availability of resistant varieties has helped to make scab a rare problem on cucumbers. However, it is still a serious disease of pumpkins, squash, and melons.

Most cucumber varieties on the market today are considered scab resistant. The following table provides a list of some of the currently available scab-resistant varieties. When selecting a variety, read the description carefully to ensure that you select for scab resistance.

Scab-resistant cucumber varieties

(new resistant varieties are released each year)

Slicing cucumbers		Pickling cucumbers	
Bush Crop	Orient Express	Bush Pickle	Royal
Dasher II	Panther	Calypso	Vlasstar
Daytona	Pot Luck	Carolina	Wellington
Diva	Prancer	Cool Breeze	Zapata
Fanfare	Raider	Eureka	
General Lee	Salad Bush	Fancipak	
Greensleeves	Slice More	Jackson Classic	
Impact	Spacemaster	Lafayette Classic	
Indy	Speedway	Napoleon Classic	
Intimidator	Stonewall	Patio Pickle	
Jackson	Thunder	Patton Supreme	
Lynx	Thunderbird	Prancer	
Marketmore	Turbo	Regal	



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