

PLECTOSPORIUM RUSSET

CAUSAL AGENT

Plectosporium tabacinum

IDENTIFICATION

Russet symptoms are evident on snap bean pods usually at or near harvest. Symptoms consist of diffuse, superficial, light brown flecks and necrotic areas with undefined borders. The lesions may vary in size and shape and are not confined to any one area of the pod. Symptoms have not been observed on leaves or stems of snap bean plants.

DISEASE CYCLE AND EPIDEMIOLOGY

P. tabacinum has a wide host range, including cucurbits, and the ability to survive saprophytically. The organism appears to opportunistically parasitize plants under conducive wet conditions.

Pods at any stage are susceptible to pathogen-induced russet. However mature pods are at an increased risk of russet incited by *P. tabacinum* when they remain wet for a relatively long time. No symptoms have been observed on leaves or stems.

The beginning of symptom expression is associated with heavy rainfall or thunderstorms near the time of harvest. Severe cases have been documented, where harvest had begun on apparently healthy pods and was interrupted due to heavy rains for 1 or more days. When harvest was resumed, the crop was unmarketable due to russet.

MANAGEMENT

Avoid excessive irrigation, because this pathogen is associated with excessive amounts water, especially near harvest.

It is currently unknown whether cropping sequences increase the risk of russet in snap beans. Rotation away from known hosts (such as cucurbits) would be prudent. Host specificity may occur among *P. tabacinum* isolates from various crops. The snap bean isolate used in our research did not cause russet disease in two summer squash varieties (Lemondrop and Senator), but an isolate from zucchini was pathogenic to snap beans.

It has not been determined whether a preventative pesticide application prior to a predicted heavy rain event is warranted and would control the disease.

LITERATURE CITED

Dillard, H.R., Cobb, A.C., Shah, D.A., and Straight, K.M. 2005. Identification and Characterization of Russet on Snap Beans Caused by *Plectosporium tabacinum*. Plant Disease 89:700-704.