

**Project #9018 Airborne Ascospores & Disease Risk  
Storage Rot of Carrot**

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**BRIEF**

**DESCRIPTION**

Spores of *Sclerotinia sclerotiorum*, the causal agent of sclerotinia storage rot of carrot, will be monitored in, above, and outside of selected carrot crops in the Bradford Marsh in 2007 using at least three standardized methods. The results will be used to:

1. validate and improve the disease forecasting model currently being developed for sclerotinia storage rot;
2. determine if monitoring spores at only three locations in the Bradford Marsh would be an effective method to predict the risk of disease for the entire regions;
3. Provide preliminary results on the potential for monitoring multiple pathogens using the same spore trapping protocols.

**PROJECT**

**OBJECTIVE**

To compare the use of sclerotinia-selective medium (SSM) for detecting ascospores of *S. Sclerotiorum* in, above, and outside of selected carrot crops in the Bradford Marsh

To compare the use of SSM for detecting ascospores to the use of Air-O-Cell and Anderson sampling devices (e.g. industry-standard sampling devices).

To compare the use of a Burkard spore sampling device for the ability to detect ascospores of *S. sclerotiorum* and other pathogens using DNA-based molecular biology identification methods.