VEGETABLE CROPS HOTLINE

A newsletter for commercial vegetable growers prepared by the Purdue University Cooperative Extension Service

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IN THIS ISSUE

EARLY BLIGHT STEM LESIONS - *(Dan Egel)* - Although early bight of tomato was discussed in the last issue of the Vegetable Crops Hotline, I wanted to share with you a sample that I received recently. The photograph accompanying this article (Figure 1) is of an early blight lesion of a tomato transplant. The symptoms of this disease are more often observed on the leaves than on the stem. In addition, I do not usually observe early blight in the transplant greenhouse. Early blight may overwinter in crop residue or may be transmitted through seed. Therefore, this disease may occur in the transplant greenhouse as a result of poor sanitation or a seed borne fungus. In either case, growers should scout their greenhouses for diseases and carefully inspect transplants upon delivery.

Figure 1: Early blight stem lesions are sunken and have minute ridges that form concentric rings. *(Photo by Dan Egel)*

PUMPKIN PLANTING TIME - *(Dan Egel)* – It is time to think about when to plant pumpkin seed to avoid serious yield loss from virus diseases. Purdue University recommends that seed of pumpkins be planted by 20 June to manage for pumpkin viruses. (The 20 June date has been established for southern Indiana-adjust your date accordingly.)

Almost all pumpkin fields will have symptoms of virus infection. There are several related virus diseases of pumpkin that cause similar symptoms. Those symptoms include a mosaic on foliage and shoestring of leaves (Fig. 1).

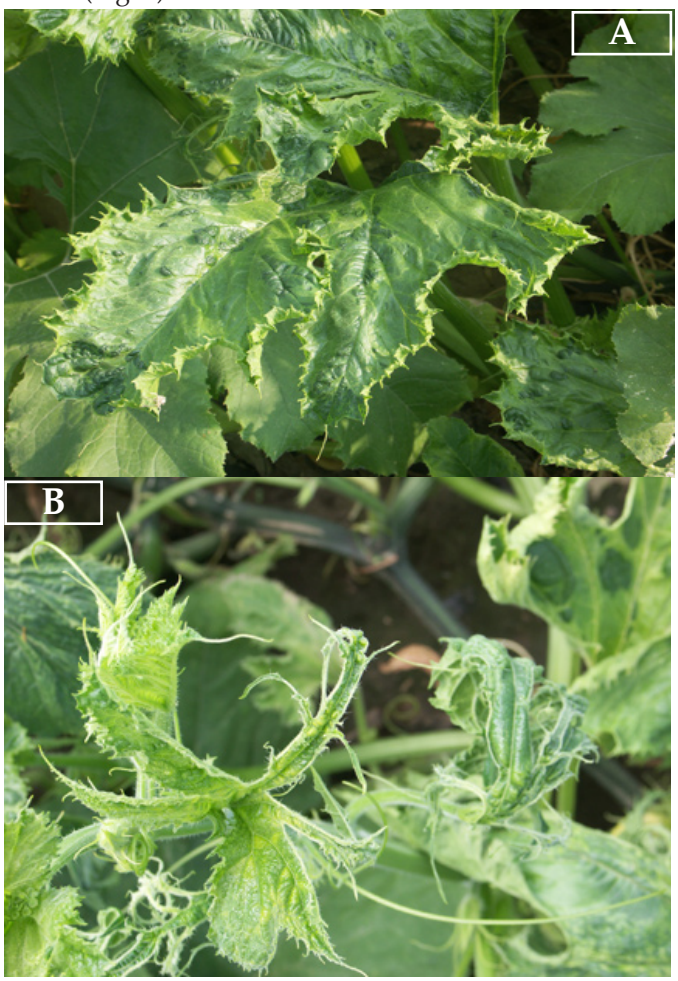

Fig 1: Virus symptoms on pumpkin foliage includes mosaic (A) and 'shoestring' (B) of leaves. *(Photo by Dan Egel)*

However, if pumpkins are planted sufficiently early, the virus diseases will not become widespread or severe until the fruit has set. Pumpkin plants are most susceptible to yield or quality losses after fruit have set.

Aphids spread most important pumpkin viruses. The aphids that spread pumpkin viruses are more

abundant as the season progresses. This is the reason it is best to plant early. Although insecticides can be used to manage aphid infestations in pumpkins, insecticides will not stop the spread of these pumpkin viruses. This is because aphids will spread the virus particles before the insecticides have a chance to work.

Flooded Fields and Food Safety - *(Liz Maynard)* - Excess rain brings with it any number of problems for vegetable producers, but the one to be addressed here is flooding and food safety. Floodwaters are often contaminated with human pathogens or chemical pollutants. When the edible part of a crop has been exposed to flood waters, there is no way to completely clean it so that it is suitable to eat. For this reason, if the edible portion of a crop contacts flood waters, the crop should be destroyed. Since the edible portion of nearly all cool season crops is close to ground level, they are very likely to become contaminated if a field is flooded.

If floodwaters haven't contacted the edible portion of the crop it is important to weigh risk factors in order to decide whether the crop should be destroyed. What is the likelihood that the floodwater contained human pathogens or chemical contaminants? How close to the ground does the edible part of the crop grow? Has the edible portion begun to develop?

For more information about Good Agricultural Practices and Food Safety, check out the GAPS website at Cornell University <www.gaps.cornell.edu/> or the Ohio and Indiana Specialty Crop Food Safety Initiative at <www.midamservices.org/> (choose 'Projects' from the pull-down menu).

Reference: FDA/CFSAN. 2006. A Notice from the Food and Drug Administration to Growers, Food Manufacturers, Food Warehouse Managers, and Transporters of Food Products About the Safety of Food Affected by Hurricanes, Flooding, and Power Outages.

Aphids on Melons - *(Rick Foster)* - Last week I saw muskmelons in the Vincennes area that were fairly heavily infested with aphids. The only plants that had aphids had not been treated with a soil insecticide (Furadan, Admire, or Platinum) at planting time so those products apparently were still providing aphid control. There were a large number of aphid mummies present on infested leaves. These are aphids that have been parasitized by a tiny wasp. The aphid bodies become hard as the wasp larva feeds inside the aphid. If many mummies are present, then you may not need to use insecticides to control the aphids. The parasites, as well as predators such as ladybugs and lacewings, may control the aphids without any help from you. If control is necessary, there are a number of insecticides available that will provide good control. See page 81 of the *Midwest Vegetable Guide for Commercial Growers 2008* (ID-56) <www.btny.purdue.edu/Pubs/ID-56/> for details.

Slugs - *(Rick Foster)* - I have received a number of reports of slug problems on a variety of vegetable crops. Slug damage is usually a ragged type of feeding and you can usually see slime trails where the slugs crawled. The best control for slugs is hot, dry weather. The warmer temperatures we are having now may get rid of any slug problems. If not, there are a number of bait formulations with the active ingredient metaldehye that will effectively control slugs (page 50 of the ID-56).

Vegetable Crops Hotline
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