**Questions for August 30 - due September 4 - chapters 8-9**

1. What is the difference between a symptom and a sign? Give an example of the symptoms and signs from one plant disease listed under “By Pathogen Group” on the APS education center site:

**http://www.apsnet.org/edcenter/advanced/features/Pages/default.aspx**

Please make sure to clearly give the name of the disease and the pathogen in addition to symptoms and signs. (Remember, all Latin names must be italicized and have a capitalized genus name and lowercase species epithet, Ex. *Alternaria alternata*).

1. Compare and contrast horizontal and vertical resistance. Will manipulation of plant genetics affect both of these types of resistance? Do you think there is any cost (fitness, not economic) associated with having high levels of constitutive defensive mechanisms in place? Why don’t we just make plants with super pathogen resistance mechanisms so that we don’t lose yield to disease? (hint: think about the cost of having to make lots of extra antimicrobial compounds all the time…would this balance well with making large fruits?)