

## *Summarized Report for August 10-14, 2009*

**SPIDER MITES:** We highly recommend growers scout for mites. Sampling for mites requires close visual inspection; they are tiny and difficult to see. It helps to shake the plant over a piece of white paper and look for the tiny moving dots. Mite populations increase rapidly and the damage they cause can go unnoticed, so it is important to scout often. If you plan to use a miticide, apply it early because none of the registered miticides provide full control once populations reach outbreak levels. Mites damage potato plants by puncturing the surface cells of leaves, causing them to develop small yellow splotches that darken to reddish brown. Severe damage may lower yield by reducing the capacity of plants to perform photosynthesis. Mite outbreaks can be related to 1) use of non-selective pesticides, like pyrethroids; 2) close proximity to mite harboring crops like corn, alfalfa, hops, and mint; 3) close proximity to dusty roads; and 4) hot, dry weather.

**BEET LEAFHOPPERS:** In the South Basin, beet leafhopper (BLH) counts ranged 0-72 per trap and averaged (10). Most traps in the South had very few BLH (0-10 per trap); one trap near the city of Pasco had 72 BLH. In the North Basin, BLH counts ranged 0-53 per trap and averaged (14). The counts were highest in the Quincy-Ephrata area, and low everywhere else. Beet leafhoppers are the only known vector of BLTVA, which causes a disease commonly known as purple top. Treatment thresholds have not been established for BLH in potatoes, but we know that the risk for BLTVA infection increases as the number of BLH increase.

**POTATO TUBERWORM MOTHS:** Potato tuberworm moths (PTM) were found in 45% of our traps located in the South Basin this week; counts ranged 0-3 PTM/trap and averaged (0.8/trap). These numbers are not very high. Growers in the South Basin (Franklin, Benton, and Walla Walla Counties) should be paying attention to PTM populations, watching for the populations to increase, and thinking about control measures as the crop finishes up. We have not found any PTM in the North Basin.

**APHIDS:** *Twenty-five fields are being monitored for aphids this season. The fields are planted to Russet Burbank, Ranger, Umatilla, Alturas, or Norkotah. All are considered long-season crops.* In the South Basin, aphid counts ranged 0-1.3 per plant, and averaged (0.3). In the North Basin, aphid counts ranged 0-2 per plant, and averaged (0.3). These numbers are low. Insecticides along with natural factors are responsible for the general drop in aphids. The green peach aphid (GPA) is a vector of potato leafroll virus (PLRV) which causes leafroll and tuber net necrosis in susceptible cultivars. Early recognition and control of GPA is the best tactic for limiting the spread of PLRV. Even a low incidence of PLRV can spread rapidly if GPA populations go unchecked. Current recommendations are to treat short-season potatoes when counts are 5 aphids/plant, and long-season storage potatoes when there is 1 aphid/plant. Higher action thresholds may be appropriate for cultivars that are less susceptible to net necrosis. It is important to keep in mind, however, that aphids spread other viruses and can cause direct injury to plants when aphid densities are high.

**INSECT PREDATORS:** Our records show that we are collecting more beneficial insects in August compared to a month ago. We have been finding beneficial insects in most of the potato fields we sample for aphids. Among the most common are damsel bugs, big-eyed bugs, green lacewing adults and larvae, and lady beetle adults and larvae.

CATERPILLARS: Caterpillars, a.k.a. worms, are another pest to watch for in potato fields. They are not always easy to find, so look for the large holes they chew in the potato leaves. If you detect a caterpillar outbreak in your field, please contact Andy Jensen at 509-760-4859 or Alan Schreiber at 509-266-4348. They are trying to learn more about this poorly understood group of insects.