

Summarized Report for July 27-31, 2009

SPIDER MITES: We found spider mites in some potato fields in the Columbia Basin this week, and recommend growers begin scouting for mites if they haven't already started. 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 0-39 per trap and averaged (7.5). BLH counts in the South have been low, for the most part, since the beginning of July. The counts have been higher in the North. In the North Basin, BLH counts ranged 1-65 per trap and averaged (21.1). The counts have been highest in areas west of Moses Lake. 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. We recommend that every grower deploy at least two yellow sticky traps around the margins of each potato field to monitor BLH. If you are finding more than 40 BLH in your traps, it may be time to get worried.

POTATO TUBERWORM MOTHS: Potato tuberworm moths (PTM) were found in most of our traps located in the South Basin this week; counts ranged 0-11 PTM/trap and averaged (2.7/trap). These numbers are beginning to pick up. The tuberworm prefers hot weather, so the hot spell we have been experiencing in the Basin could mean higher tuberworm pressure during this harvest season. 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 long-season crops.*

In the South Basin, aphid counts ranged 0-1.5 per plant. In the North Basin, aphid counts ranged 0-43 per plant. Most of the fields sampled were below the treatment threshold level, but a couple had high populations. Growers throughout the Columbia Basin should continue to be on the lookout for aphids and treat as warranted. There are aphids in the area ready to move into your fields, if they aren't already there! 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.

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.