

## INSECT MONITORING REPORTS

*Report for July 13-19, 2011*

**APHIDS:** Aphids were found in 26 of the 31 fields (84%) we surveyed in the Basin this week. There was an assortment of winged green peach aphids (GPA), wingless colonizing GPA, and various other winged aphids. Wingless colonizing GPAs were collected in 8 of the 31 fields (26%). The fields that had aphids averaged only 0.3 aphids/plant, which is a low population density that is not easily detected. We did visit two fields, however, with populations greater than 1 wingless aphid/plant, which exceeds the recommended treatment threshold for potato fields destined for storage and processing. Potato growers across the Basin should be checking their fields regularly for aphids.

**Management Recommendations:** Early recognition and control of aphids is the best tactic in limiting the spread of potato leafroll virus (PLRV). PLRV infections are less common these days compared to a decade ago, but PLRV continues to be seen occasionally in the Basin. This virus causes a tuber symptom called net necrosis in some cultivars that is unacceptable in processing potatoes. To minimize the spread of virus, university-based recommendations are to treat late-season storage potatoes as soon as non-winged aphids are detected. The low tolerance for net necrosis by processors and the high vectoring capacity of aphids, explains the very low treatment threshold for aphids in potato fields destined for storage and processing. Higher action thresholds may be appropriate for cultivars that do not develop net necrosis when infected with PLRV, and for potatoes that will not be stored. 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. Many foliar insecticides are labeled for the suppression of aphids in potatoes; for a list of products recommended for late-season potatoes go to ***IPM Guidelines for Insects and Mites in ID, OR, and WA Potatoes***. When selecting an insecticide it is important to know the use restrictions (PHI, season limits, etc.), follow guidelines for insecticide resistance management, and consider the impact on natural enemies.

**BEET LEAFHOPPERS:** We found fewer beet leafhoppers (BLH) in network traps this week. The most caught was 19 BLH in a trap near Pasco. Click on the map below to view recent data for the region.

**Management Recommendations:** The BLH is the only known vector of BLTVA, a phytoplasma that causes purple top disease in potatoes. Infected plants show a range of symptoms, including leaf curling and purpling, aerial tubers, chlorosis, and early senescence. Purple top is managed by controlling BLH and thereby preventing the spread of BLTVA. Yellow sticky traps placed near potato fields are one way to monitor BLH populations. We recommend that growers deploy at least two traps near each of their potato fields. Populations can be spotty, so the more traps near a field, the more likely an infestation will be detected. More information about setting up traps and identifying BLH can be found in the article, "Beet Leafhopper Monitoring with Yellow Sticky Cards". It is also helpful for growers to follow regional trapping results. The long-distance movement of BLH is poorly understood, so growers should consider the possibility of BLH moving quickly from highly infested areas to less infested areas. Treatment thresholds based on BLH numbers on traps have not been established, but we know that the risk of infection increases as BLH populations become large. If the numbers on traps build up to 40 or more BLH per week, then it is probably time to be concerned. A typical weekly catch

during peak BLH activity is 100. In the Columbia Basin, chemical treatments for BLH are usually applied at-planting and/or in May, June, and July.

**POTATO TUBERWORM:** Potato tuberworm moths were found in two of our network traps this week; one trap near Pasco with 1 moth/trap, and one trap close to the Oregon border with 3 moths/trap. It is still early for much tuberworm activity. We expect the numbers of trapped moths to begin to build in August, particularly in the southern-most parts of the Columbia Basin.

**LYGUS BUGS:** This week we found lygus bugs in 24 of the 31 fields we visited (77%). These are not considered damaging pests of potato. Lygus bugs feeding on potatoes may damage young buds and sometimes causes distorted growth or wilted leaves, but does not often affect yield. Chemical treatment for lygus bugs in potatoes is needed only rarely.

**BENEFICIAL INSECTS:** We continue to find beneficial insects in the majority of the fields we visit every week. This week, big-eyed bugs were found in 68% of the fields, and damsel bugs were found in 32% of the fields. These beneficial insects both feed on spider mites and a wide variety of soft-bodied insects, including aphids, leafhoppers, etc. We have also been finding some minute pirate bugs and lady beetles.