

Is Western Lygus Bug A Pest of Potatoes

Alan Schreiber

Agriculture Development Group, Inc.

2621 Ringold Road

Eltopia, WA 99330

(509) 266 4348

aschreib@centurytel.net

Grower feedback to Schreiber and other potato entomologists in 2014 indicated their concern with western Lygus bug - both for its feeding damage and perception that it may be vectoring BLTVA and potato viruses. Despite initial skepticism from some potato entomologists (Schreiber, for example), concern over Lygus as a pest increased in 2015. Reports of Lygus damage in potatoes has now been reported from Washington, Oregon and Montana. In 2015, growers applied tens of thousands of acre treatments of insecticides targeting Lygus. More than 20,000 acres of treatments were applied in Washington alone for Lygus. Further complicating this situation, Lygus often occurs during the same time period growers are controlling thrips, psyllids and other insects.



Lygus Damaged Potatoes.

If Lygus is implicated in the vectoring of viral diseases, it has the potential to cause potato crop protection specialists to rethink the fundamental aspects of their insect management programs.

Schreiber conducted a basic trial in 2016 to determine if Lygus damaged potatoes. Potatoes were caged on a farm with a history of Lygus issues. Cages were placed in one of three situations; potatoes kept Lygus free by regular insecticide applications, potatoes caged with no

interference and were allowed to have Lygus develop naturally and potatoes caged with heavy introduction of Lygus. Results were very, very obvious with potatoes in the first types of cages growing relatively normally and potatoes exposed to Lygus have severe foliar damage. The cages with a natural Lygus population had 23% lower net yield, the cages with introduced Lygus had 17.5% lower net yield as compared to the cages kept free of Lygus. The potatoes in cages that were kept free of Lygus had significantly higher specific gravities than did the other two types of potatoes with exposure to Lygus. The potatoes in cages kept free of Lygus had higher solids than cages containing Lygus. These were very

strikingly clear findings. It is unclear what the relationship is between number of Lygus per plant and damage to potatoes. What this study demonstrated is that Lygus are capable of severely damaging potatoes, not whether they are a pest of consequence of the crop. The work to determine if Lygus is a true pest of potatoes and how many Lygus it takes to damage a potato plant has yet to be concluded.



Caged potatoes with and without Lygus.