



PNWPestAlert.net information saves growers time and money

AT A GLANCE

PNWPestAlert.net provides information about pest outbreaks that is helping save growers time and money, while benefitting the environment.

The Situation

The Treasure Valley in Idaho and Oregon encompasses one of the largest contiguous irrigated agricultural production regions in the Pacific Northwest supporting the production, processing and marketing of dozens of crops. Idaho is ranked 7th nationally for agricultural goods and food product exports per capita. According to the 2012 Census of Agriculture, the farm gate value of crop production in the Treasure Valley of Idaho is approximately \$2.8 billion annually.

A wide range of economically important disease, insect, and invasive and persistent weed pests exist within the Pacific Northwest's complex agro-ecosystem. Pest management and crop protection issues are extremely important from economic, environmental and human health perspectives. Based on University of Idaho Crop Enterprise Budgets, pesticide expenses range from 18% to 39% of the operating costs of the high valued crops; alfalfa seed, onions, potatoes, and sugar beets. Timely management of pest problems, in agricultural and horticultural production, has proven to be more effective in controlling those pests, and helps producers to more economically manage pest outbreaks. The National Road Map for Integrated Pest Management states that using an IPM based decision making process for pesticide applications may help reduce overall costs to the producer and pesticide impacts to workers and the environment.

Our Response

The Pacific Northwest Pest Alert Network (PNWPestAlert.net) was developed in 2001 after a need was identified to set up an alert system to quickly disseminate information on pest outbreaks along with research-based control measures. PNWPestAlert.net is designed to receive information from growers, field representatives, or other subscribers by e-mail, fax, or telephone. Submissions are verified by University of Idaho or Oregon State University Cooperative Extension faculty before posting to the website. An e-mail notice is automatically sent to all subscribers registered for the affected crop. The e-mail identifies the crop and pest, and contains a link to the alert. Alerts are also linked to research-based pest identification, life cycle, integrated pest management (IPM), and control information. Subscribers can also sign up to receive a text message when a new alert is posted to the website. This innovative IPM tool is designed to increase communication about pest outbreaks and provide the educational information needed in managing pests. Growers benefit from timely and accurate information on the occurrence of pest outbreaks and appropriate management measures, thus avoiding crop losses and saving money on unnecessary pesticide applications.

Program Outcomes

Between 2013 and 2014, there was a 9.7% increase in website subscribership. There are now over 1,000 users. In 2013, there were 91,637 visits to the website and over 101,000 e-mails were sent out containing pest management information. A demographic analysis shows approximately 66% are from the Treasure Valley of Idaho and Oregon, 13% are from eastern Idaho and 19% from the Magic Valley.

PNWPestAlert.net provided information on the following pest issues during the 2013 and 2014 growing seasons:

1. *Potato psyllid monitoring.* PNWPestAlert.net is used as the primary outreach tool to disseminate potato psyllid information to Idaho growers. With the northward movement of zebra chip disease in potatoes, vectored by the potato psyllid, it is crucial to disseminate results of the weekly potato psyllid trapping program conducted by Dr. Erik Weninger. Timely psyllid detection and identification of those positive for liberibacter is important in preventing this devastating disease that has already caused millions of dollars of damage to potatoes grown in southern states.
2. *Corn earworm trapping in southwestern Idaho.* Canyon County Extension Educator, Jerry Neufeld, conducted a corn earworm trapping program and posted weekly moth counts to the website. Due to the large increase of corn acreage in Idaho, it is important to track insect populations, in order to time effective pesticide applications, if needed. The PNW Pest Alert provided a tool to rapidly disseminate this information.
3. *Sprout damage in grain.* Due to unusually heavy rain events in several grain producing areas of Idaho, Dr. Juliet Marshall provided important and timely information on handling sprouting grain. This information prevented producers from dumping sprout damaged grain, saving thousands of dollars.
4. *Late blight in potatoes and cercospora leaf spot in sugarbeets.* Both diseases were identified during the 2014 growing season, due to the unusually wet weather. Dr. Jeff Miller provided links to research-based information on managing the diseases. The timely identification of these diseases enabled quick management responses, preventing further spread and saving growers money and time.
5. *Regulatory announcements.* After a recent bee kill in western Oregon, Oregon Department of Agriculture announced regulatory use changes for some insecticides. The network was utilized to disseminate that information in a quick and timely manner. Additionally, Idaho State Department of Agriculture utilized the network to announce the dates and locations of the fall pesticide disposal program.

An evaluation of the website in 2013 showed 96.0% of survey respondents felt the website was useful to their organization. On a scale of 1 to 5, usefulness averaged a score of 4.41.

Here are a few example comments from the 2013 evaluation:

- The information contained in the alerts allowed me to track the progression of trapping methods and potential 'hot spots' of psyllids and pass this information on to others in my organization. They helped to show the movement throughout the state of psyllid populations.

- The psyllid scouting kept us from spraying in the Northern Snake River Plain Area. We were able to determine that the insect pressure was not in this area.
- Good timely information on when pests were becoming a problem in Western and Southern Idaho so I had a chance to start scouting earlier and make more timely applications.

The following data documents that growers who used the PNW Pest Alert network increased their use of integrated pest management and saved both time and money as compared to their past management practices:

- The number of pesticide applications was reduced by 12%. Pesticide applications were more effective and timely 26% of the time.
- Increased use of IPM strategies to control pests, such as using beneficial insects, installing pheromone traps, rotating chemistries, etc., by 25%.
- Increased the use of field scouting to document pest levels in fields by 37%.

The PNWPestAlert.net is clearly providing useful information to the agriculture industry that is helping to save growers time and money, while benefitting the environment.

FOR MORE INFORMATION

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