2021 Impact

A survey of PNW PestAlert.net subscribers indicated that 19% were able to reduce the number of sprays applied to crops; pesticide applications were more effective and timelier 47% of the time; and 39% increased the use of field scouting. Subscribers are using approximately 5.56% less pesticides on their crops than before they began using the pest alert network. Landscape and garden alerts generated 32 alerts, with 43% reporting they were able to manage pest problems more effectively and 21% indicating they spent less time on pest issues.

Educator Jerry Neufeld was part of a team that developed a UI Extension pesticide recertification webinar series, consisting of 12 webinars providing 12 recertification credits. A final survey was completed by 1,356 pesticide applicators. The majority of attendees (97%) believed the webinars were worth their time. An average of 98% indicated they would plan to attend future recertification webinars; 90% thought the online format was convenient; and 82% indicated the online format saved them time and money.

The Plant Diagnostic Clinic logged 1,233 contacts, with 66% indicating an improvement in their skills from information gained at the clinic and 36% indicating they were able to reduce pesticide use. Clients reported saving $28,150 from advice received at the clinic. Thirteen new Idaho Master Gardener volunteers were certified, and 73 total volunteers logged 5,717 hours, a value of $138,580. Volunteers taught 2,529 community members, grew 11,870 pounds of produce and field gleaned 4,047 pounds for a total of 15,917 pounds donated to local food banks.

4-H in Canyon County

UI Extension offers traditional 4-H programs, spring and summer day camps, short term enrollment programs (STEP), in-school and after-school programs, and community celebration events. With over 660 members in 54 clubs, Canyon County is home to one of the largest 4-H programs in Idaho. Youth participate in a wide range of projects and current and new members can complete a project in six to eight weeks in the STEP program. Spring and summer day camps are held at various sites on a variety of topics. Summer day camps in 2021 provided opportunities for 76 youth to learn about STEM, art, food, animals and shooting sports. Other day camps hosted by 4-H AmeriCorps volunteers focused on STEAM projects and reached over 232 underserved youth.

On the Horizon

Neufeld and Professor Jae Ryu are investigating a new method to monitor populations of thrips and mites and resulting crop damage in onions and hops using hyperspectral sensor imagery. Fields are flown with a DJI Matrice with a hyperspectral sensor and a DJI Phantom 4 Pro with a NDVI sensor. Simultaneously, thrips and mites are counted and crop damage assessed in the same fields. The idea is to see if there is a spectral band of light reflectance associated with crop damage caused by these pests. If it is possible to monitor arthropod pests using a UAV system, then the technology can be adapted for insect scouting for agricultural producers and allied industry.

Junior Master Gardener programs will be taught by Idaho Master Gardener volunteers at various locations around the county. The 4-H program has received over $685,000 in grants in 2022 from Idaho Health and Welfare, Children Youth and Families at Risk and Idaho Fish and Game. With these grants, programming has been expanded to more out-of-school time programs, including libraries, schools and 4-H clubs.