

Western SARE interim report, Project Number FW-14-012
“Natural predators as a means to limit wildlife damage at the dairy-fruit interface”

January 20, 2014

Thank you for the opportunity to report on the progress of our project.

Susan Kerr, WSU Extension livestock specialist, has now replaced Colleen Burrows (no longer with WSU) as the technical advisor to this project.

We began the project in late spring 2014 by hiring Mr. Anthony (Tony) Lapsansky, master falconer and 3rd year biology major at Gonzaga University, to help us investigate some of the birds present on dairies in Whatcom County, WA. He did a number of hours of general observation on dairies in the region, and also made a trip to the Yakima, WA area to observe birds there. This gave us an initial impression regarding bird species present on dairies. European starlings are the primary species causing problems through eating cattle feed and defecating on cattle feed. American crows and pigeons are other species frequently present.

Tony along with Karen Steensma, then made a presentation on kestrel falcon and owl nestboxes (to attract native falcons and barn owls), and on use of falconry for bird abatement, to the Barnyard Kids 4H group in Lynden, WA. This group is primarily a dairy-focus 4H group. Approximately 30 kids and 12 adults were present. The idea of building and placing nest boxes was well-received, and Tony's own live falcon was brought in to demonstrate principles of falconry. This was completely fascinating to the 4H group and we know that at least a couple of boxes were placed on dairies as a result of this meeting. A small article in the Lynden Tribune newspaper also mentioned this 4H presentation. Additional 4H and FFA presentations are planned for 2015.

Tony spent most of the summer working as a falconer for Airstrike Natural Predators, keeping birds out of Whatcom and Skagit blueberry fields, but was still available for some work for us. In the fall he was back to school at Gonzaga but plans to do some work for us again in late spring and early summer 2015.

We also hired David Timmer, M.S. in Natural Resources from U of Michigan, who works as a biologist in the area. During the fall season, after corn silage is harvested and placed into bunker silos on dairies, the starlings flock heavily and the greatest damage season appears to be November-April. Dave spent considerable time in the fall analyzing and photographing bird populations on several Whatcom County dairies. He has worked with one dairy to have them place stillborn calf carcasses and placentas, in an appropriate field location, in order to attract natural predators such as bald eagles, coyotes, and turkey vultures. He then began observing the effect of the eagles, in particular, on the resident starling population. These observations are still underway.

Dave also located a successful owl box already present on a Whatcom County dairy, and recently installed a nestbox cam that streams live, to determine whether owl nesting, hatching, feeding, and fledging could be used as an educational tool for farmers and for

the general public. Thus far two adult owls have been seen entering and leaving the box, and nesting season is about to begin, so we will see what happens and hopefully promote this nest cam on social media.

Finally, Susan Kerr and Karen also made a presentation to the Washington State Dairy Federation at their annual meeting in Vancouver, WA in November, to promote awareness of the research and to conduct a farmer survey regarding perceived bird damage. We also presented to, and surveyed, attendees at a WSU dairy seminar in Lynden, WA. Susan is also working to place a link on the WSU website for dairy producers to fill out the survey online. We are thus attempting to address the issue statewide even though we began with a focus on Whatcom County.

Thus far the survey results indicate that nearly all dairy farmers responding have some level of economic damage, with some larger dairies estimating \$90,000 or more per year in damage. Teryl Roper paid a site visit to Whatcom County in December, saw one of the farms and also some of our photos (see below), and is encouraging us to apply for a bigger research grant in the future in order to address this problem in a more comprehensive way. The problem is much larger in scope than we had imagined when we applied for the Farmer-Rancher funding, and likely affects cattle health, milk production, milk quality, and other surrounding agriculture. We look forward to continuing to address the research in the coming year.

