

## Minnesota's OPP Eradication Trial . . . Another Flock Crosses the Finish Line

Judy Lewman with Holly Neaton, DVM

In October 2017 the Steve and Jean Froehlich Family of Grasston, MN, received their first whole-flock negative OPP test. And they repeated that feat in October 2018 with the flock then having grown to nearly 100 head. This earned their 'Snake River Acres' Lincolns full test-negative status in the state's voluntary OPP/CAE pilot program, which has been administered by the MN Board of Animal Health since 2006 and will soon graduate to full program status. All Minnesota sheep and goat producers are eligible to participate.

Formerly known as 'EK Sheep,' the Froehlich's flock was established in 2007 by Kelly and her brother, Eric, with the purchase of seedstock reported to be OPP test-negative. But by 2009, following the addition of more animals from various sources, previously healthy ewes began to exhibit labored breathing, swollen joints, snotty noses, and hard udders with no milk. Affected ewes wasted away while maintaining a healthy appetite, and lambs born to these ewes were weak and unthrifty. Multiple veterinary visits and medications had little effect.



Purebred White and Natural Colored Lincolns at Froehlich's Snake River Acres in Grasston, MN

By 2010, an online search led Kelly to suspect OPP. *"The signs described mirrored exactly what we were observing in our flock. At the time the only solution seemed to be orphaning lambs and raising them segregated from the adult flock. We tried this for one year and found it unsuccessful and expensive."* Discouraged, but determined to rid the flock of OPP, Kelly was among the first to sign on when Minnesota's Eradication Trial began in 2013 with the express purpose of testing a new strategy to clean up infected flocks.

The Trial confirmed a 2013 USDA study, which found that 70-90% of lambs raised on OPP infected dams will escape the virus if weaned by 6-8 weeks and then permanently removed from the infected "parent flock." This has been a game changer for those wishing to eradicate OPP since it removes the high cost of orphan rearing. It also avoids the premature culling of infected-but-symptomless ewes, which are allowed to remain in the breeding flock with test-negative and infected adults managed as a single group. Lambs testing negative post-weaning then form the base for a new test-negative flock.

The Froehlichs were fortunate in that several older ewes managed to escape the virus in spite of continuous exposure to infected flock mates throughout the trial. Whether this confirms lower susceptibility of some animals compared to others remains to be seen, but USDA has samples from these special ewes and we'll report if/when the genetic mystery is solved. Once all of the test-positives had been removed from the farm, these older ewes were confirmed test-negative and then finally allowed to join the clean younger flock.

Having built a nationwide market for specialty fleece, one unexpected side benefit of OPP eradication for the Froehlichs has been a significant improvement in overall wool quality. Kelly says that *“Once test status of the flock was known, we noticed that our poorest fleeces all came from the ewes that were infected with OPPv. This was a big hit on the bottom line as a large part of our income is produced by selling high quality fleece to fiber artists.”*

While Minnesota's trial ran for four years, eradication of OPP doesn't need to take that long! In fact, some have battled their way out of the woods in just over a year. (A related discussion is archived online at the 'Sheep Production Forum.')

While the basic eradication strategy is simple, available facilities and other resources vary between flocks so there's no one-size-fits-all path to success. Regardless, those who begin now can benefit greatly from what was learned by the four producers who stuck with the trial to the end.



Having won the war with OPP, the entire Froehlich family is alert to strict biosecurity, ensuring that the virus doesn't sneak back into the flock. With Kelly now studying in New Zealand and Eric having moved on to other ventures, brother Jamie assists on weekends and his wife Jennifer has taken on the day-to-day management of the flock while Jean and Steve remain on call as needed. All can usually be found at the MN State Fair in August where they exhibit a full string of 'Snake River' Lincolns. For the past 3 years, all show animals have remained strongly test-negative following quarantine after returning home.

**Going Forward:** To further validate Minnesota's findings, ASI has funded a two-year expansion of the eradication project through which Dr Cindy Wolf is mentoring selected flocks in several states, and there is still room for you! If you suspect (or know) that your flock is infected, feel free to email Cindy at [wolfx006@umn.edu](mailto:wolfx006@umn.edu) to learn more. This new eradication strategy is proving to work for those with courage and the determination to follow the protocol. The keys to success are exclusive use of the Elitest ELISA, which is available to any U.S. producer through the University of Minnesota lab, combined with early and frequent testing followed by prompt removal or segregation of animals testing positive . . . rams as well as ewes! More info is available at <http://www.OPPsociety.org>