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**EK Sheep**  
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When we started raising sheep in 2007 we had never heard of ovine progressive pneumonia virus (OPPV). Our original purchased flock was OPP negative (as stated by the



previous owner). But upon expanding our flock through purchasing new ewes and rams who turned out to be OPP positive, the rest of our flock quickly became infected.

**Around 2009 signs of the virus appeared.** Great ewes, previously healthy, started spiraling downhill while exhibiting a variety of symptoms including labored

breathing, swollen hock and knee joints, lameness, snotty noses, and hard udders with no milk.

**The ewes essentially wasted away while maintaining a healthy appetite.** Lambs born to these ewes were weak and unthrifty. Multiple veterinary visits and medications appeared to have little to no affect.

**Furthermore, an obvious decrease in fleece quality was observed,** lacking luster and having many breaks.

This was a big hit on the bottom line as our main income is produced by selling high quality fleeces to fiber artists.

**Around 2010, while searching on Google, signs described for OPP 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.

**In 2013, we learned about the MN OPP trial and were accepted for enrollment.** After the first two years our results were disappointing. We then realized we would have to tighten up our management by keeping fences in good condition and the positive animals completely separated to prevent the virus from spreading. Even though we had them separated in the barn by an alleyway, we found the virus could still spread by coughing if the conditions were favorable. We culled genetically good ewes that showed signs of OPP and divided our farm in half with positive and negative ewes in their own pastures and buildings, separated by our driveway.

**Our fleeces have improved in quality and signs of the virus we used to battle have disappeared.** We enjoy showing our sheep and worry about bringing home the virus again but quarantining and retesting sheep that come back from shows has been successful.

We were, and still are, ecstatic to have help in muddling through a problem that has caused a lot of frustration. It has been a relief to know that there are people who recognize OPP as a problem that can be solved.

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- **Lincoln:** most ewes home bred, occasional purchase; rams purchased and home bred; show/exhibit at state fair and fiber festivals
  - **Symptoms:** hard udder, little or no milk, swollen hock and knee joints, lameness, weight loss despite good appetite, labored breathing, lag behind flock, chronic cough, fleece quality impaired
  - **Lamb January through April;** cold open barn (animals in and out at will), also large greenhouse w/ventilation; excellent facilities for separation of groups; pasture in season
  - **Baseline:** 70 adult ewes, known infected from previous partial-flock testing; flock accepted for trial based on 2013-born lambs testing at 35% positive
  - **Potential replacements** tested during the trial, most weaned at 2 months:
    - 2013: 8 of 23 (35%) test-pos @ 9-10 mo
    - 2014: 8 of 17 (47%) test-pos @ 7-11 mo
    - 2015: 4 of 36 (11%) test-pos @ 3-6 mo
    - 2016: 2 of 15 (13%) test-pos @ 2-4 mo (first of two segregated groups born in 2016; these were raised on test-pos dams and weaned individually at 4-6 weeks)
    - 2016: 21 of 21 (100%) test-neg @ 2-4 mo (this segregated group was raised on test-neg dams)
    - 2017: 12 of 12 (100%) test-neg @ 8 mo
  - Earlier testing of lambs appears to have been the key to eradication for this flock, which was likely carrying an especially virulent strain of the OPP virus
  - Current flock includes 14 of the original ewes, now 5 to 10 years of age, that have remained test-neg throughout the trial
  - What we suspect to be hormonal influence has been observed with some animals, both rams and ewes of all ages, testing high-neg during the breeding season, later reverting to strongly negative
  - Only 3 positives (yearling + 2 lambs) on Jan 2017 whole-flock test of 66 animals; pos results likely due to hormones as all 3 were segregated and confirmed negative on re-tests in March and June
  - Showing animals, **if producer is aware and vigilant**, does not appear to be as risky as we anticipated; all 7 animals exhibited at 2016 state fair were negative when retested 4 months later; 8 exhibited at 2017 state fair also negative on retest