

Observations on the effect of adding water to feed on lamb pneumonia

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Lamb pneumonia caused death losses of 5 to 10% in the Cornell flock in the past 10 years. Many strategies were used to try to prevent or control pneumonia. These included better ventilation, more bedding, feeding the ewes better to provide more milk, pre-treating the lambing ewes with sulfamethazine, vaccination using PI₃, vaccination using commercial vaccines, and vaccination using an autogenous vaccine. Although vaccination against PI₃ had a slight reduction on overall lamb mortality (Thonney et al., 2008), none of these methods dramatically reduced the incidence of lamb pneumonia.

In late summer 2008, Cornell Sheep Farm Manager Brian Magee suggested that, although there was about 4% molasses in the lamb feed, our complete mixed feed was still too dusty. The options to test this were to: 1) add more molasses; 2) add to or replace the molasses with vegetable oil; or 3) replace the molasses with water. We removed the molasses and included 7% water which resulted in 12 to 15% moisture in the total feed. The feed obviously was not as dusty and it appeared to be more palatable when we did a simple disappearance test. Since then, coughing in the pens of lambs on feed has essentially been eliminated. Treatments for pneumonia and deaths from pneumonia have declined dramatically (Table 1).

Table 1. Lamb treatments and deaths from pneumonia.

Item	Birth date		Chi square <i>P</i> value
	8 Aug 2007 to 15 Apr 2008	8 Aug 2008 to 15 Apr 2009	
Lambs	1085	835	
Died	85	8	
Death rate	7.8	1.0	< 0.001
Treatments	79	18	
Treatment rate, %	7.3	2.2	< 0.001
Treated	56	14	
Treated rate, %	5.2	1.7	< 0.001

In the past, Cornell lambs had not met requirements for kosher certification due to lung damage. After we started marketing lambs raised on feed with added water, the local slaughter plant owner observed that the lungs of the Cornell lambs were very healthy. He sent several Cornell lambs to a kosher slaughter plant near New York City where the lambs met the requirements for kosher certification.

Thus, it appears that adding water to lamb feed can prevent inhalation pneumonia caused by dusty feed.

Literature Cited

Thonney, M. L., M. C. Smith, R. G. Mateescu, and C. Heuer. 2008. Vaccination of ewes and lambs against parainfluenza3 to prevent lamb pneumonia. *Small Rumin. Res.* 74:30-36.