

## **Sericea lespedeza as an aid in the control of coccidiosis in lambs**

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We have determined that feeding sericea lespedeza leaf meal (**SL**) can effectively control coccidiosis in lambs. In Exp. 1, naturally infected lambs (n = 76) were weaned (103 days of age) in May and fed 2% of body weight daily of alfalfa pellets (control) or SL with or without Corrid added to drinking water. Fecal oocyst (**FOC**), egg counts (**FEC**), and fecal score (1 = solid pellets; 5 = slurry) were measured. In Exp. 2, twin rearing ewes were randomly assigned to two groups, and their naturally infected lambs were fed a control creep supplement (16% CP; n = 40) or SL pellets (14% CP; n = 32) 30 days before weaning. Intake of SL was initially low (~1/4 pound/lamb daily) and increased to 1 pound/lamb daily after weaning. Lambs were weaned at 104 days of age and moved to semi-confinement. The FEC, FOC, packed cell volume (**PCV**), fecal score, and dag score (soiling around rear of lamb; 1 = no soiling; 5 = heavy soiling) were measured. In Exp. 3, lambs were randomly assigned to a control or SL diet (n = 12/diet) fed at 3 pounds/day for 22 days and artificially infected with coccidia. The FEC, FOC, and fecal score were determined every 2 to 3 d between d 1 and 29 (d 0 = first day of dietary treatment). In Exp. 1, FOC and FEC were similar between dietary groups, and FOC declined more rapidly in Corrid treated lambs following weaning. Fecal score was higher in the control compared with the SL fed lambs, suggesting more signs of coccidiosis in control lambs. In Exp. 2, FOC was similar initially, but was reduced in SL fed lambs by weaning and remained lower thereafter. Dag and fecal scores were similar before weaning, but lower in SL fed lambs by weaning and remained lower thereafter. No SL lambs required treatment for coccidiosis, whereas 33% of control lambs required treatment. Fecal egg counts were similar before weaning, but were reduced in SL compared with control fed lambs after weaning. In Exp. 3, FOC and FEC were reduced in SL compared with control fed lambs. Sericea lespedeza was effective in the prevention and control of coccidiosis as well as reducing worm parasite infection. Use of SL could reduce lamb loss post-weaning, reduce the need to treat for coccidiosis, and create a significant economic benefit to livestock producers. Research was supported by USDA NIFA OREI grant 2010-51300-21641 and USDA SBIR grant 2011-33610-30836.