The Effect of Dewormers on Rams' Fertility

Bennett, Jaycee (School: Fremont High School)
Kearl, Kaleb (School: Fremont High School)

Proper care of ram fertility is critical during the breeding season to avoid reduction in breeding success. Deworming is a common practice among ranchers in order to eliminate health complications due to parasitic infection. The design of this experiment was to identify how three common market dewormers affect the morphology and motility of ram spermatozoa. This identification of reproductive health will help ranchers time their application of treatment to maximize fertility during the breeding season. Rams were administered three dewormers (DW 1-3) and semen analyzed over a six week period. Evaluation of the semen was graded on a scale from 0-100%. Microscopic examination of semen motility and morphology indicated dramatic and variable effects among DW1-DW3. Sample DW1 proved fatal to sperm health, Sample DW2 showed reduced spermatozoa quality and a 30% decrease in motility. Sample DW3 resulted in no change in the semen. These results suggest there is a particular time window to administer dewormer to maximize ram fertility. Ideally, DW1 can be given to breeding ram;'s on the off season without affecting fertility during breeding season. DW2 can be given to breeding ram's in the middle of breeding season since ram breeding in complete. Lastly, the results of the DW3 can be given during breeding season and after breeding season.