Pregnancy Toxemia in Goats

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Several months ago, I was presented with two interesting and challenging cases. Both cases involved pregnant does in their last trimester of gestation. Both were in good condition, having a body condition score of 4. The major clinical signs included restlessness, increased respiration, off feed, uncoordinated, staggering, generalized weakness, and neck and head elevated and curved, (star gazing).

Blood work was taken and analyzed. Albumen, calcium, and glucose were low. The does were diagnosed with pregnancy toxemia. Pregnancy toxemia is referred to as a metabolic condition because it involves the nutritional state of the animal. It typically occurs in pregnant does that are either over nourished or under nourished and carrying multiple fetuses. In over nourished does, the fat stores and large size of the uterus takes up so much of the body cavity that dry matter intake is interrupted. This leads to decreased energy consumption at a crucial time. The most important period for energy in does is late gestation and lactation. The condition can also occur when does are fed excessive amounts of grain and inadequate amounts of roughage. The major insult is due to the inability of the doe to metabolize glucose which leads to ruminant shut down, death of the fetus, toxin release which leads to death of the doe.

Generally the signs may be very subtle and will become more noticeable as the condition progress. The doe may become weak, not able to get up or stay with the rest of the herd, she may go off feed, and the eyes will become dull. She may grind her teeth, and as the condition progresses, she will become more ataxic (loss of neurological and muscular control) and develop a pronounced head stance referred to as star gazing. This condition requires immediate treatment. Depending on the stage, alteration of the diet to include good source of quality roughage and concentrates are recommended. Propylene glycol should be administered under the direction of a consulting veterinarian. A non prescribed source is sold generically as keto-plus. Supportive therapy should also include antibiotics and vitamin B12.

The most effective preventive plan for pregnancy toxemia is to feed high quality roughage and concentrate during the last trimester of pregnancy. Goats that are carrying three fetuses should receive the best feed. The diet of the entire herd should be adjusted if pregnancy toxemia is recognized. Good herd management is key and essential for prevention and control. Be observant, react promptly, use a sound feeding program. For additional information contact Dr. Mobley or the animal health staff at (850) 599-3546 or ray.mobley@famu.edu.
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Re-printed 7/07