Comparison of ELISA to RIA as Predictors of Parturition in Goats

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This continuation project is new research in goat reproductive physiology by using blood plasma to accurately predict parturition. The long term purpose of this project is to create a “Goat Gestation Table” representing the last fifteen days of gestation to monitor goat health. The gestation table must be accurate and easy to use. The two laboratory tests are not available in all parts of the country and the proposed gestation table must accommodate both tests to be useful to breeders. The two lab tests are radioimmunoassay (RIA) and enzyme-linked immunosorbent assay (ELISA). This phase of the research will compare the two lab tests to determine if the results are comparable. RIA tested progesterone levels. Duplicate tests were conducted with ELISA for IgG levels. The data was plotted as a stacked line with markers to display the similarities and differences of the two tests. The data pattern indicated that the data lines for both tests were comparable. Both ELISA and RIA decline at day ten and drop sharply two days before parturition. A preliminary “Goat Gestation Table” was created to show how the data from this project and the cumulative data will be used to develop the final “Goat Gestation Table.” Additional data collection is needed to increase reliability. A field trial to verify accuracy of the table will be included in the next phase of research.

Awards Won: