

## 382. Caprine arthritis encephalitis seroprevalence in dairy goat intensive systems of the Mexican high plateau

Norma C. Vázquez-Franco<sup>1</sup>, Alicia Soberón-Mobarak<sup>1</sup>, Abel M. Trujillo-García<sup>2</sup>, Carolina Segundo-Zaragoza<sup>3</sup>, Andrés E. Ducoing-Watty<sup>1</sup>.

<sup>1</sup>Departamento de Producción Animal: Rumiantes, Facultad de Medicina Veterinaria y Zootecnia, Universidad Nacional Autónoma de México, 04510, México, D.F. <sup>2</sup>Centro de Enseñanza, Investigación y Extensión en Producción Animal en el Altiplano, Facultad de Medicina Veterinaria y Zootecnia, Universidad Nacional Autónoma de México, 76790, Tequisquiapan, Querétaro, México. <sup>3</sup>Departamento de Microbiología e Inmunología, Facultad de Medicina Veterinaria y Zootecnia, Universidad Nacional Autónoma de México, 04510, México, D.F.

Caprine Arthritis-Encephalitis (CAE) has a complex epidemiological and pathological dynamic. As first fundamental step in its control inside the Mexican country, it is important to do an epidemiological study, at least in the region of the Mexican High Plateau which is a representative zone of dairy goat intensive systems, and where a great contribution of genetic material from zones that can be affected by CAE exists. The aim of this study was to estimate the seroprevalence of CAE in dairy goat intensive systems located in the Mexican High Plateau. Sera samples (1211) were obtained from goats, 4-months-old or older, of different breeds and both sexes, which were analyzed using a standardized commercial system of competitive-inhibition enzyme linked immunosorbent assay (cELISA) for the detection of antibodies. These results revealed a general seroprevalence of 39.55%. Except one, all the positive goats were native and descended from, or had contact with, imported animals. Statistical analysis showed that significant evidence exists to indicate that seroprevalence is affected by sex ( $P < 0.01$ ), breed ( $P < 0.0001$ ) and age of the animal ( $P < 0.01$ ). Results indicate the need to use and observe the correct application of management practices that should help in the prevention and control programs of CAE, as well as legalize those to monitor and to assure their application in caprine production systems in the country, specially in those goats dedicated to dairy production and / or with introduction of genetic material imported from other countries that could be affected by CAE.

## 383. Study the impact of mortality rates in Saanen and Nubian herds

Eduardo L. Oliveira<sup>1\*</sup>, Vinicius. P. Guimarães<sup>2</sup>, Fernando H. M. A. R. Albuquerque<sup>3</sup>, Evandro V. Holanda Júnior<sup>4</sup>

<sup>1</sup>Brazilian Agricultural Research Corporation (Embrapa-Goast), Estrada Sobral/Groaíras - Km 4 - Caixa Postal 145, ZIP: 62010-970, Sobral, Brazil. Email: [eduardo@cnpic.embrapa.br](mailto:eduardo@cnpic.embrapa.br). <sup>2</sup>Brazilian Agricultural Research Corporation (Embrapa-Goast), Estrada Sobral/Groaíras - Km 4 - Caixa Postal 145, ZIP: 62010-970, Sobral, Brazil. Email: [vinicius@cnpic.embrapa.br](mailto:vinicius@cnpic.embrapa.br). <sup>3</sup>Brazilian Agricultural Research Corporation (Embrapa-Goast), Estrada Sobral/Groaíras - Km 4 - Caixa Postal 145, ZIP: 62010-970, Sobral, Brazil. Email: [fernando@cnpic.embrapa.br](mailto:fernando@cnpic.embrapa.br). <sup>4</sup>Brazilian Agricultural Research Corporation (Embrapa-Goast), Estrada Sobral/Groaíras - Km 4 - Caixa Postal 145, CEP: 62010-970, Sobral, Brazil. Email: [evandro@cnpic.embrapa.br](mailto:evandro@cnpic.embrapa.br)

Among the factors that interfere in the performance of dairy goat herds the carelessness with the sanitary management has serious implications in the system productivity. In this study was evaluated the influence of different mortality rates in the dynamic of Saanen and Nubian herds. Through a simulation model in development by the Brazilian Agricultural Research Corporations (Embrapa-Goats) was used averages values found in the dairy goat system at the same institution. Both breeds were kept in a semi-intensive system with two milkings per day. Three simulations were performed to evaluate the impact of mortality in a herd with 50% of retention rate. The first scenario considered a mortality of 2.3% for adults, 12.5% for kids less than two months and 2% for young does. The second scenario was assumed a 20% increase in the previews rates changing them to 2.9%, 15% and 2.4% respectively, for adults, kids under two months and young does. In third scenario was used a mortality rate of 5%, 20% and 4%, respectively, for adults, kids under two months and young does hypothetical caused by some mistake in the sanitary management. All simulations were performed seeking to a equilibrium herd of 65 animals. The time to reach this equilibrium was respectively, 4.6, 4.8, 5.3 years for the three scenarios analyzed. The difference between the first and second scenarios was around 70 days which decrease in 1% the total number of animals at the end of 10 years. When comparing the first scenario with the third the difference to reach the equilibrium was 252 days which decrease in 4.1% the total number of animals. The results showed that the major mortality rates in the youngest categories compromise the time to stabilize the herd once the number of youngest to replace the herd decreases. Among the major diseases that could cause variation in mortality rates are navel infection, respiratory diseases, diarrhea and mastitis. Therefore, the misperception in the sanitary management determine