



Dr. Pablo Guarnido López is a Postdoctoral Research Associate at Texas A&M AgriLife Research, based between the Corpus Christi Research and Extension Center and the Beeville Research Station. His work focuses on advancing precision livestock farming and smart agriculture systems, integrating sensor technologies, rumen boluses, GPS tracking, and artificial intelligence to improve the efficiency, sustainability, and profitability of beef cattle production.

With a Ph.D. in Animal Physiology and Nutrition from INRAE–Université Clermont Auvergne (France), Dr. Guarnido López has an extensive international research background, including appointments in France, Japan, Spain, and the United States. His research portfolio spans the physiology of feed efficiency, modeling of animal performance and nutrient requirements through precision nutrition techniques, and the

development of innovative machine learning and AI models to support data-driven decision-making for cattle producers. Author of numerous peer-reviewed articles, Dr. Guarnido López combines strong field expertise with advanced statistical and mechanistic modeling skills. His collaborations with institutions in Europe, Asia, and the Americas reflect his commitment to developing globally relevant, technology-driven solutions for the livestock sector.

He has collaborated on USDA-funded projects such as *Climate Smart*, evaluating grazing practices to optimize animal performance and reduce greenhouse gas emissions. **Currently**, at the Beeville station, with both animal and forage scientists they conduct research to explain factors influencing grazing behavior on grazing beef cattle by gathering real-time data from animals and also merging forage, soil, computer vision (from drone), and weather data.