

Presentation Abstract

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**Presentation:** P081 - Preliminary assessment of acaricide resistance in cattle tick (*Rhipicephalus* (*Boophilus*) *microplus*) populations from the Caribbean island of Martinique

**Location:** Uxmal 3

**Pres. Time:** Tuesday, Nov 03, 2015, 3:30 PM - 4:30 PM

**Category:** +A10. Other topics

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**Abstract:** **Context:** Ticks and Tick-borne diseases (T&TBD) remain major constraints to livestock development in the Caribbean. The continuous use of acaricides to control ticks is costly for livestock producers. Chemicals were used extensively in the Caribbean during Tropical Bont Tick programs between 1995 and 2005. The Cattle Fever Tick (CFT), *Rhipicephalus* (*Boophilus*) *microplus*, is known to develop multiresistance to acaricides. However little is known about acaricide resistance epidemiology in the Caribbean, where CFT is endemic. Recently, several countries reported to the T&TBD working group of the Caribbean Animal Health Network (CaribVET) increasing cases of lack of acaricide efficacy on ruminants, especially in Martinique. **Purpose:** A 2-year project "ResisT" involving researchers, tick experts, veterinary services and farmer associations has been established to address resistance in CFT Caribbean populations. Results of a pilot study conducted in Martinique are reported here. **Methods:** The Larval Tarsal Test, an innovative test developed by Novartis, was implemented at CIRAD laboratory in Guadeloupe. An exploratory survey was conducted in early 2015 to collect engorged female ticks from cattle, and to study tick control practices of 50 volunteer farmers. Five acaricides from 3 major classes commonly used in the French West Indies were tested: synthetic pyrethroids, amidines and organophosphates. A susceptible strain maintained at the USDA-ARS CFTRL in Texas was used as reference to calculate resistance ratios. **Results:** Preliminary results will be reported during this presentation. **Conclusions:** Study results and other epidemiological data on acaricide resistance and information on control practices will be integrated to develop tools and awareness materials for Caribbean farmers. **Relevance:** Studies like the one reported are needed to formulate strategies to prevent acaricide resistance development by adopting integrated tick control strategies. Knowledge gaps identified during the study enabled CaribVET to prioritize relevant avenues of research and to build collaborations in support of the veterinary services in the region to improve T&TBD surveillance and control.



