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The Caribbean: area at risk for AI

- Many animal owners, backyard farms with mixed species
- Important poultry production (Barbados, Trinidad, Jamaica)
- Spread and diverse territories (disparities in the development and sanitary level)
- Animals and human legal and illegal movements
- Migratory birds



The Caribbean animal health network

- Regional approach of diseases surveillance & control, reinforcement of surveillance networks
- Partnership: veterinary services of 25 countries or territories, diagnostic laboratories, research institutes, universities, regional/international organizations
- Strategies: meetings, working groups, expertise, trainings and skills building, tools for information/data exchange (website)
- Adopted by CARICOM

Objective

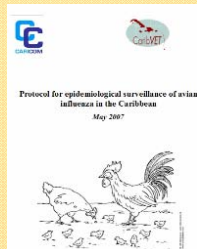
Use of CaribVET network to reinforce AI surveillance and control



Tools implemented

Protocol for epidemiological surveillance of avian influenza in the Caribbean

- Institutional organization, target populations under surveillance, surveillance methodologies, case definition, data collection, data management, laboratory, training, communication, performance indicators
- Specific web page for AI surveillance on www.caribvet.net



Diagnostic network in the Caribbean

- AI molecular diagnostic in Guadeloupe for the Caribbean (interlaboratory assays with French reference laboratory)
- Technology transfer: molecular diagnostic workshop for 7 countries (Barbados, Belize, Dominica, Dominican Republic, Haiti, Jamaica, Trinidad) in 2007 at CIRAD Guadeloupe
- IATA training in 2006 in Trinidad and Tobago by PAHO and CIRAD for 20 countries



Samples tested for importation or clinical suspicion

- Number of samples tested in Guadeloupe between June 2006 & March 2009

Country	Nb samples	Nb batches
Saint Lucia	25	1
Guadeloupe	56	8
Martinique	131	30
Dominican Republic	91	4
Total	303	43

Survey on wild birds in Guadeloupe

- **Period:** southward and northward migration period, 2007-2008
- **Sampling:** 324 waders, ducks and doves (cloacal/tracheal swabs)
- **Method:** rRT-PCR gene M (Spackman et al)
- **Result:** none positives for AI → very low prevalence of AI on migratory waders in Guadeloupe

Bird group	Family	Species	August-October 2007	March 2008	July 2008	Total
Ducks	Anatidae	White-cheeked Pintail	1	1		2
		Mallard	2	2		4
		Blue-winged Teal	4	4		8
Waders	Charadriidae	Wilson's Plover	5			5
		Semipalmated Plover	3	3		6
		Least Sandpiper	20			20
		Stilt Sandpiper			14	14
		Buff-breasted-Sandpiper	6			6
Doves	Columbidae	Semipalmated Sandpiper	160	26		186
		Spotted Sandpiper	16	3		19
		Willet	1			1
		Lesser Yellowlegs	1			1
		Ruddy Turnstone		10		10
		Zenaida Dove			17	17
		Eurasian-collared Dove			25	25
Total			219	63	42	324

Cock fighting and avian influenza risk in the Caribbean

- Role of fighting cocks in the LPAI H5N2 outbreaks in Dominican Republic in 2007
- Questionnaire sent to Caribbean veterinary services: number of cockfights, regulation, vaccination, control measures, illegal or legal importation...
- Pathway for infection of Martinique professional poultry sector by AI through introduction of infected cocks.
- Preliminary results "moderate" to "high" risk with critical points being introduction procedures for cock movements and biosecurity measures in the commercial sector
- Recommendations provided to the Caribbean veterinary services :
 - ✓ enhancement of cock movement control (communication, inspectin, notification)
 - ✓ enhancement of biosecurity in flocks & pits (fight places) and broiler sector
 - ✓ NCD Vaccination of fighting cocks and broiler
 - ✓ importation protocol of exotic birds & fighting cocks



Conclusion

CaribVET activities contribute to strengthen surveillance of AI in the Caribbean region and may allow the development of research studies both on AI risk analysis and on AIV ecology.

Acknowledgements

For financial or technical support to CaribVET activities

