

**4th FAO-APHCA/OIE/DLD Regional
Workshop on Brucellosis Diagnosis and
Control in Asia-Pacific Region
- Proficiency Test and Ways Forward -**

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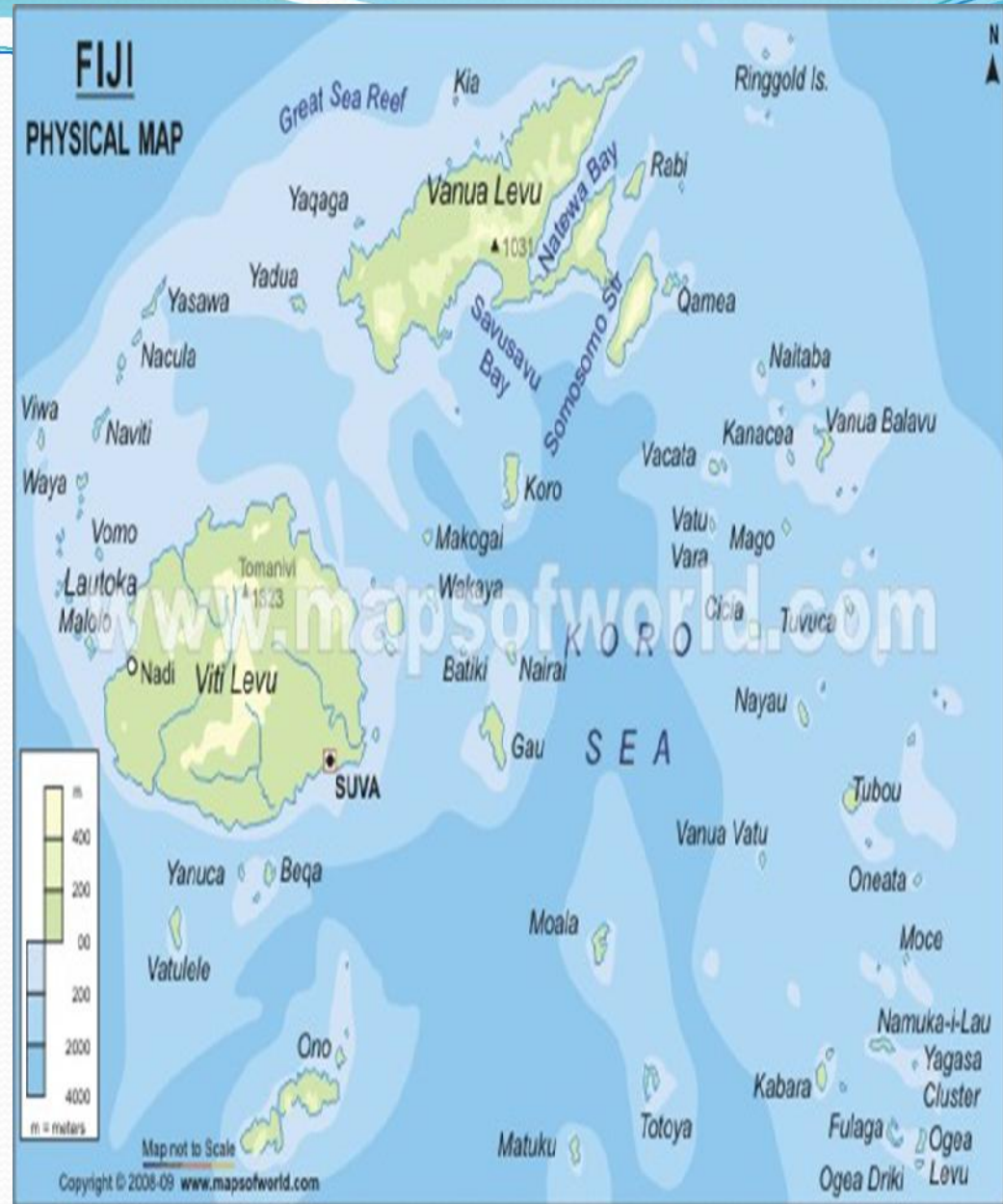
Geographical Coordinate

- 180°S, 175°E in South Pacific Ocean
- 1770km North of NZ
- Time Zone- GMT+12
- Tropical Climate
- Wet Season: Nov-Apr
- Ave. T°- 28°C



GEOGRAPHY

- Land area -18,270 sq.km.
- 2 major Island: Viti Levu & Vanua Levu
- 332 islands (110 habitat)
- Volcanic large islands
- Coral reef - small islands




Livestock Population

Species	Establishments	Population
Cattle	853	40008
Sheep	365	10104
Goat	421	22929
Cervidae	1	1800
Pigs	804	24244

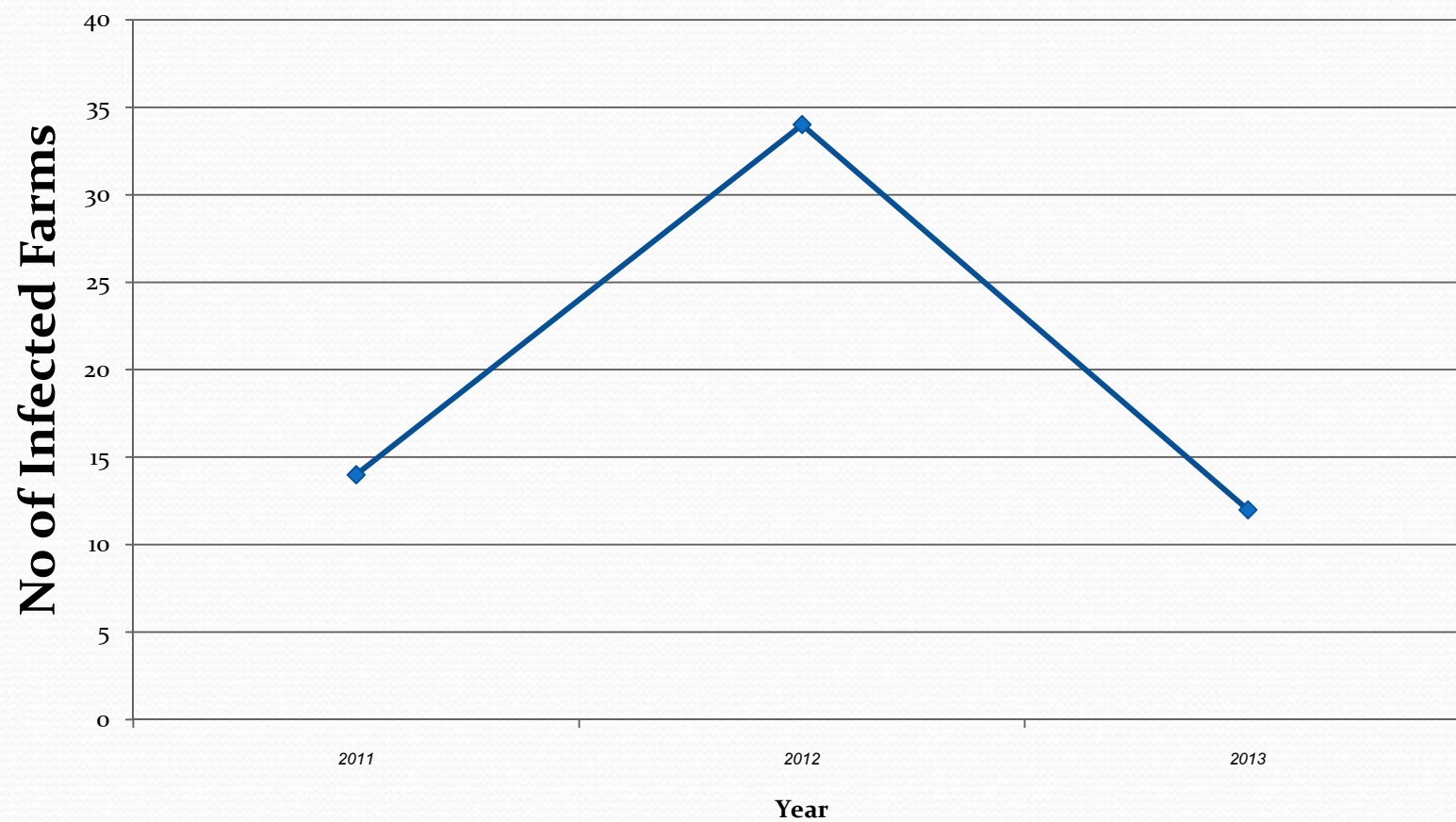
Overview of re-emergence of Brucellosis

- 1989 - Fiji declared free of bovine brucellosis
- 1989 onwards - targeted surveillance in abattoir (testing slaughtered animals) = none detected.
- 2009 June – 1st detected re-emergence from blood sample (Tailevu herd w/ high abortion cases)
- Trace back and trace forward revealed Wainivesi and Muanaweni as hot spots.

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- 2009 - 13 farms infected, 250 positive animals, 120 were removed from farm.
 - 2012 May - 34 farms infected, >560 positive animals
 - 2013 - 32 farms infected (Tailevu and Naitasiri), less than 20 positive animals left.

**The increase in the number is due to the increase in the coverage of the testing by the BTEC team.*

Graph of infected farms Vs. Period of time



Types of diagnostic tests

	2009	2010	2011	2012	2013	2014
RBT	✓	✓	✓	✓	✓	x
ELISA	x	✓	✓	✓	✓	✓
CFT	overseas	overseas	✓	✓	x	x



Laboratory Organisation

- Fiji Veterinary Pathology Laboratory
- 5 main disciplines namely parasitology, serology, histology, hematology and bacteriology
- CSIRO AAHL – trained staffs for brucellosis serology (CFT and ELISA) and brucella culture

PT Results

- [..\Fiji Results form 4 10 13.pdf](#)



Overall Achievement

- Brucellosis prevalence:
 - 2012 May 2.8%
 - 2013 May 0.05%
- Wider coverage of testing since 2011
- Capacity building of the Fiji Veterinary Pathology Lab



Way Forward

- Identify other regional reference laboratories involved in Brucellosis diagnosis
- BTEC to move into brucellosis eradication phase in 2014 from current control phase
- Strengthen legal powers to AH&P which will be essential for eradication to be possible
- Increase BTEC budget allocation for the next 5 years to support brucellosis eradication
- Provide recovery/rehabilitation assistance to heavily infected farms

The image features a solid blue background with a gradient from a darker shade at the top to a lighter shade at the bottom. At the top, there are several thin, wavy lines in various shades of blue and teal, creating a sense of movement and depth. The text "THANK YOU" is centered in the middle of the image.

THANK YOU



Laboratory name	Fiji Veterinary pathology Lab
Laboratory code	

RBT		CFT		IELISA	
Test performed on:	01/10/2013	Test performed on:		Test performed on:	02/10/2013
Antigen supplier:	DLD	Antigen supplier:		Kit supplier:	IDEXX
Antigen batch number:	Lot 1/56	Antigen batch number:		Kit batch number:	SN 2161
Antigen expiry date:	10/01/2015	Antigen expiry date:		Kit expiry date:	09/12/2013

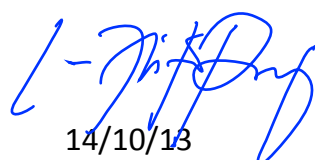
Tube ID:	Result ⁽¹⁾	Interpretation (P/N) ⁽²⁾	Result ⁽³⁾	Interpretation (P/N) ⁽²⁾	OD	Calculating index (%)	Interpretation (P/D/N) ⁽²⁾
Positive control					1.583		
Internal Positive control					1.575		
Negative control					0.09		
1	1398	n/a	P		2.885	187.7099	P
2	1293	n/a	P		2.856	185.7623	P
3	504	n/a	N		2.279	147.0114	P
4	1180	n/a	P		3.027	197.2465	P
5	1574	n/a	N		0.07	- 1.34318	N
6	1673	n/a	N		2.676	173.6736	P
7	1457	n/a	N		0.328	15.98388	N
8	1044	n/a	P		2.832	184.1504	P
9	29	n/a	P		2.849	185.2921	P
10	369	n/a	P		2.846	185.0907	P
11	601	n/a	N		1.213	75.41974	N
12	455	n/a	N		2.262	145.8697	P
13	116	n/a	P		2.751	178.7105	P
14	825	n/a	N		0.073	- 1.14171	N
15	986	n/a	N		0.225	9.066488	N
16	709	n/a	N		2.017	129.4157	P
17	257	n/a	P		2.806	182.4043	P

1: Give the raw result (0 or +) and, if possible, the intensity of the reaction (0, +, ++, +++ or ++++)

2: P=positive; N=negative; D=doubtful

3: Give the titre in IU/ml

Positive cut-off (%) :	%S/P ≥ 120%
Doubtfull cut-off (%) :	110% < S/P < 120%
Negative cut-off (%) :	% S/P ≤ 110%
Incubation (short or overnight) :	short

<p style="text-align: center;">Comments</p> <ul style="list-style-type: none"> • There was no positive and negative controls used for the RBT tests. • Only RBT qualitative tests was performed on the samples. • CFT testing capacity still being established. 	<p>I certify that the samples have been analysed at this laboratory.</p> <p>Name : Signature : </p> <p style="text-align: center;">Dr. Leo Felicito J. Borja 14/10/13</p>
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NIAH Brucellosis Laboratory Immuno-serology Section	F-IMM-PT2/01.03.13	Revision	00	2/2
		Date	16 July 2013	