

The 4<sup>th</sup> FAO-APHCA/OIE/DLD  
Regional Workshop on Brucellosis Diagnosis  
and Control in Asia-Pacific Region  
- Proficiency Test and Ways Forward –  
Chiang Mai, Thailand, 18-21 March 2014

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REPUBLIC OF THE PHILIPPINES

## PHILIPPINE STATISTICS AUTHORITY

### LIVESTOCK & POULTRY: Inventory, Philippines, as of January 1, 2009 - 2014 (In '000 Head)

ITEM	2009	2010	2011	2012	2013	2014
<b>LIVESTOCK</b>						
CARABAO	3,320.97	3,270.41	3,075.26	2,963.98	2,912.84	2,844.15
CATTLE	2,586.39	2,570.88	2,518.41	2,493.16	2,497.91	2,504.64
HOG	13,596.40	13,397.79	12,303.10	11,863.02	11,843.05	11,797.45
GOAT	4,222.23	4,177.72	3,881.50	3,715.23	3,694.03	3,690.79
<b>POULTRY</b>						
<b>CHICKEN</b>	<b>158,663.07</b>	<b>158,984.32</b>	<b>162,812.90</b>	<b>164,192.25</b>	<b>166,386.28</b>	<b>167,651.02</b>
Broiler	56,941.61	52,213.32	54,753.89	57,284.15	59,196.05	61,576.65
Layer*	25,181.59	28,638.91	31,444.30	31,523.80	32,002.51	30,001.41
Native/Improved <sup>1/</sup>	76,539.86	78,132.09	76,614.71	75,384.30	75,187.72	76,072.96
DUCK	10,577.40	10,268.01	10,126.36	10,011.48	10,134.88	9,917.59

\* - Foreign Strain

1/ - Includes Backyard Gamefowl



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#### BRUCELLA SAMPLES (Year -2010-2013)

Date	Lab. No.	Place	Specie	No. of samples Submitted
1/11/2010	65	Alabang	canine	1
3/15/2010	498	Bukidnon	bovine	4
5/10/2010	773	Region 7	bubaline	14
7/23/2010	1163	Quezon City	caprine	40
9/22/2010	1519	Region 2	caprine	60
12/10/2010	2097	Malitbog, Leyte	caprine	50
9/12/2011	845	Cavite	porcine	30
11/28/2011	1199	Manila	canine	4
1/16/2012	77	Rizal	porcine	5
2/17/2012	214	Manila	canine	1
2/17/2012	216	Manila	canine	1
2/27/2012	248	Manila	porcine	75
3/22/2012	350	Panabo city	porcine	10
4/25/2012	465	Naga City	caprine	7
5/7/2012	524	Alabang	porcine	75
5/11/2012	550	Compostela	caprine	3
5/14/2012	555	Compostela	caprine	2
5/23/2012	606	Batangas	caprine	20
5/24/2012	616	Nueva Ecija	bovine	6
6/12/2012	683	San Fernando, Pampanga	caprine	20
6/8/2012	702	Tarlac	caprine	12
6/20/2012	777	Ifugao	bubaline	7
6/29/2012	826	Laguna	caprine	9
7/2/2012	842	Pampanga	porcine	50
7/10/2012	875	Laguna	bovine	2
7/17/2012	936	N. Ecija	canine	1
8/6/2012	1004	Bantayan Island, Cebu	porcine	30
8/9/2012	1007	Calatagan, Batangas	porcine	4
8/9/2012	1008	Calatagan, Batangas	bovine	5
8/13/2012	1023	Bulacan	caprine	2
8/14/2012	1033	Region 5	caprine	5
8/22/2012	1060	Masbate	bovine	55
8/30/2012	1100	Batangas	bovine	15
8/30/2012	1110	Rizal	caprine	10
8/30/2012	1111	Laguna	porcine	6
9/20/2012	1230	Alabang	caprine	2
10/4/2012	1283	Nueva Ecija	porcine	31



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10/24/2012	1393	Tiaong, Quezon	porcine	30
10/24/2012	1395	Quezon City	bovine	1
11/5/2012	1443	Bukidnon	porcine	30
11/27/2012	1689	Capas, Tarlac	caprine	10
12/1/2012	1766	Cavite	caprine	10
12/14/2012	1788	Panabo, Davao del Norte	porcine	36
12/17/2012	1802	Nueva Ecija	caprine	4
12/17/2012	1803	Pangasinan	caprine	4
1/16/2013	98	Bukidnon	porcine	30
1/16/2013	99	Nueva Ecija	porcine	29
1/31/2013	162	Ilocos	porcine	30
2/1/2013	168	Masbate	caprine	31
2/4/2012	188	Pampanga	caprine	16
2/7/2013	203	Brgy. San Jose Batangas City	porcine	11
2/12/2013	227	Batangas	porcine	24
2/18/2013	264	Masbate	bovine	51
2/21/2012	290	Rizal	porcine	30
3/22/2013	425	Nueva Ecija	porcine	31
3/25/2013	435	San Nicolas, batangas	porcine	15
4/11/2013	495	Laguna	caprine	7
4/11/2013	496	Laguna	caprine	2
4/17/2013	515	Rizal	porcine	34
5/2/2013	590	Masbate	bovine	19
5/8/2013	615	Batangas	bovine	3
5/8/2013	617	Batangas	bovine	1
5/10/2013	634	Pampanga	porcine	33
5/16/2013	648	Cavite	porcine	12
5/20/2013	658	Palawan	bovine	19
5/23/2013	681	Quezon	porcine	30
5/28/2013	702	Antipolo	porcine	2
6/14/2013	766	Bukidnon	porcine	34
7/1/2013	805	Negros Occidental	porcine	30
7/3/2013	813	Laguna	caprine	11
7/3/2013	815	Benguet	porcine	14
7/15/2013	846	Tarlac	ovine	2
7/18/2013	865	Tarlac	caprine	26
7/19/2013	867	Laguna	porcine	30
7/22/2013	874	Batangas	bovine	9
7/23/2013	882	Tarlac	caprine	17
7/25/2013	887	Batangas	Bubaline	23





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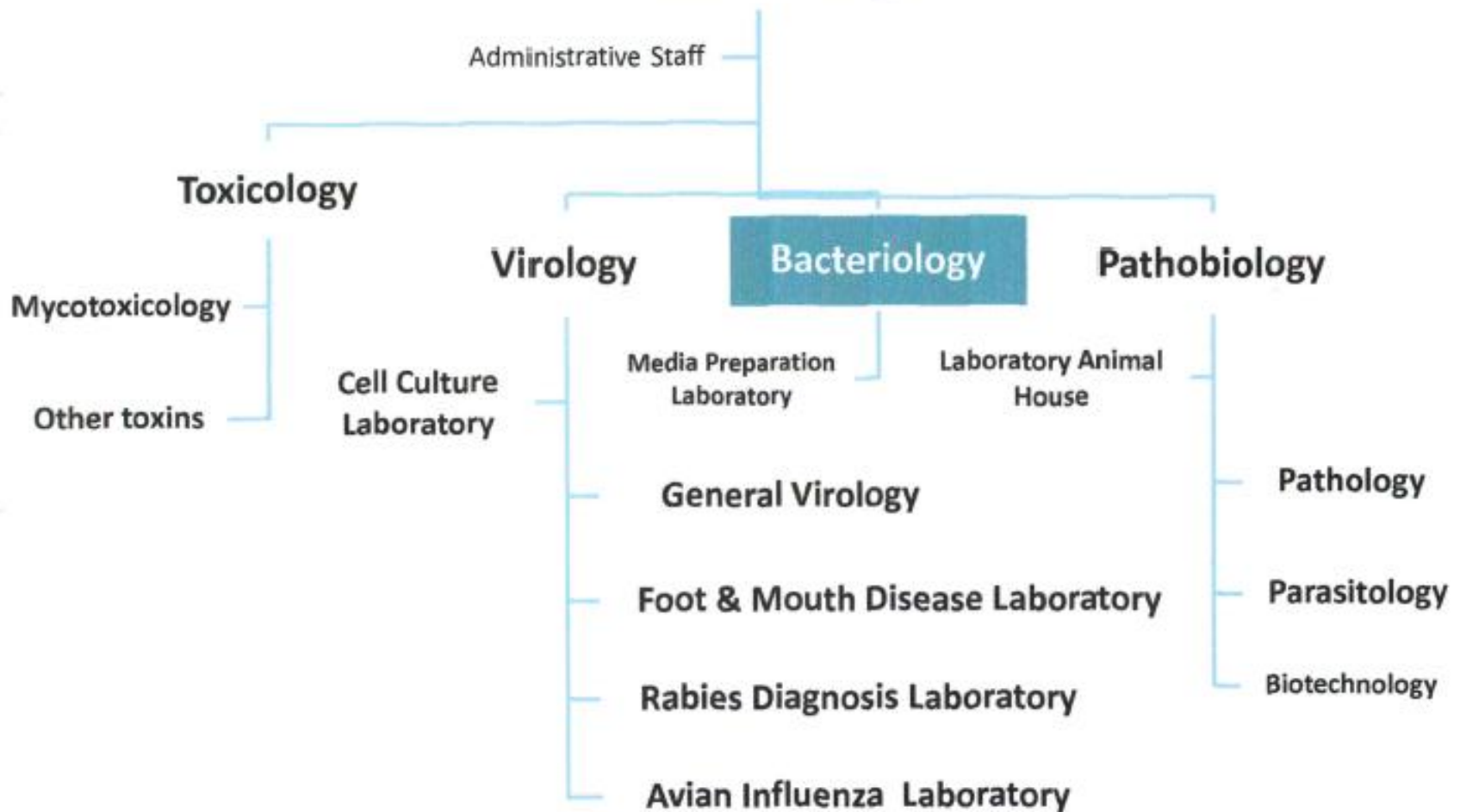


8/16/2013	927	Batangas	porcine	34
8/28/2013	946	Tarlac	porcine	32
9/2/2013	954	Batangas	bovine	6
9/6/2013	966	Antipolo	porcine	35
9/17/2013	988	Cebu	caprine	15
9/20/2013	1001	Cotabato	porcine	36
10/1/2013	1025	Quezon	porcine	30
10/1/2013	1026	Laguna	porcine	34
10/8/2013	1047	Davao	porcine	20
10/10/2013	1058	Rizal	porcine	34
10/10/2013	1059	Bulacan	porcine	35
10/21/2013	1094	Batangas	bovine	1
10/30/2013	1125	Batangas	bovine	3
11/5/2013	1147	Muntinlupa	canine	1
11/10/2013	1197	Batangas	bovine	9
11/15/2013	1206	Negros	porcine	30
11/29/2013	1274	Cavite	porcine	30
12/5/2013	1306	Ortigas	porcine	20
12/11/2013	1323	Pangasinan	porcine	30
12/12/2013	1328	Bulacan	porcine	30
12/17/2013	1345	Laguna	porcine	30
2/11/2014	119	Northern Samar	porcine	5
2/26/2014	170	Bulacan	caprine	5
2/27/2014	173	Rizal	porcine	32
3/6/2014	192	Northern Samar	porcine	15

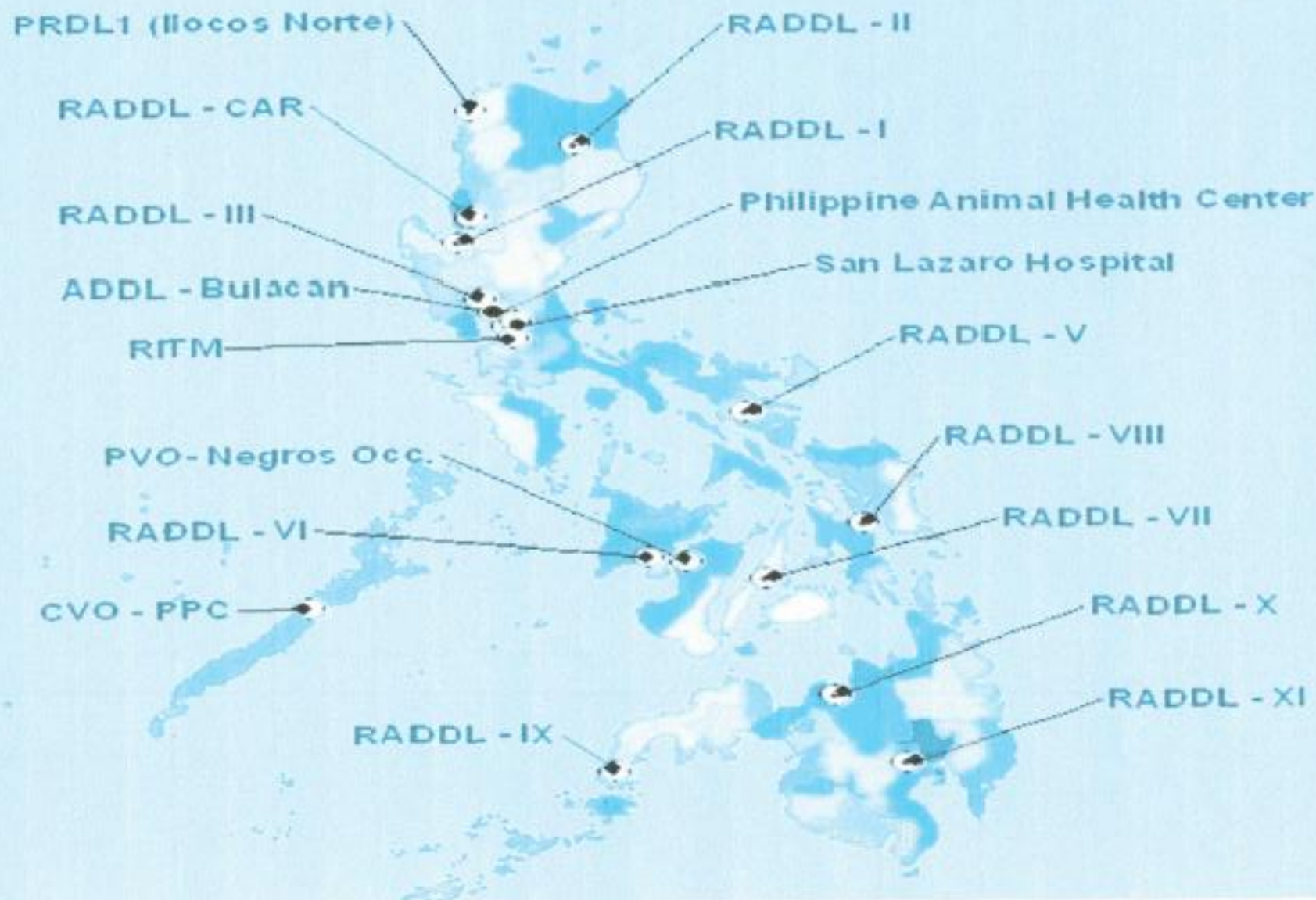


Provides diagnostic laboratory services and conducts animal disease researches

## Officer-in-Charge

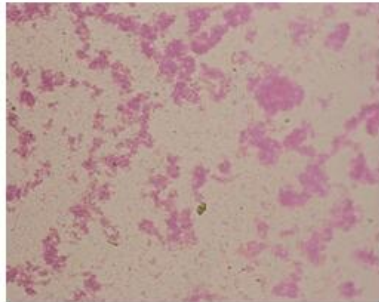


# LOCAL GOVERNMENT UNITS REGIONAL VETERINARY DIAGNOSTIC LABORATORIES

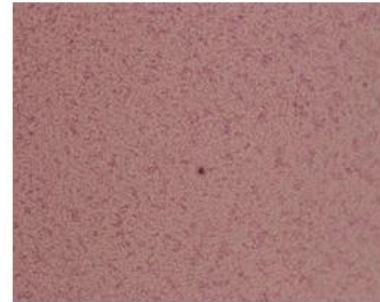




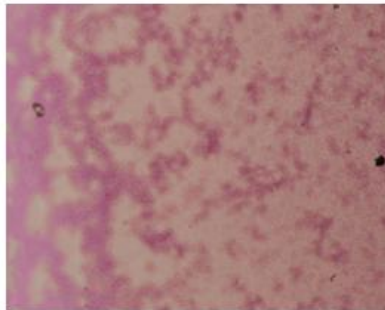
Philippines  
Asia-Pacific Bovine Brucellosis Serum  
Proficiency Test 2013 sample No. 99  
RBPT Positive



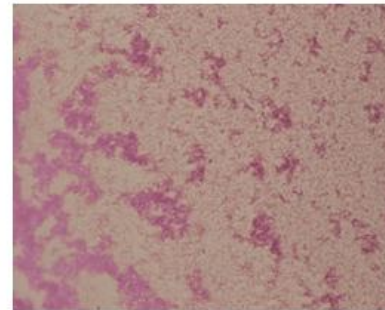
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Asia-Pacific Bovine Brucellosis Serum  
Proficiency Test 2013 sample No. 118  
RBPT Negative



Philippines  
Asia-Pacific Bovine Brucellosis Serum  
Proficiency Test 2013 sample No. 227  
RBPT Positive



Philippines  
Asia-Pacific Bovine Brucellosis Serum  
Proficiency Test 2013 sample No. 367  
RBPT Positive



Philippines  
Asia-Pacific Bovine Brucellosis Serum  
Proficiency Test 2013 sample No. 421  
RBPT Negative



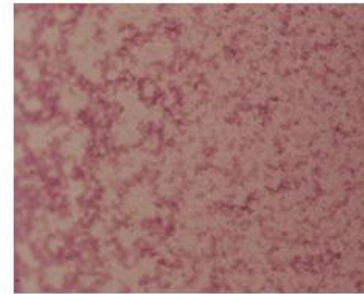
Philippines  
Asia-Pacific Bovine Brucellosis Serum  
Proficiency Test 2013 sample No. 514  
RBPT Negative



Philippines  
Asia-Pacific Bovine Brucellosis Serum  
Proficiency Test 2013 sample No. 665  
RBPT Negative



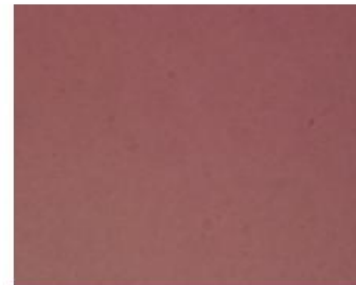
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RBPT Positive



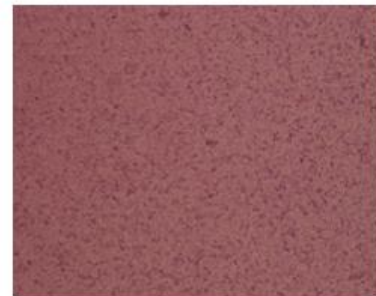
Philippines  
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RBPT Negative



Philippines  
Asia-Pacific Bovine Brucellosis Serum  
Proficiency Test 2013 sample No. 963  
RBPT Negative



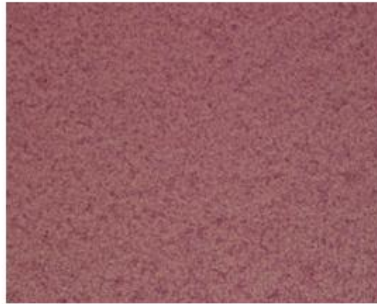
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RBPT Negative



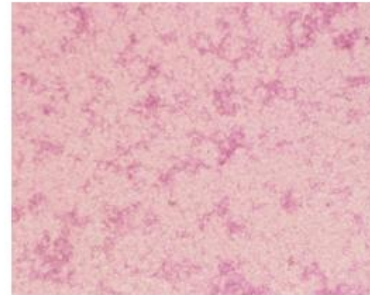
Philippines  
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Proficiency Test 2013 sample No. 1124  
RBPT Negative



Philippines  
Asia-Pacific Bovine Brucellosis Serum  
Proficiency Test 2013 sample No. 1224  
RBPT Negative



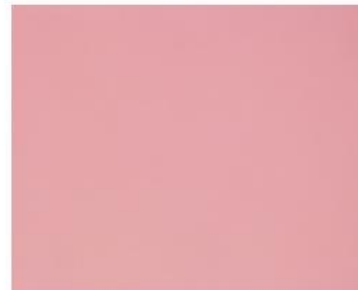
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Proficiency Test 2013 sample No. 1333  
RBPT Positive



Philippines  
Asia-Pacific Bovine Brucellosis Serum  
Proficiency Test 2013 sample No. 1416  
RBPT Negative



Philippines  
Asia-Pacific Bovine Brucellosis Serum  
Proficiency Test 2013 sample No. 1571  
RBPT Negative



Philippines  
Asia-Pacific Bovine Brucellosis Serum  
Proficiency Test 2013 sample No. 1639  
RBPT Negative



Philippines  
Asia-Pacific Bovine Brucellosis Serum  
Proficiency Test 2013 sample Antigen Control



A brucella diagnostic strategy includes bacterial isolation and identification of the organism by cultural, biochemical and serological criteria. Serum Agglutination Test (SAT), Complement Fixation Test (CFT), Enzyme Linked Immunosorbent Assay (ELISA), Buffered Brucella Antigen Test (BBAT) (Rose Bengal Plate Agglutination), Buffered Agglutination Test, Milk Ring Test are the serological tests being used for the detection of Brucella antibodies.

1. Take clinical examination and herd history.
2. Ascertain the age of the fetus when abortion occur by inspection and from breeding records.
3. Confirm results of serological test for brucellosis.
4. Perform differential diagnosis (Brucella, Listeria, Leptospira etc.).
5. Examine uterine fluids and contents of fetal abomasom (Trichomonads, Brucella, Campylobacter, Listeria fungi).
6. Do supplementary tests a. urine: leptospira, b. placenta or urine fluid: bacteria and fungi c. placental histopathology: placentitis.

Plan for Regional Collaboration on Diagnosis and Control of *B. melitensis*.

1. The group should design a plan adapted to the local area during Regional Meetings.
2. Perform an intensive educational program.
3. Seek absolute cooperation at local and national levels through approved Technical Assistance Projects.
4. Conduct intensive seroepidemiological brucella survey.
5. Perform cost and economic benefits of Brucella vaccination and eradication program using Models.
6. Conduct studies on human exposure to Brucella infection.
7. Develop indigenous control program that will receive primary recognition.



## REFERENCES:

- Distributions of Farm Animal Resources in Cambodia, Laos and the Philippines, 2009 Environmental Animal Health Management Initiative – Bureau of Animal Industry & Bureau of Agricultural Statistics, Philippines; Department of Animal Production and Health, Cambodia; and Department of Livestock and Fisheries, Laos – FAO, Cooperazione Italiana allo Sviluppo Ministero degli Affari Esteri
- EAHMI (2008) Animal disease risk modeling and risk mapping in the Philippines. Philippine Veterinary Medical Association:75<sup>th</sup> Annual Convention and Scientific Conference. Boracay, Aklan Philippines. 20-23, February 2008
- EAHMI (2008) Policy brief on animal disease distribution modeling and risk mapping in the Philippines, Quezon City, Metro Manila: Environmental Health Management Initiative:pp4. February 2008

- **Philippine Animal Health Information System (PHIL-AHIS) System Development Future Direction-FAO Bureau of Animal Industry, Cooperazione Italiana allo Sviluppo Ministero degli Affari Esteri**
- **The 1<sup>st</sup> FAO-APHCA/OIE Regional Workshop on Brucellosis Diagnosis and Control with the Emphasis on Brucella melitencis, Chiang Mai and Lampang, Thailand 20-23 October 2008**
- **The 2<sup>nd</sup> FAO-APHCA/OIE Regional Workshop on Brucellosis Diagnosis and Control with the Emphasis on Brucella melitencis, 08-11 June 2009 Veterinary Research and Development Center (upper Northeastern Region), Khonkaen Province, Thailand.**
- **OIE Twinning Program: Training Course on Brucellosis and Leptospirosis (National Institute of Animal Health, Department of Livestock) 7-25, January 2013, Bangkok, Thailand**