



Republic of the Philippines
OFFICE OF THE SECRETARY
Elliptical Road, Diliman
1100 Quezon City

MEMORANDUM CIRCULAR

NO. 08

Series of 2021

SUBJECT : GUIDELINES FOR THE CONDUCT OF SEROPREVALENCE OF CONTAGIOUS BOVINE PLEUROPNEUMONIA IN CATTLE AND WATER BUFFALO IN THE PHILIPPINES PROJECT

I. BACKGROUND

Pursuant to Act No.3639 s.1929, the Bureau of Animal Industry (BAI) is mandated to investigate, study and report upon the condition of the domestic animals.

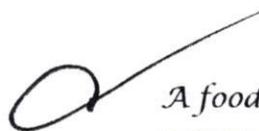
Republic Act 7884 Section 5 mandates the National Dairy Authority (NDA) as the central policy determining and directing body tasked to ensure the accelerated development of the Philippine dairy industry.

DA Administrative Order No. 9, Series of 2008 established the Philippine Carabao Center (PCC) as the national lead agency for livestock biotechnology research and development in the Department of Agriculture.

Contagious Bovine Pleuropneumonia (CBPP) is a highly contagious disease of cattle and water buffalo caused by *Mycoplasma mycoides* subsp. *Mycoides* (*M. mycoides*), and listed as one of the Notifiable diseases by the World Organisation for Animal Health (OIE). Historically CBPP is among the causative agents for the world's great cattle plagues which was known to have occurred as early as the 16th century. Susceptible animals to the disease include bovids.

The Philippines is historically free from CBPP. Thus, vaccination nor any eradication measure against CBPP has never been conducted. Nevertheless, BAI is cognizant of possible disease incursion or introduction of this novel disease, thus, CBPP is included in the list of important diseases for monitoring and immediate notification.

The current disease surveillance programs of the government do not include a pathogen-specific strategy for CBPP as the disease has never been observed in the country.



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Nevertheless, there is a need to establish the baseline status in the country for the effective development of animal health and disease control programs particularly on emerging diseases.

II. PROJECT DESCRIPTION

A Two (2) year project to determine the Seroprevalence of Contagious Bovine Pleuropneumonia (CBPP) in Cattle and Water Buffalo in the Philippines, jointly undertaken by the BAI, PCC and NDA, in close coordination with the Department of Agriculture (DA) Regional Field Offices (RFO), and Local Government Units (LGU).

III. OBJECTIVES

The project aims to determine the seroprevalence of Contagious Bovine Pleuropneumonia (CBPP) in Cattle and Water Buffalo in the Philippines using Enzyme Linked Immunosorbent Assay (ELISA) Test.

The results of the Seroprevalence study will be used to substantiate the OIE application of the Philippines as a CBPP-free country. The long-term aim of the project is to support the development and expansion of the livestock industry amid the recovery efforts of the country from the devastation caused by African Swine Fever, to attain food sufficiency goals as well as improve its competitiveness in the international market.

IV. DEFINITION OF TERMS

As used in this Guideline, the following terms, words, and phrases shall be constructed as:

1. OIE - or the World Organisation for Animal Health, formerly the Office International des Epizooties, is an intergovernmental organization coordinating, supporting and promoting animal disease control.
2. Notifiable Disease - disease that, as soon as detected or suspected, should be brought to attention of the government veterinary authority in accordance with national regulations.
3. CBPP- or Contagious Bovine Pleuropneumonia is a disease of ruminants manifested by anorexia, fever and respiratory signs such as dyspnea, polypnea, cough, and nasal discharges.
4. Bovids - cloven-hoofed, ruminant vertebrates in the family Bovidae such as cattle and water buffalo.



5. Seroprevalence – the percentage of individual animals in a given population which have antibodies to an infectious agent.
6. Surveillance – the systemic ongoing collection, collation, and analysis of information related to animal health and the timely dissemination of information so that action can be taken.
7. Livestock– domesticated animals raised in an agricultural setting to produce labor and commodities.
8. ELISA – or Enzyme Linked Immunosorbent Assay is an immunological assay commonly used to measure antibodies, antigens, proteins and glycoproteins in biological samples recommended by the OIE as a serological test for screening and eradication programs.

V. PROJECT MANAGEMENT TEAM

A Project Management Team (PMT) shall be created to oversee and provide guidance in the implementation of the Project. The PMT Composition shall be as follows:

Team Leader and Overall Coordinator: BAI
Co-Team Leader: PCC, NDA

Roles and Responsibilities:

- a. Finalize the CBPP surveillance plan in accordance with the provisions of the OIE Terrestrial Animal Health Code;
- b. Purchase the necessary laboratory supplies and collection paraphernalia to support the project implementation;
- c. Lead the conduct of sample collection;
- d. Record and collate the laboratory sample results;
- e. Produce the seroprevalence study of CBPP for Year 2021 and Year 2022;
- f. Coordinate the activities of the project with other partners and stakeholders.

VI. OTHER PARTNER AGENCIES

The LGU shall collect samples on areas not covered by the PCC and NDA in consideration to the identified areas from the computed sample distribution.

The **DA RFO Regulatory Division** shall assist in the sample collection and coordinate with DA RFO Regional Disease Diagnosis Laboratory (RADDL) of each participating province.

The **DA RFO RADDL Cordillera Administrative Region (CAR), I, II, III, IVA, IVB, V, VI, VII, VIII, IX, X, XI, XII, and CARAGA** shall assess, process, and store the samples collected by PCC, NDA, and LGUs. In addition, they shall deliver the samples to the identified testing centers.

The **Animal Disease Diagnosis and Reference Laboratory (ADDRL) and DA RFO RADDL VII, X, and XII**, shall function as the identified testing centers. ADDRL shall test the samples collected for CAR, Region I, II, III, IVA, IVB, V; RADDL VII for Region VI, VII, and VIII; RADDL X for Region IX, X, XIII; and RADDL XII for Region XI, XII, and BARMM.

VII. PROJECT IMPLEMENTATION PLAN

1. Monitoring and Evaluation
 - a. Monitoring and evaluation of the project shall be carried out by the BAI, PCC and NDA biannually.
 - b. Monitoring and evaluation will include inventory of cattle and water buffalo and information on livestock demographics of the country.
2. Project Launching
 - a. Nationwide project launching to stakeholders and key personalities shall be undertaken to gather support and positive commitment.
 - b. Establishing close coordination and ties with relevant National Government Agencies (NGAs) such as PCC, NDA, and DA-RFO, as well as LGU is imperative to raise awareness about the disease including its socio-economic importance.
3. Surveillance
 - a. Blood collection shall be conducted nationwide from the identified cattle and water buffalo population to determine the seroprevalence of CBPP.
 - b. Necessary supplies and paraphernalia shall be provided for the sample collection and transport of samples until delivery to the designated laboratory testing centers.
 - c. The competitive Enzyme-Linked Immunosorbent Assay (C-ELISA) shall be used as the screening testing for CBPP, as recommended by the OIE.
 - d. Diagnostic test shall be carried out by the ADDRL and RADDL. Positive results shall be sent to the ADDRL for confirmation. All the needed test kits will be distributed to the identified laboratories.



e. Samples shall be collected annually for the year 2021 and for the year 2022.

4. Publication

- a. The data gathered through sample collection and analysis will be used to describe and assess the seroprevalence of CBPP in cattle and water buffalo in the country; and serve as baseline data for the creation of relevant policies.
- b. The research study is intended to be published in a scholarly journal.

5. Communication Campaign

- a. A communication plan shall be developed by the BAI to spread awareness on the disease as well as educate various stakeholders on the impact of the OIE Certification of Freedom from CBPP to the livestock industry and trade.
- b. IEC materials are expected to be crafted based on the peculiarity and interests of the stakeholders and will be released through different media platforms.

6. Application to the OIE

The BAI, as the Veterinary Competent Authority, shall be responsible for the application for an Official Disease Status of CBPP to the OIE.

VIII. FUNDING

The source of fund for the project shall be charged to available funds of the DA, BAI, PCC and NDA subject to usual accounting and audit rules and regulations.

IX. EFFECTIVITY

This Memorandum Circular shall take effect immediately upon signing and shall supersede all other issuances that are inconsistent herewith.

Done this 17th day of May 2021.



WILLIAM D. DAR, PhD.

Secretary

DEPARTMENT OF AGRICULTURE
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**ANNEX A
SAMPLE DISTRIBUTION**

PLACE	POPULATION		PERCENTAGE OF POPULATION		SAMPLE SIZE				TOTAL SAMPLE PER YEAR
	CATTLE	CARABAO	CATTLE	CARABAO	CATTLE		CARABAO		
					NDA	LGU	PCC	LGU	
PHILIPPINES	2,595,938	2,865,715			1,777	511	1,719	569	4,576
CAR	56,314	88,036	100%	100%	0	143	18	125	286
Abra	17,731	29,189	31%	33%	-	66	9	56	131
Apayao	3,597	16,785	6%	19%	-	-	4	34	38
Ifugao	9,408	7,584	17%	9%	-	35	-	-	35
Kalinga	11,164	18,153	20%	21%	-	42	5	35	82
REGION I	318,079	178,438	100%	100%	105	38	143	0	286
Ilocos Norte	74,617	34,726	23%	19%	-	38	32	-	70
Ilocos Sur	59,679	23,544	19%	13%	31	-	-	-	31
La Union	38,106	41,589	12%	23%	-	-	38	-	38
Pangasinan	145,677	78,579	46%	44%	74	-	73	-	147
REGION II	189,273	220,592	100%	100%	143	0	143	0	286
Cagayan	21,696	92,050	11%	42%	67	-	18	-	85
Isabela	129,643	78,755	68%	36%	57	-	109	-	166
Nueva Vizcaya	18,171	25,234	10%	11%	19	-	16	-	35
REGION III	202,264	232,243	100%	100%	112	31	143	0	286
Nueva Ecija	30,023	58,839	15%	25%	32	-	53	-	85
Pampanga	4,145	40,900	2%	18%	-	-	37	-	37
Tarlac	68,158	60,363	34%	26%	41	31	53	-	12
Zambales	36,855	29,120	18%	13%	39	-	-	-	39
REGION IVA	266,746	178,901	100%	100%	143	0	143	0	286
Batangas	125,825	46,275	47%	26%	78	-	40	-	118
Laguna	42,766	38,770	16%	22%	27	-	33	-	60
Quezon	60,173	82,005	23%	46%	38	-	70	-	108
REGION IVB	67,944	135,011	100%	100%	37	106	143	0	286
Occidental Mindoro	14,250	50,295	21%	37%	-	38	60	-	98
Oriental Mindoro	23,477	37,841	35%	28%	37	25	45	-	107
Palawan	13,219	31,460	19%	23%	-	-	38	-	38
Romblon	16,532	8,033	24%	6%	-	43	-	-	43
REGION V	112,972	316,528	100%	100%	143	0	18	125	286
Albay	8,536	85,562	8%	27%	-	-	7	47	54
Camarines Sur	22,710	78,796	20%	25%	34	-	6	43	83



Masbate	58,304	64,083	52%	20%	86	-	5	35	126
Sorsogon	15,923	32,714	14%	10%	23	-	23	-	23
REGION VI	249,400	293,017	100%	100%	143	0	143	0	286
Antique	58,505	37,259	23%	13%	44	-	23	-	67
Iloilo	75,035	91,551	30%	31%	57	-	57	-	114
Negros Occidental	56,193	100,222	23%	34%	42	-	63	-	105
REGION VII	302,183	195,119	100%	100%	143	0	143	0	286
Bohol	76,174	74,404	25%	38%	39	-	55	-	94
Cebu	138,336	53,404	46%	27%	70	-	39	-	109
Negros Oriental	65,761	66,227	22%	34%	34	-	49	-	83
REGION VIII	18,932	206,248	100%	100%	107	36	143	49	286
Leyte	8,310	115,716	44%	56%	83	-	94	-	177
Northern Samar	2,535	33,370	13%	16%	-	25	27	-	52
Samar	1,249	27,152	7%	13%	-	-	22	-	22
Southern Leyte	3,526	9,794	19%	5%	24	11	-	-	35
REGION IX	117,380	146,813	100%	100%	124	19	143	0	286
Zamboanga del Norte	58,057	62,688	49%	43%	70	-	61	-	131
Zamboanga del Sur	31,224	43,042	27%	29%	54	-	50	-	104
Zamboanga Sibugay	15,309	32,793	13%	22%	-	19	32	-	51
REGION X	243,633	127,284	100%	100%	143	0	143	0	286
Bukidnon	97,558	55,748	40%	44%	66	-	69	-	135
Lanao del Norte	45,912	37,089	19%	29%	32	-	46	-	78
Misamis Occidental	27,680	22,376	11%	18%	-	-	28	-	28
Misamis Oriental	66,715	9,176	27%	7%	45	-	-	-	45
REGION XI	134,134	143,922	100%	100%	143	0	40	103	286
Compostela Valley	8,164	23,962	6%	17%	-	-	11	17	28
Davao del Norte	13,282	15,241	10%	11%	17	-	-	-	17
Davao del Sur	41,583	32,550	31%	23%	94	-	15	64	173
Davao Oriental	26,640	31,814	20%	22%	32	-	14	22	68
Region XII	197,419	199,895	100%	100%	143	0	143	0	286

North Cotabato	83,795	68,699	42%	34%	64	-	56	-	120
South Cotabato	64,291	41,936	33%	21%	49	-	34	-	83
Sultan Kudarat	39,096	65,160	20%	33%	30	-	53	-	83
REGION XIII	22,742	80,749	100%	100%	98	45	39	104	286
Agusan del Norte	13,350	14,816	59%	18%	91	-	-	-	91
Agusan del Sur	4,710	30,170	21%	37%	-	32	18	48	98
Surigao del Norte	1,509	16,130	7%	20%	-	-	10	26	36
Surigao del Sur	2,907	18,100	13%	22%	7	13	11	30	61
BARMM	96,523	122,919	100%	100%	50	93	31	112	286
Basilan	25,728	25,552	27%	21%	-	43	7	24	74
Lanao del Sur	30,100	10,835	31%	9%	50	-	3	10	63
Maguindanao	7,970	84,575	8%	69%	-	-	21	78	99
Sulu	29,805	1,129	31%	1%	-	50	-	-	50



**ANNEX B
ACTIVITIES FOR YEAR 2021**

No.	ACTIVITY	2021											
		Q1			Q2			Q3			Q4		
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Collaboration with Philippine Carabao Center (PCC), National Dairy Authority (NDA), and Department of Agriculture - Regional Field Offices (DA-RFO) and Local Government Units (LGU) thru Memorandum Circular												
2	Coordination with PCC, NDA, and LGU on the Cattle and Water Buffalo Demographics per province nationwide												
3	Development of Information, Education, and Communication (IEC) Materials i.e. Infographics and Manuals												
4	Coordinative Meetings and Information Dissemination												
5	Procurement Process for Competitive Enzyme-Linked Immunosorbent Assay (C-ELISA) Test Kits and other collection materials												
6	Creation of the CBPP prevention program												
7	Collection of Samples												
8	Diagnostic Testing of Samples												
9	Analysis of Results												



**ANNEX C
ACTIVITIES FOR YEAR 2022**

No.	ACTIVITY	2022											
		Q1			Q2			Q3			Q4		
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Procurement Process for Competitive Enzyme-Linked Immunosorbent Assay (C-ELISA) Test Kits and other collection materials												
2	Collection of Samples												
3	Diagnostic Testing of Samples												
4	Analysis of Results												
5	Preparation of the OIE Requirements for CBPP-free status												
6	Accumulation of Disease Surveillance Data												



ANNEX D
PROCEDURE ON BLOOD SAMPLE COLLECTION

1. Using vacutainer plain tube attached with needle, collect five (5) to ten (10) millilitres of blood from the external jugular vein of the cattle/carabao.
2. Fill-in the label of the tube with the following information: location, name of the owner, date of collection and name of the animal (if any).
3. The collected blood sample must stand for 12 hours in room temperature before separating the serum.
4. The serum shall then be equally transferred into two microcentrifuge tubes.
5. Label the two tubes with the same information stated in number 2.
6. Freeze the collected sample until transport to designated Laboratory for testing.

**ANNEX E
SAMPLE COLLECTION FORM**


 Republic of the Philippines
 Department of Agriculture
BUREAU OF ANIMAL INDUSTRY
 Visayas Avenue, Diliman, Quezon City

CBPP Sample Collection Form

Region:	Province:	Date of Submission of Sample:	Page:							
Vet in Charge:		Collection Officer:								
Sample ID (Number/Name)	Name of Owner	CI/CB CI = Cattle CB = Carabao	General Condition (Apparently healthy; with Clinical Signs or Gross Lesions)	Age of animal	Sex of animal	Production type (Beef/Dairy/Draft/Breeder)	Complete Address (No., Street, Barangay, Municipality/City, Province; Coordinates: Latitude and Longitude)	Date of Collection	Time of Collection	Sample type (Whole Blood/ Serum)
1.										
2.										
3.										
4.										
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