



African Swine Fever (cross-sectional)

TEAM MONGOLIA

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Objectives & Expected outcomes

- To study the situation of ASF diagnosed in Neverland
 - To describe prevalence of ASF
 - To determine the mortality and morbidity rate of ASF
 - To find sources of virus introduction into the country and transmission route between households

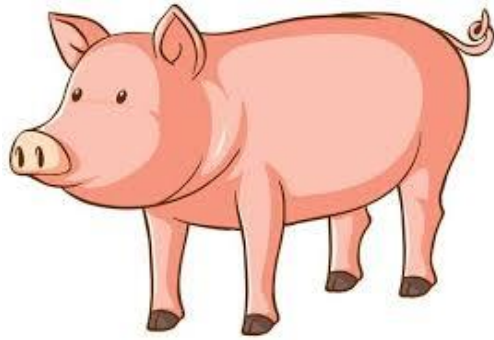
Target group and case definition

We defined household case where, last 3 months following clinical signs were reported from its pigs:

- Fever and huddle to stay warm
- Bloody diarrhoea or vomiting
- Skin redness
- Cyanosis
- Necrotic lesions
- Dyspnea or cough or nasal discharge
- Ataxia or paralysis or muscle tremor
- Death
- Haemorrhagic lesion of spleen or kidney or mediastinal lymph node

Stepwise approach of investigation

Farmers



Describing outbreak
by animal, time

Veterinarians



Determine the
population at risk

Laboratory



Disease
confirmation

Perform statistical processing of the results

Study size

Total Population: 15 administrative regions in Neverland



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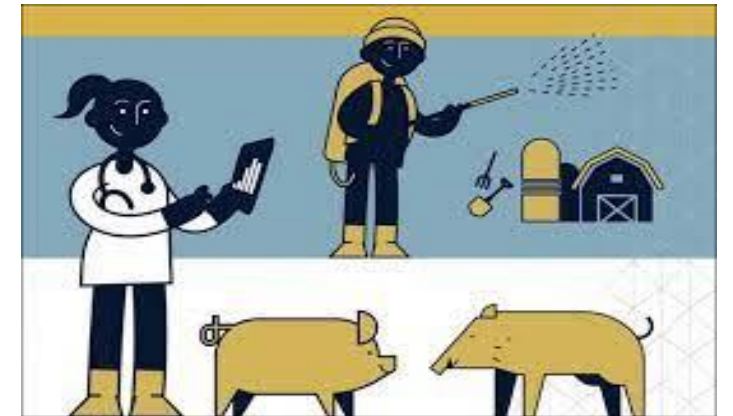
Large population	323
Population = 8e+05	323

Sample sizes for varying prevalence and precision values

	AP = 0.01	AP = 0.02	AP = 0.05	AP = 0.1	AP = 0.2	AP = 0.5
Precision = 0.01	381	753	1825	3458	6147	9604
Precision = 0.02	96	189	457	865	1537	2401
Precision = 0.05	16	31	73	139	246	385
Precision = 0.1	4	8	19	35	62	97
Precision = 0.2	1	2	5	9	16	25

Stakeholder involved

- Questionnaires from village heads, farmers, local veterinarians and para vets
- Pig farms that meet the required criteria will be randomly selected
- Laboratory sampling should be carried out by village para vet



Source and transmission



United States
Department of
Agriculture

ASF Response Epidemiology Questionnaire November 2020

PREMISES ID: _____

Instructions: Please submit one questionnaire per Premises ID, even if multiple premises have a single owner. Attach any supplemental materials necessary and reference in each section as applicable. All dates should be written in mm/dd/yyyy format.

Section A—Basic Information, Inventory, and Animal Shipment Information

Interview date: _____

Interviewed by (name and title): _____

Operation type(s) of this premises - check all that apply:

- | | |
|---|---|
| ☐ Backyard swine (confined but with access to outdoors surrounded by fence/barrier) | ☐ Breeder swine (sexually intact, >6 months age) |
| ☐ Commercial swine (confined to housing facility and raised to prevent exposure to feral swine) | ☐ Feeder swine (<6 month age, not slaughter swine) |
| ☐ Feral swine (free-roaming, non-domestic) | ☐ Slaughter swine (sold/moved for slaughter only) |
| ☐ Hobby (not intended for slaughter, breeding, exhibition, or sale) | ☐ Livestock concentration point: |
| | ☐ Buying station ☐ Auction/Sale Barn |
| | ☐ Slaughter Facility ☐ Agriculture Exhibition Grounds |

Premises Main Point of Contact Information

Name: _____ Email: _____

Preferred Contact Number: _____ Secondary Contact Number: _____

Premises Information

Front gate geo-coordinates: Latitude (6 decimals (+)): _____

Longitude (6 decimals (-)): _____

Special ID (assigned by IMT): _____

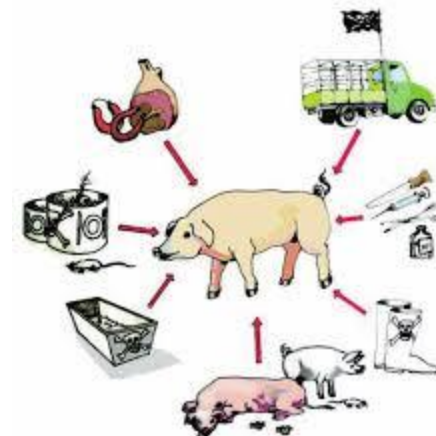
Is this premises part of a Production System? ☐ Yes ☐ No System Name: _____

Premises/Site Name: _____

Premises/Site Phone Number: _____

Physical Address: _____

City, State, Zip: _____



Production loss

Questionnaire For African Swine Fever Survey

Thank you for taking the time to complete this survey on the surveillance and control of African swine fever (ASF). This study is to investigate pig farmers' awareness of ASF, reaction, and attitudes towards the reporting of ASF, with the ultimate aim to investigate the major route for the spread of the ASF in the regions sampled not leaving out the principal biosecurity measures used by the farmers before, during and after an outbreak.

We are interested in your honest opinions. Please answer as honestly as possible, there is no 'correct' or 'incorrect' answer.

The questions are mostly checkboxes with "yes/no", "true/false" and "other" answer options. Anonymized survey results will be available once the data have been analyzed.

This survey should not take more than 10 minutes of your time. Please ensure you complete entirely the survey.

Remember that your answers will be completely anonymous and confidential.

Farm Characteristics

1. In which region are you?

Region

2. What type of production do you practice?

A. Breed to finish

B. Fattening

C. Sales of weaned

3. What housing type do you have?

A. Backyard un-cemented piggery

B. Backyard cemented piggery

C. Well-constructed pig farm

D. Backyard elevated piggery (on wood)

4. How many pigs do you have in the piggery?

A. <10

B. 10-50

C. 50-100

D. >100

5. Do you practice mix farming (having other animals on the same farm)?

Yes

African Swine Fever Awareness

11. Answer the following statements

	Yes	No	Uncertain
A. Have you ever heard of African swine fever (ASF)?			
B. Have you heard about the recent outbreaks of ASF in other countries?			
C. Do you know the ways of spread of ASF?			
D. Do you know the clinical signs for ASF?			

12. Choose 3 clinical signs that you consider mainly related to ASF:

A. Fever
B. Diarrhea
C. Higher mortality
D. Reduced eating
E. Joint swelling
F. Coughing
G. Bloody diarrhea
H. Vomiting
I. Redness of the ears, belly, and legs
J. Redness on the skin in the form of diamond
K. others (please specify)

13. If you observed the following clinical signs: Fever, redness on skin Reduced eating and no increase in mortality

	True	False
You would wait a few days to see if the pigs improve or get worse.		
You would treat the affected pigs with an antibiotic.		
You would immediately seek an opinion from your vet.		
You would wait a few days and then seek an opinion from your vet if nothing improves		
You would immediately suspect ASF.		
You would wait a few days and suspect ASF if the pigs do not improve or their condition gets worse		
Others (please specify)		

14. If you observe the following clinical signs: fever, redness of skin reduce eating, and increases in mortality

	True	False
You would wait a few days to see if the pigs improve or get worse.		
You would treat the affected pigs with an antibiotic.		
You would immediately seek an opinion from your vet.		
You would wait a few days and then seek an opinion from your vet if nothing improves.		
You would immediately suspect ASF.		

Summary /discussion

- Create a good outbreak questionnaire
- Identify potential risk factors and economics for ASF
- It is possible to determine the true distribution by the representative sample method
- Need to spend more time learning cross sectional design study

**Thank you for your
attention**