



Philippine College of Swine Practitioners

BANTAY ASF sa

BARANGAY

Biosecurity Assessment Plan

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Philippine College of Swine Practitioners (PCSP)

The PCSP as the leading and dynamic Filipino swine practitioners association is committed to deliver affordable, high quality swine practice and services that significantly will create value and enrich the lives of our farmers, business partners and pig welfare as well.



Philippine College of Swine Practitioners

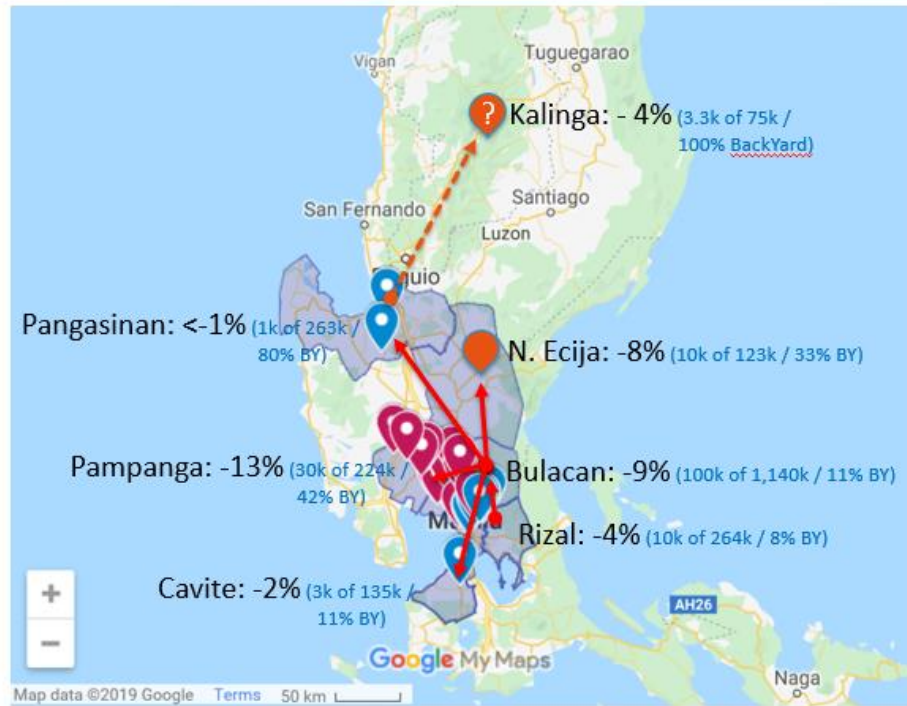
Pork will continue to be the Protein of Choice of Filipinos



Industry Forecast with ASF



ASF Impact 3 - Nationwide



ASF Projected Impact Scenario 3: Affects ALL Provinces; 50%↓ BY; 33%↓ Com. Except Bulacan 50%↓ in BY & Com.

Kalinga:	- 38k -50%
Pangasinan:	- 123k -47%
N. Ecija:	-45k -37%
Pampanga:	- 90k -40%
Bulacan:	-570k -50%
Rizal:	-94k -36%
Cavite:	-50k -37%
Other Luz:	-1,749k -46%
VisMin:	-3,095k -46%
TOTAL	-5,854k
of 12,700k Popn. = -46%	

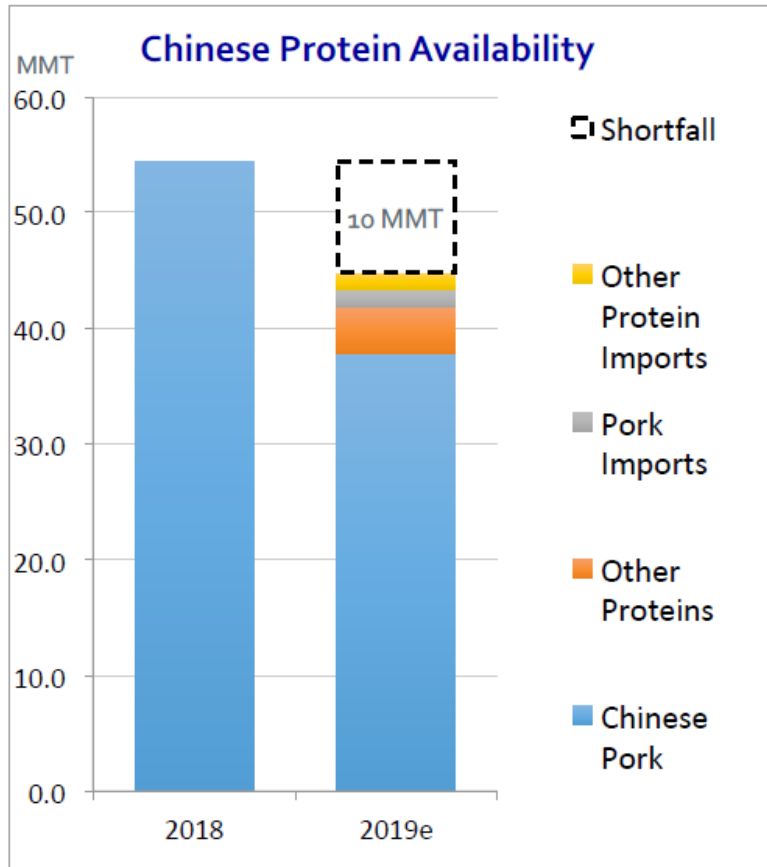
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Rabobank

World unable to fill the supply gap



Source: USDA and Rabobank, 2019

- Increased domestic protein production, frozen stocks and imports will supply ~6MMT
- Chinese poultry production limited due to breeder constraints; AI
- Imports of pork from the EU, Brazil and Canada likely to be limited, US faces tariffs
- Expect imports of all proteins (beef, poultry, seafood) to have limited near term impact
- Prices for all proteins will rise
- Gap in 2020 likely to expand (2x)



Step by Step Assessment

- Area Surveillances
- Know what weak areas we have in our OLD systems.
 - Learn from our Mistakes
 - Identify things need to be done better
 - Decide if willing to face risks
- Implement necessary changes
- Look for the right Partners
 - people
 - feed
 - genetic company
 - supplies
 - etc.



Downtime

Seen Recommendations:

6 months?

1 year?

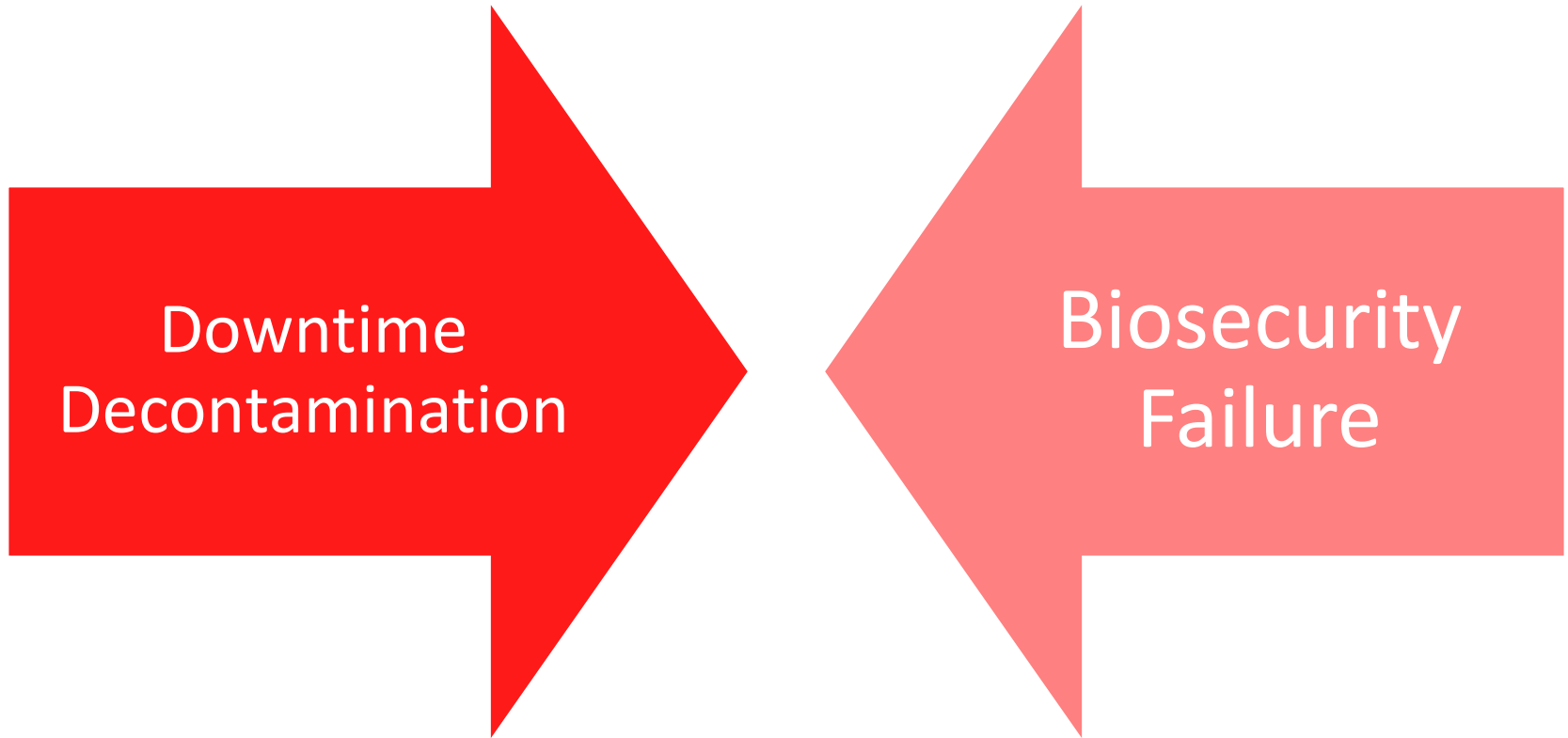
2 – 3 years?

ITEMS ASFV Survival Time

Meat with and without bone and ground meat	-	105 days
Salted meat	-	182 days
Cooked meat (min of 30 minutes at 70 °C)	-	0
Dried meat	-	300 days
Smoked and deboned meat	-	30 days
Frozen meat	-	1000 days
Chilled meat	-	110 days
Offal	-	105 days
Skin/Fat (also dried)	-	300 days
Blood stored at 4 °C	-	18 months
Feces at room temperature	-	11 days
Putrefied blood	-	15 weeks
Contaminated pig pens	-	1 month

Source: Beltran-Alcrudo et al., 2017
Resilience of ASFV in various environmental conditions

Failure : Downtime or Biosecurity Failure

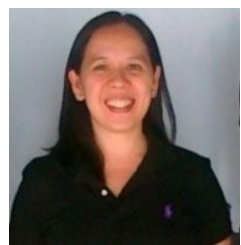




Greenfeed Swine Farms PIC Vietnam Franchise Partner

Cam My Boar Stud

DBN1



Dr. Mayenne Dimacali
Animal Health Assurance Director
Greenfeed



Hung Yen

Cujut

DBN2

LVN1

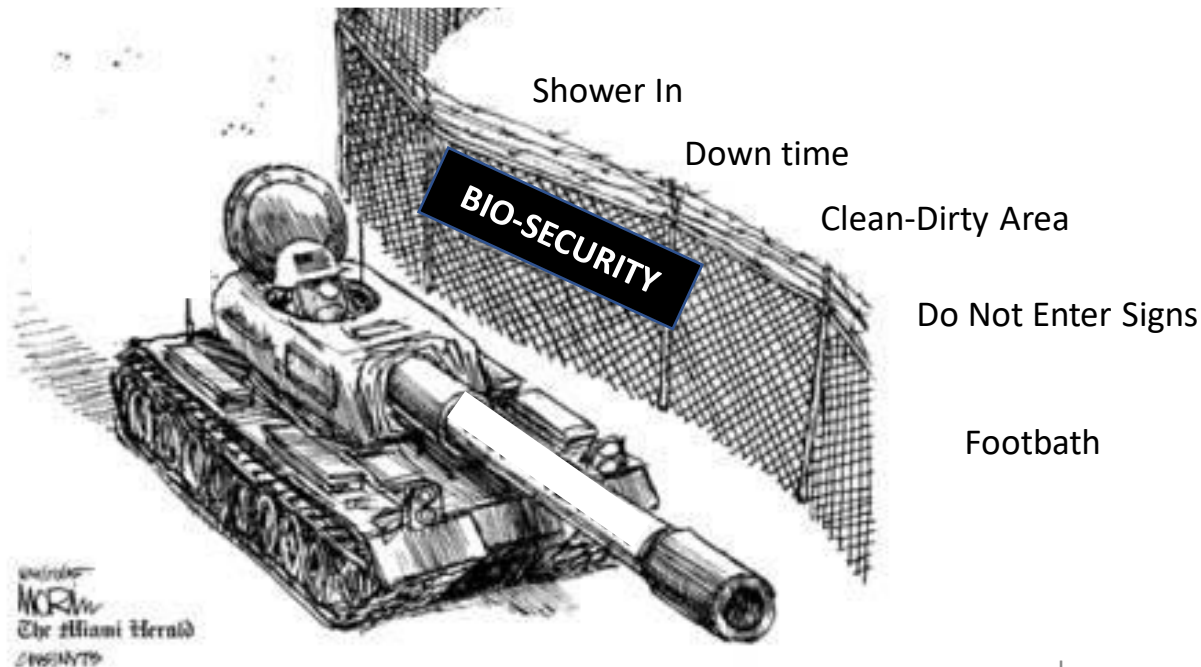
LVN2

LVN3

Binh Thuan

BIOSECURITY WORKS!!!

HOW GOOD IS YOUR BIOSECURITY!!!



Bantay ASF sa Barangay

Biosecurity and Surveillance

- Train Biosecurity Monitors and Prepare Guidelines
 - Identification of Biosecurity Officers
 - Pre-audit training of Biosecurity Officers
 - Conduct of Farm Biosecurity Audits
 - Monitoring Farm Compliance with Biosecurity and ASF Surveillance
 - Prepare Guidelines for Implementation of Barangay Biosecurity
 - Prepare guidelines for Slaughtering Biosecurity Audit



Pre-Audit Training

- African Swine Fever (ASF) Basics
 - Nature of Disease
 - Routes of infection
 - Prevention strategies
- Biosecurity Training
 - Biosecurity levels
 - Minimum acceptable
- Administrative Orders and other government directives regarding ASF.



Biosecurity Assessment based on ASF Prevention



Philippine College of Swine Practitioners

Email: pcsp.secretariat@gmail.com; Website: www.pcsp.org.ph

BIOSECURITY LEVEL CHECKLIST

DESCRIPTION		LEVEL 0	LEVEL 1	LEVEL 2
		NONE	MINIMUM	HIGH
Location	Distance (kms) from the nearest pig farm, pig facility*	<500 meters	> 1 km	> 5 km
Facilities	Fenced, demarcated Clean & Dirty areas	no demarcation	with fence	double-fenced
	Signage of Biosecurity Area / SOPs, manual	no	YES	YES
	Shower In- Shower Out (with soap/shampoo)	no	no	YES
	Complete change of clothing / footwear	no	YES	YES
	Pest control program in place	no	no	YES
	Regular cleaning & disinfection	no	YES	YES
	Observe downtime**	no	no	YES
	Supplies decontamination (personal / farm supplies)***	no	no	YES
	Food items (no pork, pork products from outside)	no	no	YES
	No food/ drinks in Clean area	no	no	YES
	Water, chlorinated & regularly tested	no	no	YES
	Load-in/Load-out (1-way), washed/disinfected between uses	no	no	YES
	Feeds, feed bags are not allowed to enter Clean area	Swill feeding	Feeds, feed bags present	YES
	Dead pig disposal, covered	no	YES	YES
Human traffic, Records	Visitors log, mortality, with written biosecurity measures	no	no	YES
Vehicle movement	Vertically-integrated (not exposed to viajeros)	no	no	YES
	Dedicated feed truck	no	no	YES
	Trucks washed/ disinfected/ dried upon entry	no	no	YES

* Distance based on GANP 5 (Farm establishment, location and facilities); if location is less than suggested, farm should have proper disease control measures in place.

** at least 1 night

*** use of UV/ Ozone/ Disinfectant/ Fumigation

Blue YES - Non negotiables



Risk Mitigation

Location

- Farms that are located farther away from other farms, other livestock facilities, slaughterhouses, and meat markets have a better chance of disease entry prevention.
- 500 meters and longer distance between farm and above facilities is desirable, >2 kilometers is ideal to prevent more diseases than ASF.



Risk Mitigation

Entry of virus via contaminated clothing or footwear or virus on skin and hair.

- Demarcation of farm restricted areas (buildings/animals) and outside area. CDL
- Provision of farm clothing and footwear worn exclusively in animal/farm premises.
- Hand washing and foot dips
- Shower facilities (shower in shower out)
- Downtime???
- Limit visitors or non-essential personnel entry



Risk Mitigation

Entry of virus via contaminated equipment / supplies

- Equipment for use only at farm
- Decontamination process for new or outside used equipment and supplies
 - Fumigation
 - Ozone
 - UV



Risk Mitigation

Entry of virus via scavengers Dogs, Cats etc. bringing in or exposed to infected meat or pig or fluids

- Fencing of farm facilities to prevent entry of dogs and cats etc. and also possibly unwanted intruders.
- Pest control programs. Rat control, Bird Proofing.
- Good hygiene and sanitation practices



Risk Mitigation

Exposure to sick pigs or sick animal fluids/discharges

- Sourcing breeding or growing stock from ASF free farms.
- Isolation of incoming animals before inclusion to main herd.
- Load in Load out facilities which can be washed and disinfected between use.



Risk Mitigation

Entry of virus via contaminated feed/food

- NO (raw) SWILL FEEDING!!!
- No pork products / food and drinks in restricted (animals) area
- Source feed from feed mill practicing biosecurity measures preventing possible ASF contamination of finished feed.
- No entry of feed bags into restricted area
- Storage of finished feed from feed mills with biosecurity issues for a certain period of time (1 month?).



Risk Mitigation

Entry of virus via contaminated vehicles

- Truck / vehicle wash with good cleaning and decontamination protocol (Clean, Dried and Disinfected)
- Dedicated feed trucks.
- No entry of viajero/buyer vehicles into restricted areas. (Controlled area truck wash areas for viajeros)



DESCRIPTION

		2	T	SCORE
Location	Distance (kms) from the nearest pig farm			
Facilities	Clearly demarcated CDL - Clean Dirty Line, fenced			
	Signage of Biosecure Area / actions to follow			
	Shower In- Shower Out (with soap/shampoo)*			0
	Complete change of clothing / footwear			
	Pest control program in place			0
	Regular cleaning & disinfection			0
	Observe downtime**			
	Supplies decontamination (personal / farm supplies)***			0
	Food items (no pork, pork products from outside)			0
	No food/ drinks in HSA / pig area			
	Water, chlorinated & regularly tested			
	Load-in/Load-out (1-way), washed/disinfected between uses			0
	Feeds, feed bags are not allowed to enter HSA****			
	Dead pig disposal, covered			
Records	Visitors log, mortality, with written biosecurity measures			
Vehicle movement	Vertically-integrated (not exposed to viajeros)			
	Dedicated feed truck			
	Trucks washed/disinfected/dried upon entry			

*1st at the gate
 ** at least 1 hr.
 *** use if UV/
 **** Pelleted



PCSP BIOSECURITY CLASSIFICATION OF SWINE FARMS

DESCRIPTION		LEVEL 0		LEVEL 1		LEVEL 2			
			SCORE	TARGET	SCORE	TARGET	SCORE		
Location	Distance (kms) from the nearest pig farm	<500 m		>500 m		>2 km			
Facilities	Clearly demarcated CDL - Clean Dirty Line, fenced	none		w/ fence		2x fence	4	0	
	Signage of Biosecure Area / actions to follow	no							
	Shower In- Shower Out (with soap/shampoo)*	no		1x shower		2x shower	3		
	Complete change of clothing / footwear	no			4	0	NO	4	0
	Pest control program in place	no					4	0	
	Regular cleaning & disinfection	no					4	0	
	Observe downtime**	no		NO	4	0	NO	4	0
	Supplies decontamination (personal / farm supplies)***	no							
	Food items (no pork, pork products from outside)	no			3		YES	3	
	No food/ drinks in HSA / pig area	no						4	0
	Water, chlorinated & regularly tested	no						4	0
	Load-in/Load-out (1-way), washed/disinfected between uses	no						3	
	Feeds, feed bags are not allowed to enter HSA****	swill				4	0	YES	4
Dead pig disposal, covered	no				3			3	
Records	Visitors log, mortality, with written biosecurity measures	no						3	
Vehicle movement	Vertically-integrated (not exposed to viajeros)	no							
	Dedicated feed truck	no							
	Trucks washed/disinfected/dried upon entry	no		NO	4	0	NO	4	0
TOTAL				61		76			
MINIMUM PASSING SCORE				48		54			
				RISK LEVEL					
		SCORE							
		4		very low. Mandatory score - PASS or FAIL only					
		3		low, Orange box is mandatory score					
		2		medium					
		1		high					
		0		A disqualification for the BIOSECURITY LEVEL.					

*1st at the gate entrance, Medium Security Area (MSA) / 2nd shower to High Security Area (HSA)

** at least 1 night

*** use if UV/ Ozone/ Disinfection/ Fumigation

**** Pelleted, no feed bags in HAS



Trivia

Q. What is the most important thing to remember about Downtime?

A: Downtime starts AFTER thorough cleaning and disinfection

Q. At what storage temperature was considered in study showing ASF surviving 105 days in meat?

A. 4 degree centigrade

Q. How long can ASF survive in contaminated pig pens?

A. 1 month



We need everyone's help in the
Swine Industry's fight against
ASF!



Philippine College of Swine Practitioners

Biosecurity Training Materials are available from PIC Philippines Inc.

Visit www.ph.pic.com



Biosecurity: What it should be?

Rhovicta Marie B. Pandong, DVM
Technical Service Team Leader
PIC Philippines



Philippine College of Swine Practitioners

Carcass Disposal Options



United States Department of Agriculture



CARCASS DISPOSAL OPTIONS FOR AFRICAN SWINE FEVER






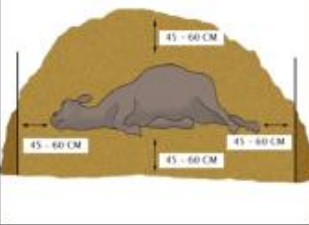
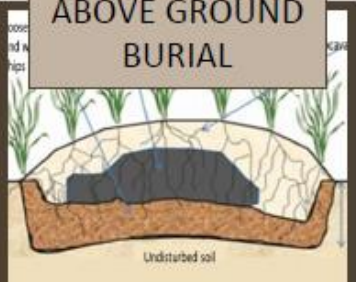


LORI P. MILLER, PE
U.S. DEPARTMENT OF AGRICULTURE

SEPTEMBER 16, 2019



Philippine College of Swine Practitioners

Carcass Management Options

Off-Site	<p>INCINERATION</p> 	<p>LANDFILL</p> 	<p>RENDERING</p> 	
On-Site	<p>BURNING</p> 	<p>DEEP BURIAL</p> 	<p>COMPOSTING</p> 	<p>ABOVE GROUND BURIAL</p> 
Other	<p>STORAGE</p> 		<p>TRANSPORT</p> 	

https://cfpub.epa.gov/si/si_public_record_report.cfm?Lab=NHSRC&dirEntryId=335655&fed_org_id=1253&subject=Homeland%20Security%20Research&view=desc&sortBy=pubDateYear&showCriteria=1&count=25&searchall=%27indoor%20outdoor%20decontamination%27

https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryId=342127&Lab=NHSRC

ASF Carcass Management Options

OPTION	TIME	COST	RISK	OVERALL COST/RISK
Composting	MEDIUM	MEDIUM	LOW	MED-LOW
AGB	MEDIUM	LOW	HIGH	MEDIUM
Burial	LOW	LOW	HIGH	MEDIUM
Burning	MEDIUM	HIGH	MEDIUM	MED-HIGH
Rendering	LOW	MEDIUM	HIGH	MEDIUM
Landfill	LOW	LOW	LOW	LOW
Incineration	MEDIUM	HIGH	LOW	MEDIUM

Selection and Management of Burial Site

- Have not found studies of ASF survival in burial sites, however using FMDV which is also a sturdy virus, it has been mentioned in a study that virus is killed off completely after 40 days.

- Carcass temperatures during decomposition reaches 32C even in temperature controlled rooms set at 23C*, making it difficult for virus survivability. *Thermogenesis in decomposing carcass. Johnson et.al. 2013*

- *Leaching of the virus into the water table is a concern, but I have not found any ASF studies on this. One report mentioned about FMD virus survival and infectivity after reaching water table, it said it is very unlikely* (Science Advisory Council (SAC) Report by SAC Sub-Group on 2001 Foot and Mouth Outbreak Carcass Burial)

